



## Environmental Education and Socio–Economic Issues in the Niger Delta

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### Abstract

This study examined environmental education and socio-economic issues in the Niger Delta. The study was guided by four research questions and four hypotheses. This study adopted a correlational design. This is because the researchers intends to establish the relationship between the independent and dependent variables. A sample size of which was 580 was drawn from a population of over 30 million persons from the Niger Delta Region (Abia, Akwa-Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers), while the stratified sampling technique was used to select the sample distribution from the states. The instrument for data collection was a self-structured questionnaire titled Environmental Education and Socioeconomic Issues Questionnaire (EESIQ) on a four-point Likert scale of Very High Extent (VHE) =4, High Extent (HE) =3, Low Extent (LE) = 2 and Very Low Extent (VLE) =1. The instrument was validated by three experts to ascertain its reliability, and was also determined using Cronbach Alpha and the index results obtained was .859. Mean and standard deviation were employed to answer the research questions Spearman Rank Order Correlation Coefficient was used to test the hypotheses at a 0.05 significance level. the findings from the study revealed that awareness and sensitivity, knowledge and understanding, the attitudes and concern for the environment, and motivation to improve or maintain environmental quality, the needed skills to identify and help resolve environmental challenges and participate in activities that lead to the resolution of environmental challenges enhance socio-economic issues in the Niger Delta to a high extent. The study concluded that adequate environmental education helps to solve socio-economic issues in the Niger Delta. Based on the findings, the study recommended among others that environmental awareness and sensitivity should be a continuous exercise, while attitudes of concern for the environment and motivation to improve or maintain environmental quality should also be cultivated among the Niger Delta people.

**Keywords:** Environmental Education, Environmental Awareness, Attitudes of Concern, Socio-Economic Issues, Niger Delta.

Reference to this paper should be made as follows:

Agbor, C. N., Elisha. O. D., & Onnoghen U. N. (2023). Environmental education and socio-economic issues in the Niger Delta. *International Journal of Scientific Research in Education*, 16(1), 27-42.

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## INTRODUCTION

The Niger Delta is the largest wetland in Africa and it is rich in Oil and Gas deposits and a mangrove forest endowed with high biodiversity of plants and animals unique to the region (Okonkwo et al, 2015). It is ranked as one of the best global natural resources the World has ever known. The Niger Delta was the world leading producer of palm oil fed the wheels of the European industrial revolution for over two centuries and made Nigeria great as the number one producer of the lucrative palm gold in the palm oil trade. Coincidentally, the Niger Delta region has placed Nigeria on the global petroleum production countries and as one of the top ten oil producers in the world. Since the inception oil production in Nigeria, the Niger Delta has produced lucrative wealth worth \$400 billion from the liquid black gold and the oil wells are still flowing again the same region holds the proven natural gas reserves to last for the next 100 years, while the Niger Delta has produced the most wealth for the country, the poor masses of the Niger Delta and elsewhere in the country are increasingly the most impoverished losers of oil wealth; due to the wealth distributional anomalies in the system as well as the environmental problems created by oil industry operations in the country. It is evident that the Niger Delta region has been suffering from the negative impact that are associated with environmental pollution ecological degradation and air pollution related to constant gas flaring as a result of the oil production and operations.

The Socio-Economic Rights and Accountability Project (SERAP) report revealed that the oil producing communities in the Niger Delta continuously live in depressing, terrible and deplorable conditions; despite the huge wealth derived from these areas is the main economic mainstay for the country (Udonwa et al., 2022). They further added that the region remains deeply in the grips of squalor, abject poverty, environmental deprivation and degradation. The right of the people to a clean, safe and healthy environment is routinely violated and abused by the government and oil companies. According to the report, the communities in Niger Delta, the population in extreme poverty in the Niger Delta is the largest on Earth. About 76.5% of Nigerians live on less than \$3.10 a day as of 2009 and one-quarter of children are working.

Meanwhile, the adverse impacts of the oil and gas industries activities in the region cannot be overemphasized with the government's doing little or nothing in responding to the challenges, the relevant agencies have done little or nothing in carry out their responsibilities, duties and functions. This has affected the indigenous people's livelihood and their environment. Extensive social, economic, and environmental degeneration has likewise largely affected the lifestyles and well-being of the people of the Niger Delta (Elisha & Diri, 2021). Also apparent is the continued disregard and abuse of the human rights of the people of the region. In other for the people of the Niger Delta to understand how environmental issues are harmful to them and their environment such as, include pollution, overpopulation, waste disposal, climate change, global warming, the greenhouse effect, etc. Thus, the need to know for environmental education awareness.

Environmental Education (EE) is a process that enlightens individuals on the gains and awareness of their environment and acquires the needed knowledge, skills, values, experiences, and also determination that will enable them to act individually and collectively in solving the present and future environmental problems (Onopriienko et al., 2021). EE is a complex process, covering not just events, but a strong underlying approach to society building as a whole. EE provides indigenous people with the requisite awareness needed to build partnerships and understand the various NGO activities. It equally helps individuals develop participatory approaches to urban planning, and ensure future markets for eco-business. EE is an active

learning process that increases indigenous people's awareness and gives them the knowledge about the environment they live in and the associated challenges. It also helps people develop the necessary skills and expertise on how to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action (UNESCO, Tbilisi Declaration in Göbel, 2022).

EE enhances the ability to foster critical thinking, initiate problem-solving methods, and improve effective decision-making skills, and moves ahead to teach individuals how to weigh various options of environmental issues to enable them make informed and responsible decisions (Agbor et al., 2022). EE does not advocate a particular viewpoint or course of action. It is, therefore, imperative to note that the indigenous people of the Niger Delta should be able to have to be squinted with the components of EE in order to handle the socioeconomic issues facing the region. EE helps people to be aware of the sensitivity to the environment and environmental challenges, the needed knowledge and the understanding of their environment and environmental challenges, the attitudes of the concerned persons and the motivation to improve or maintain environmental quality. The skills to identify and help resolve environmental challenges, and participation in activities that can lead to the resolution of the environmental challenges of the indigenous people are not left out (Srinivas, 2020). EE deals with multiple problems and issues that focus on the need for sustainable change and awareness, etc.

### **Statement of the Problem**

The oil-rich Niger Delta had been the fountainhead of Nigeria's wealth since the colonial era while the people of the region suffered from neglect and deprivation, despite the region's immense contribution to national economic prosperity. The region is seemingly squeezed dry by the structural inequities that pervade the federal allocation systems. The systems have not rendered adequate care and attention to the adverse environmental issues, and the socio-economic circumstances of the people, not putting into consideration major elements in the country's wealth distribution formula. The petroleum products have created economic boom for the entire nation, but has led to environmental and socio-economic problems for the entire nation, and the inhabitants of the ecological zones of the Riverine areas of Nigeria where petroleum products are produced are in most part the victims of the environmental and socio-economic hardship that oil mining and spills have produced daily in the country (Ewetan & Urhie, 2014).

There exist wide range of poverty, environmental degradation, lack of social and economic infrastructure and a high rate of unemployment (particularly, among the youths in the region). Thus, this study is aimed to investigate the environmental education and socio-economic issues in the Niger Delta.

### **Research Questions**

The following questions were raised to guide the study:

- What is the extent of awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta?
- What are the attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta?

- What are the skills of the people to identify and help resolve environmental challenges and socio-economic issues in the Niger Delta?
- What is the extent of participation of the people in activities that lead to the resolution of environmental challenges and socio-economic issues in the Niger Delta?

## **Hypotheses**

The following hypotheses were statistically tested at a 0.05 level of significance:

- There is no significant relationship between the extent of awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta.
- There is no significant relationship between the attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta.
- There is no significant relationship between the skills of the people to identify and help resolve environmental challenges and socio-economic issues in the Niger Delta.
- There is no significant relationship between the participation of the people in activities that lead to the resolution of environmental challenges and socio-economic issues in the Niger Delta.

## **THEORETICAL FRAMEWORK**

### **Albert Bandura Social Learning Theory (1977)**

Albert Bandura (1925–2021) is the father of social learning theory. In the 1960s, he conducted a now-famous experiment called the Bobo doll experiment, which led to his official writings on social learning theory in 1977. Bandura's social learning theory suggests that observation and modelling play a primary role in how and why people learn (McLeod, 2011). Bandura's theory goes beyond the perception of learning is the result of direct experience with the environment. Social Learning Theory. Social Learning Theory was developed by Albert Bandura during his years at Stanford University (Bandura & Walters, 1977; McLeod, 2011). It referred to the idea that people learn from each other in three ways: (1) observation, (2) imitation, and (3) modelling. The theory is concerned with the modelling that occurs for the learner. This theory was developed under the primary beliefs and research of well-known theorist Albert Bandura. According to Bandura the importance of observing and modelling behaviours as a way of learning cannot be ignored (Bandura, 2021). Bandura recognized that people learn by observing how others behave, including the rewards and punishments they receive. Environmentalist social learning theory is the understanding that the environment shapes learning and behaviour.

It is also thought that behaviour and learning are reactions to the environment. There are three types of learning environments. Each of these types is also known as categories or area that are important for the learning environment. These three areas are the physical, psychological, and instructional settings. Bandura's social learning theory posited that learning is impacted by our environments and the interactions that we have (Bandura, 2021). This learning theory, which is also known as observational learning, focuses on how humans can learn through observation and imitation. So, the social learning theory considers how both environmental and cognitive factors interact to influence human learning and behaviour.

The implication of Bandura's social learning theory to this study is that humans can learn by observing, and educating themselves as well as directly observing the behaviours of others and by following the consequences of using those behaviours. Knowledge of this theory will aid people to understand that attention is a prerequisite because they can only actively internalize their thoughts and concepts if they pay attention and also observe before retention. In social learning theory, one must observe behaviours first, then practice. Fortunately, most human behaviour is learned observationally through modelling: from observing others, one forms an idea of new behaviours. The social learning theory aims to show that an individual can learn in multiple ways. People make choices based on self-reflection, but the environment in which they find themselves influences how they behave and learn. Lastly, social learning principles can alter perceptions of the social environment, making activities seem more frequent and offering social support to people considering a behaviour change. It is because people adopt and practice behaviours; they see others performing.

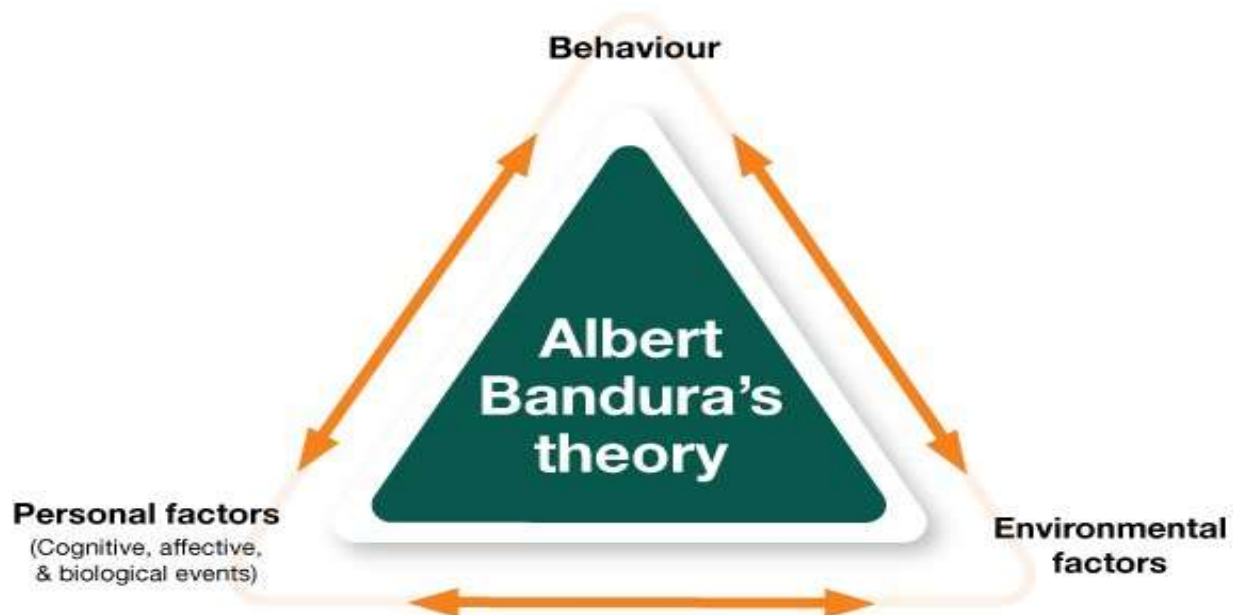


Figure 1: Albert Bandura's Social Learning Theory  
Source: Nabavi & Bijandi (2012, p. 15).

## CONCEPTUAL CLARIFICATION

### Environmental Education

Environmental education (EE) is a process that allows individuals to explore environmental issues, engage in problem-solving, and take action to improve the environment. Environmental education is what teaches individuals how to weigh various sides of an issue (Rawat & Rawat, 2020). It is the study of relationships and interactions between natural and human systems. In short, EE has provided knowledge so that people can have a better understanding of the world around them and know how to take care of it properly so that the world can be a better place (Smyth, 2006).

Environmental education is a complex field, and it covers a variety of different topics that are related to the environment. It even has some aspects of engineering in it, which means that a person can even start to understand how they can play a role in environmental engineering. Environmental education furnishes individuals with the mindfulness required to build up organizations, comprehend NGO exercises, create participatory methodologies for urban planning, and guarantee future markets for eco-business. All of these are not only good for the environment, but they will also end up being very good for the economy as well, so everyone gets to benefit from the efforts of those who are going through environmental education (Rawat & Rawat, 2020). Education can be a powerful tool for transforming our relationship with nature. We must invest in this field to preserve the planet (Azoulay, 2021). There is a need to outline a range of policies to transform learning that encompass teaching, learning, professional teacher training and civic engagement with a focus on cognitive skills, social and emotional learning, collaboration skills, problem-solving, and resilience-building.

### **Socioeconomic Issues**

Our "environment" includes both social and physical determinants of health. Social impacts on health are embedded in the broader environment and shaped by complex relationships between economic systems and social structures. These systems and structures impact the distribution of resources, money and power in a community and around the world. This distribution, known as the socioeconomic environment, shapes how communities and individuals can gain the resources needed to meet their basic human needs.<sup>1</sup> Access to resources is largely shaped by access to education, income and power. A person's socioeconomic status (SES) is comprised of their economic, social and work status in comparison to their larger community (Chang et al., 2021).

The socio-economic environment also interacts with the built environment, so that lower-income neighbourhoods and homes are more likely to experience high rates of lead paint exposure, noise, air pollution, mould growth and extremes of heat and cold, while also less likely to have access to nature, safe areas for walking, affordable fresh food, and parks and playgrounds for physical exercise (Ferguson et al., 2020). Social and economic factors include factors such as income, education, employment, community safety and social support. The choices that are available in a community are impacted by social and economic factors.

Socioeconomic issues in Niger Delta include:

**Education:** Education can help to promote understanding and cooperation among community members and can also help to build bridges between different communities. It can also help to establish positive relationships between the community and local government, businesses, and other organizations. More schooling is linked to higher incomes, better employment options, and increased social supports that, together, support opportunities for healthier choices.

**Employment:** Employment provides income and, often, benefits that can support healthy lifestyle choices. Unemployment and under-employment limit these choices, and negatively affect both quality of life and health overall. The economic condition of a community and an individual's level of educational attainment both play important roles in shaping employment opportunities (Braveman et al., 2011). It also affords individuals the opportunity to learn various skills like hairdressing, tailoring, carpentry, catering, etc. which will enable them to become self-reliant and self-positive. This in turn will help reduce if not completely alleviate poverty.

**Income:** Generating income gives a community purchasing power and social capital to build a market for their products. And it can give communities the power to make decisions on what is best for Niger Deltans'. Income provides economic resources that shape housing, education, child care, food, medical care, and more choices. Wealth, the accumulation of savings and assets, helps cushion and protect us in times of economic distress.

**Family & Social Support:** People with greater social support, less isolation, and greater interpersonal trust live longer and healthier lives than those who are socially isolated. Neighbourhoods richer in social capital provide residents with greater access to support and resources than those with less social capital.

**Community Safety:** Injuries through accidents or violence are the third leading cause of death in the Niger Delta. Accidents and violence affect the quality of life in the short and long-term, for those both directly and indirectly affected, and living in unsafe neighborhoods can impact health in a multitude of ways. Having strong social support can make a community more able to cope with problems on their own, by improving their self-esteem and sense of autonomy.

### **Environment Awareness and Socio-Economic Issues**

Social, cultural, and environmental awareness can be considered to be part of a person's understanding of the broader context in which they live, and educating mentees about the context in which they do their research. By gaining awareness of these environmental issues, the people of the Niger Delta can protect these vulnerable species and preserve our earth's natural resources for future generations. Moreover, being more environmentally aware could help reduce some of the effects of climate change and reduce our impact on the planet (Amanchukwu et al., 2015). With more awareness of the environment pollution and global warming will be minimise. It can also lead to a more sustainable world by promoting renewable resources such as solar, wind, and water. Likewise, environmental awareness helps us to understand the consequences of our actions and how we can avoid causing harm to the environment. It also leads to positive changes like a more efficient use of resources, less waste production, and cleaner air and water.

### **Attitudes of Concern for the Environment and Socio-Economic Issues**

Environmental attitudes (EA) are a psychological tendency that is expressed by evaluating perceptions of or beliefs regarding the natural environment, including factors affecting its quality, with some degree of favour or disfavour (Milfont & Duckitt, 2010). The three environmental attitudes (i.e. egoistic, social-altruistic, and biospheric) were measured as beliefs about the consequences of environmental conditions for the individual (two items), all people (two items), or plants and animals (four items). Environmental attitudes provide a summary evaluation and thus help us understand the world by simplifying knowledge about objects in the natural (and built) environment and by extending and reaffirming our understanding of the surrounding environment and our place in it (Milfont & Schultz, 2018). Young people's environmental attitudes and behaviours are essential for environmental conservation, hence the need to identify facilitating socio-economic issues and possible handling.

## **Environment Identification Skill and Socio-Economic Issues**

Environmental identification skills would help the community identify internal and external elements that either negatively or positively impact their environment and socioeconomic (Rounsevell et al., 2010). By looking at factors, such as the economy and technology, a region can anticipate potential opportunities and threats. Three common soft skills for an environmental analyst are analytical, communication skills and problem-solving skills. Knowledge and understanding of the main environmental and economic risks and opportunities, knowledge and understanding of compliance obligations and business drivers for change and knowledge and understanding of the main potential impacts on the environment and sustainability. These skills could aid the region identify threats and opportunities to help avoid unpleasant surprises, gain a competitive advantage over others, and create more effective planning in both the long and short term (Power, 2002).

## **Environmental Education and Socio-Economic Issues**

Protecting the integrity of the environment requires answers predicated on the wide dissemination of relevant knowledge, innovative techniques and responsible practices. With the increasing complexity of environmental issues, education in Nigeria most focus on instilling environmental responsibility and accountability, beginning from the primary to secondary and tertiary levels. EE is an effective instrument for creating consciousness of the ecological balance needed to not necessarily understand the natural environment (Robinson, 2013). EE holds that sustainable development is possible, however, warns against indiscriminate development that disregards ecological balance. EE is aimed at creating a clean society where people are aware of their civic duties and responsibilities, and are ready to play useful and deliberate roles as producers and citizens conscious of their environmental impact (ICSE, 2000).

## **METHOD**

This study adopted a correlational design. This is because the researcher intends to establish the relationship between the independent and dependent variables. A sample size of which was 580 was drawn from a population of over 30 million persons from the Niger Delta Region (Abia, Akwa-Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers). While the stratified sampling technique was used to select the sample distribution from the state. The instrument for data collection was a self-structured questionnaire titled Environmental Education and Socioeconomic Issues Questionnaire (EESIQ). The responses to the items were assessed on a four-point Likert scale of Very High Extent (VHE) =4, High Extent (HE) =3, Low Extent (LE) = 2 and Very Low Extent (VLE) =1 Instrument was validated by the researcher's supervisor and others while its reliability was also determined using Cronbach Alpha and the index results obtained is 0.859. Out of 580 (100%) questionnaires distributed, 524 (90%) were retrieved and filled correctly while 56(10%) were wrongly filled, so 524 questionnaires were used for the analysis. Mean and standard deviation were employed to answer the research questions Spearman Rank Order Correlation Coefficient was used to test the hypotheses at a 0.05 significance level with the aid of SPSS Version 25.0.



## RESULTS AND FINDINGS

**Research Question One:** What is the extent of awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta

Table 1: Descriptive Statistics showing what extent awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta

S/N	Items	Mean	Std. D.	Decision
1	By raising awareness of these environmental issues, people can protect their vulnerable species	3.1034	.69306	High Extent
2	Environmental awareness allows people to preserve our earth's natural resources for future generations.	2.7759	.97331	High Extent
3	Being more environmentally aware could help to reduce some of the effects of climate change	2.921	.67650	High Extent
4	Environmental awareness helps us to understand the consequences of our actions and how we can avoid causing harm to the environment	3.0143	1.1171	High Extent
		2.9536	0,8649	High Extent

The data in table 1 above showed that the extent of awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta is high (Mean=2.9536, SD=0.8649). From the table, item 1 showed that by raising awareness of these environmental issues, people can protect their vulnerable species to a high extent (Mean=3.1034, SD=.69306). With environmental awareness, people can preserve the natural resources of our earth for future generations to a high extent (Mean=2.7759, SD=.97331), Being more environmentally aware could help to reduce some of the effects of climate change (Mean=2.921, SD=.67650), while, 4

Environmental awareness helps us to understand the consequences of our actions and how we can avoid causing harm to the environment to a high extent (Mean=3.0143, SD=1.1171). This, therefore, implies that extent of awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta is high.

**Research Question Two:** What are the attitudes and concern of the people for the environment and socio-economic issues in the Niger Delta

Table 2: Descriptive Statistics showing what extent attitudes and concern of the people to the environment and socio-economic issues in the Niger Delta

S/N	Items	Mean	Std. D.	Decision
5	Egoistic	2.7414	.76228	High Extent
6	social-altruistic	2.9138	.82259	High Extent
7	Biospheric	3.1897	.71222	High Extent
8	Positive environmental attitude	2.7069	.77252	High Extent
		2.8870	.7674	High Extent

The data in table 2 above shows the attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta. From the table, item 1 showed egoistic attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta to a high extent (Mean= 2.7414, SD=.76228). Social-altruistic egoistic attitudes of concern of the people

for the environment and socio-economic issues in the Niger Delta to a high extent (Mean= 2.9138, SD= .82259) and Biospheric attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta to a high extent (Mean= 3.1897, SD=.71222), Being more environmentally aware could help to reduce some of the effects of climate change (Mean=2.921, SD=.67650), while, the positive environmental attitude of concern of the people for the environment and socio-economic issues in the Niger Delta to a high extent (Mean= 2.7069, SD= .77252). This, therefore, implies that the attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta to a high extent because (Mean=2.887 and SD=.7674) is higher than the criterion mean of 2.50.

**Research Question Three:** What are the skills of the people to identify and help resolve environmental challenges and socio-economic issues in the Niger Delta

Table 3: Descriptive Statistics showing what extent skills of the people to identify and help resolve environmental challenges and socio-economic issues in the Niger Delta

S/N	Items	Mean	Std. D.	Decision
9	Common Soft Skills	2.8621	.71201	High Extent
10	Analytical, Communication Skills	2.8793	.97473	High Extent
11	Problem-Solving Skills	3.0690	.83481	High Extent
12	SWOT	2.8621	.71201	High Extent
	Grand Mean	2.9181	.8083	High Extent

The table 3 above shows the skills of the people to identify and help resolve environmental challenges and socio-economic issues in the Niger Delta. The table, showed common soft skills for an environmental analyst are analytical, communication skills and problem-solving skills and SWOT analysis skills of the people to identify and resolve environmental challenges and socio-economic issues in the Niger Delta. This, therefore, implies that the skills of the people to identify and help resolve environmental challenges and socio-economic issues in the Niger Delta to a high extent because (Mean=2.9181 and SD=.8083) is higher than the criterion mean of 2.50.

**Research Question Four:** What is the extent of participation of the people in activities that lead to the resolution of environmental challenges and socio-economic issues in the Niger Delta?

Table 4: Descriptive Statistics showing what extent participation of the people in activities that lead to the resolution of environmental challenges and socio-economic issues in the Niger Delta

S/N	Items	Mean	Std. D.	Decision
13	When the people participate, they contribute to the advancement of the democratic legitimacy of environmental decisions	2.9310	.69742	High Extent
13	When the people participate, they help to produce more accurate results that better suit the needs of the community and economy	2.8448	.89446	High Extent
14	When the people participate, they help to better manage the environment and natural resources	2.8793	.79643	High Extent
15	When the people participate, they feel a sense of dignity and self-awareness	2.6897	.88272	High Extent
	Grand Mean	2.8362	.8177	High Extent

Table 4 above shows the skills of the people to identify and help resolve environmental challenges and socio-economic issues in the Niger Delta. The table shows that when the people participate, they contribute to the advancement of the democratic legitimacy of environmental decisions that also facilitates proper implementation and enforcement. They also help to produce more accurate results that better suit the needs of the community and economy as well as feel a sense of dignity and self-awareness which help to resolve environmental challenges and socio-economic issues in the Niger Delta. This, therefore, implies that the participation of the people in activities that lead to the resolution of environmental challenges and socio-economic issues in the Niger Delta to a high extent because (Mean=2.8362 and SD=.8177) is higher than the criterion mean of 2.50.

## TEST OF HYPOTHESES

The test of hypotheses was carried out using Spearman's Rank-order correlation coefficients ( $\rho$ ) at a 95% confidence interval. The 0.05 significance level is adopted as a criterion for the probability of either accepting the null hypotheses at ( $p>0.05$ ) or rejecting the null hypotheses at ( $p<0.05$ ).

**Hypotheses One:** There is no significant relationship between the extent of awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta.

Table 5: Correlations for awareness and sensitivity of the people to the environment and socio-economic issues

			Environmental Awareness	Socio-Economic Issues
Spearman's rho	Environmental Awareness	Correlation Coefficient	1.000	.958**
		Sig. (2-tailed)	.	.000
		N	524	524
	Socio-Economic Issues	Correlation Coefficient	.958**	1.000
		Sig. (2-tailed)	.000	.
		N	524	524

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 5 showed the correlation coefficient ( $\rho$ ) that there is a significant and positive relationship between awareness and sensitivity of the people to the environment and socio-economic issues. The  $\rho$  value 0.958 indicates this relationship and it is significant at  $p < 0.000 < 0.05$ . The correlation coefficient represents a positive and very strong correlation between awareness and sensitivity of the people to the environment and socio-economic issues. Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta.

**Hypotheses Two:** There is no significant relationship between the attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta

Table 6: Correlations for attitudes of concern of the people for the environment and socio-economic issues

			Attitudes of Concern	Socio-Economic Issues
Spearman's rho	Attitudes of Concern	Correlation Coefficient	1.000	.953**
		Sig. (2-tailed)	.	.000
		N	524	524
	Socio-Economic Issues	Correlation Coefficient	.953**	1.000
		Sig. (2-tailed)	.000	.
		N	524	524

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 6 showed the correlation coefficient (*rho*) that There is a significant relationship between the attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta. The *rho* value 0.953 indicates this relationship and it is significant at  $p < 0.000 < 0.05$ . The correlation coefficient represents a positive and very strong between the attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta. Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between There is no significant relationship between the attitudes of concern of the people for the environment and socio-economic issues in the Niger Delta.

**Hypotheses Three:** There is no significant relationship between the skills of the people to identify and help resolve environmental challenges and socio-economic issues in the Niger Delta.

Table 7: Correlations for skills of the people to identify socio-economic issues

			Skill of Identification	Socio-Economic Issues
Spearman's rho	Skill of Identification	Correlation Coefficient	1.000	.802**
		Sig. (2-tailed)	.	.000
		N	524	524
	Socio-economic issues	Correlation Coefficient	.802**	1.000
		Sig. (2-tailed)	.000	.
		N	524	524

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 7 showed the correlation coefficient (*rho*) that there is a significant and positive relationship between Skill of Identification and Socio-economic issues. The *rho* value 0.802 indicates this relationship and it is significant at  $p < 0.000 < 0.05$ . The correlation coefficient represents a positive and very strong relationship between the Skill of Identification and Socio-economic issues in the Niger Delta. Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between the skill of Identification and Socioeconomic issues in public senior secondary schools in Rivers State.

**Hypotheses Four:** There is no significant relationship between the participation of the people in activities that lead to the resolution of environmental challenges and socio-economic issues in the Niger Delta.

Table 8: Correlations between the participation of the people and socio-economic issues

			Participation of the people	Socio-Economic Issues
Spearman's rho	Participation of the people	Correlation Coefficient	1.000	.721**
		Sig. (2-tailed)	.	.000
		N	524	524
	Socio-economic issues	Correlation Coefficient	.721**	1.000
		Sig. (2-tailed)	.000	.
		N	524	524

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 8 showed the correlation coefficient (*rho*) that there is a significant and positive relationship between participation of the people and Socioeconomic issues. The *rho* value 0.921 indicates this relationship and it is significant at  $p < 0.000 < 0.05$ . The correlation coefficient represents a positive and strong relationship between the participation of the people and Socioeconomic issues. Therefore, based on this finding the null hypothesis earlier stated is hereby rejected and the alternate upheld. Thus, there is a significant relationship between the participation of the people in activities that lead to the resolution of environmental challenges and socio-economic issues in the Niger Delta.

## DISCUSSION OF FINDINGS

In discussing the findings of this study, the researcher has followed the order of the data analyzed using relevant literature to support the findings and results. The study utilized mean and standard deviation to answer the research questions and inferential statistical techniques (Spearman Rank Order Correlation Coefficient) to test the stated hypotheses between the dimensions of environmental education being the dependent variable and socio-economic issues (dependent variable) in Niger Delta. The findings from the test of hypotheses in Table 5 revealed that strategic personnel management with (*rho* value 0.958 and  $p < 0.000 < 0.05$ ) has a significant and positive relationship with awareness and sensitivity of the people to the environment and socio-economic issues in the Niger Delta. Similarly, table 6 revealed that attitudes of concern of the people for the environment (*rho* value 0.953 and  $p < 0.000 < 0.05$ ) have a significant and positive relationship with socio-economic issues in the Niger Delta and Table 7 shows that the skills of the people to identify and help resolve environmental challenges with (*rho* value 0.902 and  $p < 0.000 < 0.05$ ) has a significant and positive relationship with the skills of the people to identify and help resolve environmental challenges. While Table 8 shows that the participation of the people in activities that lead to the resolution of environmental challenges (*rho* value 0.921 and  $p < 0.000 < 0.05$ ) has a significant and positive relationship with socio-economic issues in the Niger Delta.

The findings of this study were supported by Pozo-Muñoz et al. (2023) who conducted a study on research and development of environmental awareness about water in primary

education students through their drawings. The results of this work reveal low levels of knowledge about the integral water cycle. Primary school students also show a low degree of responsibility towards water issues. The conclusions of this study point to the need to address content related to water care and conservation in the educational curriculum from a multidimensional and interdisciplinary approach, to understand the origin and impact of water problems.

This result also collaborates with the study of Tan et al. (2022) that carried out a study on the dimensionality of Environmental Values and Attitudes: Empirical Evidence from Malaysia. The findings supported the reliability and validity of the research instruments. Both environmental values and attitudes are recommended as a single-dimensional rather than multidimensional structure in the multicultural context of Malaysia. Respondents placed altruistic and biospheric values in the same environmental value cluster, and a shorter version of the revised NEP scale is provided. As such, segregating environmental values and attitudes into multiple dimensions to segment and target individuals in Malaysia is not recommended. The distinction between altruistic and biospheric values has rarely been validated in empirical research; and the suitability of the revised NEP scale to measure environmental attitudes is debatable due to the issues of its reliability, dimensionality, and applicability in the context of a non-Western developing country.

The findings are in line with the conclusion of Wu et al. (2023) on the impact of environmental education on environmental quality under the background of a low-carbon economy. Wu et al. empirical analysis confirms that environmental education can improve environmental quality through green consumption and pollution control. Still, the effect of improving environmental quality only through pollution control is not apparent, and pollution control needs to be combined with environmental education, especially in high-pollution areas. Finally, this paper puts forward some suggestions for optimizing environmental education.

## **CONCLUSION**

The study concluded that environmental awareness and sensitivity, knowledge and understanding, attitudes of concern for the environment and motivation to improve or maintain environmental quality, the needed skills to identify and help resolve environmental challenges and participate in activities that lead to the resolution of environmental challenges solve socio-economic issues in the Niger Delta to a high extent.

## **Recommendations**

Based on the findings, the following recommendations were made:

- Niger Delta leaders should ensure continuous environmental awareness and sensitization campaigns for the people, by bringing it to their doorstep,
- Niger Delta leaders should continue to exercise attitudes of concern for the environment that will help improve or maintain environmental quality,
- Niger Delta leaders should ensure their people acquire the appropriate skills needed to identify and resolve environmental and socio-economic issues, and
- Niger Delta leaders should ensure their people participate in activities that would help in resolving environmental and socio-economic issues.

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