

Using Documentary to Make the Teaching of Environmental Literacy Engaging among Market Communities in the Three Senatorial Districts of Ogun State

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

This study aimed at assessing the deplorable state of environmental degradation and waste disposal compliance in markets across the three senatorial districts in Ogun State. This study investigated the literacy level of waste disposal among the traders in the markets in relation to the principles of sustainable development. In doing so, this work considered the use of documentary mode of teaching in making environmental literacy more engaging and realistic through environmental education. This will help in formulating guidelines on how positive attitude towards waste disposal can be achieved through environmental literacy as a vehicle to realize the educational agenda of sustainable development which cannot be over-emphasized. The research employed a mixed-method research. Focus groups were selected from the markets within the sampled three districts of the state. 270 traders of different groups of interest were selected into the focus groups and 16 market heads were also interviewed. Result showed that the market users have to be educated of the various possible dangers of the degradations they engage in

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unconsciously. Government is therefore expected to partner market communities, cooperate bodies and non-governmental agencies with interest in healthy and safe environment to raise the awareness level of the market communities in environmental management.

Keywords: Environment; environmental literacy; documentary; market communities; Abeokuta.

1. INTRODUCTION

Worldwide, the man's environment has been identified as a pointer of national health concern on the health of individuals and populations resulting from environmental degradation [1,2]. When resources like air, water, and soil are exhausted, ecosystems are destroyed, and wildlife is wiped out, the environment is degraded [3, 4,5]. It's the method by which our natural resources, such as air, water, and land, are being depleted and polluted to the point of extinction. Degradation of the environment occurs when something about it loses its value or is degraded. Environmental degradation takes numerous forms. Natural resources are depleted, biodiversity is lost, and the ecosystem is harmed when species become endangered. Degradation of the environment can be attributed to natural phenomena or human-induced. Human actions in the environment are currently the most concerning factors.

Karimi, 2003 and Aminrad et al. [6], observed that towards the end of the 20th century, the environmental concerns grew much greater, not only among the developed countries, but also in some developing and underdeveloped nations. Nigeria and her federating states are no exceptions. As environmental harm to some critical resources got more and more obvious and terrifying, governments and the media

became concerned and considered it to be valuable for news headlines; this is because of the public's concern. Kaur, 2009 defines the need for man's environment as a barometer of national health in any civilization. He went on to prove that the abundance of natural resources in the human community contribute to human well-being. Dangerous environmental practices have eroded faith in humanity's common good, and this misappropriation has resulted in scarcity of essential resources.

As a result, people and the environment needed to create a long-term commitment to creating a civilization free of environmental hazards. A person's attitude could be described in this way: as an inclined move towards environment, conclusion and movement. As a result, education about the environment fosters a more positive attitude toward the place where people live. It is then expected that traders will cultivate an environmentally friendly mindset and demonstrate it in the way they conduct their relationships in the market. As a result, assessing market traders' attitudes toward the environment is critical.

Until the 1988 Koko toxic waste open dumps scandal, environmental challenges did not receive official attention in Nigeria, as illustrated by Fig. 1.



Fig. 1. (Toxic Dump at Koko village, Delta State)

This incident revealed to the world the urgent need for the Nigeria Federal Environmental Protection Agency (FEPA), the Federal Ministry of the Environment, and other relevant agencies to be established in the country, ostensibly to deal with environmental challenges [7]. Zarrintaj Aminrad et al. [8, 9] and Odimegwu, 2015; Erhabor & Don, [10] also corroborated the above submission to adequately revealed that environmental education if given the desire prominence can increase the attitude and knowledge about environmental concerns that is necessary to comprehend and tackle the very many problems that are associated with the problems. According to a 2005 research by the Department of Environment and Heritage, every country in the world should have environmental education programs in place for its people resources so that they can live better. There was further confirmation from Day and Monroe, 2000, that environmental education may be used to empower a nation's people resources by helping them see the various environmental concerns clearly and develop solutions for them.

Yarkandi, [11] and Zarrintaj Aminrad et al. [8] asserted that if a nation is to undergo significant and long-lasting transformation, the curriculum must incorporate environmental education teaching and learning. A durable and veritable home for a nation's teeming youth population will be made possible by its inclusion in the school curriculum.

Among them are difficulties like air pollution, water pollution, ozone layer depletion (due to farming practices), desertification (due to climate change), flooding, erosion, hunger, and poverty. This study's foundation is built on the reality that environmental degradation has taken center stage in Nigeria's growth process, as evidenced by all of the above.

As part of Agenda 21, the United Nations has also undertaken frantic attempts to ensure that environmental ethics are incorporated in national environmental ethics through campaigns, training, and attitude re-definition. At her Rio de Janeiro, 1992 meeting, toxic waste management was signed into the charter along with problems such as training and awareness campaigns, as well as the promotion of good human health.

Pollution in various forms occurs all across the world, contaminating the waters and the atmosphere of our home planet. Hazardous waste has polluted the environment in several places. In other places, major disasters such as oil spills have ruined the local environment but the commonest observed environmental degradable attitude in Ogun State among market communities in the three senatorial districts is the incessant dumping of refuse on the major roads and especially in the drainages at the major markets as shown in Fig. 2.

It is therefore, sacrosanct that environmental awareness education is needed and it can only be achieved through planned learning campaign programs, which will impart knowledge, abilities, values, and a desire to alter one's mindset in order to lead a more environmentally conscious existence. [12].

This study therefore, seeks to engage the traders in the major markets within the three senatorial district markets in an enlightenment campaigns through the intervention of documentaries. Various scholars have advocated the use of documentary films as an appropriate means of making instructions engaging. This was confirmed by Bowen, [13,14,15,16,17] that learning through visual stimulus and media (audio-visual) could be interesting and much quicker and effective in learning.



Fig. 2. (Osiele Market)

Sherman, [18,19,20] confirmed that documentaries are more effective at imparting instructions when they are well-planned to convey both facts and perspectives on current events. A similar situation arose in the research. The underpinning facts gathered in the documentaries included environmental consciousness-instigated documentaries that illustrated incorrect and desirable attitudes about waste disposal compliance and understanding of degradable knowledge.

Films like "documentaries" introduce audiences to different cultures, places, and activities by using images and artifacts to depict real happenings. However, factual accuracy alone will not describe documentary films; it is what the filmmaker does with the factual elements, meandering them into a storyline that aims to be as captivating as it is genuine and is sometimes better than the sum of its parts that defines documentary films (Bernard, 2017;) [21,20].

Therefore the wider accessibilities of environmentally-engaging documentaries will make the teaching of environmental literacy engaging among the market traders in Ogun state markets.

2. HYPOTHESES

The study's hypotheses were based on five different possibilities. They are

1. There is no significant difference in the level of awareness on environmental degradation between the youths and the elderly traders before documentary film exposure.
2. There is no significant difference in the level of compliance on waste disposal between literate and non-literate traders before exposure to documentary film.
3. There is no significant difference in the level of awareness on environmental degradation by traders based on market locations before documentary film exposure
4. There is no significant difference in the level of compliance on waste disposal by traders based on market locations before documentary film exposure
5. There is no significant difference in the attitude of respondents (traders) to environmental degradation before and after exposure to documentary film

3. RESEARCH DESIGN

This study adopted a mixed method research (application of both qualitative and quantitative research). The mixed method research as identified by Creswell, [22], indicated that a mixed methods approach is one in which the researcher tends to base knowledge claims on pragmatic grounds (e.g., consequence-oriented, problem-centered, and pluralistic). It employs strategies of inquiry that involve collecting data either simultaneously or sequentially to best understand research problems. Collecting data also entails getting both numerical and textual information (such as from instruments or interviews) so that the data collected has both quantitative and qualitative information in it, respectively [23,24].

The researchers surveyed a large number of individuals and then follow up with a few of them to obtain their voices on environmental degradation issues in the study. As a result of this approach the advantages of collecting both closed-ended quantitative data and open-ended qualitative data prove advantageous to best understand a research problem(s). Major methods used include interviews and questionnaires. Data were collected from the traders in the markets across the three (3) senatorial districts of Ogun State, Nigeria as depicted in Fig. 3. Data from the traders across the markets mainly came from questionnaires conducted before and after the introduction of the intervention (documentaries). Traders were exposed to watching various environmental degradation documentaries within 3 weeks before they were surveyed in the questionnaires. Data from the market heads, on the other hand, came from interviews that serve as the baseline data for the qualitative aspect of the data collected.

The study area is Ogun State a state in the south-western Nigeria. Created in 1976, it borders Lagos State to the south, Oyo and Osun states to the north, Ondo to the east and the Republic of Benin to the west. Abeokuta is the capital and largest city in the state, within the Central Senatorial district. The State is politically divided into 3 senatorial districts with reference to ethnic distribution. The West accommodates the people of Yewa/Awori, Central has the Egba's and the East with the Ijebu's and the Remo's. The state's appellation is "Gateway to Nigeria".

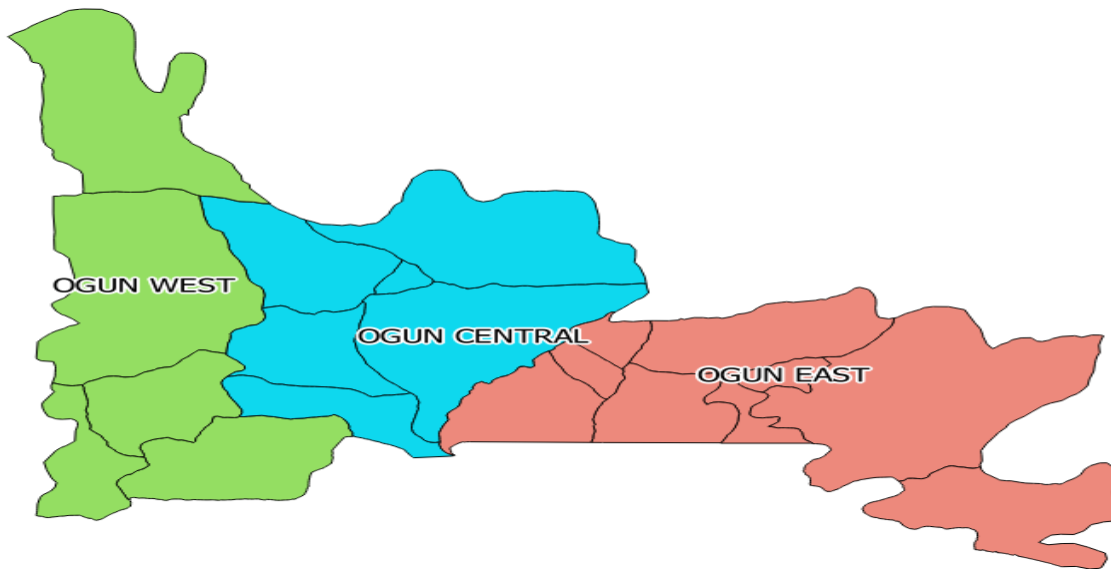


Fig. 3. Location of the Senatorial Districts

source: Umar, 2017 [25]

3.1 Participants

Each senatorial district market had 90 traders and 6 market leaders, totaling 288 respondents. The dealers were divided into focus groups and shown documentary films as an intervention measure within three weeks of administration.

There are three senatorial districts in Ogun State. The three senatorial districts of Ogun Central, Ogun West, and Ogun East were purposefully selected for the initial step of sample selection. Secondly, six (6) Local Government Areas were purposefully chosen from among those in the specified zones, based on the characteristics of the people living in those local governments. Local governments from each of the three zones send two representatives apiece. These include residents of Ogun State's Abeokuta South Local Government, Odeda Local Government, Yewa South Local Government, Yewa North Local Government, Ijebu-Ode Local Government and Odogbolu Local Government Areas. Six local governments were chosen because of the wide geographic range of research areas. In the third stage, six important marketplaces were purposefully selected, one from each of the Local Governments. In the selecting process, the markets include kuto (Abeokuta) and Osiele (Odeda) in addition to Sayedero (Ilaro) and Oja Oba (Ibese) in addition to Oke-Aje (Ijebu-Ode) and Obu-Odo (Ijebu-Ode) (Odogbolu). These markets were chosen due to the fact that they are the most important in the targeted regions. In the fourth step, traders (focus groups) from each

of the six major marketplaces were purposefully recruited. As a result of these figures, the sample size for the research study was 270 respondents (traders).

3.2 Instruments

Two instruments were used to collect data for the study. These were: The use of Documentary Films in Environmental Literacy (TUDFEL) developed by the researchers and a self-developed structured interview on Environmental Degradation and Waste Disposal Awareness Interview (EDWD-I). The TUDFEL contains 20 items on the levels of environmental degradation consciousness and pattern of waste disposal; on the other hand the self-structured interview contains five (5) items that were structured to elicit authentic confirmation of the data collected through the administration of questionnaire to adequately triangulate the result of the study. The TUDFEL was validated with the use of Cronbach's Alpha to obtain the internal consistency of the items. The index obtained was 0.81. For the Environmental Degradation and Waste Disposal Awareness Interview (EDWD-I), it was subjected to an inter-rater reliability test at 0.78. The two instruments were administered by the researcher to the traders and the market leaders and collated immediately after completion for scoring. Data were analysed using One-Way Analysis of Variance (ANOVA), Independent Paired t-test and Independent t-test technique with the significant level set at 0.05.

4. RESULTS

4.1 Hypothesis 1

The first hypothesis stated that there is no significant difference in the level of awareness on environmental degradation between the youthful and the elderly traders before documentary film exposure.

Result of independent t-test analysis in Table 1 shows age band awareness of the respondents on environmental degradation among the traders in the markets in Ogun State. The result shows that there was a significant difference in the age band of the respondents at it affects their awareness of environmental degradation in the markets ($t= 10.83$, $Df= 268$, $P< 0.05$). This means that environmental degradation awareness of youths are higher from that of their elderly counterpart.

4.2 Hypothesis 2

The second hypothesis stated that there is no significant difference in the level of compliance on waste disposal between literate and non-literate traders before exposure to documentary film.

Result of independent t-test analysis in Table 2 shows literacy strength of the traders as it concerns the waste disposal compliance. The result shows that there was a significant difference in the literacy level of the respondents at it affects their compliance to waste disposal in the markets ($t= 14.63$, $Df= 268$, $P< 0.05$). This means that waste disposal compliance of the literate traders is higher than that of their non-literate classified counterparts.

4.3 Hypothesis 3

The third hypothesis stated that there is no significant difference in the level of awareness on environmental degradation by traders based on market locations before documentary film exposure.

A one-way between market analysis of variance (ANOVA) was conducted to explore the level of awareness on environmental degradation by traders based on market location. Participants were divided into three groups according to their market locations (Group 1: Ogun Central market; Group 2: Ogun East market; Group 3: Ogun West market). There was a statistically significant difference at the $p < .05$ level in scores from the three groups: $F(2,267) = 3.071$, $P = .048$. Despite reaching statistical significance, the actual difference in mean score between the groups was quite small. The effect size, calculated using eta squared, was .02. Post-hoc comparisons using the Scheffe test indicated that the mean score for Ogun Central Market ($M=10.50$, $SD=3.08$) was significantly different from Ogun West market ($M=9.20$, $SD=4.17$). Ogun East market ($M= 9.58$, $SD=3.51$) did not differ significantly from either Ogun Central or Ogun West market.

Further analysis using Scheffe's Post Hoc statistical technique, Table 3b, shows that there was no significant difference in environmental degradation awareness level of the traders across the three senatorial markets in Ogun State (location). A significant value of .783 (more than 0.05 level of significance) shows that there is no significant difference. The hypothesis is therefore accepted.

Table 1. Independent t-test analysis of respondents age band on environmental degradation awareness

Age Band	N	Mean	S.D	Df	t	Sig (P)
Youth	175	15.43	4.77	268	10.83	.000
Elderly	95	9.24	3.91			

Table 2. Independent t-test analysis of respondents literacy on waste disposal compliance before exposure to documentary film

Age Band	N	Mean	S.D	Df	t	Sig (P)
Literate	167	13.52	3.50	268	14.63	.000
Non-Literate	103	7.33	3.15			

Table 3a. One Way Analysis of Variance (ANOVA) of Level of Awareness on Environmental Degradation by Traders based on Market locations

Market Location	N	Means	SD
Ogun Central Market	90	10.50	3.08
Ogun East Market	90	9.58	3.51
Ogun West Market	90	9.20	4.17

Source of Variation	Sum of Squares	Df	Means of Squares	F	Sig (P)
Between Groups	80.496	2	40.248	3.071	.048
Within Groups	3498.86	267	13.104		
Total	3579.352	269			

Table 3b. Scheffe’s Post Hoc Analysis of Significant Difference in Group Means Based on Market Location

Market Location	Ogun Central Market	Ogun East Market	Ogun West Market
Ogun Central Market			
Ogun East Market	.234		
Ogun West Market	.057	.783	

Table 4a. One Way Analysis of Variance (ANOVA) of Level of Waste Disposal Compliance by Traders based on Market locations

Market Location	N	Means	SD
Ogun Central Market	90	11.69	4.08
Ogun East Market	90	10.60	4.72
Ogun West Market	90	11.20	4.51

Source of variation	Sum of squares	Df	Means of squares	F	Sig (P)
Between Groups	53.541	2	26.8	1.317	.270
Within Groups	5429.289	267	20.33		
Total	5482.830	269			

Table 4b. Scheffe’s Post Hoc Analysis of Significant Difference in Group Means Based on Market Location

Market Location	Ogun Central Market	Ogun East Market	Ogun West Market
Ogun Central Market			
Ogun East Market	.271		
Ogun West Market	.768	.672	

Table 5. Paired Sample T-Test Analysis of Respondents (Traders) Attitude on Environmental Degradation before and after Exposure to Documentary Film Awareness

Attitude on Environmental Degradation	N	Mean	S.D	Df	t	Sig (P)
Before Exposure to Documentary Film	270	9.76	3.65	269	17.84	.000
After Exposure to Documentary Film	270	14.38	4.61			

4.4 Hypothesis 4

The fourth hypothesis stated that there is no significant difference in the level of compliance on waste disposal by traders based on market locations before documentary film exposure.

A one-way between market analysis of variance was conducted to explore the level of waste disposal compliance by the traders based on market location. Participants were divided into three groups according to their market locations (Group 1: Ogun Central market; Group 2: Ogun

East market; Group 3: Ogun West market). There was a statistically significant difference at the $p < .05$ level in scores from the three groups: $F(2,267) = 1.317$, $P = .270$. Despite reaching statistical significance, the actual difference in mean score between the groups was quite small. The effect size, calculated using eta squared, was .02. Post-hoc comparisons using the Scheffe test indicated that the mean score for Ogun Central Market ($M=10.50$, $SD=3.08$) was significantly different from Ogun West market ($M=9.20$, $SD=4.17$). Ogun East market ($M=9.58$, $SD=3.51$) did not differ significantly from either Ogun Central or Ogun West market.

Further analysis using Scheffe's Post Hoc statistical technique, Table 4b, shows that there was no significant difference in the levels of waste disposal compliance by traders based on market locations. A significant value of .783 (more than 0.05 level of significance) shows that there is no significant difference. The hypothesis is therefore accepted.

4.5 Hypothesis 5

The levels of awareness on environmental degradation of participant after exposure to the documentary film differ from their awareness before the documentary. The mean difference between conditions was 4.62 and the 95% confidence interval for the estimated population mean difference is between -4.11 and -5.13. The effect size was large ($d=1.12$). A paired t-test showed that the difference between conditions was significant ($t=17.844$, $DF=269$, $P<0.05$).

4.6 Qualitative Result

Sixteen market heads were interviewed in respect to their waste management and awareness level of environmental degradations of which the entire sixteen market heads unanimously submitted that the markets leadership is trying hard to ensure compliance by introducing different outfits in taskforce to manage and improve the compliance rate. This was as a result of the joint action of the markets in ensuring a hazardous-free market across the state. The result of the one-way ANOVA on waste disposal compliance corroborated the submissions of the interviews with the various leaders of the markets in the three senatorial districts of the state.

This action could then be linked with the result of the three senatorial markets heads interviewed,

six of which replied that management of solid wastes in the market has posed a very serious difficulty to the cleanliness at the Ogun central markets as a result of being in the metropolitan city and thereby posed a serious task of having a standardized dedicated dump site due to frequent development of the city. Though six of the heads interviewed submitted with proves of a site tour of the waste management control at Kuto market. It was pathetic to observed that Osiele market does not have any control measure(s) in regulating waste disposals at the market.

As for the question, do you pay for evacuation of solid waste in the markets? Eight market heads confirmed that a good number of trades across the markets do pay for waste evacuation though they are reported to be of private individual companies. Four of the interviewees affirmed that, truly the private bodies are present across the markets but the traders are not patronizing them as expected and this has increased a gross indiscipline in waste disposal systems across the three markets in study.

The entire twelve market heads interviewed confirmed that, the lack of control measures on solid waste disposals has led to the outbreak of very many diseases on the traders, their offspring and the marketers. It was therefore, submitted that government should formulate and provide control measures at the markets in the metropolis.

5. DISCUSSION

On the results of analysis in hypothesis 1 that there was a significant difference in the level of environmental degradation awareness between the youths and the elderly traders in the markets before their exposure to environmental documentary films, the finding is in consonance with the study carried out by Yarkandi, 2012 and Zarrantaj Aminrad et al., 2013 which revealed that previous environmental education coupled with the traditional believe of the people of the state that cleanliness is next to godliness influenced the high mean score between the youths and the elderly traders. A likely reason for this finding stems from the fact that environmental education consciousness has been part of school curriculum where the youths were privileged to learn of divers of approaches to managing different kinds of environmental degradation.

The result of hypothesis 2 showed that there was significant difference in the mean score of the waste disposal compliance level between the literate and the non-literate traders before their exposure to the environmental documentary films. The finding revealed that the literate traders are the sets of the very few that are have basic education and with the virtue of this opportunity have been able to have a bit of environmental induced education which was identified by Yarkandi, 2012 and Zarrintaj Aminrad et al., 2013 that a radical and permanent changes would be experienced in all facet of a societal environmental live with the teaching and learning of environmentally promoted education. Its application has therefore, influenced the reactions of the classified traders in their interactions with their environment.

Concerning the findings in hypothesis 3, that there was a significant difference in the environmental degradation awareness level of the traders based on the market locations. This finding could be explained based on the view that gender differences in achievement motivation are rooted in socialization processes rather than in basic differences between men and women. In other words achievement motivation of individuals depends on our interaction with people right from birth and life experiences derived there from. If an individual is brought up from an environment where hard work and perseverance are cherished and rewarded, such a person is likely to imbibe a never-say-no attitude irrespective of his or her gender. This view corroborates life experiences and situations that show male and female folks thriving in all areas of human endeavors such as sports, engineering, academics, entertainment industry etc.

6. CONCLUSION

The emancipation of traders is made possible in large part by environmental literacy education in the form of documentaries and campaigns in the market neighborhoods of the markets metropolis. Provision of high-quality environmental education is essential for the creation of such a clean and healthy environment. Seemingly, our society and educational systems have failed miserably in providing citizens with the fundamental understandings and skills they need in making informed decisions about how waste generation is managed in our environment, particularly in the market communities. This appears to be

the root of much of today's environmental degradation.

All traders must be capable of independently evaluating environmental issues and making value decisions. A positive outlook on the environment is critical, as our very survival is dependent on it and the resources it provides. Individuals in the marketplace must always be empowered to make ecologically aware decisions by being educated about the marketplace populations. Environmental literacy's goals and objectives must be met by educational awareness initiatives that penetrate all sectors and provide marketplace populations with knowledge that is as clear and straightforward as feasible.

An important part of the market leader's responsibilities includes developing and implementing environmental education programs. Every facet of the economy must take environmental issues into account. Environmental awareness and a culture of environmental sustainability are crucial in the market communities where we operate. People who are knowledgeable about environmental concerns can do their part to limit environmental damage while also taking effective measures to protect the environment.

7. RECOMMENDATIONS

1. The Federal Environmental Protection Agency (FEPA) and the Ogun State Environmental Protection Agency (OGEPA) should promote more of Agenda 21 and sustainability, such as environmental awareness and trainings. The agencies should collaborate and increase environmental consciousness among the citizens, to coordinate environmental policy at all levels of national development, to engender and empower the communities to act on environmental issues and promote an environmental ethics in our markets.
2. The traders within the market communities should assume the task being responsible to proffering solutions to the very many deplorable environment problem(s) that may befall the management of the markets.
3. The existing weekly environmental cleaning within the markets should be sustained and environmental friendly practices be introduce through awareness

campaigns to engender a wider approach to accommodate diversifications in maintenance of an ideal and hygienic market.

4. Our preliminary findings in this study revealed that environment awareness gap among traders at the two metropolis markets (Kuto and Osiele) may be antagonistic to their capacity to embrace innovative measures in waste managements and thereby suggesting that environmental friendly practices be introduced through awareness campaigns.
5. Government, multi-nationals, cooperate bodies and philanthropists should partner the markets leadership in promoting a desirable hygienic market conditions that can foster healthy and safe environment devoid of dirt.
6. The study showed that when people are taught an environmental ethic that suggests that everyone, on immediate and long term, are obliged to ensure respect and a part of the benefits of the environment, environmental mistakes can be minimized. An increase in environmental knowledge among the populace will result in improved environmental and human consequences for everyone.
7. Environmental education must be provided with urgency and without compromise if the public is to make educated decisions about environmental challenges. This is mostly due to the reality that the traders are part of the community leaders who are seen as decision makers. They must fully grasp the significance of the environment if they are to make wise national policy decisions in the future. In addition, it's critical that they know what acts are environmentally friendly and which aren't.
8. A healthy lifestyle begins with environmental awareness. It's a critical piece of information for the traders to have, so, they can make informed choices about the environment. If more pressure is applied, environmental change may be slowed. It will be easier for traders to give time, energy, and resources to environmental challenges if they have increased environmental literacy. As a result, it will help ensure that the treasures of the environment are shared fairly among the present and future generations.
9. Educators must also teach with an eye toward the environment. This will assist

students become more conscious about the environment and constantly take action to address them. By thinking globally and doing locally, it will influence the trader's attitudes towards the environment as well as nurture them as thoughtful people and problem solvers. Environment-related education can serve as a medium for the growth of environment protection. When individuals comprehend the connections within the environment, they will be more concerned about the planet's overall health as well as their own well-being. Then our markets can be a safe place for all.

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CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. Donohoe M. Causes and health consequences of environmental degradation and social injustice. *Social Science and Medicine*. 2003;56(3):573–587.
DOI:[https://doi.org/10.1016/S0277-9536\(02\)00055-2](https://doi.org/10.1016/S0277-9536(02)00055-2)
2. Kaur K. A study on attitude and awareness among the students towards environmental education. *Ignited Minds Journals*. 2019;16(6):1171–1174.
Available:<http://ignited.in/l/a/190741>
3. Etuonovbe AK. The devastating effects of environmental degradation\n- a case study of the Niger Delta Region of Nigeria. *TS 1D – Environment and Land Use Planning*. 2009;3–8.

- Available:http://www.fig.net/pub/fig2009/papers/ts01d/ts01d_etuonovbe_3386.pdf
4. Duru CU. (n.d.). ScholarWorks environmental degradation: Key challenge to sustainable economic development in the Niger Delta. Retrieved September 20, 2020, from Available:<https://scholarworks.waldenu.edu/dissertations>
 5. Ogboru I, Anga RA. Environmental degradation and sustainable economic development In Nigeria: A theoretical approach. In *Journal of Economics*. 2015;3(6). Available:www.researchjournali.com
 6. Aminrad, Z., Zakaria, S. Z. B. S., Hadi, A. S., & Sakari, M. (2012). Survey on environmental awareness among environmental specialists and secondary school science teachers in Malaysia. *Innovative Research in a Changing and Challenging World*, 7248. Available:<http://docplayer.net/25799702-Survey-on-environmental-awareness-among-environmental-specialists-and-secondary-school-science-teachers-in-malaysia.html>
 7. Evelyn, M. ., & Tyav, T. (2012). Environmental pollution in Nigeria: The need for awareness creation for sustainable development. *Journal of Research in Forestry, Wildlife and Environment*, 4(2). Available:<https://www.ajol.info/index.php/jrjwe/article/view/84726>
 8. Aminrad, Zarrintaj, Zarina, S., Sayed Zakariya, B., Hadi, A. S., & Sakari, M. (2013). Relationship between Awareness, Knowledge and Attitudes towards Environmental Education among Secondary School Students in Malaysia. *World Applied Sciences Journal*, 22(9), 1326–1333. Available:<https://doi.org/10.5829/idosi.wasj.2013.1326.1333>
 9. Binti, Z., Zakariya, S., Hadi, A., & Sakari, M. (2013). Relationship between Awareness, Knowledge and Attitudes towards Environmental Education among Secondary School Students in Malaysia. Undefined.
 10. Erhabor NI, Don JU. (2016). Impact of Environmental Education on the Knowledge and Attitude of Students towards the Environment. *International Journal of Environmental & Science Education*, 11(12), 5367–5375. Available:<https://files.eric.ed.gov/fulltext/EJ1115646.pdf>
 11. Yarkandi AH. Strengthening environmental education in school curricula. *Journal of Education and Vocational Research*. 2012;264–270. Available:<https://ideas.repec.org/a/rnd/arjev/v3y2012i8p264-270.html>
 12. Firth R. Postmodernity, rationality and teaching environmental education. *International Research in Geographical and Environmental Education*. 1995;4(2):44–64. Available:<https://doi.org/10.1080/10382046.1995.9964972>
 13. Bowen B. Look here!: visual aids in language teaching (Reprint). Macmillan; 1994.
 14. Savignon SJ. Communicative competence: Theory and classroom practice. In *The TESOL Encyclopedia of English Language Teaching*. John Wiley & Sons, Inc. 2017;1–7. Available:<https://doi.org/10.1002/9781118784235.eelt0047>
 15. Mayer RE. Multimedia learning. In *Multimedia Learning*. Cambridge University Press; 2001. Available:<https://doi.org/10.1017/cbo9781139164603>
 16. Mayer RE. The promise of multimedia learning: using the same instructional design methods across different media. / *Learning and Instruction*. 2003; 13:125–139. Available:[https://doi.org/10.1016/S0959-4752\(02\)00016-6](https://doi.org/10.1016/S0959-4752(02)00016-6)
 17. McGrath I. *Materials Evaluation and Design for Language Teaching*; 2003.
 18. Sherman J. Using authentic video in the language classroom; 2003.
 19. Gregg R. (n.d.). Environmental documentary film: A contemporary tool for environmental documentary film: A contemporary tool for social movement social movement. Retrieved September 19, 2020, Available: <https://scholarworks.umt.edu/etd/376>
 20. Register LA. Documentaries making a difference: Communication effects of environmental film and television; 2019. Available:https://fordham.bepress.com/environ_2015

21. Bieniek-Tobasco A, McCormick S, Rimal RN, Harrington CB, Shafer M, Shaikh H. Communicating climate change through documentary film: imagery, emotion, and efficacy. *Climatic Change*. 2019;154(1):1–18.
DOI:<https://doi.org/10.1007/s10584-019-02408-7>
22. Creswell JW. *Research design : Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE; 2014.
Available:http://fe.unj.ac.id/wp-content/uploads/2019/08/Research-Design_Qualitative-Quantitative-and-Mixed-Methods-Approaches.pdf
23. Johnson R, Onwuegbuzie A. Mixed methods research: A research paradigm whose time has come. *Educational Researcher*. 2004;33(7):14–26.
Available:https://sites.ualberta.ca/~dcl3/KT/Educational_Researcher_Johnson_Mixed_methods_research_A_research_2004.pdf
24. Bhawna, Gobind. *Research Methodology and Approaches*. IOSR Journal of Research & Method in Education. 2015;5(3):48–51.
DOI:<https://doi.org/10.9790/7388-05344851>
25. Umar Y. *Geospatial solutions expert: Map of Nigeria States' Senatorial Districts*; 2017.
Available:<https://umar-yusuf.blogspot.com/2017/10/map-of-nigeria-senatorial-districts-by.html>
26. Odimegwu O. *Millions of children destroyed by noise pollution*. Modern Ghana; 2015.
Available:<https://www.modernghana.com/news/609801/millions-of-children-destroyed-by-noise-pollution.html>

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