Assessing the Pro-Environmental Behaviour of Junior Secondary School Students in Dekina Local Government Area of Kogi State

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Abstract

The study assessed the pro-environmental behaviour of junior secondary school students in Dekina local government area of Kogi State. The study set out to examine students' private sphere environmental behaviours and assess students' levels of environmental activism. Two research questions were raised to guide the study. The study employed a descriptive survey research design. The population for the study comprises all five thousand nine hundred and fifty-three (5,953) students from thirty-five (35) public secondary schools in Dekina local government area of Kogi State. The area of the study was selected using a simple random sampling procedure. Two hundred (200) junior secondary school students in the five selected public secondary schools were

selected using a convenience sampling procedure. The instrument used for this study was a questionnaire tagged "Pro-Environmental Behaviour Questionnaire (PEBQ)" (R = .80). Data were analysed using descriptive statistics of simple percentage, mean and standard deviation. The findings show a high disposition towards pro-environmental behaviour and a low level of environmental activism among the students. Based on the findings, it was recommended that schools make students pro-environmental activists as part of the criteria to appoint prefects in their schools. Students who are environmentally responsible should be rewarded with motivation by the school authority. Also, schools should provide more orientation for the students on responsible dispositions to their environment.

***Keywords**: Pro-environmental behaviour, environmental behaviour, environmental attitudes, environment, behaviour.*

Introduction

Environmental problems characterised by citizen negative environmental behaviour within the country are getting worse each year. There have been continual releases of air pollution by the industries in our cities, deforestation within the forest zone of the country, soil erosion and, most importantly, land pollution occasioned by indiscriminate dumping of refuse along the roads in our cities (Wong et al., 2020; Soluade & Sofadekan, 2020). The natural stability of our environment is being tampered with on a daily basis due to the uncontrolled anti-environmental behaviours of the citizens in society (Simiyu et al., 2022).

The rate of environmental problems caused by human activities has made scholars focus more on individual environmental actions in recent times, which may either be environmentally friendly or not. Therefore, stakeholders are currently calling for environmental preservation and conservation campaigns to respond to the crises generated by the anti-environmental behaviours of citizens (Kim & Stepchenkova, 2020; Sousa et al., 2021). Environmental problems are mostly driven by human behaviour, which can be reduced through pro-environmental behaviours (Blankenberg & Alhusen, 2019). Simiyu et al. (2022) are of the opinion that social influence strongly impacts students' environmental knowledge and that social influence and environmental knowledge significantly predict environmental behaviours. The conclusion of Ogunjimi and Oniya (2016) supports the above assertion that religion, childhood, out-

of-door experience and membership in environmental organisations were the determinants of environmental attitudes and behaviour. This shows that human actions are very important in reducing environmental problems in our society. Also, pro-environmental activities are motivated by people's social groups, environmental knowledge and values system (Wong et al., 2021; Rampedi & Ifegbessan, 2022).

Observation within the Dekina Local Government of Kogi State shows that waste is disposed of at the roadside. Most of the waste comes from household domestic activities (Alozie et al., 2020). Appropriate waste management practices in schools constitute one of the major problems in achieving sustainable waste management in Nigeria. Observation within a few schools shows that waste paper, plastics, and nylon are waste most generated within the school compound. The most common waste disposal methods are dustbins and open burning, which attract odour, pest infestation and splurging (Ana et al., 2011; Adeniyi et al., 2023). One common waste disposal practice among the indigenous people that has spread to the school is that refuse is dumped without being properly packed. This has always exposed the staff and the students to air pollution and health challenges. The most common types of solid waste found in various schools in Anyigba include paper, sachets (water, biscuits, sweets and so on), sugar cane, maize and groundnut shells. Most schools have open grounds where refuse is dumped and later burnt which contaminates the land and constitutes a health hazard. Observation has shown poor waste handling practices and inadequate provision of solid waste management in schools within the Anyigba metropolis. An adequate level of solid waste management is essential in promoting the consciousness of sustainable environmental practices among students. Pro-environmental behaviour is essential in helping the students develop a good attitude towards solid waste management. Most students lack awareness and concern about the consequences of improper handling of solid waste within the school compound and in society (Miller et al., 2022). Ifegbesan (2010) identifies a relationship between age, gender, educational level, occupation and location and solid waste handling and disposal within the community and school settings. Studies have shown improper disposal of waste in Nigeria, and most of the waste is disposed of by the roadsides, streets and waterways (Agwu, 2012; Lawal 2014; Soluade & Sofadekan, 2020). Improper solid waste management within the metropolis by the inhabitants of which the students are part raises the concern of the researcher to assess the disposition of students to pro-

environmental behaviour in Dekina Local Government area of Kogi State, Nigeria.

Pro-environmental behaviour refers to all behaviours undertaken by individuals or groups of people that cause positive environmental impact (Stern, 2000; Blankenberg & Alhusen, 2019). Also, Kollmuss and Agyeman (2002) conceptualise pro-environmental behaviour as behaviour that consciously seeks to minimise the negative impact of individual action on the natural environment and improve environmental sustainability. The focus here is on human actions that lead to environmental sustainability. In addition, Wong et al. (2021) define pro-environmental behaviour as behaviour that deliberately seeks to minimise the adverse effects of one's activities on ecological systems. In other words, Hawcroft and Milfont (2010) see a pro-environmental attitude as an individual concern for the natural environment and an opinion towards the ecological environment (Hawcroft & Milfont, 2010). Lange and Dewitte (2019) stress that pro-environmental behaviour is carrying out acts that benefit the environment and omitting acts that harm it. Lange et al. (2019) further stress that pro-environmental behaviour includes people's choice to conserve the environment and reduce consumption and destruction of natural resources. However, Wyss, Knoch and Bergers (2022) suggested that self-control is the most crucial trait for protecting people's long-term pro-environmental goals.

Environmental damage is caused by unrestricted human activities such as unsustainable natural resource consumption and increased generation of hazardous water, air and water pollution. Environmentally unfriendly activities are one of the root causes of environmental damage. There is a need to raise pro-environmental consciousness in order to reduce levels of environmental damage and achieve sustainable environmental development (Rampedi & Ifegbesan, 2022). In other parts of the world, campaigns aimed at creating awareness about pro-environmental attitudes have contributed to public understanding and raised the consciousness of citizens about the relationship between their environmental attitude and environmental sustainability. Many policies in advanced countries within Europe and America have emphasised intervention campaigns that focus on shaping pro-environmental attitudes and raising awareness about the adverse effects of negative environmental behaviour (Abrahamse et al., 2005). However, the students' disposition towards environmental

sustainability within Dekina local government area of Nigeria is still questionable. This is one of the reasons for this study.

Hidayah and Agustin (2017) assessed high school students' pro-environmental behaviour in West Bandung, Indonesia, under six domains: recycling, waste avoidance, consumerism, energy conservation, mobility and transportation and vicarious conservation behaviour. The study also revealed that science can potentially improve students' pro-environmental behaviour. Tian et al. (2020) assessed the relationship between pro-environmental attitudes and employee green behaviour, focusing on motivational states and green work climate perception in Beijing, China. The findings showed that pro-environmental attitude positively predicted required employee green behaviour and voluntary employee green behaviour and that controlled and autonomous motivations mediated the relationships. The results also show that the positive role of pro-environmental attitude in controlled motivation and autonomous motivation was moderated by green work climate perception. Wyss, Knoch, and Berger (2022) provide an insight into the motivational, dispositional and structural factors underlying pro-environmental behaviour. The result show that pro-environmental attitudes are more than productive of pro-environmental behaviour when costs are low or environmental benefits are high. Evert, Coetzee and Nell (2022) explore the environmental attitudes of undergraduates at a South African University. The result indicated that students' environmental attitudes lean more towards utilisation, which is a mostly anti-environmental preservation factor.

Combating this problem created by citizen anti-environmental behaviour will require public participation and the creation of awareness among the populace to prevent a more critical situation, as concept waste within society can lead to communicable diseases like cholera. Therefore, assessing the pro-environmental behaviour of the students at the junior secondary school level in Nigeria becomes important, as this will help to determine students' environmental behaviour and suggest appropriate solutions towards reducing waste in our society and promote their environmental behaviour. Rampedi and Ifegbesan (2022) concluded that increasing pro-environmental behaviour among citizens would require introducing and supporting development programmes that enhance access to more educational awareness across all populations and groups. This study had the following two research objectives:

i) To examine students' private sphere environmental behaviours.
ii) To assess the levels of student environmental activism.

Methodology

The study employed a descriptive survey research design to assess the pro-environmental behaviour of junior secondary school students in Dekina Local Government area of Kogi State. The population for the study comprised all five thousand nine hundred and fifty-three (5,953) students from thirty-five (35) public secondary schools in the Dekina local government area of Kogi State. Two hundred (200) junior secondary school students in the five selected public secondary schools were selected as a sample for the current study. The schools were selected using a simple random sampling technique, while the respondents were selected using a convenience sampling procedure. Data were collected through "Pro-Environmental Behaviour Questionnaire (PEBQ)" questionnaires. The content and face validity of the questionnaires were established by presenting a copy of the draft questionnaires to two experts in the field of test and measurement for further scrutiny and modification. This was to ascertain the instrument's suitability in terms of language, presentation, clarity and applicability. Based on their comments, the necessary modifications were made. Also, a pilot study was carried out on randomly selected students in Iddah district of Kogi State. Cronbach Alpha was used to determine the reliability coefficient of the instrument, which was found to be 0.80.

The researcher personally submitted the questionnaires to the respondents. The activity lasted for four weeks. Before the data collection, the permission from school authority, the students, and their parents was secured. The respondents were assured of the confidentiality of their responses. The data were coded, processes using Statistical Package for Social Science (SPSS) and analysed using descriptive statistics of mean and standard deviation.

Results

Objective 1: Examine students' private sphere environmental behaviours

Table 1: **Distributions of student's private sphere environmental behaviours**

Waste	Roadside	Flowing river	waste bin	Drainage	Dump site
Pure water nylon	24(12.0%)	10(5.0%)	154(77.0%)	12(6.0%)	0(0.0%)
Bottle water	30(15.0%)	14(7.0%)	112(56.0%)	4(2.0%)	40(20.0%)
Soft drinks bottle	34(17.0%)	12(6.0%)	114(57.0%)	10(5.0%)	30(15.0%)
Sweet/Chewing gum	56(28.0%)	4(2.0%)	114(57.0%)	8(4.0%)	18(9.0%)
Paper	24(12.0%)	8(4.0%)	148(74.0%)	2(1.0%)	16(8.0%)
Fruit peals	22(11.0%)	10(5.0%)	120(60.0%)	4(4.0%)	40(2.0%)
Total	190 (15.83%)	58(4.84%)	762(63.52%)	44(3.67%)	104(12.14%)

Table 1 above shows the students' private sphere pro-environmental behaviour in public secondary schools in Dekina local government area of Kogi state. The most common waste management the students adopt is disposing of their waste inside the waste bin. The grand total shows that the students dropped their waste mostly inside the waste bin provided by their schools and the community 662(63.52%); this is followed by disposing of waste by the roadside 190(15.83%), dump site 104(12.14%), flowing river 58(4.84%) and inside drainage 44(3.67%). Adding the percentage of pro and anti-environmental behaviour together shows that students disposing of their waste inside water bins and dump sites recorded 886(75.66%) and roadside, flowing river and inside drainage recorded 292(24.34%), this shows that students' pro-environmental behaviour is high among the junior secondary school students in Dekina local government area of Kogi state.

Objective 2: Assess levels of students' environmental activism

Table 2: Distributions on student's level of environmental activism

SN	Items	N	Mean	SD
1	I encourage my mates to be environmentally friendly	200	2.60	.585
2	I promote environmentally friendly behaviour among my mates	200	2.44	.623
3	I persuade others to keep the drainages on the street clean	200	2.25	.755
4	I join others to perform environmental actions within the society	200	2.21	.713
5	I participate in environmentally friendly events sponsored by my school	200	2.23	.800
6	I encourage my friendly products	200	2.39	.693
7	I suggest to my mates how to reduce the disposable materials	200	2.23	.692
8	I join others to plant trees within the environment	200	1.97	.769
9	I encourage my mates always to sweep their surroundings Before coming to school	200	2.63	.644
10	I join others to keep the school compound clean	200	2.53	.672
11	I talk to my mates when they drop papers in the school Compound	200	2.08	.732
12	I talk to my family and friends about what they can do to solve an environmental problem	200	2.39	.721
13	I oppose any environmental regulations that would restrict my way of life	200	2.42	.792
	Grand Average Total	2.34	.378	

Table 2 above shows the student's levels of environmental activism. Item 9, which stated that I encourage my mates to always sweep their surroundings before coming to school, recorded the highest item on the distributions with the mean of (X = 2.63, SD = .644). This was followed by item 1, which stated that I encourage my mates to be environmentally friendly with the mean score of X = 2.60, SD= .585 and item 9, which also stated that I join others to keep the school compound clean (X=2.53, SD = .672). The item with the lowest mean score is item 8, which stated that I joined others to plant trees within the environment (X=1.97, SD = .769). The total average mean score of the distribution shows (X = 2.34, SD = .378). This implies that students' level of environmental activism is still low.

Discussion of Findings

This study assessed junior secondary school students' pro-environmental behaviour in Dekina local government areas of Kogi state. The findings in relation to objective one of the study show that junior secondary school students' pro-environmental behaviour in the Dekina local government area of Kogi state is high. This supported the findings of Akil and Ho

(2014) and Tian et al. (2020), who have found positive levels of disposition and public participation of students in waste management in their study. This, however, is in contrast with the findings of Eneji et al. (2017) and Soluade and Sofadekan (2020), who found negative attitudes of students toward waste management. The positive environmental disposition found here could be the result of the student's school disposition towards waste management as schools are fond of pasting messages like "Keep the School Clean and Green", which promotes pro-environmental behaviour in the school compound. This suggested that schools can enhance the students' skills of promoting good environmental sustainability when students are made to practice what they have learnt in social studies and civic education classes.

In addition, finding in reference to objective two of the study on the levels of environmental activism, the students engaged in shows that students' level of environmental activism is still low. This is supported by the findings of Eneji et al. (2017), who also found low levels of students of pro-environmental disposition in their study. This finding might be contributed by students having only participated in activities that lead to pro-environmental behaviour while within the school compound but display a nonchalant attitude to environmental activities outside the school. This finding suggested that schools, and the government has not improved students' environmental activism skills. To achieve this, therefore, the school needs to move beyond only promoting pro-environmental behaviour on the student at a personal level to encouraging the students to speak out and participate against individuals and communities that are not conscious of their environment.

Conclusion and Recommendation

The study assessed the pro-environmental behaviour of secondary school students in Dekina local government area of Kogi state. Based on the findings, this study concludes that students handle their waste very well, although some still engage in anti-environmental behaviour. This suggests that the institution's disposition to waste disposal has an impact on the students' mode of waste disposal. The study also concludes that students' level of environmental activism is still low. This suggests that although the schools are making the students environmentally responsible, students have not internalised these lessons, which would have helped them to move towards environmental activism.

Based on the available data, the study recommends that schools should continue to improve the pro-environmental behaviour of their students by rewarding students who show a high level of environmental consciousness and contribute to the environmental sustainability of the school and the society. To promote environmental activism in the students, it is recommended that schools should make students pro-environmental activism as part of the criteria to appoint prefects in their schools. Schools should provide more orientation to students on responsible disposition to their environment. The environment friendly clubs should carry out this. Programmes such as social responsibility days, which will enhance students' levels of environmental activities, should be introduced in the school programme.

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