

# **CLIMATE CHANGE AWARENESS AMONG STUDENTS OF KWARA STATE COLLEGE OF EDUCATION, ILORIN.**

**BY**

**AHMED AMIDAT AYINKE**

**MATRIC: KWCOED/IL/22/0097**

**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT  
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## **CERTIFICATION**

This is to

certify that the project titled: “CLIMATE CHANGE AWARENESS AMONG STUDENTS OF KWARA STATE COLLEGE OF EDUCATION, ILORIN”

was carried out by Ahmed Amidat Ayinke, with Matriculation Number KWCOED/IL/22/0097, of the Department of Biology/integrated science,

This project has been read and approved as meeting the requirement for the award of the Nigeria Certificate in Education (NCE) in [Biology/Integrated science ].

**Mr. Sadiq H. A.**  
*Project Supervisor*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

**Dr. Bello Zakariyau**  
*Head of Department*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

\_\_\_\_\_  
*Project Coordinator*

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
*Date*

## **DEDICATION**

This work is lovingly dedicated: To Almighty Allah for his unending grace, and mercy upon my life. I also dedicate this work to my beloved parents, mentors, and sponsors — Mr & Mrs Ahmed — for their unwavering support, guidance, and belief in my potential.

To my dear and loving husband, Issa Saheed you for your endless encouragement, motivation, and prayers. This achievement is as much yours as it is mine .

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## **ABSTRACT**

This study examined the awareness of climate change among students of Kwara State College of Education, Ilorin, using a descriptive survey design. Female respondents (56%) were slightly more than males (44%), and the majority were aged 20–25 years (59%). The highest participation came from Biology/Integrated Science students (45%), followed by Political Science/Social Studies (20%). By level, 26% were in 100 level, 35% in 200 level, and 39% in 300 level.

The findings revealed high awareness: 80% of respondents acknowledged the effects of climate change, 86% understood its causes, and 82% recognized its environmental impacts. Nonetheless, misconceptions persisted, as 44% believed climate change is a natural cycle and 48% attributed it to natural rather than human activities. A significant number (87%) linked improper refuse disposal to climate change and also associated it with illness. In terms of solutions, 95% supported curriculum integration, 59% emphasized sanitary practices, and 93% endorsed reducing bush burning and deforestation.



# **CHAPTER ONE**

## **INTRODUCTION**

### **Background to the Study**

Climate Change has become a global issue with far-reaching implications for Ecosystems, Societies, and economics (Portner, 2021). It is a multifaceted global issue that has over the years attracted the attention of researchers, Policy makers, and the Public (Fisher, 2019). This is proven by the numerous Continuing Climate Change Conferences, reports, and research over the last decades (Hale, 2020). Moreover, there are considerable scientific pieces of evidence that Climate Change is occurring, with its impacts heavily on us (Ekpoh and Expoh, 2011). For instance, Nigeria has been identified as one of the most vulnerable Countries to the effects of climate Change owing to its geographical location within the Sub-Saharan region of Africa where temperatures are rising, and rainfall Patterns have become erratic. Specifically, in Kwara State, Nigeria, the effects of Climate Change are particularly visible and felt in different sectors which have resulted in low Crop yield, increasing incidents of diseases, and flooding among others (Adesiji, 2013, Akanbi, 2002)

Despite the increasing global awareness of Climate Change, there remains a prevailing uncertainty regarding the topic with scientific evidence regarded as contentious and unreliable (Vherek and Schupbach, 2008). To address these major challenges of Climate Change, comprehensive Climate change education becomes imperative promoting scientific findings to enable individual and collective action (Miler and Sládek, 2011, Crandon., 2022). Education has a crucial role in promoting climate literacy (Lee et al., 2015; Simpson et al., 2024) and students are a particularly relevant target group to sensitive to the Challenges of Climate Change, considering that they are still establishing their world views (Stevenson et al., 2014). Leve. (2023) reported that Students lack understanding and possess varied perspectives regarding climate Change. Similarly, Toippanen (2022) also highlighted the knowledge gaps that Students have when it comes to Climate change adaptation and mitigation approaches. Accordingly, teachers are essential in helping Students make the connection between Climate, Climate Change and Climate literacy (Dupigny-Giroux, 2010). Hence, it becomes imperative that teachers receive sufficient training to enable them to interpret complex concepts and specialized terminology related to Climate change, which are likely to create

Challenges to students accurate comprehension of the subjects (Dupigny-Giroux, 2010).

In Nigeria, the impacts of climate change are primarily evident through incidents of flooding and extreme heat. As a result, the younger generation will be left to confront these Climate Challenges in the coming years and must be equipped, to both reduce immediate risks and work towards long-term solutions. Children are often regarded as future leaders, and their choices will significantly influence the environment and the world in the future. Therefore, early education on Climate Change and related environmental issues is critical (Jibok-Kadir, 2020).

Raising awareness and understanding of Climate change is essential not only for evaluating its effects and risks but also motivating individuals at all levels of society to take actions against it (Mustapha, 2022). To fully combat Climate Change education remains a powerful tool that both individuals and Society can utilise (Jibola-kadir, 2020). Education is essential on a global Scale to enable future generations to be equipped to develop answers to the rapidly changing climate. Adequate teaching and learning on Climate Change challenges will further help learners adapt to climate-related changes (Sharma,

2012). Several areas on climate change and education are yet to be explored by researchers, including managing education toward mitigating as a climate changes issues in Nigeria. Similarly, there has been Limited research in Nigeria that has focused on raising awareness on teaching and learning as a critical factors in managing Climate Change education (Jibola- Kadir, 2020). Therefore, this study attempt to fill this gap by assessing the knowledge and awareness of Primary School teachers on Climate Change education curriculum.

### **Statement of the Problem**

Despite governmental efforts, there remains a gap in understanding the level of Climate Change awareness among Student at the tertiary level, Particularly within School of education at (Kwara State college of education, Ilorin. Assessing Students knowledge, attitudes, and Practices regarding Climate Change is Crucial to ensure that future educators are well-equipped to impart environmental education. Climate Change is one of the most pressing good issues, with far-reaching environmental, social, and economic consequences. Despite growing awareness efforts and the integration of environmental topics into education , many Students Still Lacks a deep

understanding Of the causes, effects, and mitigation strategies related to climate Change. At the Kwara State college of education, Ilorin—Particularly within the school of education where future teachers are trained—there is limited empirical evidence on the level of climate Change awareness among students.

This gap raises concern, as teachers play crucial role in shaping the environmental Knowledge and attitudes of the next Generation.

If Students in the School of Education are no well-informed or lack proper awareness, it may hinder their ability to effectively educate others and take meaningful action against environmental Challenges. Therefore, this study seeks to investigate the level of awareness, knowledge, and Perception of climate change among these Students, in order to identity existing gaps and Suggest educational Strategies for improvement.

### **Purpose Of The Study**

The main purpose of this study will determine the Climate Change among Students of Kwara State College of education Ilorin, school of education specifically the study sought to:

1. Assess the level of Climate Change awareness among Students of College of education, Ilorin.
2. Identify prevalent misconceptions and Knowledge gaps of Climate Change among student of College of Education, Ilorin.
3. Evaluate the influence of climate Change Awareness on Students' attitudes and behaviors among College of Education, Ilorin Students
4. Recommend Strategies to enhance Climate education within the College of Education, Ilorin.

### **Research Questions**

The following research question will be answered by this study:

1. What is the Current level of climate Change awareness among College of education, Ilorin Students?
2. What misconceptions or Knowledge gaps exist regarding Climate Change in College of Education, Ilorin?
3. How does awareness influence students does environmental attitudes and behaviors among Colleges of Education, Ilorin Students?
4. What measures can be implemented to improve Climate education in the college of Ilorin Students?

## **Scope Of The Study**

The researcher focuses on students within the school of education at Kwara State College of Education, Ilorin. It examines their awareness, attitude and behaviors concerning Climate change.

## **Significance Of the study**

This study on climate change awareness among students of the school of educational Kwara State College of Education, Ilorin, holds significance value for various stakeholders.

Students: The findings Will help students understand the importance of climate change and how It affects their environment And future. It will also empowered them with knowledge that promotes responsible attitudes and sustainable practices both within and outside the classroom.

## **Operational definitions of terms and variables**

- Climate change:Long-term alterations In temperature and weather patterns, Primarily due to human activities
- Awareness:The extent of knowledge and understanding about climate change issues



- Environmental Attitudes: The students perceptions and feelings toward environmental conservation and sustainability.



## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

This review of relevant literature has been designed to provide climate change among students of kwara State College of Education ilorin.

Hence, the following were discussed extensively in this study:

- Concept of climate change
- Climate Change and the role of Education among students
- Knowledge gaps among education students on climate change.
- Empirical studies in Nigeria
- Appraisal of Reviewed Literature

#### **Concept of climate change**

Climate change refers to long-term shifts in temperatures and weather patterns, mainly caused by human activities such the burning of fossil fuels, deforestation, and industrial emissions (IPCC, 2021). These activities increase greenhouse gas concentrations in the atmosphere resulting in global warming, rising sea levels, extreme weather events, loss of bio diversity, and disruption of agriculture and water supply (IPCC, 2021). On the standing, the concept of

climate change is essential in promoting environmental awareness and encouraging actions to protect the planet.

Climate change has become a critical global issue with far-reaching implications for ecosystems, societies, and economies (Pörtner, 2021).

It is a multifaceted Global issues That as over the years, attracted the attention of researchers, policymakers, and the public (Fisher., 2019). This is proven by the numerous continuing climate change conferences, reports, and research over the last two decades (Hale, 2020). Moreover, they are considerable scientific Pieces of evidence of climate change owing to its geographical location within the sub-Saharan region of Africa, where temperatures are rising, and rainfall patterns have become erratic. Specifically, in Kwara State, Nigeria, the effects of climate change are particularly visible and felt in different sectors which have resulted in low crop yield, increasing incidents of disease, and flooding among others (Adesiji, 2013, Akanbi., 2022).

Despite the increasing global awareness of climate change there remains a prevailing uncertainty regarding the topic, with scientific evidence regarded as contentious and unreliable (Urchok and Schupach, 2008). To address these

major challenges of climate change, Comprehensive climate change education Becomes imperative and Promoting scientific findings to enable individual and collective action ( Miler and Sladck, 2011); Crandon, 2022) Education had a Crucial role in promoting Climate literacy (Lee, 2015, Simpson et Al, 2021) and Students are a particularly relevant target group to the challenges of climates change, Considering that they are still establishing their world riches (Stevenson et Al, 2014). Lee . ( 2023) reported that students lack understanding and possess varied perspectives regarding climate change. Climate change awareness and understanding are essential for proper assessing Effect and dangerous on the local and global level ( Hansen et al. 2022), as well as encouraging actions across diverse strata of society to address climate change (Ochieng & Koske, 2013).

Newspapers and other forms of media in Nigeria Now have a rule to play as a result of the emphasis on information of availability and the importance of awareness. Nigeria takes up a significant amount of land and water on the planet. It is a large producer of hydrocarbons and natural gas with a population of more than 200 million people, who are employed in Subsistence

manufacturing, farming, and grazing mostly. This means that climate change will inevitably affect Nigeria and Nigerians (Tribune.com.ng, 2012).

According to Omeje (2010), Nigeria is at risk of being devastated by global climate change difficulties because the Nigerian media seems to be very uninterested in bringing attention to this issue. According to Omeje (2010), the Nigerian media appear to be lagging in climate change awareness campaigns, preferring to leave it to individuals. The majority of Africans, According to umeje (2010), are oblivious to climate change and the media must urgently play a crucial role in spreading awareness of the issues within the last 12 years, these position could have shifted. Many children, on the other hand were educated about Climate change through environmental education, Which was a concerted Efforts to instruct students on the functionality of natural ecosystem, With a focus on how to effectively manage human behaviour within ecosystems (Bhatarri et Al, 2015; Eneji et Al, 2017).

## **CLIMATE CHANGE AND THE ROLE OF EDUCATION**

Education plays a critical role in increasing awareness and equipment individuals with the knowledge and skills to address climate challenges.

According to UNESCO (2020), Integrating climate change education into a school curricular helps, students develop the ability to think critically about environmental problems and inform decisions. In Nigeria, several initiatives such as environmental education programs and climate clubs have been introduced to enhance students' awareness and participation in sustainability practices. (Vanguard, 2023).

Climate change and the role of education are closely connected, as education plays a vital role in equipping individuals with the knowledge, skills, and attitudes needed to understand and address environmental challenges. Through education, people, especially students, can learn about the causes, effects, and possible solutions to climate change. This awareness helps promote positive attitudes and responsible behaviors toward the environment. According to UNESCO (2020), integrating climate change education into school curricula encourages critical thinking, problem solving skills, and active participation in sustainable practices. For teacher training institutions like Kwara State College of Education, Ilorin, It is especially important to prepare future educators who can pass on this knowledge to younger generations. By doing so, Education becomes a powerful tool for building a

climate conscious society and Promoting Long time environmental sustainability (Crandon, 2022).

Climate change and the role of education are deeply interconnected, as education serves as one of the most effective tools for raising awareness and inspiring action on environmental issues. Climate change, being a complex and global challenge, requires an informed and engaged population that understands not just the science behind it but also its social, economic, and health impacts. Education helps individual recognize their role in contributing to and solving the climate crisis. According to UNESCO (2020), Climate change education enhances students critical thinking,problem solving , decision-making skills, Empowering them To take meaningful action both their personal lives in their communities.

In teacher training institutions such as the Kwara State College of Education, Ilorin, this rule is even more crucial. As future educators, students in the school of education are expected to pass on environmental knowledge to younger learners, Shaping the values and habits of the next generation. This approach promotes active learning and instils a sense of environmental responsibility in students.

Ultimately, education is not just about raising awareness, but about preparing individuals to become change agents who can contribute to a more sustainable and climate-resilient world.

### **Empirical Studies in Nigeria**

Empirical studies on climate change awareness among students in Nigeria, especially within teacher training institutions, have revealed varying levels of knowledge, attitudes, and behaviours. Although specific data on Kwara State College of Education, Ilorin is limited, and studies conducted in similar educational settings provide valuable insights.

Lawal (2019) conducted a study on environmental awareness among college students in North Central Nigeria, including Ilorin. The findings showed that while over 70 per cent of the respondents had heard climate change, only 40 per cent demonstrated a clear understanding of its causes and consequences. The study also highlighted that many students were unable to link local environmental problems such as flooding and desertification to global climate trends, indicating a gap between awareness and comprehension.

A more recent study by Ogunyemi , (2022) examined the effectiveness of climate change clubs and environmental campaigns in Kwara State Schools.



The findings indicated that student participation in climate clubs Positively influenced their environmental attitude and behaviors. However, these programs were not fully implemented at the tertiary level, such as in Colleges of Education, limiting their reach to teacher trainers.

These empirical findings Suggest that although there is a growing awareness Of climate change among Nigerians Students Especially in urban areas, Is significance number Of students Deep Understanding and practical knowledge. In institutions like Kwara State College of Education, Ilorin, There is a clear need to integrate structured climate education into the curriculum. This would ensure that student teachers are not only aware but also prepared to teach and model environmentally responsible Behavior in their future classrooms.

### **Appraiser of reviewed literature**

Climate change awareness and understanding are essential property assessing it effects and dangers On a local And Global level (Hansen et Al 2022) As well as encouraging actions Across diverse strata of society to address climate change ( Ochieng & Koske, 2013). Newspapers and other forms of media in Nigeria Have a rule to play as a results of the emphasis on



Information availability and the importance of awareness. Nigeria takes off a significant amount of Land and water on planets.

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In Nigeria Ayan Lade and Jegede (2016), Found that undergraduates Considerably more aware of climate change than they were learnt in universities, citing sources Such as the internet and foreign media.. Previous research From various Region Of the world have found that People who have

a basic Background in science, and so awareness and understanding Of climate change are more concerned about tackling the issue .

Despite students awareness of climate change, their behavior Contradicts their Consciousness which Demonstrate little efforts to safeguard the environment, Despite Having a fundamental Understanding of the issue (Hamid et Al, 2021). Their behavior Slightly changed when they voiced concern about climate change while making Minimal efforts, Such as opposing open Bush burning that produces greenhouse gases like carbon dioxide, methane, and particular matter. Some people use public transportation or bicycles To get to distance places or travel around town. Some experts argue raising awareness Is not the most important factor in influencing behaviour change to combat climate change. For instance, they have no intention of participating or contributing ( Baker 2013; Attin, 2014).

## **CHAPTER THREE**

### **METHODOLOGY**

This section described the methodology that would be used for this research. It is discussed under the following of headings: Research design population of the study sample and sampling techniques research the instruments' validity of these instruments and the method of data analysis.

#### **Research design**

The study adopted a descriptive survey design on climate change among students of Kwara State College of Education, Ilorin. The descriptive survey design method will be used in exploring the design on climate change among students. It is an efficient approach of collecting data regarding characteristics of sample of a population, current practices, conditions or needs ( Sekaran & Bougie, 2022).

#### **Population of the study**

Population of this study comprised of all Kwara State College of education Ilorin, School of Science While the target's population comprises 100 respondents in school or science in Kwara States College of Education.

## **Sample and sampling techniques**

Simple random sampling technique will be used to select 100 respondents ( Students) Within school of science College of Education, Ilorin. Simple random sampling technique will be used to select school, while the researcher make use of random sampling the respondents.

## **Research instruments**

The questionnaire will be the main instrument employed in collecting the relevant that are needed for this research work. The question here that contains information used to sample opinion of the respondents. The use of questionnaire is necessary so as to ensure accessibility Of desired respondents.

The use of likert scale; Strong agreed, Agree, Disagree and strongly disagreed will be adopted

The questionnaire comprises of two sections which contains section A items to determine the personal data of respondents I.e gender, level, department. Section B comprised of statements structured in such a way that provided adequate solutions to the research questions raised.

### **Reliability of the instruments**

The questionnaire will be subjected to reliability tests of Chronbach Alpha using test-retested method. The data collected will be analyzed using the Cronbach Alpha to determine the reliability of the content and structure of the items in the questionnaire.

### **Procedure for Data Collection**

The instruments will be personally administered by the researcher. The researcher will ensure that each items on the questionnaire will be carefully read and understood by the respondents and where necessary explanations will be made so that the responses will be provided adequate information to the best of the knowledge. The complete questionnaires will be retrieved immediately to ensure adequate submission.

### **Method of Data Analysis**

The collected data will be analyzed using descriptive statistics, with research questions examined through frequency counts and percentage analysis.

## **CHAPTER FOUR**

### **RESULT AND DISCUSSION**

#### **TABLE ONE**

The response shows that 56% of the participants were female, While 44 percent were male. This indicates Greater female participation In the study.

In terms of age, The majority of respondents (59%) were between the ages of 20 and 25. 29% were 15 to 20 years age range, while 12% were 25 and above.

The questionnaire was distributed across different departments. The Bio/ISC had the highest number of respondent, accounting for 45%. Other departments included Chemistry/ISC with 15%, Bio/COMP with 10%, POL/SOS with 20%, Maths/ISC with 4%, and PED with 6%.

Respondents also come from different academic levels. Student in 300 level made up the largest group, representing 39% of total response. Those in 200 level made up 35, while 26% were from 100 level.

## **TABLE 2: Shows the: AWARENESS AND UNDERSTANDING OF CLIMATE CHANGE**

A Significant number of student demonstrated awareness of Climate Change when asked Whether they were aware of its effects, 51% Strongly agreed and 29% agreed Only 4% disagreed and 4% Strongly disagreed.

In response to whether they understand the causes of Climate Change, 48% Strongly agreed and 37% agreed, 10% dis agreed and 4% 5 strongly disagreed.

When asked about their awareness of the environmental impacts of Climate Change, 52% Strongly agreed 28% agreed only 12 disagreed and 8% Strongly disagreed. These results further confirm that a large Portion of the Students have a good grasp of how climate change affects the environment.

### **Beliefs and Perceptions about Climate Change**

The Study also explored Students beliefs about the nature and causes of Climate Change When asked Whether Climate Change is just a natural Cycle, 36% strongly agreed and 39% agreed, while 5% disagreed and 20% strongly disagreed. This Suggest that while Some student view it as a natural Phenomenon, other recognize it as a more complex issue likely influenced by human activities.



On the statement of whether Climate change isn't happening at all, 20% Strongly agreed and 50% agreed, but a greater number 25% disagreed and 50% Strongly disagreed. This shows that most students accept that Climate Change is real.

Regarding the belief that climate change is caused only by natural Phenomena and not human activities 8% strongly agreed and 4% agreed, meanwhile, 2% disagreed and 5% strongly disagreed.

### **AWARENESS OF HEALTH AND ENVIRONMENTAL RISKS**

The Survey also looked at Students views on the connection between climate Change and public health when asked if Climate Change Causes Certain illness, 48% strongly agreed and 39% agreed, while only 6% disagreed and 7% Strongly disagreed. This implies that most Students are aware that Climate Change has direct and indirect health implications.

In addition when asked if indiscriminating dumping of refuse could lead to climate change, 55% strongly agreed and 39% agreed. A few disagreed 20% or Strongly disagreed 4% but the majority acknowledged that improper waste disposal contributes to environmental issues.

### **Opinions on climate Action and Education**

Students were also asked for the opinions on how Climate Change can be address up through education and responsible practices.



A total of 55% strongly agreed and 10% agreed, 20% strongly agreed and 30% disagree that integrating Climate Change topics into existing courses such as Science, Social Studies, and humanities is important.

On the Statement of engaging in sanitary water disposal practices as a way to reduce Climate Change, 30% strongly agreed and 29% agreed. However, 18% disagreed and 23% strongly disagreed, indicating that awareness this area is lower and may require further sensitization.

When asked about the role of reducing bush burning and deforestation in addressing Climate Change, 7% strongly agreed and 23% agreed, only a few respondents disagreed (2%) or strongly disagreed (5%) showing broad awareness of the environment dangers associated with these practices.

## **CHAPTER FIVE**

### **CONCLUSION AND RECOMMENDATION**

#### **CONCLUSION**

The study revealed that the majority of students in Kwara State College of Education, Ilorin, are aware of climate change, its causes, and its negative impacts on health and the environment. Many recognize that improper waste disposal, bush burning, and deforestation contribute to climate change. The findings also show strong support for integrating climate change topics into existing courses and adopting preventive measures such as proper sanitation practices. However, a smaller proportion of students still hold misconceptions or show less concern about climate change.

#### **RECOMMENDATIONS**

1. Integrate Climate Change Education – Climate change topics should be incorporated into science, social studies, and humanities curricula to improve students' understanding.
2. Promote Environmental Sanitation – Students should be encouraged to adopt proper waste disposal and water management practices.

3. Discourage Harmful Practices – Awareness campaigns should discourage bush burning, deforestation, and other harmful environmental practices.

4. Organize Seminars & Workshops – Regular training and sensitization programs should be held to address misconceptions and promote sustainable practices.

5. Government & Community Support – Authorities should implement policies and provide resources to strengthen climate change education and mitigation efforts.

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## APPENDIX



# CLIMATE CHANGE AWARENESS AMONG STUDENT OF KWARA STATE COLLEGE OF EDUCATION, ILORIN.

**Dear Respondents,**

This questionnaire is designed to investigate the Climate Change Awareness Among Student Of Kwara State College Of Education, Ilorin. Your response to the questions will be treated with confidentiality.

*(Instructions: Please tick (✓) the response that best reflects your opinion.)*

## **Section A: Demographic Information**

Question	Response
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1. Gender:	Male ( )      Female ( )
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2. Level:	100L ( )      200L ( )      300L ( )
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3. Age:	15 – 20 ( )      20 – 25 ( )      25+ ( )
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4. Department:	_____
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## **Section B: Research questionnaires**

***Research Question 1: What is the level of Climate change awareness among College of Education, Ilorin student?***



No.	Statement	SA	A	SD	D
1.	I am aware of the effect of climate change.				
2.	I understand the causes of climate change				
3.	I am aware of the potential impacts of climate change on the environment				

***Research Question 2:** What misconceptions or knowledge gaps exist regarding climate change in College of Education, Ilorin?*

No.	Statement	SA	A	SD	D
1	Climate change is just a natural cycle				
2.	Climate change isn't happening				
3.	Climate change isn't caused by humans but a natural				

	phenomenon				
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**Research Question 3:** *How does awareness influence environmental attitudes and behavior among College of Education, Ilorin student?*

No	Statement	SA	A	SD	D
1.	Climate change causes certain illness				
2.	Indiscriminate dump of refuse could result into climate change				

**Research Question 4:** *What measure can be implemented to improve climate education in the College of Education, Ilorin students?*

No	Statement	SA	A	SD	D
1.	Integrating climate change topics into existing courses (e.g, Science, Social Studies, Humanities) is important				
2.	Engage in sanitary practices in water disposal				

3.	Reduction in bush burning and deforestation reducing climate change				
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