

EFFECTIVE MANAGEMENT OF CLIMATE CHANGE FOR A SUCCESSFUL CURRICULUM IMPLEMENTATION IN PRIMARY SCHOOLS

By

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Abstract

The paper examined the possible strategies of managing climate change in order to ensure effective curriculum implementation in Primary Schools in Anambra State. The study was guided by three research questions. The population comprised 105 head teachers hence there was no sampling. The descriptive research design was used. Data was collected through 25 – item researchers developed questionnaire Strategies for Managing Climate Change (SMCC). Mean and standard deviation were used to answer the research questions. Findings indicated that implementing climate change policies from the Federal Ministry of Education and Environment, installation of fans in the classroom, organizing enlightenment programmes among others are the possible strategies to effectively manage the climate change. It was therefore recommended that government should provide schools with funds, basic climate change information and facilities to carry out necessary responsibilities in their efforts at climate change management.

Introduction

Curriculum implementation suggests doing or putting into practical action what has been planned. In other words it is the art of translating or giving life or making to operate what has been documented in paper towards achieving the purpose for which it was designed. To make it functional; Ivowi (2004:12) simply posited that curriculum implementation as the translation of theory into practice or proposal into action. In confirmation, Okebukola (2004) also saw it as the translation of objectives of curriculum from paper to practice. In other words curriculum implementation

involves practice/practicals. It is a living thing; that is, curriculum in paper is a dormant but at the implementation stage becomes alive or acts through the efforts of human and physical variable that interplay in the course of its implementation of which climatic change is one. No wonder Onyeachu (2008) defined it as the process of putting all that have been planned as a curriculum document into practice in the classroom through the combined efforts of the teachers, pupils/learners, parents as well as interaction with physical facilities, instructional material, psychological and social environment.

Climatic change is not a new phenomenon; it has become topical in Nigeria. Wikipedia (2009) saw it as encompassing the statistics of temperature, humidity, atmospheric pressure, windfall, atmospheric particles count and numerous other meteorological elements in a given region over a period of time. In other words various people of the world have their own peculiar climate which is familiar to them. When it varies it becomes climatic change. Climate varies from one region of the world to another, from one country to another and when there is change, variation, alteration of the climate from what it used to be, it is called climatic change.

Uchegbu and Ugwuanyi (2009) saw it as a persistent fluctuation in the climatic elements for a considerable length of time usually 35 years. According to Ozor (2009) it is a situation where this change continues in one direction at a rapid rate and for an unusual long period of time. Pender (2008) described it as statistically significant variations in climate that persists for an extended period, typically decades or longer. By implications therefore, when such variations occur; it creates impact on people and their ways of life. The Intergovernmental Panel on Climate Change (2007) stated that extreme climate events such as storm, flood, rainfall wind, drought and waves are some threats of climate changes to Africa.

These threats no doubt have their own impacts in the educational sector especially in the course of curriculum implementation. It must be noted that effective curriculum implementation is very crucial for the achievement of the educational goals. Effective implementation curriculum at the primary level of education entails among others a conducive learning environment devoid of negative impacts/threats of climate change such as heat, heavy wind, dust, flood drought, icy cold and earth quakes Ihebereme (2010) and consequences of climate change, which include limited production, floods, diseases, conflicts and other natural disasters (Egboka, Ezeugbor & Olibie, 2010). All these exert great negative influence on the child that implementation of curriculum may become almost impossible. Excessive heat brings discomfort in the classroom. A hungry; sick child may not pay attention in the class. Stormy wind can also affect the sitting arrangement in the class. Hence the concern of this paper on how the education inputs especially the curriculum programmes could be effectively implemented to achieve an effective out put in the context of effective climatic change management by the school administrators.

This in line with Keaney and McGarr (2009) who noted that the locus of climate change management centers on the principal. Therefore if curriculum can be effectively implemented at the primary school level which is the bedrock upon which other levels of education are built; and that whatever happens at this level of education can either mar or enhance the entire education enterprise, Ayodele (2004); then it becomes imperative for headmasters to effectively manage the climate change to ensure education at this level thrives in a more friendly climatic conditions and environment. Unconducive climate engenders poor learning. This is because the extent to which learning takes place depends on the environment with its attendant pressure or threats which can be changed by the behaviour of the school heads.

Statement of the Problem

Climate change has been traced to natural causes such as solar inputs, variations in the earth's orbit etc and human tendencies and that the natural tendencies/causes are triggered by human activities such as bush burning, desertification, gas flaring, deforestation, inappropriate disposal of elements that contain carbon etc. Nevertheless, these natural and human activities has resulted in many militating effects on the spheres of life including education. There is global warming "the green house effects" Offorma (2010) described it as the increase in the average temperature of the earth's surface, air and oceans since the middle of the 20th century. However, Jacob (2006) opined that room temperature affect learning positively or negatively.

Notably, climate change affects education at the primary school level as academic activities are disrupted, facilities and physical equipments set outside the classrooms are destroyed by storm or felled trees, rain etc. Truancy has become the order of the day in many poorly managed schools; those that had their roofs very close to the floor are affected by the sun heats especially in the afternoon. Some students absent from school as a result of hunger and diseases and some have died in the effects of drought, floods etc and all these affect adequate and effective curriculum implementation. So, since the climate change has become a reality something must be done urgently to ensure a stress free curriculum implementation in primary school. The problem of this paper therefore was how the climate change be effectively managed in order to engender effective curriculum implementation in primary schools and whether there are factors that hinder effective climate change in primary school

Purpose of the Study

The main purpose of the study was to examine ways school heads could manage climate change to ensure effective curriculum implementation. Specifically the study sought to find out the following:

- The effective ways head teachers would manage climate change to ensure effective curriculum implementation.
- The problems that may hinder effective curriculum implementation
- Examine the effects of a well managed climate change on the implementation of curriculum.

Research Questions

The following research questions formulated guided the study.

- i. What are the effective ways head teachers should adopt to manage climate change in order to ensure effective curriculum implementation?
- ii. What are the problems that hinder effective climate change management?
- iii. What are the effects of a well managed climate change in curriculum implementation?

Methodology

Descriptive survey design was adopted for the study to determine effective ways head teachers should adopt to manage climate change in order to ensure effective curriculum implementation in the primary schools.

The study was conducted using 105 head teachers of primary schools in Onitsha Education Zone of Anambra State. There was no sampling. The entire population of the study which consists of one hundred and five (105) head teachers was used.

Researchers developed questionnaire titled Strategies for Managing Climate Change (SMCC) was used for the study. The questionnaire arranged in respect of 4 point likert rating scale of Strongly Agree (SA) 4points Agree (A) 3points Disagree (D) 2points and Strongly Disagree (SD) 1point. The estimate of internal consistency of the instrument was established using Cronbach Alpha. It was found to be 0.81. Analysis of the data was done using mean and Standard Deviation. Any mean equal or above 2.50 was regarded as agreed, while any mean below 2.50 was regarded as disagreement. Thus 2.50 becomes the criterion for decision making.

Result

The data collected in respect of research questions were analyzed descriptively and the findings reported in the tables below:

Research Question 1: What are the effective ways head teachers should adopt to manage climate change in order to ensure effective curriculum implementation?

Table 1: Mean and Standard Deviation Scores on Head teachers Strategies for managing climate change.

S/No	Items	X	SD	Decision
1.	Implementing climate change policies from Federal Ministry of Education and Environment	2.84	0.36	Agree
2.	Expansion of Classroom windows	3.52	0.42	Agree
3.	Planting of new ornamental trees in the school compound	3.14	0.75	Agree
4.	Ceiling of roofs and installation of fans in the classroom	3.75	0.94	Agree
5.	Instructing pupils to attend school with cardigans	2.87	0.81	Agree
6.	Organizing enlightenment programmes for pupils, teachers and parents on climate change.	3.22	0.44	Agree
7.	Preserving major recreational and other open spaces.	3.01	0.63	Agree
8.	Instructing teachers to space seat arrangement and to open classroom windows very well.	2.87	0.42	Agree
9.	Preventing damage to environmentally sensitive areas.	3.19	0.94	Agree
10.	Ensuring any warning information on climate change is disseminated immediately to the teachers, parents and pupils.	3.10	1.14	Agree
11.	Instructing teachers and prefects that wastes should be disposed effectively and not burnt.	3.22	0.88	Agree
12.	Involving community members in climate change management e.g. sinking of borehole.	3.24	1.12	Agree
13.	Inviting resource persons to speak and train teachers and pupils on climate change awareness	3.48	0.65	Agree

and management.

14.	Managing surface water flooding	3.22	0.83	Agree
15.	Create landfills in the school compound for waste disposal	3.48	0.90	Agree
Grand Mean		3.21	0.74	Agree

Table 1. Shows the mean responses of head teachers on how to manage climate change to ensure effective curriculum implementation. Items 1 – 15 indicate that the mean responses of headteachers were above the acceptable criterion point. This implies that they are proper and effective strategies to manage the climate change in order to engender effective curriculum implementation.

Research Question 2

What are the problems that hinder effective climate management?

Table 2: Mean and Standard deviation on problems militating against effective climate change management in Primary Schools.

16.	Lack of fund and basic climate change information and facilities.	3.32	1.02	Agree
17.	Inadequate space for proper waste disposal	3.50	0.02	Agree
18.	Poor parental co-operation due to poor economic situation in the country.	3.47	0.66	Agree
19.	Lack of recycle machine	3.00	0.89	Agree
Grand Mean		3.22	0.64	Agree

Table 2 shows the mean of head teacher opinion on the problems that militate against effective management of climate change. Items 16, 17, 18 and 19 have the mean score of 3.32, 3.50, 3.47 and 3.00 respectively. Table 2 above shows the grand mean of 3.22 which is greater than the cutoff point of 2.50. Therefore the responses of the respondents are accepted, suggesting that head teachers agree that those problems militate against effective management of the climate change.

Research Question 3

What are the effects of an effectively managed climate change on curriculum implementation?

Table 3: Mean and Standard deviation on the effects of an effectively managed climate change on curriculum implementation.

20.	Increased academic performance	3.78	0.76
21.	Effective classroom management on the part of the teachers	3.88	0.78
22.	Effective monitoring and evaluation of curriculum progress	3.93	0.78
23.	Facilitation of in-depth coverage of curriculum programmes	3.82	0.73
24.	Reduced disciplinary problems	3.82	0.73
25.	Adequate teaching and learning environment for practical exercises	4.00	0.62
Grand Mean		3.90	0.61

From table 3 above, the items 20, 21, 22, 23, 24 and 25 the mean ranges from 3.82 to 4.00. This shows that headteachers agreed that adequate management of climate change enhances curriculum implementation. It also shows the grand mean of 3.90 which is greater than 2.50 the cut off point. Thus the result is an indication of the endorsement of the items as being positive impacts of a well managed climate change.

Discussion of Findings

The study sought to identify possible strategies of managing climate change in order to ensure effective curriculum implementation in primary schools in Anambra State. Findings of the study in Table 1 showed that head teachers in Onitsha Education Zone agreed that items 1-15 are the possible strategies to effectively manage the climate change with mean scores between 2.84 and 3.52 > 2.50, the cut off point. This funding is supported by Crystal (2003) Egboka, Ezeugbor and Olibie (2010) Ihebereme (2010) Lambi and Ngu (2010) Nzeakor (2010) in their separate studies in relation to effective management of climate change. They noted that

effective ways of managing climate change include: implementing climate change policies from the Federal Ministry of Education and Environmental, installation of fans in the classroom, Instructing the pupils to come to school with Cardigan, organizing enlightenment programmes, managing surface water flooding, preserving major recreational and open spaces as well as preventing damage to environmentally sensitive areas among others. Of course, effective curriculum implementation can only be accomplished in a conducive environment therefore effective management of climate change is imperative for curriculum implementation.

It was also found that the respondents agreed that a lot of problems militate against effective management of climate change. By implication, those problems are beyond the head teachers control and hence pose a great threat to optimum curriculum implementation. The items on table 3 attracted positive responses. This goes a long way to indicate that effectiveness of any teaching and learning exercise to a great extent are dependent on conducive environment Ifagbala (2009). The kind of climatic atmospheric condition existing in the school affects teaching/learning process especially, the interest and determination of teachers and learners respectively. The fact that pupils come to school and do not loiter and pay rapid attention during classroom instruction is dependent on the effective management of the human/material resources including the climate change.

Conclusion/Recommendation

In conclusion, for effective implementation of curriculum, emphasis should be given to effective management of climatic change. It is pertinent that with good management of climate conditions, teaching and learning will be enhanced thereby increased academic performance.

Based on the findings of the study, the following recommendations are made.

- Government should provide schools with funds, basic climate change information and facilities to carry out necessary responsibilities in their efforts at climatic change management.
- School community should provide adequate land for proper waste disposal.
- Parents should co-operate with the headteachers in their effort at managing the climate change by ensuring that learners carry out instructions given to them.

References

- Akuezuilo, E. & Agu, N. (2003) Research and Statistics in education and social science: Method and application. Awka: Off Nuel Centi Publishers and Academic Press.
- Ayodele, J.B. (2004). The role of headteachers in school plant management and maintenance. Ibadan: Codat Publications Ltd.
- Crystal, W.C. (2003). Impact of climate change on school environment: A5 – point strategy. Ibadan: Wisdom Publishing Company.
- Egboka, P.N., Ezenubor, C. & Olibie, E.I. (2010). A framework for effective Management of Climate Change in Secondary Schools in Anambra State. Nigerian Journal of Education Administration and Planning. 10 (10), 149 – 162.
- Ifeagbala, C.O. (2009). Conducive environment for effective teaching and learning Journal of Primary Education Studies 6 (1) 40 – 47.
- Ihebereme, C.I. (2010). Tackling threats of climate change to achieve effective classroom management in Primary Schools. Nigerian Journal of Education Administration and Planning 10 (1), 141 – 148.
- Intergovernmental Panel in Climate Change (2007). Climate change: the physical science basis for policy matters. Retrieved on 23/5/12 <http://www.gerio.org/ipcc/qa/06.html>.
- Ivowi, UMO (2004). Curriculum Implementation for School Administration. In A.O.K Noah, D. O. Shonibare, A.A. Ojo & T. Olujuwon (eds) Curriculum Implementation and Professionalising teaching in Nigeria. Lagos: Central Educational Services.
- Jacob, C.O. (2006) creating equitable classroom climate: Teacher talk. Retrieved on 23/5/12 from <http://www.education.indan.edu/peacefulhtml>.
- Keaney G. & McGarr, (2009). The role of the teaching principal in promoting ICT use in small primary schools in Ireland. Technology, Pedagogy and Education, 18 (1), 87 – 102.
- Lambi, C.M & Nguh, B.S. (2010). Reflections on the changing land use patterns in some grassland rural environments of the North West Provinces of Cameroon paper presented at the 1st National Conference of School or Arts SOSE, Ebonyi State College of Education, Ikwo.
- Nzeakor, C.U. (2010) Empowering heads of primary schools for effective management of climate change: A tool for achieving quality Universal Basic Education (UBE) in Nigeria. Nigerian Journal of Education Administration and Planning 10 (1), 77 – 84.
- Offorma, H.L. (2010). Climate change and the need for new curriculum development in Nigerian Universities. Nigerian Journal of Curriculum Studies 17 (3) 259 – 265.

- Okebukola, P.A.O (2004). In A.O.K. Noah, D.O. Sonibare, A.A. Ojo and T. Olujunwn (eds) Curriculum Implementation and professionalizing teaching in Nigeria: Strategies for the 21st Century. Lagos: Central Educational Services.
- Onyeachu, J.A.E. (2008) Curriculum Implementation at the Primary Education Level. Challenges for the 21st Century. Multidisciplinary Journal of Research Development 10 (1), 38 – 49.
- Ozor, N. (2009). Implications of climate change for national development. The way forward Enugu Forum Policy Paper 10. Enugu: African Institute for Applied Economics.
- Pender, J.S. (2008). What is Climate Change? And how it may affect Bangladesh Dhaka: Church of Bangladesh Social Development Programme.
- Uchegbu, S.N. & Ugwuanyi, B. (2009). Climate Change: Problems and Solutions. Journal of Nigerian Environmental Society 5 (1) 166 – 177.
- Wikipedia (2009). Climate change. Retrieved on 23/5/12 from [http://en.wikipedia.org/wiki/climate change](http://en.wikipedia.org/wiki/climate_change).