

Level of environmental sensibilities in comprehension passages of JSS 1-3 secondary school English Text books in Cross river state, Nigeria

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Abstract

There has been much concern by the Cross River State government, educationists, NGOs and international communities about the quality of environment today. Prompted by such concern, this study whose purpose was to analyze some series of JSS1-3 secondary English textbooks used in Cross River State, Nigeria was undertaken to determine the level of environmental awareness found in them. The textbooks used for this study were New Oxford Secondary English Course 1-3, New Concept English for Junior Secondary Schools 1-3, Communicative English for Junior Secondary Schools 1-3, Junior English project for Junior Secondary Schools 1-3, Brilliant English for Junior Secondary Schools 1-3, English network for Junior Secondary Schools 1-3, English Studies Junior English Today 1-3, Intensive English for Junior Secondary Schools 1-3, Extensive Modern English for Junior Secondary Schools 1-3. The books were purposely selected because they are used in most public secondary schools in Calabar, Cross River State, Nigeria. To this end, the levels of awareness were looked at under biotic, neutral, social and abiotic aspects. Two research questions guided the study. Data collected from each of the books were calculated using simple percentage technique. The findings showed that, there was reflection of all the four levels of awareness but not in a desirable ratio. Emphasis was placed mostly on the abiotic environment. The study concluded that, the practice of encouraging or emphasizing only the social and abiotic level of awareness does not augur well for the proper creation of environmental awareness. The researchers expressed the need to identify every aspect of the different environments that agrees with the ethics of conservation of our environment and the resources therein for the sake of sustainability as stipulated in goal 13 of sustainable development goals.

Keywords: *Environmental sensibility, environment, English Language textbooks, comprehension passages, secondary schools*

Introduction

The environmental problems in Calabar like the rest of Nigeria are endemic and have been created over a long period of time. There are about four environmental problems that confront Calabar and all of them are

ecological in their nature and scope. They are deforestation, soil degradation, waste disposal and water contamination (Ukpong, 1991). These problems have over the years produced noticeable off-spring of their own namely, gully erosion, fisheries loss, indiscriminate dumping of refuse, wildlife and biological diversity losses to varying extents and dimensions. Looking at them from ecological and economic points of view, soil erosion and deforestation are indeed the most serious nationwide environmental problems.

The forest and water of Cross River State once constitute veritable natural assets providing the habitat for a good number of living things that are useful in agricultural and medical sciences. The forest and water contain resources, some of which are renewable and others non-renewable. These resources range from among others, wood timber, fish and wildlife as renewable resources, to limestone, oil, metallic ores, etc as non-renewable resources. Closely related to renewable natural resources are ecological services which arise from normal functioning of eco-system. These include clean water operational watersheds biological diversity and scenic beauty. These, in turn, provide the society valuable services such as regulation of climate, support of economically important species and formation of soil (Myers, 1980; Dickson, 1981; Sellers, 1981). The combination of renewable natural resources and ecological services may be viewed as the biological resource endowment of the Cross River State.

The Director General of the Nigerian Hydrological Services Agency (NIHSA) warned that from June to September this year (2019), 74 local government areas in about 30 states of Nigeria may experience flooding. Collaborating the above, the Sahara Reports (2018) stated that according to news agency of Nigeria (NAN) about 300 homes and many farmlands in Yobe State were destroyed by flood after days of heavy downpour as many persons lost their homes, farmlands, worth millions of naira. Cross River State is not an exception as flooding around the cities and villages is very common during the rainy season. Abiodun (2018) reported of continuous erosion and other land degradation in Edim Otop, Nyangasang, Ikot Uduak and other areas in Cross River State.

Aizebeokhali (2009) confirmed that the explosion in the surface temperature of the earth that has resulted in the rise in sea level in the past is a major aspect of climate change that has created awareness and caused the stakeholders in environment the need to take environmental matters more seriously than ever.

It should be noted that the need for environmental awareness was first recognized by international community at the United Nations conference on the human environment in 1972. The conference drew world's attention to international ecological problems such as flood, erosion, loss of biodiversity among others. The declaration of the conference was to defend and improve the environment for present and future generations. The

conference recommended that concerned international agencies should, after consultation and agreement, take the necessary steps to establish an international programme in Environmental Education interdisciplinary approach in schools and out of school, encompassing all levels of education and directed towards the general public with a view to educating them on simple steps they must take within their means to manage and control their environment (UNESCO, 1980).

The concept of Environmental Education as observed by Carter and Bora (2010) may be traced back to 1948. However, the International Union for the Conservation of Nature (IUCN) Conference, stated that it was in 1972 that a major turning point was achieved. Carter and Bora (2010) observed that out of the 26 principles contained in the declaration of the first United Nations conference on the human environment in Stockholm, Sweden, Principle number 19 calls for the younger generation and adults to be educated in environmental issues (UNEP, 1972). This conference set the stage for greater awareness of the need to advance Environmental Education internationally. In the formal system, according to UNESCO Report, Environmental Education has been emphasized from primary school through secondary to university. The teaching approach has been interdisciplinary or by infusion. Other activities include; the establishment of school conservation clubs in secondary schools and organizing workshops, conferences and seminars on environmental issues.

Moreover, Ilesanmi (2006) confirmed that Environmental Education (EE) calls for the need of empowerment right from youth and without Environmental Education in our schools world decision making on environmental issues might be farfetched. Obasor, Oyinloye, Ilesanmi and Adams (2013) reiterated that Environmental Education should be taught at all levels, that is, from primary to tertiary levels. Principle 19 of the United Nations Conference on the human environment in Stockholm 1972, equally affirms the education of younger generations and adults on environmental issues. The implication of the above statements stipulates that Environmental Education is for all both young and old. The Tbilisi Declaration (1977) supports this massive Environmental Education for all implying that the young population are not to be left out, and that is to say students of junior secondary schools (JSS1-3) are part of the younger generation.

There is the need to communicate the importance of sustainable life/living and other environmental related matters to people in Nigeria. English is the vehicle because it is the nation's official language (NPE, 2014). It is at times regarded as the nation's lingua franca. In Nigerian schools, it is the medium of communication and instruction. It is also the language used in teaching most of the school subjects (NPE, 2014). In writing almost all the textbooks and in oral communication in schools and other public places throughout the federation, English is used.

Generally, educators acknowledge English as an important tool for communication and a necessary tool for academic success. This makes it imperative that the English textbooks should contain appropriate and adequate information about the subject matter. In line with the assertion, Umoh (1997) asserts that English reader provides a reading text and since this is the case, it becomes necessary that reading passages found in the reader should be varied enough in content so as to expose the readers to other disciplines apart from those that bear on language which they are intended for. Teachers depend largely on textbooks as the only accessible instructional materials. As Etim and Oyetunde (1985:289) put it “the class text is often the teachers be-all and end all”. Emenyonu (1985:54) quoting Adelego observes that textbook is used to teach English exclusively with no deviation from the context. Having the above facts in mind, the researchers decided to analyze the content of English language textbooks that are used in the junior classes of the secondary schools of Cross River State to examine the content of the passages to see how varied they are in terms of awareness (environment) contents. The extent to which environmental issues are included in the textbooks to that extent will the students who read them be enabled to develop positive thinking and the right sense of judgement in their environment for posterity and for sustainability.

Statement of problem

This study was prompted by the fact that environmental problems in Cross River State, like the rest of Nigeria are endemic, and have been created over a long period of time. There are many identifiable major problems that confront Cross River State and all of them are ecological in nature and scope, these are deforestation, soil degradation, waste disposal, flooding, water contamination, pollution among others. These problems have over the years produced noticeable off-spring of their own namely gully erosion, fisheries loss, wildlife and biological diversity losses, to varying essence and dimension. Viewing from the ecological point of view, soil erosion and deforestation are indeed the most serious nationwide environmental problems. The international declaration on Environmental Education such as the Stockholm, Belgrade and Tbilisi Declarations advocate Environmental Education for all in order to create awareness and be responsible about environmental issues. The question whether subject disciplines have appropriate content of environmental awareness becomes very imperative. In the context of this research, the problem is whether the JSS 1-3 English Language textbooks used in public schools in Cross River State, Nigeria have enough content of environmental sensibility on them.

Purpose of the study

The study is designed to analyze some selected secondary English language readers used in the JSS 1-3 in Cross River State, Nigeria to

determine the level of environmental awareness reflected in the reading passages.

Research questions

1. What is the distribution ratio of the biotic, neutral and abiotic environment in the English language textbooks under study?
2. What is the sequence adopted in projecting environmental issues in each of the JSS 1-3 textbooks under study?

Significance of the study

The study is considered very timely and shall be of immense benefit to the textbook writers, teachers of Environmental Education, Ministry of Education in their text prescription and students as well as government bodies agencies and the general public.

To the textbook writers, the study may provide relevant answers to the degree of environmental awareness among the writers in Africa context. From the point of view of inter-disciplinary studies, this research throws light on how English textbooks may be a source of environmental awareness. It could make writers and potential writers know the direction to take when writing, to make their work marketable and popular in the field of environmental concern and awareness. Through that, it can help the environmental awareness problem in Cross River State and the country at large.

The educational administrators (Ministry of Education) shall be familiar with the level of student's awareness as related to environmental problems because better care of the environment means less sickness and cleaner environment.

To the students, the most common sources of awareness information on environmental problems that students benefit from better teaching means better learning, the learners perception and care of the environment, vis-a-vis the inherent danger of adverse human activities on natural environment in order to keep it for posterity which can lead to better sustainable development. This work may also help the society and government in monitoring the environmental changes, sources and its impact on men, plants and animals. People as a whole will benefit immensely in the sense that it provides enough data for people to know how to go about housing the wildlife and better opportunity to democratic practices and more cardinal international relations.

The textbook writers who engages in future writing of JSS textbooks to educate people on environmental matters that lead to the improvement of the standard of writing as it is compared with other peoples English Language text since environmental awareness is the centre for life. In other word, one cannot survive without the awareness of the natural environment. Nigeria being a developing country has much need for awareness as well as

any other developing country of the world today. This will also provide measures to community, the teacher and the government on how to implement the teaching of environmental awareness to the JSS 1-3 students of Cross River State and Nigeria as a whole. Finally the study will help Cross River State government and students in particularly to realize the importance of awareness of the natural environment to a developing country like Nigeria as a way of improving the quality of life here on earth for sustainability.

Scope of the study

The research was limited to some selected textbooks used in junior secondary school in Cross River State, Nigeria. Although the study may be a reflection of what really obtains in the population used in the study, generalization can only be limited to the sample and population from which the sample is drawn and on which data are based and not beyond the specified population.

Definition of terms

Abiotic environment: This is the physical environment and consists of all those physical and non-living chemical aspects of the environment which exert and influence on living organisms (Anijah-Obi, 2001). But in this research, abiotic environment looks at that area of the environment that has been influenced by human activities as reflected in the reading comprehension passages in JSS 1-3 textbooks used by students in Cross River State.

Biotic environment: This research considered biotic environment as an environment that is still in its natural state and has not been influenced by man in any form. This is seen as reflected in the reading comprehension passages in the JSS 1-3 textbooks used in secondary schools in Cross River State.

Neutral environment: Neutral environment in this research is said to be an environment that encourages conservation for sustainable development as reflected in the reading comprehension passages.

Social environment: This is said to be the people's way of life and practices in their various environment.

Environment: The sum total of all conditions that surround man at any point in time on the earth's surface (Hagget, 1975). In this research, environment is seen as air, water, plants and animals life including man.

Junior secondary school: Given the Nigerian policy on education (2014), the junior secondary school is the upper basic education. It comprises the educational levels often described as JSS 1, JSS 2 and JSS 3. It is the educational level that precedes the senior secondary and that succeeds the primary education, that is, the lower basic education.

Literature review

Literature was reviewed based on environment awareness from some authors. The review deals with concept and empirical works of other researchers related to this study. Sarman and Bhuyan (2015) carried out an analysis of Environmental Education components in the existing textbooks from class V to VII. They collected all the existing books in English and Assamese medium, prescribed by the SCERT Assam from class V to VII. The investigators studied the content material thoroughly giving focus on environmental related topics in relation to curriculum on Environmental Education. The result of the study revealed that the content on Environmental Education was not sufficient for fulfilling all the objectives of Environmental Education in the schools.

Komane (2005) conducted a research on the assessment of environmental awareness in the secondary school learners in the Maborane District. He discovered that the level of environmental awareness was not adequate enough to solve some environmental problems. In support of this Sivamoorthy and Nalini (2012) conducted a study on the level of environmental awareness and practices among college students in India. The findings showed that there was no significant relationship between environmental awareness and environmental practice among secondary schools learners in Maborane District. In the same vein Ozmen and Karamustafaoglu (2006) in their study on the level of environmental assessment on textbooks used by some secondary schools in Turkey found out that there was gross inadequate information in those textbooks that leads to environmental awareness.

Ilesanmi (2006) also found out in his perception of respondents on the importance of Environmental Education among the junior secondary and senior secondary students. 60 percent of the respondents strongly agree on the importance of Environmental Education to environmental sustainability.

Yakinkaya and Cetin (2017) investigated secondary school students' environmental attitude and opinions about Environmental Education in the city of Nigote in Turkey. Descriptive quantitative and qualitative research techniques were used. An attitude scale was developed to determine the students' attitude toward the environment. The attitude scale was administered to 408 secondary schools students in academic year 2016-2017. The questionnaire data were compared in terms of variables such as gender, class level and school type. Data were collected through content analysis, and frequencies were calculated and tabulated. It was examined that there was significant difference for gender and school type, whereas no difference was found regarding class level. Based on the data, recommendations were made for schools to organize the activities that will promote environmental awareness and Environmental Education.

Little and Green (2009) opined that education for sustainable development is essentially an invitation of change in the way we educate

children and adults with the aim of ensuring a sustainable future. He actually affirms that it is a strategy and action plan to better equip people with the skills knowledge and motivation to handle environmental problems.

Nerma and Dhul (2017) confirm that successful integration of Environmental Education into the school curriculum will depend on the specific conditions, aims of education and socio-economic structure of a particular country.

Research methodology

Research design/population/sample

The research design used for this study is the ex-post facto research design. The researchers used purposeful sampling technique to select the sample of nine series of secondary English Language textbooks 1 -3 from the sixteen (16) textbooks series recommended for junior secondary schools in Cross River State, Nigeria for the period September, 2017 to August, 2020 (3 years) academic sessions. These were:

1. New Oxford Secondary English Course 1-3
2. New Concept English for Junior Secondary Schools 1-3
3. Communicative English for Junior Secondary Schools 1-3
4. Junior English project for Junior Secondary Schools 1-3
5. Brilliant English for Junior Secondary Schools 1-3
6. English network for Junior Secondary Schools 1-3
7. English Studies Junior English Today 1-3
8. Intensive English for Junior Secondary Schools 1-3
9. Extensive Modern English for Junior Secondary Schools 1-3

This gives a total of twenty-seven (27) textbooks.

In order to carry out this research work, the researchers applied “rating scale” in order to help the researchers make a concise analysis on the content. The contents of each passage were studied to find out the level of environmental awareness it reflected. For instance the total of biotic, abiotic, social and neutral environment were identified and recorded. This procedure was used for the nine textbooks series studied and rated, calculated and summarized. The data collected comprised the total number of passages; the environments and the accompanying passages were processed and analyzed to see how many types of environment reflected each level of awareness. All environments of the same type in each book were added together. Statistical analysis adopted was simple percentages.

Results

The researchers read and analyzed each reading comprehension passages in all the selected JSS English readers 1-3 in Cross River State, Nigeria. Data was collected as follows based on the research questions:

1. What is the distribution ratio of the biotic, neutral, social and abiotic environment in the English language textbooks under study?

2. What is the sequence adopted in projecting environmental issues in each of the JSS 1-3 readers under study?

Research question 1

What is the distribution ratio of the biotic, neutral, social and abiotic environment in the English language textbooks under study?

From the table above, in English Studies 1, the ratio of environmental awareness are recorded thus: abiotic had 1 passage representing 5.5%, biotic had 0 passage representing 0%, neutral had 0 passage representing 0% and social environment had 17 passages representing 95.2% making a grand total of 18 passages representing 100%

In English Studies 2, the ratio of environmental awareness are recorded thus: abiotic had 5 passages representing 18.5%, biotic had 0 passages representing 0%, neutral had 1 passage representing 4% and social environment had 21 passages representing 78% making a grand total of 27 passages representing 100%.

In English Studies 3, the ratio of environmental awareness are recorded thus: abiotic had 4 passages representing 19%, biotic had 0 passage representing 0%, neutral had 2 passages representing 10% and social had 15 passages representing 71% making a total of 21 passages representing 100%

In Communicative English 1, the ratio of environmental awareness are recorded thus, abiotic had 1 passage representing 5%, biotic had 0 passage representing 0%, neutral had 1 passage representing 5% and social environment had 17 passages representing 90% making a total of 18 passages representing 100%.

In Communicative English 2, the ratio of environmental awareness are recorded thus, abiotic had 2 passages representing 11.1%, biotic had 0 passage representing 0%, neutral had 1 passage representing 5.6% and social environment had 15 passages representing 83.3% making a total of 18 passages representing 100%.

In Communicative English 3, the ratio of environmental awareness are recorded thus, abiotic had 0 passage representing 0%, biotic had 0 passage representing 0%, neutral had 1 passage representing 4.8% and social environment had 20 passages representing 95.2% making a total of 21 passages representing 100%.

In New Oxford English 1, the ratio of environmental awareness are recorded thus, abiotic had 2 passages representing 25%, biotic had 0 passage representing 0%, neutral had 1 passage representing 12.5% and social environment had 5 passages representing 62.5% making a total of 8 passages representing 100%.

In New Oxford English 2, the ratio of environmental awareness are recorded thus, abiotic had 1 passage representing 12.5%, biotic had 0 passage representing 0%, neutral had 0 passage representing 0% and social

environment had 7 passages representing 87.7% making a total of 8 passages representing 100%.

In New Oxford English 3, the ratio of environmental awareness are recorded thus, abiotic had 0 passage representing 0%, biotic had 0 passage representing 0%, neutral had 0 passage representing 0% and social environment had 0 and a total of 10 passages.

In Extension Modern English 1, the ratio of environmental awareness are recorded thus, abiotic 3 passages representing 10.4%, biotic 0 passage representing 0%, neutral 2 passages representing 6.9% and social environment 24 passages representing 82.7% making a total of 29 passages representing 100%.

In Extension Modern English 2, the ratio of environmental awareness are recorded thus, abiotic 6 passages representing 20.7%, biotic 0 passage representing 0%, neutral 3 passages representing 10.43% and social environment 24 passages representing 69% making a total of 29 passages representing 100%.

In Extension Modern English 3, the ratio of environmental awareness are recorded thus, abiotic 8 passages representing 27%, biotic 0 passage representing 0%, neutral 3 passages representing 10.4% and social environment 18 passages representing 62.5% making a total of 29 passages representing 100%.

In English Network book 1, the ratio of environmental awareness are recorded thus, abiotic 5 passages representing 25%, biotic 0 passage representing 0%, neutral 0 passage representing 0% and social environment 15 passages representing 75% making a total of 20 passages representing 100%.

In English Network book 2, the ratio of environmental awareness are recorded thus, abiotic 1 passage representing 5%, biotic 0 passage representing 0%, neutral 1 passage representing 5% and social environment 18 passages representing 90% making a total of 20 passages representing 100%.

In English Network book 3, the ratio of environmental awareness are recorded thus, abiotic 7 passages representing 37%, biotic 1 passage representing 5%, neutral 1 passage representing 5% and social environment 11 passages representing 58% making a total of 20 passages representing 100%.

In Junior English Project 1, the ratio of environmental awareness are recorded thus, abiotic 2 passages representing 11.8%, biotic 0 passage representing 0%, neutral 0 passage representing 0% and social environment 15 passages representing 88.2% making a total of 17 passages representing 100%.

In Junior English Project 2, the ratio of environmental awareness are recorded thus, abiotic 2 passages representing 11%, biotic 0 passage representing 0%, neutral 2 passages representing 11% and social

environment 14 passages representing 78% making a total of 18 passages representing 100%.

In Junior English Project 3, the ratio of environmental awareness are recorded thus, abiotic 2 passages representing 11.8%, biotic 0 passage representing 0%, neutral 0 passage representing 0% and social environment 15 passages representing 88.2% making a total of 18 passages representing 100%.

In New Concept English Book 1, the ratio of environmental awareness are recorded thus, abiotic had 3 passages representing 16.6%, biotic 0 passage representing 0%, neutral 2 passages representing 11% and social environment had 13 passages representing 72.2% making a total of 18 passages representing 100%.

In New Concept English Book 2, the ratio of environmental awareness are recorded thus, abiotic had 4 passages representing 21%, biotic 0 passage representing 0%, neutral 2 passages representing 10.5% and social environment had 13 passages representing 68.4% making a total of 19 passages representing 100%.

In New Concept English Book 3, the ratio of environmental awareness are recorded thus, abiotic had 2 passages representing 11%, biotic 0 passage representing 0%, neutral 2 passages representing 11% and social environment had 14 passages representing 78% making a total of 18 passages representing 100%.

In Intensive English Book 1, the ratio of environmental awareness are recorded thus, abiotic 1 passage representing 5%, biotic 0 passage representing 0%, neutral 1 passage representing 5% and social environment 18 passages representing 90% making a total of 20 passages representing 100%.

In Intensive English Book 2, the ratio of environmental awareness are recorded thus, abiotic 3 passages representing 15%, biotic 0 passage representing 0%, neutral 2 passages representing 10% and social environment 15 passages representing 75% making a total of 20 passages representing 100%.

In Intensive English Book 3, the ratio of environmental awareness are recorded thus, abiotic 0 passage representing 0%, biotic 0 passage representing 0%, neutral 5 passages representing 25% and social environment 15 passages representing 75% making a total of 20 passages representing 100%.

In Brilliant English Book 1, the ratio of environmental awareness are recorded thus, abiotic 0 passage representing 0%, biotic 0 passage representing 0%, neutral 0 passage representing 0% and social environment 20 passages representing 100% making a total of 20 passages representing 100%.

In Brilliant English Book 2, the ratio of environmental awareness are recorded thus, abiotic 7 passages representing 35%, biotic 1 passage

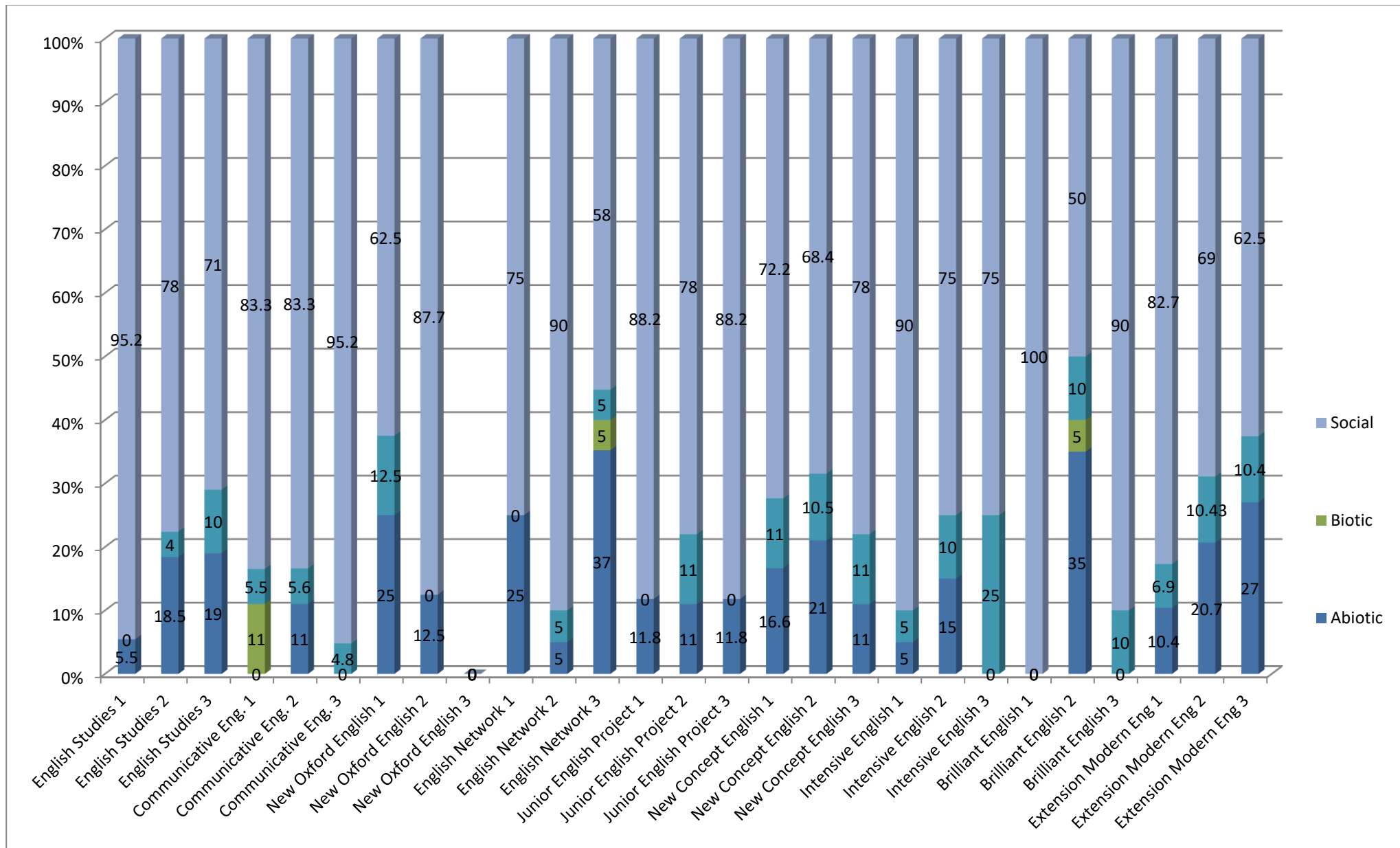
representing 5%, neutral 2 passages representing 10% and social environment 10 passages representing 50% making a total of 20 passages representing 100%.

In Brilliant English Book 3, the ratio of environmental awareness are recorded thus, abiotic 0 passage representing 0%, biotic 0 passage representing 0%, neutral 2 passage representing 10% and social environment 18 passages representing 90% making a total of 20 passages representing 100%.

In Extension Modern English 1, the ratio of environmental awareness are recorded thus, abiotic 3 passages representing 10.4%, biotic 0 passage representing 0%, neutral 2 passages representing 6.9% and social environment 24 passages representing 82.7% making a total of 20 passages representing 100%.

In Extension Modern English 2, the ratio of environmental awareness are recorded thus, abiotic 6 passages representing 20.7%, biotic 0 passage representing 0%, neutral 3 passages representing 10.43% and social environment 20 passages representing 69% making a total of 29 passages representing 100%.

In Extension Modern English 3, the ratio of environmental awareness are recorded thus, abiotic 8 passages representing 27%, biotic 0 passage representing 0%, neutral 3 passages representing 10.4% and social environment 18 passages representing 62.5% making a total of 27 passages representing 100%.



Research question 2

What is the sequence adopted in projecting environmental issues in each of the JSS 1-3 textbooks under study?

Showing the sequence used in projecting environmental issues in the JSS 1-3 readers under study

JSS 1-3 readers			
English Studies 1	S	A	
English Studies 2	S	A	N
English Studies 3	S	A	
Communicative English 1	S	N	
Communicative English 2	S	N	
Communicative English 3	S	N	
New Oxford English 1	A	N	S
New Oxford English 2	S	A	
New Oxford English 3	S	S	S
English Network 1	S	A	
English Network 2	S	A	N
English Network 3	S	N	B
Junior English Project 1	S	A	
Junior English Project 2	S	N	A
Junior English Project 3	S	A	
New Concept English 1	S	A	N
New Concept English 2	N	S	A
New Concept English 3	S	N	A
Intensive English 1	S	A	N
Intensive English 2	S	A	N
Intensive English 3	S	N	
Brilliant English 1	S	-	-
Brilliant English 2	A	S	N
Brilliant English 3	S	N	
Extension Modern English 1	S	A	N
Extension Modern English 2	S	N	A
Extension Modern English 3	S	N	A

B = Biotic, A = Abiotic, N = Neutral, S = Social

Generally, the sequence adopted in projecting environmental issues are abiotic, social, neutral and biotic. It is observed that, the author did not follow this sequence. It is also observed that in English Studies 1 the author projected the social environment first before the abiotic environment. The same trend follows in English Studies 2 as well as 3. It is observed also in

Communicative English 1, 2 and 3 that the author following the same trend starting with social environment then the neutral environment.

In English Network 1 and 2 the same sequence was observed starting with the social to abiotic environment but a little deviation in English Network 3 which projected the social, neutral and the biotic environment.

In Junior English Project 1, the author projected the social environment before the abiotic. In book 2 there was a little deviation, the author projected the social, neutral and lastly the abiotic environment and Book 3 projected the social environment and then the abiotic environment.

In New Concept English, it is observed that the author projected the social environment first, followed by the abiotic and lastly the neutral environment. There was a deviation in New Concept English 2 as the author projected neutral, social and abiotic environment last. New Concept 3 projected the social, neutral and abiotic environments.

In Intensive English Book 1 and 2, the author adopted the same sequence. The author presented the social, abiotic and neutral environments but a slight deviation in Intensive 3 as the author projected first the social and then the neutral environment.

In Brilliant English Book 1, the author projected only the social environment while in Book 2 the author projected the abiotic, social and neutral environments. In Extension Modern English, the author projected the social, abiotic and neutral environments and a deviation in Book 2 and 3 where the same sequence were presented; the social, neutral and lastly the abiotic environments.

A cursory look at the table revealed that, each book series feature more of the social environment than the biotic, abiotic and neutral environment. In as much as there must be development through deforestation, the authors should try as much as possible to project if not the environment in its totality, at least the neutral environment. The featuring of abiotic and neutral environment is necessary for this level to promote sustainable development among students.

One of the goals of the National Policy on the Environment is to raise public awareness and to promote understanding of essential linkages between environment and development and to encourage individuals and community participation in environmental effort (FEPA, 1989). The implementation of this policy therefore will lead to:

- i. The publication and dissemination of relevant environmental data.
- ii. Establishment of adequate environmental standard.
- iii. The monitoring and evaluation of behavioural and attitudinal changes in the environment.

In the forward to Nigerian Environmental Study and Action Team (NEST, 1991) definitive study of the Nigerian environment, Dr Bukar Shaib,

Chairman of the governing board of the Federal Environmental Protection Agency (FEPA) made this point that the aim of Environmental Education would be achieved only if there is adequate communication.

Featuring more of neutral and biotic environment is necessary for this level because one can use text that feature more of neutral and biotic environment to teach environmental awareness in secondary schools than those that featured more of the abiotic, social and neutral environment in them. This is because texts with neutral and biotic features will help the students to really appreciate nature and lead them to conservation of our biodiversity loss. This can also help them to really appreciate nature and the creation of conservation clubs in their various secondary schools. Featuring of the biotic and neutral environments is necessary for who would like to aspire to become environmentalist; such featuring is a correct counselling strategy on decision-making exposure for the students.

In the above Table 2, the nature of distribution is abiotic, neutral, biotic and social environment. The researchers found that the distribution of neutral and biotic was lopsided with the biotic being very low and presented only one environment in the entire series which is English Network Book 3 followed by the neutral environment. The social and abiotic environment types are mostly emphasised in all the textbooks studied with social environment being the highest featured. From the above observation, one can say that the variation and distribution of the different environments is not steady or even. These neglected aspects could be used in teaching environmental awareness to students. If environmental awareness should be learnt in secondary schools, then there must be some conscious effort made to emphasize and develop the spread of other environments in the students' English Language textbooks. It is important to develop in the students the type of skills and techniques which will help them to develop in full positive and friendly attitudes towards the environment so that they may live a meaningful life for themselves and for the community as well as for posterity. Some students may leave the school for further academic studies. In either case, they will need to use the experiences and skills got from these books if the contents are valid enough.

Conclusion

From the result of the study, it was very clear that the level of awareness in the JSS 1-3 readers used in Cross River State, Nigeria cannot be said to be high enough to bring about the desired change of attitude through understanding, respect, responsibility action about issues on the environment.

Environmental awareness refers to the sensitization of people on environmental issues and actions that will lead to a change in behaviour

and attitude. This is very vital if we must conserve our resources for the present and future generation. The low level of environmental awareness in the JSS 1-3 readers in /cross River State, Nigeria requires that conservation education be integrated into the various English language text as much as possible. Environmental awareness should constitute a life-long education that is responsive enough to changes in the world we find ourselves. This awareness will help students understand the major problems of the world and the provision of skills and attitude needed to play a productive role towards improving life and protecting the environment.

Recommendations

The researchers are not here to condemn or prescribe any of the English textbooks used in JSS 1-3 in secondary schools in Cross River State, Nigeria. The conclusion drawn from the findings and results of this research work have given the researchers the urge to make some recommendations to the authors of secondary English language textbooks.

1. Writers of secondary English language textbooks should present environmental issues in their books to cover the four different environments especially the neutral and biotic environment as much as possible.
2. They should emphasize on the teaching of environmental issues on the JSS 1-3 students using the English language textbooks as a medium for teaching environmental issues.
3. Conservation clubs should be spelt out in the various readers used so that the students will imbibe the ethics of environmental issues as they used these readers.
4. The celebration of the world environment day (5th June) should be effectively advertised in the various English language readers so that the students will be sufficiently aware of the importance of the celebration. The celebration of related events like the world habitat day should be given more prominence. Similarly, the observance of national programmes like the national tress planning campaign, green carnival and monthly environmental sanitation day should be treated with more seriousness than is presented in the case of their various readers.

From the above recommendations, the researchers wish to say that by and large, awareness creation is the immunization needed to protect us from consequences on environmental degradation. To be able to achieve this, a lot need to be done through awareness activity, to relate culture, beliefs and religion to environmental conservation and for posterity sake.

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