# TEACHERS' OPINIONS ON THE INFUSION OF ENVIRONMENTAL EDUCATION IN THE NIGERIAN PRIMARY SCHOOL CURRICULUM.

## By

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**Abstract.**

This paper presents the report of a research carried out in Kwara Sate of Nigeria to seek the opinions of teachers on the Infusion of Environmental Education (EE) in the Nigerian Primary School Curriculum. The descriptive survey method was employed for the study. 200 teachers were selected through stratified random sampling technique to cater for variables of gender, type of school, qualification and experience. The sampled teachers responded to a 36 items researcher – made questionnaire. Two research questions were raised and four hypotheses were formulated for the study. Frequency counts and percentages of responses were used to answer the research questions while the SPSS computer software $X^2$ statistic was used to test the hypotheses. The result of the findings indicated that: teachers were aware of the Infusion of EE in the Nigerian Primary School Curriculum and they have been teaching it; variables of gender and type of school did not affect the opinions of teachers but experience and qualification did affect the opinions of teachers significantly on the infusion of EE in the Nigerian Primary School Curriculum. Based on the findings, it was recommended that teachers, who are the implementers of any curriculum should be given the opportunities to undergo refresher courses, seminars and workshops that will expose them to new innovations in the curriculum. EE should be explicitly introduced into the Nigerian Curriculum at the tertiary levels; EE should also be taught through the mass media throughout the country.

**Introduction**

Human beings act in the environment in response to their guest for development. The interaction and interdependence between man and his environment is a reciprocal one. As man influences his environment, he is in turn influenced by his environment. Wagner (1918) sub-divided the environment of man in to four interlocking systems; the atmosphere, the hydrosphere, the lithosphere and the biosphere. According to him the atmosphere is a thin layer that covers the crust, the atmosphere are the world oceans, lakes and rivers; the lithosphere is the earth itself while the biosphere is a veneer of life that has resulted from the interaction of other spheres.

Man has demonstrated his interaction with the environment through his quest for industrial development. Increase in agricultural products, construction of roads, houses and social amenities, fishing for food, mining, and excavation and so on, all of these have led to a serious environmental impact. On a daily basis, environmental degradation, resulting from environmental abuse is constantly experienced.

Although, it was asserted that abuse of the environment has global implications (Osuntokun, 1998). The uncollected urban and rural wastes, indiscriminate and unplanned construction of houses, refuse and bush burning, industrial pollution, in the air, land and water, all affect not only the physical environment but they also have deleterious effect on socio- political life (Osuntokun, 1998). Some other acts that constitute major threat in our environment include deforestation and desertification, oil spillage, gas burning, damage to fisheries and agriculture..

However, mankind is yet to have the knowledge of the total environment. There is either little or no awareness of the danger inherent in the misuse of the environment. The recent discovery of hole in the ozone layer which prevents mankind from the danger of intense ultra violent rays of the sun demonstrates

the increasing deterioration of environmental hazards inflicted on mankind as a result of abuse of the environment.

There have been series of environmental protection measures introduced in Nigeria. Some of these include the abatement measure, environmental awareness campaign, environmental legislations, environmental policies, afforestation and land reclamation. Environmental sanitation exercises are put in place, conferences are organized, environmental organizations such as Federal However, there is the need to instill the knowledge of the use of environment to the children when they are in the primary school. Hence, the infusion of Environmental Education (EE) into the primary school curriculum in Nigeria as a way of enhancing the people's awareness on the danger of environmental degradation.

Environmental Education (EE) is a new field of education introduced into the educational system in order to enhance the awareness of the people on environmental issues at all levels of education. It is a new approach to education which is hoped to bring some solutions to the deteriorating relationship between man and the environment. Through environmental education, it is believed that man would be able to find a mechanism where clean environment will be adequately enhanced through consistent day-to-day increase in the knowledge of emerging environmental problems. The children will be adequately equipped intelligently, emotionally and with the necessary manipulative skills that will help them to meet the challenges posed on them by both the present and the future environment.

The emphasis here is that the needs of the children are met in that, they are able to explore and conserve the environment naturally, reaching understanding in their own way and be able to cater for the future events. The environment is largely man's making and the protection of it from man's injurious economic activities should therefore be man's responsibility.

Environmental education would therefore be an intervening mechanism of teaching man about the world events and the laws that govern man's existence. Man must be active and creative and learn in ways natural to him in order to grasp the understanding of the natural phenomenon around him. Based on this background is the proposed infusion of environmental education into the school system as a way of enhancing the knowledge of the pupils with the events of their environment.

In the Environmental Education Curriculum for primary school, drafted by the Nigerian Education Research and Development Council (NERDC), the scope of environmental education is structured into four main themes:

(a)     Ecological foundation

(b)     Human environment/Development

(c)     Environmental change/impact

(d)     Sustainable development

According to the curriculum, the approach allows for objectives within a theme to be INFUSED into existing school subject at the primary and secondary schools or to be taught exclusively as a module of knowledge in the tertiary institutions or out-of-school setting. Infusion of environmental education into the existing primary school subjects means that relevant topics and issues within each theme are structured into performance objectives, content, learner's activities, teaching materials and evaluation guidelines and is carefully infused into six primary school subjects for appropriate implementations. These are:

-     Environmental education through primary mathematics

-     Environmental education through social studies

-     Environmental education through primary science

-     Environmental education through English language

-     Environmental education through Islamic Religious studies

-     Environmental education through Christian Religious studies

Teachers are the hubs of any educational system (Ukeje, 1974). They are link between the ignorant world of their pupils and their later knowledge and mastery of their field. Teachers are the implementers of the educational programmes contained in the National policy on education. The success or otherwise of any curriculum depends largely on the important role of the teachers who are the implementers of the curriculum (Awoyemi, 1986). Based on this background, this research was carried out to find out the opinions of teachers (implementers of curriculum) on the proposed infusion of Environmental Education in the Nigerian Primary School Curriculum.

There have been lots of environmental problems created in Nigeria as a result of continued interaction and interdependence between man and the environment which include bush burning, pollution, grazing and careless use of technology over the years (Jekayinfa and Yusuf, 2004). In order to reduce the environmental situation in the country, the federal government of Nigeria promulgated policy on environment in 1996, the goal of which is to achieve sustainable development in Nigeria and among other things, secure for all Nigerians, a quality of environment adequate for the health and well being (Akinjide 1997).

Various researches such as Larsen (1996), Aina (1992), Nigerian Educational Research and Development Council (1992), Adedayo and Olawepo (1997) and Salami (1997) have been carried out on the desirability of environment education and its integration into the school curriculum. The purpose of this research therefore, is to find out the opinions of teachers (the implementers of the curriculum) on the proposed infusion of Environmental Education in the Nigerian primary school curriculum.

**Research Questions**

1.      Are teachers aware of the infusion of environmental education in the Nigerian Primary School Curriculum?

2.      Do teachers teach the infused environmental education concepts in the Nigerian Primary School?

**Research Hypotheses**

1.      There will be no significant difference between the opinions of teachers working in the private primary schools and teachers working in the public primary schools on the infusion of environmental education in the Nigerian primary school curriculum

2.   Teachers will not differ in their opinions on the infusion of environmental education in the Nigerian primary school curriculum on the basis of their qualification.

3.      The opinions of teachers in the public schools will not significantly differ from the opinion teachers in the private schools on the infusion of environmental education in the Nigeria primary school curriculum.

4.      Experienced teachers will not differ significantly in their opinions from the less experienced teachers on the infusion of environmental education in the Nigeria primary school curriculum.

**Methodology**

The researchers employed a descriptive survey method which enabled them to collect relevant data to provide meaningful answers to the research questions. According to Leeds (1974) Fajemidagba (1994) and Daramola (1990) the descriptive survey method looks carefully at a phenomenon and describes exactly what is seen.

The target population for the study were all teachers from all the primary schools in Ilorin, the capital of Kwara State, Nigeria. The sample consisted of 200 teachers randomly selected from 20 primary schools, 10 from the public and 10 from the private primary schools in the town. The stratified randomization technique was used to choose the 20 schools and the 200 teachers so as to erase any bias and to cater for the variables of sex, gender and qualification.

Researchers –designed questionnaire was used to elicit
information from the teacher respondents in the 20 sampled schools.
The questionnaires were distributed to the 200 sampled teachers in their respective schools and were collected back on the spot. This ensured 100% return of the questionnaire.

Frequency counts and percentage were used to answer the two research questions posited in the study while chi-square ($x^2$) statistical analysis was employed to test each of the formulated hypotheses. The results of the findings are presented on tables 1-6

## RESULTS AND FINDINGS.

The first research question asked whether teachers were aware of the infusion of Environmental education in the Nigeria Primary school curriculum.

The result of the analysis is shown on table 1 below;

**Table 1: Teachers' awareness of the infusion of EE in the Nigerian Primary School Curriculum.**

| Teachers and their types of Schools | Awareness of the Infusion of Environmental Education (EE) in the Nigerian Primary School Curriculum. | | | | | |
|---|---|---|---|---|---|---|
| Teachers in Public Primary School | YES | % | NO | % | Total | % |

| | 78 | 78 | 22 | 22 | 100 | 50 |
|---|---|---|---|---|---|---|
| Teachers in Public Primary School | 76 | 76 | 24 | 24 | 100 | 50 |
| Total | 154 | 77% | 46 | 23 | 200 | 100 |

The results on table 1 above revealed that majority of teachers 154 (77%) 0ut of 200 were aware of the infusion of EE in the Nigerian primary school Curriculum. Only 46 (23%) were not aware of the infusion of EE in the Nigerian primary school curriculum.

The second research question was asked to ascertain whether teachers did teach the EE infused in the Nigerian primary school curriculum or not. The findings is presented on table 2 below;

**Table 2: Percentage of Teachers who taught EE Infused in the Nigerian Primary School Curriculum.**

| Gender of Teachers | Teaching of Infused EE Concepts in the Nigerian Primary School Curriculum. | | | | | |
|---|---|---|---|---|---|---|
| | YES | % | NO | % | Total | % |
| Male | 65 | 65 | 22 | 22 | 87 | 43.5 |
| Female | 69 | 69 | 44 | 44 | 113 | 56.5 |
| TOTAL | 134 | 67 | 66 | 33 | 200 | 100% |

Findings on table 2 revealed that 134 (67%) teachers did teach the infused EE in the Nigerian primary school while 66 (33%) teachers did not teach the EE infused in the curriculum.

The four research hypotheses postulated in the study were tested using the SPSS computer software Chi-square statistic at .05 level of significance. The results of the findings are presented on tables 3 – 6 below;

**$H^O1$: There will be no significant difference between the opinions of teachers working in the private schools and the opinions of teachers working in the public schools on the infusion of EE in the Nigerian Primary school curriculum.**

**Table 3: $X^2$ Table showing the opinions of Teachers in the Nigerian Private and Public Primary schools.**

|  | Value | df | Asymp. Sign. (2 - Sided) |
|---|---|---|---|
| Pearson chi – square | 1.8839 | 2 | . 390 |
| Likelihood Ratio | 1.896 | 2 | . 387 |
| Linear by Linear Association | 1.701 | 1 | . 192 |
| No. of Valid Cases | 200 |  |  |

a.0 cells (0%) have expected count less than 5. The minimum expected count is 13.00

From the analysis on table 3, there was no significant difference in the opinions of teachers who teach in the private schools and those who teach in the public schools on the infusion of EE in the Nigerian Primary school curriculum. The analysis showed the SPSS computer software $X^2$ Value of .192 (P>.05). Therefore, the hypothesis was accepted.

**$H^O2$:Teachers will not differ significantly in their Opinions on the infusion of EE in the Nigerian Primary school curriculum on the basis of their qualifications.**

Findings is presented on table 4 below;

**Table 4: $X^2$ Table showing the Opinions of Teachers on the basis of their qualifications.**

|  | Value | df | Asymp. Sign. (2 - Sided) |
|---|---|---|---|
| Pearson chi – square | 65.1879 | 4 | .000 |
| Likelihood Ratio | 67.166 | 4 | .000 |
| Linear by Linear Association | 48.861 | 1 | .000 |
| No. of Valid Cases | 200 |  |  |

The analysis on table 4 indicated that there is a significant difference in the opinions of teachers on the infusion of EE in the Nigerian primary school curriculum on the basis of their qualifications.  The analysis revealed the $X^2$ Value of .000 (P<.05). Therefore, the hypothesis was rejected.

**$H^O3$: The Opinions of teachers will not differ significantly on the infusion of EE in the Nigerian Primary School Curriculum based on their gender.**

Hypothesis 3 was tested using the SPSS Computer Software $X^2$ Chi-Square Statistic. Findings are presented on table 5 below;

**Table 5: $X^2$ table showing the Opinions of Teachers on the basis of their gender.**

|  | Value | df | Asymp. Sign. (2 - Sided) |
|---|---|---|---|
| Pearson chi – square | 1.8839 | 2 | . 390 |
| Likelihood Ratio | 1.896 | 2 | . 387 |
| Linear by Linear Association | 1.701 | 1 | . 192 |
| No. of Valid Cases | 200 |  |  |

Analysis on table 5 revealed that gender did not influence the Opinions of teachers on the infusion of EE in the Nigerian Primary School Curriculum.

The $X^2$ value was .192 (P>.05). In other words, the opinions of male and female teachers did not differ significantly on the infusion of EE in the Nigerian Primary School Curriculum. Therefore, the hypothesis was accepted**.**

$H^O4$**:** Experience teachers will not differ significantly in their Opinions from those of less experienced teachers on the infusion of EE in the Nigerian Primary School Curriculum.

Hypothesis 4 was tested using SPSS computer software Chi – Square Statistic. The Findings are presented on table 6 below**;**

**Table 6: $X^2$ table showing opinions of teachers on the basis of their experience**

|  | Value | Df | Asymp. Sign. (2 - Sided) |
|---|---|---|---|
| Pearson chi – square | 4.5119 | 2 | .105 |
| Likelihood Ratio | 4.563 | 2 | .102 |
| Linear by Linear Association | 4.407 | 1 | .036 |
| No. of Valid Cases | 200 |  |  |

The analysis on table 6 showed that experienced teachers differed significantly in their Opinions from the less experienced teachers on the infusion of EE in the Nigerian Primary School Curriculum. The analysis revealed that $X^2$ Value of .036 (P<.05). Therefore, the hypothesis was rejected.

## DISCUSSION OF FINDINGS

The findings in this study revealed that teachers were aware of the infusion of EE in the Nigerian Primary School. This may be due to the fact that majority of primary school teachers are under going courses to update their knowledge. The awareness is due to the fact that EE is part of the general studies offered at all levels of tertiary education. The findings of this study is consistent with Jekayinfa and Olawepo'report (1998) which noted that students are quite aware of the consequence of man – environment relationship which has a lot to do with environmental issues.

The finding that teachers teach EE concepts in the Nigerian Primary schools is also a reflection of the knowledge of the infusion of EE in the Nigerian Primary school curriculum. The fact that it is part of general studies to be offered by students at tertiary levels exposed them to EE concepts. The finding showed that there was no significant difference in the opinions of male and female primary school teachers. It is clear that EE is concerned with man – environment relationship and no gender is left unconcerned. Furthermore, it was found that qualification and experience had influence on the opinions of primary school teachers. This is because experience and qualification exert influence

on awareness and knowledge about any issue. The finding is in line with Jekayinfa and Olawepo (1998) who observed that attitude to EE is a reflection of student teachers' experience and qualification. However, another finding of this research showed that school type did not in influence the opinions of EE in the Nigerian Primary school curriculum. This is because teachers in both school type are citizens of the same environment.

## CONCLUSION AND RECOMMENDATION.

In this paper, emphasis has been on teachers Opinions on the infusion of EE in the Nigerian Primary School Curriculum. This study has established that teachers are instrument through which EE can be taught for its objectives to be realized as contained in the National Policy on Environment. The study has also revealed that the teachers were aware of the infusion of EE and many of them have been to teaching it. The finding showed that experience and qualification had influence on the opinions of teachers while school type and gender did not.

As it had been emphasised, the quality of instruction in schools depends much on the quality of teachers. In view of this, teachers should be allowed to undergo more courses that will expose them to innovations in the curriculum. Also, EE should be explicitly introduced at tertiary levels.

Further more, concepts in EE should not be limited to classroom only. Mass media, seminars and workshops should be regularly organised.

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