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**ASSESSMENT OF SOCIAL STUDIES CURRICULUM IN  
CREATING AWARENESS ON THE CAUSES OF GLOBAL  
CLIMATE CHANGE AMONG STUDENTS IN COLLEGES  
OF EDUCATION IN NORTH-WEST ZONE, NIGERIA**

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**Abstract**

*The study assessed the roles of Social Studies curriculum in creating awareness on the causes of global climate change among students in Colleges of Education, Nigeria. The design of the study is survey research method. The population of this study comprises all NCEII Social Studies students in colleges of education, north-west zone, Nigeria numbering 3195. The sample size for this study was 343 determined through Research Advisors (2006) table for sample size determination. The data collection instrument was the structured questionnaire entitled Social Studies Curriculum and Global Climate Change Questionnaire (SOSCAGLOCC-Q). The instrument was duly validated by experts and was pilot tested using 34 NCE II Social Studies from Niger State College of Education, Minna. The instrument was administered once and tested using Cronbach alpha. Consequently, the reliability coefficient of 0.83 was realised. The research question was analysed using arithmetic mean and standard deviation. One sample t-test was used to test the null*

*hypothesis at 0.05 level of significance. In the light of the foregoing, the study among others found that Social Studies curriculum contents significantly contribute to students' awareness of the causes of global climate change in Colleges of Education in Nigeria. The study recommends that educational authorities in Nigeria continue to expand and refine climate change content within the curriculum.*

**Keywords:** Awareness, Curriculum Contents, Global climate change, Social Studies

### **Introduction**

Climate change is universally acknowledged as one of the most critical environmental and socio-economic challenges of the 21st century. It poses profound threats to sustainable development, ecological balance, and human welfare. Predominantly driven by anthropogenic activities—such as the combustion of fossil fuels, deforestation, and industrialization—the accumulation of greenhouse gases (GHGs) in the atmosphere is accelerating global warming, altering weather patterns, and intensifying vulnerabilities, particularly in developing countries like Nigeria.

According to the United Nations Framework Convention on Climate Change (UNFCCC, 2020), climate change refers to significant variations in global climate patterns arising directly or indirectly from human-induced alterations in the atmospheric composition. These changes go beyond natural climatic variability, with severe consequences for biodiversity, agriculture, water supply, and public health. As noted by Hajer (2022), climate change represents a twofold challenge: the need to navigate complex scientific realities while fostering widespread public understanding and action—an effort often hindered by misinformation, skepticism, and inconsistent levels of awareness.

Educational institutions, particularly tertiary establishments such as colleges of education, are strategically positioned to play a transformative role in addressing climate change. These institutions contribute not only by adopting sustainable practices on their campuses but also by integrating climate education into curricula,

thereby equipping future educators with the knowledge and values needed to foster climate consciousness within the wider society (Albert, 2021). The Social Studies curriculum, with its emphasis on civic responsibility and environmental awareness, is a vital medium for instilling climate change knowledge and fostering proactive student engagement.

Research by Lee (2022) has emphasized the importance of embedding sustainable development education within teacher training institutions. By enhancing climate literacy and encouraging attitudinal change, colleges of education serve as catalysts for knowledge dissemination, behavior modification, and the promotion of policies aimed at climate resilience (Lee, 2022). The education sector, therefore, becomes a platform for both immediate awareness and long-term societal transformation.

Nigeria's vulnerability to climate change is compounded by its geographical diversity, socio-economic disparities, and dependence on climate-sensitive sectors such as agriculture and fishing. Extreme heat events, increased rainfall variability, desertification, and coastal erosion are already affecting the nation's ecosystems and threatening the livelihoods of millions (Nwafor, 2021). Empirical evidence, such as that provided by Odjugo (2019), confirms a consistent rise in mean temperatures and irregular rainfall distribution across different ecological zones in Nigeria. Alarming projections suggest that if mitigation efforts are not intensified, Nigeria could experience an average temperature increase of up to 4.5°C by the end of the century, leading to irreversible environmental and economic consequences.

Despite the seriousness of these threats, public awareness of climate change causes and consequences remains inconsistent. While developed nations often exhibit higher levels of climate awareness linked to formal education and media exposure, developing countries like Nigeria tend to rely more on personal experiences of climate variability to inform perception (Lee, 2022). In both contexts, however, factual knowledge is a critical factor in shaping attitudes and behaviors. As Biel (2019) asserts, informed individuals are more likely to support climate policies and participate in sustainable practices, while misinformation or knowledge gaps may result in apathy or counterproductive behaviors.

Public attitudes towards climate change span a spectrum of motivations, from self-interest—such as concerns about personal health and economic security—to broader altruistic and environmental considerations. These attitudes are influenced by a range of factors, including socio-economic status, cultural norms, education level, and exposure to relevant information. Moreover, everyday human activities—such as housing choices, transportation habits, food consumption, and consumer behaviour—contribute significantly to greenhouse gas emissions, underscoring the need for comprehensive educational initiatives that promote sustainable lifestyles.

Given Nigeria's multicultural landscape, a nuanced understanding of climate change across diverse cultural and linguistic groups is crucial. These variations necessitate targeted educational strategies to ensure inclusive climate awareness. Within this context, the Social Studies curriculum offers a unique opportunity to promote environmental consciousness, social responsibility, and informed civic engagement among students. This study, therefore, seeks to assess the effectiveness of the Social Studies curriculum in Nigerian colleges of education in creating awareness on the causes of global climate change. The study seeks to:

- I. examine the impact Social Studies curriculum contents in creating awareness on the causes of global climate change among students in Colleges of Education, Nigeria; and
- ii. determine the influence of the extent to which Social Studies curriculum contents create awareness on the causes of global climate change among students in Colleges of Education, Nigeria

### **Research Question**

How do Social Studies curriculum contents create awareness on the causes of global climate change among students in Colleges of Education, Nigeria?

### **Hypothesis**

H<sub>0</sub>: There is no significant influence on the extent to which Social

Studies curriculum contents create awareness on the causes of global climate change among students in Colleges of Education, Nigeria

### **Methods**

The design of the study is descriptive survey research method. The population of this study comprises of all NCE II Social Studies students in 15 Colleges of Education in North-West geopolitical Zone of Nigeria as at January 2025. There are 3195 students consisting of 1915 males and 1280 females based on the official data obtained from the Colleges' registry. The sample size for this study was 343 NCE II Social Studies students as determined through Research Advisors (2006) table for sample size selection. Purposive sampling technique was used to select only 15 public Colleges of Education in the North-West, Nigeria offering Social Studies at NCE level. In addition, proportionate and simple random sampling techniques were used in the study. Proportionate sampling was used due the fact that, the institutions selected for this vary in term of students' population and as such, proportionate sampling technique was used to select the sample in order to take care of the population size difference. Also, simple random sampling was used to select 343 respondents from each distinct sub-group.

The data collection instrument for this study was the structured questionnaire titled "Social Studies Curriculum and Global Climate Change Questionnaire" (SOSCAGLOCC-Q). The instrument was duly validated by experts. The questionnaire was subjected to trial testing using NCE II Social Studies students from Niger State College of Education, Minna. The purpose of a pilot study was to enhance the reliability, validity and the practical application of the questionnaire (Salihu, 2023). In this regard, 34 Social Studies students were used for the pilot testing based on the recommendations of Connelly (2008) and Treece and Treece (1982) who suggested 10% of the sample size projected for the larger parent study as adequate for pilot testing. The reliability coefficient index of the instrument was ascertained using Cronbach alpha method for determining reliability coefficient. The instrument was administered once. Consequently, the reliability coefficient of 0.83 was realised. The research question was

analysed using means and standard deviations to obtain overall average scores while one sample t-test was used to test the null hypothesis at 0.05 level of significance.

## Results

**Research Question One:** How do Social Studies curriculum contents create awareness on the causes of global climate change among students in Colleges of Education, Nigeria?

**Table 1: Extent to which Social Studies curriculum contents create awareness on the causes of global climate change among students in Colleges of Education, Nigeria**

S/N	Item	SA	A	D	SD	Mean	Sdev
1.	Social studies curriculum contents create awareness that climate change occur over extended period of time	135	105	60	19	3.97	1.01
2.	Social studies curriculum contents create awareness that climate change is characterized with high temperature	129	110	62	18	3.96	1.02
3.	Social studies curriculum contents create awareness that climate change comes with rise in sea level	120	115	50	34	3.93	1.04
4.	Social studies curriculum contents create awareness climate change is characterized by desertification.	132	105	50	32	3.94	1.03

S/N	Item	SA	A	D	SD	Mean	Sdev
5.	Social studies curriculum contents create awareness that most streams in hinterland are drying up as a result of climate change.	123	118	60	18	3.97	1.02
6.	Social studies curriculum contents create awareness that climate change resulted in observed increase in sea level in the coastal areas.	138	100	50	31	3.80	1.06
7.	Social Studies curriculum contents create awareness that climate change decrease in agricultural products in Nigeria.	137	101	54	27	3.81	1.05
8.	Social studies curriculum contents create awareness that the rate of sunshine is higher now than before.	105	135	60	19	3.95	1.02
9.	Social studies curriculum contents create awareness that the atmospheric heat level is higher now than before	135	105	19	60	3.94	1.02
10.	Social studies curriculum contents create awareness that there is increased rate of rainfall across the globe.	136	110	45	28	3.98	1.00
11.	Social studies curriculum contents create awareness that the cases of flooding occur more nowadays as a result of climate change.	120	115	50	34	3.93	1.04

S/N	Item	SA	A	D	SD	Mean	Sdev
12.	Social studies curriculum contents create awareness that pollution from industry is the main cause of climate change in the world.	132	105	50	32	3.94	1.03
13.	Social studies curriculum contents create awareness that leaving the lights on at home adds to climate change	123	118	60	18	3.97	1.02
14.	Social studies curriculum contents create awareness that climate change occurs by harmful gas emissions	138	100	50	31	3.80	1.06
15.	Social studies curriculum contents create awareness that climate change occurs by harmful human activities on earth.	137	101	54	27	3.81	1.05
<b>Mean Aggregate</b>						<b>3.91</b>	

**Decision Mean:** 2.50 Agreed; < 2.50 Disagreed

The results in Table 1 highlight the extent to which the Social Studies curriculum raises awareness about climate change among students in Nigerian Colleges of Education. The average mean scores for the items range from 3.80 to 3.98, indicating that respondents generally agree that the curriculum effectively fosters awareness of climate change causes. A "Decision Mean" of 2.50 signifies that scores above this threshold reflect consensus agreement, aligning with the study's findings. The standard deviation values, ranging from 1.00 to 1.06, suggest moderate variability in responses. While the mean scores show general agreement, some items exhibit more variation. The aggregate mean score of 3.91 further confirms that the Social Studies curriculum is perceived as effective in enhancing climate change awareness.



H<sub>0</sub>: There is no significant influence of the extent to which Social Studies curriculum contents create awareness on the causes of global climate change among students in Colleges of Education, Nigeria;

**Table 2: Extent to which Social Studies curriculum contents create awareness on the causes of global climate change among students in Colleges of Education, Nigeria**

Variables	N	Mean	SDev	ff	p-value	Decision
Impact of Social Studies in Creating Awareness causes of Climate Change	319	73.37	13.80	318	0.003	Rejected

Result of one-sample t-test in Table 2 was conducted to assess the extent to which the Social Studies curriculum content enhances students' awareness of the causes of global climate change in Colleges of Education in Nigeria. The analysis yielded a mean score of **73.37**, representing the average students' response regarding the impact of the curriculum in creating awareness of climate change causes. This relatively high mean suggests that students generally acknowledge the role of Social Studies in increasing awareness. The standard deviation (SD = 13.80) indicates the variability in students' responses, with a moderate level of dispersion. This suggests that while many students recognize the curriculum's impact, individual perceptions may vary. The test statistic was computed with 318 degrees of freedom (df = 318), based on the sample size minus one (N - 1), which is standard in statistical testing. The p-value of 0.003 is below the conventional significance threshold of **0.05**, indicating statistical significance. Consequently, the null hypothesis—which posited that there is no significant difference on the extent to which Social Studies curriculum contents create awareness on the causes of global climate change among students in Colleges of Education, Nigeria s—is rejected.

### Discussions

The study found that Social Studies curriculum contents significantly contribute to students' awareness of the causes of global climate change in Colleges of Education in Nigeria. The results indicate strong

statistical evidence that the curriculum is effective in enhancing climate change awareness. This suggests that students' awareness of global climate change is relatively high, indicating the curriculum's success in imparting knowledge about the causes and impacts of climate change. In educational research, such a mean score typically reflects a positive impact or a strong level of awareness within the targeted group (Adamu & Eze, 2023). This reinforces the conclusion that the Social Studies curriculum has a strong impact on students' awareness of climate change, which is important for both educational policy and teaching practices (Afolabi et al., 2023).

The Social Studies curriculum is integral in educating students about pressing global issues like climate change. In Nigeria, where environmental challenges such as flooding, desertification, and deforestation are prevalent, equipping students with an understanding of these issues is critical (Usman & Bello, 2022). The curriculum's contribution to climate change awareness aligns with global educational trends emphasizing the role of Social Studies in preparing individuals to address the environmental crisis (Siti et al., 2022; Owolabi, 2023).

Research highlights that climate change education within Social Studies fosters not only knowledge but also attitudes and behaviors conducive to environmental sustainability (Adeyemi & Ogundipe, 2023). Studies indicate that students exposed to climate change topics in Social Studies courses demonstrate greater environmental responsibility and commitment to sustainability (Bello & Adebayo, 2023). The enhancement of climate change awareness through the Social Studies curriculum can be attributed to the pedagogical strategies employed. Active learning approaches such as case studies, fieldwork, and integration of climate change topics into the curriculum likely facilitated student engagement (Chinyere & Jude, 2023). Research has shown that participatory and problem-solving methods in Social Studies help students connect theoretical knowledge to real-world issues, making them more likely to grasp complex global phenomena such as climate change (Ibrahim & Yusuf, 2023). Additionally, the role of teachers in promoting awareness through interactive teaching methods, multimedia resources, and local examples of climate change impacts (such as desertification in the north or flooding in coastal areas) likely enhanced students'

understanding (Ogunniyi & Akinsola, 2022).

### **Conclusion**

Based on the finding of the study, it is concluded that Social Studies curriculum in Nigerian Colleges of Education significantly contributes to students' awareness of the causes of global climate change. The study demonstrated strong statistical evidence of its effectiveness in enhancing students' knowledge about climate change causes.

### **Recommendations**

Based on the findings, this study, the study recommends that given the significant contribution of the Social Studies curriculum contents to students' awareness of the causes and effects of climate change, it is recommended that educational authorities in Nigeria continue to expand and refine climate change content within the curriculum. This could include more focused modules or units on climate change, its impacts, and the importance of sustainability practices. Updating the curriculum regularly to reflect the latest scientific data on climate change would further strengthen students' understanding.

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