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Influence of Environmental Awareness and Attitude on Solid Waste Management Practices among Junior Secondary School Social Studies Students in Oyo State, Nigeria

By

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Abstract

This study investigated influence of students' environmental awareness and attitude on solid waste management practices of Junior Secondary School Social Studies students in Oyo State, Nigeria. The researcher adopted a descriptive survey research design with the population, which comprised all students in junior secondary schools, Oyo state, with a total of one hundred and thirty thousand, one fifty-eight (130,158). Twenty-four (24) government schools from junior Secondary levels and 1189 students were purposively selected from the population. A structured researcher designed questionnaire tagged "Environmental Awareness and Attitude to Solid Waste Management Questionnaire" (EAASWMQ) was used to collect data. The instrument yielded an Alpha Cronbach reliability coefficient of 0.75. This indicated that the instrument used for data collection was reliable. Two research questions were raised and answered with one hypothesis formulated and tested at 0.05 level of significance. Descriptive and inferential statistics was use to analysed data collected. The findings revealed a relatively high level of environmental awareness and positive attitude toward solid waste management practices among junior secondary school students. Furthermore, there existed a slightly significant difference in students' level of environmental awareness based on gender. Based on these findings, the study recommended environmental awareness must be sustained among Junior Secondary School Social Studies students. Also, infrastructural facilities should be adequately provided in schools. Community's support and involvement in solid waste management should be encouraged.

Keywords: Environmental Awareness, Attitude, Solid Waste Management, Junior Secondary School, Social Studies

Introduction

The increase in the rate of improper waste management which have created serious environmental challenges in developed and developing countries such as global environmental degradation, pollution and health problems in different types. In Nigeria, solid waste management has been a major environmental problem, mainly in urban centers characterised by high population growth and industrialisation. These results into loads of waste being generated on daily basis without proper management. Solid waste can be described as discarded materials or garbage created by individuals, households, small businesses, or institutions. Solid waste not properly disposed may affect public health and the environment at large. (Abubakar, Maniruzzaman, Dano et al, 2022). Rate of collecting solid waste may vary considerably from one community or region to another. Research studies revealed that not up to fifty percent of waste generated was collected in under developed countries while fifty percent to eighty percent were properly managed in middle-income countries, and more than ninety percent is collected in developed countries (Voukkali, Papamichael et al., 2024). However, hardly anywhere is 100% of solid waste collected. The swift expansion of urban populations, economic activities, and energy use in developing countries, together with the inadequacy of institutions charged with urban planning and infrastructure development, such as road construction, solid waste management, and environmental management bodies to effectively carry out their core responsibilities has resulted in extensive waste generation (Choudhary, Singh, Parihar et al. 2024). All these contribute greatly to large waste generation especially in urban centers where waste is commonly generated from human settlements, industries, and commercial activities. Population growth and economic development is a major contribution to solid waste generation in urban centers and has led to increased urban waste generation leading to health hazards, underground water pollution, and affected air and aesthetic qualities (Sharma, & Jain, 2020).

In recent time, waste materials are not only disposed to reduce environmental hazard but also contributes to public health and environmental risks, including higher incidents of diarrhea and acute respiratory infections among people if not properly managed. Children are more vulnerable to these environmental risks especially those living near refuse dumps. Challenges to effective solid waste management persist, notably inadequate public awareness, limited technological capacity, insufficient funding, and weak governance structures. In many

developing cities, priority has often been placed on removing waste from homes and schools without adequate consideration of its final disposal.

In most developing countries, garbage collected from households is disposed off in landfills or dumpsites, the majority of which are projected to reach their capacities within a decade. The unsustainable approach of dumping or burning waste in an open space, usually near poor communities on the city edge, or throwing garbage into water bodies is a common practice. Across many developing nations, waste gathered from households is commonly taken to landfills or open dumps, most of which are expected to become full within a relatively short time frame. This unsustainable waste disposal methods such as dumping of refuse in open land or burning refuse in unregulated areas, often located near low-income communities at the outskirts of cities, or discarding waste into rivers and other water bodies remain widely practiced in most of the cities and urban areas in developing countries, including Nigeria. Similarly, several cities still use old-generation or poorly managed facilities and informal uncontrolled dumping or open-air waste burning, these practice sometime affect marginalized social groups near the disposal sites and the entire populace in general. An improper solid waste disposal approach poses several sustainability problems, including resource depletion, environmental pollution, and public health problems, such as the spread of communicable diseases and many others. Therefore, solid waste mismanagement remains one of the most pressing environmental issues, with consequences ranging from blocked drainage systems, disease outbreaks, water pollution, to degradation of urban aesthetics. These issues are more pronounced in states like Oyo, where rapid urbanisation, industrialisation, rural –urban migration leading to rapid population growth, and weak environmental policies converge.

In recent years, waste materials have not only been discarded in ways that create environmental hazards, but have also deepened public health and ecological risks. These include increased cases of diarrhea and acute respiratory infections among populace, particularly children, residing near refuse dumps. Challenges to effective solid waste management persist, notably inadequate public awareness, limited technological capacity, insufficient funding, and weak governance structures. Typically, household waste is transported to landfills or open dumpsites, many of which are expected to reach capacity within a short period. Unsustainable practices like open dumping, uncontrolled burning of waste near under develop communities at

urban fringes, and disposal into water bodies remain common practice across cities in developing countries, including Nigeria. In addition, the continued use of outdated or poorly managed facilities, alongside informal and unregulated waste disposal methods, disproportionately affects vulnerable people living near such sites, while also poses risk to the general public.

Environmental awareness comprises the knowledge, values, and dispositions that enable individuals to understand environmental issues and respond appropriately to them (Melnik & Podorozhnyi, 2023). As regards the context of junior secondary school students environmental awareness constitutes a key factor influencing their orientation toward waste-related behaviours. A high level of environmental consciousness promote good attitudes about the consequences associated with improper waste disposal, such as environmental deterioration, a range of health-related issues and natural resources depletion. This cognitive and affective grounding is essential for cultivating pro-environmental responsible behaviour at an early stage of development.

Environmental awareness serves as a catalyst for the adoption and internalization of sustainable practices when relating it to waste management strategies. The strategies include waste reduction, reuse, and recycling. Students who are adequately sensitised to environmental issues tend to participate more actively in systematic waste sorting, reuse, recycle and participate actively in school-based environmental initiatives. The interplay between environmental awareness and appropriate application waste management practices significantly enhances solid waste management outcomes among junior secondary school students (Debrah, Vidal, & Dinis, 2021). This relationship underscores the need for incorporating environmental education into the school curriculum integrating environmental education into the school curriculum as a means of promoting sustainable environmental practices and achieving long-term ecological sustainability.

Environmental attitudes are latent disposition, beliefs, or behavioural intentions people have either favourably or unfavourably to environmental related activities issues. (Nanda & Berruti, 2021). It can be seen as types of concern people develop toward their environment and the extent of man's connectivity with nature. This will have a significant level in environmental sustainability. Previous studies show that children formed attitude towards their environment at age twelve or their about (Pancino, Cicatiello, Falasconi et al 2021). This implies that children should be trained with a positive attitude towards solid waste management, through environmental education. This will in turn instill in children respect for their environment and its

natural resources. Developing and sustaining positive attitude among the students is necessary, but it must be supported with environments and empowerment strategies.

Social Studies, an interdisciplinary field which incorporates knowledge from the social sciences and humanities to impart in learners the skills, values, attitudes, and knowledge required for becoming responsible and dutiful citizens of the society. Social Studies focus on man interactions with his environment, appreciation of cultural values, and societal development. At the junior secondary school level, Social Studies, a value-laden subject play an essential role in shaping and guiding students' attitudes toward the environment and is particularly concerned with promoting civic competence, environmental responsibility, and positive social behaviour (Hollstein, & Smith, (2020). The subject provides knowledge about understanding of environmental issues, protecting and sustaining the environment, as well as development of critical thinking and problem-solving skills necessary for learned action. Through participatory and comprehensive teaching methods, Social Studies could effectively bridge gender gaps and promote positive environmental attitudes among the students.

Gender refers to cultural and social distinctions assigned to males and females within a given society. Gender also refers to the socially constructed roles, characteristics, behaviours, and responsibilities of and between males and females individuals in a society (Archer, 2022). Gender impacts how individuals see themselves and one another, how they act and connect, and the dissemination of power and assets in the public arena. Gender can also be view as identity-imposing cultural construct or as a process by which we construct ourselves. To turn into a woman is a purposive and appropriative arrangement of acts, the procurement of an expertise, a task to expect a specific mortal style and importance. Unlike biological sex, gender is shaped by cultural, social, and environmental influences and often determines access to resources, participation in activities, and patterns of socialisation.

Gender can significantly influence students' environmental awareness and attitudes among junior secondary school due to different agents of socialisation, cultural expectations, and role assignments (Gökmen, A. 2021). In many societies, including Nigeria, girls are often socialized into roles that emphasize care, nurturing, and domestic responsibilities. As a result, they may develop stronger sensitivity toward environmental cleanliness, waste management, and sustainable practices within the home and community. This can translate into higher environmental awareness and more positive environmental attitudes. Boys, on the other hand, are

frequently socialised toward more exploratory and risk-taking behaviours, which may influence their interaction with the environment differently. While they may show interest in environmental activities that involve physical engagement like cutting of trees and clearing of debris within the school compound, protection and conservation activities like dredging composting pits, landfilling, clearing of blocked channels and other conservation techniques, they may exhibit less concern for routine environmental practices such as sanitation or waste sorting, depending on societal norms. However, these differences are not biologically determined but are products of gendered experiences and societal expectations. With proper education and exposure, both male and female students can develop equally strong environmental awareness and positive attitudes (Mónus, 2022). Thus, gender should be understood as a moderating factor rather than a determinant of environmental behaviour.

Social Studies, a compulsory subject in junior secondary schools in Oyo State, serve as a significant influence in shaping students' attitudes toward the environment and society at large (Mufalo, Muleya, & Simui, 2021). Through its curriculum content and pedagogical approaches, it influences learners by promoting values such as responsibility, respect for the environment, cooperation, and sustainability. These values directly shape students' attitudes toward environmental conservation. Social Studies also disseminate and impart vital knowledge to students on environmental issues such as pollution, deforestation, and climate change, Social Studies increases awareness and understanding, which are prerequisites for attitude formation, skill development, behavioural change through participatory and activity-based learning like group discussions, projects and community work. Social Studies also encourage students to internalise pro-environmental behaviours and promote a sense of civic duty, making students more likely to engage in environmentally responsible actions within the school community and the society at large (Casmara, Dewantara, Timoer et al, 2023). Social Studies as a subject have the potential to reduce gender disparities in environmental awareness and attitudes by providing equal learning opportunities and promoting inclusive participation. A well-structured Social Studies curriculum challenges gender stereotypes and encourages both boys and girls to engage actively in environmental issues.

Teachers serve a pivotal role in this process, embracing gender-sensitive instructional strategies, ensuring equitable participation of both genders, and utilising examples that reflect the contributions of both males and females to environmental sustainability.

Gender influences environmental awareness and attitudes primarily through socialisation processes, but these differences can be minimised through effective education. Social Studies, a value-laden and action-oriented subject, bridge this gap, been a powerful tool for shaping students' environmental attitudes irrespective of gender (Hart, 2023). Therefore, integrating gender-sensitive approaches in Social Studies teaching is essential for promoting balanced and sustainable environmental consciousness in junior secondary schools in Oyo State, Nigeria.

Furthermore, the environmental attitudes of young people are crucial, as they finally contribute directly in providing learning oriented solutions to evolving challenges within the environment. An empirical research carried out on students' environmental awareness and attitudes revealed that students develop significantly high levels of understanding and positive attitudes through the influence of their families, teachers, the school curriculum, and exposure to environmental literature and information (Debrah, Vidal & Dinis, 2021). Schools, especially junior secondary schools, play a critical role in shaping young learners' attitudes and behaviours toward managing a healthy and safe environment. Environmental awareness and waste management strategies at schools' level are not only essential for maintaining hygienic and safe learning environments but also serve as training grounds for future environmental managers. (Yusuf and Fajr, 2022). Types of waste generated in schools are in either solid or liquid form. Solid waste which is the focus of this study includes dead leaves, wraps of sweet candies and biscuits, waste papers, uprooted weeds, dead grasses, plastic materials, broken bottles, glasses, logs of woods, metals, broken ceramics, and torn cloth. Others are dysfunctional electrical gadgets, bulbs, vegetable peels, biscuits wrappings among others. Solid waste is materials that contain less than 70% water, (Nguyen, Ho, Hoang & Le, 2024). The foods waste which is one of the common wastes found in the school environment attracts insects and pests. Due to high temperatures, waste tends to promote the breeding of flies that can cause the spread of diseases. In addition, accumulated water in plastic bottles and used cans attract mosquitoes, spreading malaria and other related fever. Also, the paper and wrappings of things that constitute the bulk of wastes in schools make the aesthetic beauty of the school to be horrific, littering school compound and classrooms with pieces of paper, plastics and food waste constitute the major types of waste that are mostly generated in schools (Sharma, Vanapalli, & Samal, 2021). However, school system could address the danger of improper waste management to actualizethe

United Nations 2030 Sustainable Development Goals 4, 6 and 11 of achieving quality education, good sanitation with sustainable cities and communities respectively (Debrah, Vidal and Dinis, 2021).

The challenges associated with solid waste management continue to intensify with the growth of the global population, especially with specific reference to Nigeria. This ugly scenario is posing significant threat to the well-being, health and existence of humanity in general, (Okafor, 2023). The root cause of these problems over the past decades, from generation to generation is largely due to human practices. The learning of environmental concepts in the junior secondary school has not been able to transform the students' behaviour toward solid waste management over the years. Available literature on students' environmental awareness and attitude to waste management strategies on solid waste management practices in Nigeria especially in Oyo state are scanty. It is therefore, necessary to address waste management challenges among secondary school students by imparting environmental awareness, knowledge, and relevant concepts, as well as by developing in these young learners effective waste management strategies like waste reduction, waste reuse and waste recycling. Furthermore, the integration of waste management practices for sustainability into school instruction is necessary to promote functional education that will yield significant benefits for the school environment, the surrounding community, and the nation at large. (Ibrahim and Ogbonna, 2023). Despite an increasing concerns about solid waste management strategies among secondary school students which remain inadequate, mostly due to limited environmental awareness and insufficient exposure to practical waste management strategies within the school curriculum. This situation weakens efforts to promote sustainable environmental behaviours among young learners. Existing literatures have focused mostly on environmental education. However, empirical research on this topic which specifically examines the joint influence of environmental awareness and waste management strategies on students' solid waste management is limited. This study therefore seeks to address this gap by examining the influence of environmental awareness and attitude on solid waste management in Junior Secondary School Social Studies students in Oyo State, Nigeria.

Theoretical Framework

This study anchored on by Socio-cognitive theory of learning (SCT) by Albert Bandura who posited that human behaviour could be interceded by some variables like self-efficacy, outcome expectation, self-control, and reinforcement, (Bandura,1978). The self-efficacy examined the capacity of an individual to exhibit a behaviour. The theory further explained how individuals acquire and sustain certain behaviours within a social context. The theorist suggests that learning is influenced by the interaction between personal, behavioural, and environmental factors. Unlike earlier behaviourist models that focused only on external stimuli, SCT emphasises the importance of cognitive processes. This theory proposes that human being learns from their direct experiences as well as by observing others, resulting into their actions, a concept known as observational learning or modeling. In this process, behaviours are replicated based on the perceived success or failure observed in others (Goethals, Messick, & Allison, 2024).

A fundamental aspect of social cognitive theory is reciprocal determinism that states that behaviour, individual attributes like cognition, attitudes and environmental influences constantly interact and affect one another. Human behaviour, therefore, is not solely a result of external factors or internal drives but is shaped by the interaction between the two. An individual's beliefs and perceptions can influence the environment, just as the environment can affect their thoughts and actions. This reciprocal relationship highlights the idea that individuals have some control over their behaviours and can intentionally alter their surroundings through conscious decision-making and actions, (Mujahidah and Yusdiana,2023).

Purpose of the Study

This study examined the influence of environmental awareness and waste management strategies on solid waste management in junior secondary schools in Oyo State, Nigeria. The study objectives were to:

- i. ascertain the level of environmental awareness on solid waste management practices among junior secondary school students in Oyo State, Nigeria
- ii. examine the students' attitude on solid waste management strategies among junior secondary Social Studies students in Oyo state, Nigeria, and
- iii. examine gender differences in solid waste management among junior secondary schools' Social Studies students in Oyo State, Nigeria.

Research Questions

1. What is the level of environmental awareness of waste management strategies on solid waste management among junior secondary school Social Studies students in Oyo State, Nigeria?
2. What is the level of students' attitude of solid waste management among junior secondary schools' Social Studies students in Oyo state, Nigeria?

Hypothesis:

Ho1: There will be no significant gender difference in solid waste management among junior secondary school Social Studies students in Oyo State, Nigeria

Methodology

The study adopted a descriptive survey research design, which is considered appropriate for collecting data from a large population to describe the existing conditions and relationships among research variables. Population of this study comprised of junior secondary schools' students in Oyo State with the total of one hundred and thirty thousand, one hundred and fifty eight (130,158). The study employed multi-stage sampling procedure with its using a purposive sampling method to select six local governments (two from each senatorial district). Four schools each were selected from the six governments, two schools from urban centers and two from rural areas. Thereafter, purposive sampling method was used to select 1,189 JSS 2 students using Taro Yamane formula. Thus, junior secondary students (JS2) were purposively selected for the study because Social Studies is a compulsory subject. They have been exposed to Social Studies curriculum from JSS1. JSS3 students were in the terminal class which might leave the school after JS external examination. The selected secondary schools were sampled from both urban and rural settings in each local government area, focusing on factors such as solid waste generation and management strategies.

Researchers' self-designed instrument tagged 'Students' Environmental Awareness and Attitude to solid waste management (SEAASWMPQ) was employed to collect data for the study. The instrument using a four point likert type scales ranging from Strongly Agree to Strongly Disagree was used. The instrument was validated by experts in Environmental and Social Studies Education with a reliability index of 0.78. Analysis of data was done by statistical inferences of descriptive and inferential statistics of means, standard deviation and t-test analysis.

Results

Research Question 1: What is level of environmental awareness of solid waste management among junior secondary school Social Studies students in Oyo State, Nigeria?

Table 1: Environmental Awareness of Solid Waste Management among Junior Secondary School Social Studies Students in Oyo State, Nigeria

S/N		SA	A	D	SD	\bar{x}	S.D.
1.	It is clear to me that keeping the environment clean is very important	424 35.7%	603 50.7%	82 6.9%	80 6.7%	3.15	0.820
2.	I am aware of the different types of pollution that can harm the environment	545 45.8%	358 30.1%	196 16.5%	90 7.6%	3.14	0.952
3.	I am aware that improper waste disposal can damage the environment	462 38.9%	382 32.1%	266 22.4%	79 6.6%	3.03	0.937
4.	I believe everyone has a responsibility to protect the environment	472 39.7%	393 33.1%	216 18.2	108 9.1%	3.03	0.970
5.	I am aware of waste disposal methods in my school or community	486 40.9%	335 28.2%	229 19.3%	139 11.7%	2.98	1.034
6.	I can properly separate waste into recyclable and non-recyclable materials	395 33.2%	370 31.1%	300 25.2%	124 10.4%	2.87	0.993
7.	I am aware that waste can be useful in different ways instead of being thrown away	456 38.4%	367 30.9%	220 18.5%	146 12.3%	2.95	1.029
8.	I understand the dangers of burning waste as a disposal method	439 36.9%	423 35.6%	231 19.4%	96 8.1%	3.01	0.942
9.	I know that reducing waste is important for protecting the environment	462 38.9%	375 31.5%	248 20.9%	104 8.7%	3.01	0.974
Weighted Mean =3.04							

Table 1 revealed a significant high level of environmental awareness of solid waste management among junior secondary school students in Oyo state, Nigeria. This is observed in the domain of awareness of environmental concepts, with a weighted mean of 3.04, revealing that most students recognised the importance of maintaining a clean environment to prevent harmful effects of pollution and the need to preserve natural resources. A significant majority agreed or strongly agreed with statements such as keeping the environment clean is very

important (86.4%) and natural resources should be preserved for future generations (74.7%). This reflected a strong foundational knowledge of environmental principles among Junior Secondary School students, which is a promising indicator for long-term environmental responsibility. The study aligned with the findings of previous study that observed students possessed significant high level of awareness and favourable attitude to waste management practices in schools, (Ogundiwin & Oladipo, 2020). Furthermore, the study corroborated the findings of a research which showed that the students' level of environmental awareness of waste management practices, pollution and students' population practices towards environmental protection under the study were found to be high, (Owojori & Mulaudzi2022). The result contradicted the findings of a research study among students of tertiary institutions in South African which found that the level of environmental awareness of solid waste management was low, Debrah, Vidal & Dinis, 2021).

Research Question 2: What is the level of attitude of junior secondary school students' on waste management practices in Oyo state, Nigeria?

Table 2: Junior Secondary School Students' Attitude towards Waste Management Practices

	Students' Attitude towards Solid Waste Management (Weighted mean score =3.23)	SD	D	A	SA	\bar{x}	S.D.
1.	I make an effort to dispose off waste in designated bins	389 32.7%	397 33.4%	280 23.5%	123 10.3%	2.88	0.982
2	I am willing to participate in environment cleanup activities in my school	114 9.6%	228 19.2%	367 30.9%	480 40.4%	3.02	0.990
3	I believe proper waste management is important for a healthy and safer environment	128 10.8%	196 16.5%	405 34.1%	460 38.7%	3.01	0.992
4.	I feel responsible for ensuring that my surroundings are free from waste	106 8.9%	236 19.8%	402 33.8%	445 37.4%	3.00	0.964
5.	I do not care much about where I throw my waste	107 9.0%	359 30.2%	430 36.2%	293 24.6%	2.76	0.924
6	I can make a difference in improving waste management in my school	148 12.45%	220 18.50%	335 28.17%	486 40.88%	3.98	0.834
7	I do encourage others in proper waste disposal	146 12.28%	227 19.098%	360 30.29%	456 38.35%	3.95	0.819

Table 2 showed that majority of junior secondary school students in Oyo State expressed willingness to participate in cleanup activities (66.1%) and acknowledged personal responsibility for keeping their surroundings clean (71.3%). Yet, the relatively lower mean for the statement, I do not care much about where I throw my waste ($\bar{x}=2.76$) revealed some lingering gaps in consistent behavioural attitudes. Hence, the study revealed that while environmental knowledge is relatively high, there is room for improvement in translating this understanding into consistent, proactive waste management behaviours among students. This result supported the findings in a study in University of Calabar (Agbor, Onnoghen, Ololube, & Esu, 2022), which involved undergraduate students in the Faculty of Education, department of Environmental Education demonstrated a distinct trend in waste management behaviour. The final year students of the department were found to exhibit more favourable waste management attitudes than first-year students. This was evident in the higher scores of respondents who believed that waste should be disposed off in designated bins rather than indiscriminately discarded, as improper disposal damages the aesthetic quality of the environment (Davignon, Poulin & Denault, 2023). This suggests that environmental awareness and attitudes may shape students' behaviour. consequently, students' environmental awareness and attitudes can contribute to environmental sustainability. Furthermore, higher levels of education may foster shifts in attitudes, enhance environmental awareness, and reduce environmental anxiety, thereby promoting sustainability. High level of education can nurture changes in attitudes by reducing environmental anxiety and enhances awareness of sustainability. Individuals with higher levels of education also tend to show greater concern for the environment as well as engage more actively in behaviours and civic engagements that support policies aimed at environmental protection (Roy and Tarafdar, 2022).

Test of Hypothesis:

H₀1: There will be no significant gender difference in solid waste management among junior secondary school students’ in Oyo State, Nigeria

Table 3: Independent T-test showing the Difference between Junior Secondary School Students’ knowledge of Solid Waste Management based on Gender

Solid waste management	N	Mean	Std. Dev.	Crit-t	t-value	df	p value
Male	560	41.7893	8.20109	1.96	1.962	1187	.052
Female	629	40.8998	7.75426				

Table 3 showed that there is a statistically significant slight difference between solid waste management strategies among Junior secondary school students based on gender in Oyo State, (t-value = 1.96, Cal.t = 1.962, df= 1187, p(0.052) = .05 level of significance). The Null hypothesis was therefore rejected. The result revealed a slight significant difference in male students having better solid waste management strategy compared to their female counterparts. The finding aligned with a research finding which showed that there was a significant gender difference in environmental awareness attitude and waste management practices of secondary school students in Edo South Senatorial District. This may likely be a result of male being exposed to bulky works like cutting, hoeing and clearing of bushes around the school premises. It is expected of a male child to be doing works that requires energy more than female students. Moreover, male does not get tired easily like female folks.

Conclusion

Upsurge in the volume of solid waste generation in developed as well as developing countries around the world have significantly complicated proper solid waste management. Industrialisation, population growth and consumer-oriented lifestyles have led to a dramatic increase in the quantity and complexity of solid waste, thus significantly affecting the environment. This study examined influence of environmental awareness and attitudes on solid waste management practices of students in junior secondary schools in Oyo State, Nigeria. The findings showed a significant high level of environmental awareness of solid waste management practices among students of junior secondary schools in the study area. Most students are aware of importance of keeping their environment clean, the harmful effects of pollution, and the need

to preserve natural resources. Also, it was shown that students possessed moderately high level of positive attitudes to waste management practices. Findings also showed a statistically significant gender difference of solid waste management practices. Students were generally informed about solid waste management and hold constructive attitudes. Research studies revealed that waste management is increasingly being recognised as a basic human right. Therefore, there is a growing demand for improved solid waste management, particularly in urban centres of developing countries, due to rural-urban migration. In order to sustain effective solid waste management in developing nations, Nigeria inclusive, creating environmental awareness through formal education is a necessity for sustainable development. Also, practical activities and role modeling are also considered as vital instruments for positive pro environmental behaviours. These are necessary tools for environmental determinism towards a cleaner, healthier and green environment. For effective environmental sustainability education, teachers equipped with appropriate knowledge, positive attitudes, relevant skills, and innovative approaches are essential.

Recommendations

The following recommendations were made based on the findings of this study,

1. Environmental education should be sustained within the secondary school Social Studies curriculum, as a core component of academic activities aimed at addressing solid waste management challenges, with special emphasis on waste reduction, reuse, and recycling.
2. Schools should provide adequate solid waste facilities like coloured and labeled waste bins to demonstrate the segregation process to enhance students' positive attitudes.
3. Gender disparities can be reduced by engaging all students in waste management strategies, like hands-on projects, debates, and encouraging role models from all genders in environmental leadership.

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