

# Examining the Level of Participation and Attitude of University Students Towards Environmental Sanitation in Nnamdi Azikiwe University Main Campus Awka (Unizik), Anambra State, Nigeria.

Peters Rebecca Nzubechukwu, Nzube. A. Chukwuma

*Department Environmental Management, Nnamdi Azikiwe University, Nigeria*

**Abstract:** This study sort to examine the level of participation and the attitudes especially amongst university student towards environmental sanitation. The study aims to examine the level of participation and attitude of students toward environmental sanitation in Nnamdi Azikiwe University Awka, with 3 distinct objectives; a)to examine the awareness level of student towards Environmental Sanitation across age in Unizik, b)to identify the level of participation of student towards environmental sanitation practice across gender in Unizik c)to evaluate the attitude of Unizik students towards environmental sanitation practices as regards their permanent residence. Three research questions and three hypotheses guided the study. The descriptive research design was used for the study, using a random sampling technique, 396 students were sampled for the study. The study adopted the broad theory of reasoned action and the theory of planned behaviour. The data was collected using the administered questionnaires via the Likert scale instrumentation and analyzed using the Chi-square statistical technique to test the hypothesis at a significant level of 0.05. Generally, the findings of this study indicated that the awareness level of Nnamdi Azikiwe University Student varies with ages, as higher aged (23-26) had the highest level of awareness, participation level varied across gender, with females having a higher level of participation and the attitude posed by students towards Environmental sanitation is directly influenced by the residential/home address of the student to either Urban area or rural areas. The study recommends that Students should be encouraged to participate in environmental sanitation, and be taught through seminars, workshops and media, to foster positive changes in the attitudes and increase the level of participation and awareness of environmental sanitation amongst student.

**Keywords:** Environment, Sanitation, attitude, behaviour, participation, University students

## I. INTRODUCTION

Poor environmental quality is increasingly recognized as a major threat to social and economic development and even to human survival (Acheampong, 2010). The impacts of environmental deterioration are severe on developing countries thus hindering and undermining their development (Bello, 2007). The World Health Organization (WHO) (2008) defined environmental sanitation as the control of all those factors in man's physical environment, which exercise or may

exercise a deleterious effect on his physical development, health and survival. In the view of Vivienne (2014), environmental sanitation is the practice of collection, reuse and disposal of human excreta and all sorts of waste with the overall objective to protect, conserve and sustain the immediate environment and human health. In the light of this, the importance and health benefit of environmental Sanitation in our different social and environmental sectors such as Schools, hospitals, Markets place, playgrounds and gardens, Churches cannot be emphasized enough. However, for the purpose of this study, environmental sanitation in schools particularly the tertiary institution is not different from the others, the behavior and attitudes of the students, taking it upon themselves to adhere to appropriate health standard and environmental sanitation must be encouraged.

In an attempt to keep the environment clean, it is the human lives that are paramount. The concept of environmental sanitation entails the control of water supplies, excreta disposal, waste water disposal, refuse disposal, vectors of diseases, housing conditions, food supplies and the safety of the environment (Acheampong, 2010). Mmom and Mmom (2011) opined that effective environmental sanitation in cities is a function of positive environmental behavior and availability of facilities and services. Thus, Faniran (2013), Olowoporoku (2014), Daramola (2015) complimented that availability of adequate environmental sanitation facilities and enabling environmental sanitation policies positively influence the achievement of a healthy living environment.

However, one of the crucial, unsolved, or even unresolved problems for those concerned with the quality of life in the world, especially the developing world is that of adequate, accessible and acceptable basic sanitation (World Health Organization (WHO), 2004). Basically, the issue of sanitation, waste disposal and other related sanitation issues did not pose difficulty as habitations were sparse and land was plentiful especially in such areas of Ifite, Unizik junction and within the school environs were student mostly inhabited. Sanitation became problematic with the increase in the population of students and construction of different hostel inside and within the school environs. Sanitation thus emerged as an essential, specialized sector for keeping the immediate environment

healthy and livable (Fobil, 2001). In fact, so practical and pervasive are the issues of sanitation that the United Nations declared the year 2008 as the International Year of Sanitation. This is meant to address what has been called the “global sanitation crisis” (Black and Fawcett, 2008), as many students suffer from severe health issues arising from the problem of poor environmental sanitation and adequate access to health facilities.

According to Atasoy (2005) stated that environmental problems have become globalized and have reached the stage where they present a threat to life on earth. He further stated that the situation has led to the review of people’s relationship with nature, their attitudes and behaviors towards the environment, the duties and responsibilities assumed by the individual towards nature, and the redefinition of ecological culture and environmental awareness. It is against this background that the researcher is interested in examining the student’s level of participation and attitude towards environmental sanitation.

### *1.2 Statement of the problem.*

The presence of environmental nuisance in the form of poor environmental sanitation, indiscriminate dropping of refuse all over the environment of Nnamdi Azikiwe University is a source of concern. This unbecoming behaviour of poor environmental sanitation has however become an object of health concern to not just the students but to the general public. Over the years, the problem of environmental sanitation has become a deleterious and its arising issues cannot be overemphasized. A cursory observation across faculties in Nnamdi Azikiwe University have shown that many places are littered with water sachets, pieces of paper, plastics of different types and broken furniture. In hostels, there are problems of littering, exposure to used sanitary pads, students urinating around the hostels, students defecating in polythene bags. This poor state of sanitary conditions affects the health of both students in the hostels and workers alike.

Basically, the alarming issues threatening the human survival and health amongst many other things comprehended is the problem of poor environmental sanitation practices, which has extremely jeopardized human survival and wellbeing. However, there have been several interventions by the school administrations to reduce the rate of insanitary conditions in the University, yet students’ perception of such environmental sanitation practices like good waste disposal has not changed. If appropriate efforts are not made to halt this unorthodox tradition, the University Management board will continue to spend the greater part of its monetary resources in an attempt to ensure good environmental sanitation without success, this is in line with the study “The Attitude of Students and Staff of Asamankese Senior High School Towards Environmental Sanitation” (Vivienne, 2014). The above problem makes it clear that the institution is unable to cope with the problem of environmental sanitation.

Basically, It is expected that University environment such as the students’ hostel particularly the rooms, the toilets, the

surroundings, the sewage, the water and waste chambers, running down to the lecture halls, open sport fields etc should be kept clean and tidy because of the health implication attached to the practice. It is unfortunate, however, that the environmental condition of some of the hostels in the Universities cannot be said to have met the requirement of high environmental sanitation.

Generally, Nigerian universities are not free from environmental sanitation problems such as lack of cleanness of the surroundings and toilets facilities, inadequate water supply, damaged or broken facilities. In response to these problems, the managements of the various universities had contracted out the cleaning of the surroundings of their campuses including the classes and the toilets to a private firm. It is, however, noted that in spite of these efforts, the hygienic conditions of some of the hostels and other part of the University surrounding cannot be said to have met even the least satisfactory award for environmental Sanitation. This situation can have an implication on the health of the students, on the other hand, a safe and clean environment can promote the health of the students and stimulate active learning.

On the bases of the above sated problems, there is need to review University students level of participation and attitudes towards environmental sanitation, using Nnamdi Azikiwe University as a case study, thus draw necessary recommendations.

### *1.3 Aim and Objectives.*

The aim of this study is **to examine the level of participation and attitude of students toward environmental sanitation in Nnamdi Azikiwe University Awka.** However, to achieve this aim, the following objectives will be pursued:

1. To examine the awareness level of student towards Environmental Sanitation across age in Unizik.
2. To identify the level of participation of student towards environmental sanitation practice across gender in Unizik.
3. To evaluate the attitude of Unizik students towards environmental sanitation practices as regards their permanent residence.
4. To proffer solutions for a better attitude and a high level of participation towards Environmental Sanitation in Unizik.

### *1.4 Research Question*

This study is guided by the following g research questions.

1. Does the environmental Sanitation awareness level of student vary across age?
2. Are there variations in the environmental participation level of student across gender?
3. Does the permanent residence of the student affect their various attitude towards environmental sanitation?

### 1.5 Research Hypothesis

The following null hypotheses are postulated to guide the study;

1. H<sub>0</sub>: There is no significant difference between the awareness level of the student and their age bracket.
2. H<sub>0</sub>: There is no significant difference between the participation level of the student and gender.
2. H<sub>0</sub>: There is no significant difference between the attitudes of the student and their permanent residence.

### 1.6 Theoretical Framework

Basically, the study adopts the broad theory of Reasoned Action and the theory of planned behaviour, and the concepts of Sanitation. The theory of reasoned action (TRA) and planned behavior (TBP), as articulated by Ajzen and Fishbein (1980) and Armitage and Conner (1999) respectively, were used as a framework in understanding, explaining, and interpreting students' responses and their inferred behaviours. The theories are based on the following two assumptions: 1) that individual behavioural intentions are directly associated with their levels of knowledge, awareness, and willingness to act in response to a cause or an event (Ajzen & Fishbein, 1980); and 2) an individual's determination is influenced by personal attitude, social support, and perceived behavioural norms (Armitage & Conner, 1999). In light of these assumptions, these theories allow for the examination of the behaviour of humans in the context of their levels of participation and attitude, and therefore makes them suitable for the exploration of students' awareness and responsiveness to environmental sanitation addressed in this work.

## II. RESEARCH METHODOLOGY.

This chapter provides information about the research methodology and techniques used in the study.

### 2.1 Research Design

Generally, the design adopted for the study was descriptive-analytical survey type. The design has a function of ensuring that evidence obtained in a study helps the researcher to answer the initial questions as clear as possible (De Vaus, 2001). The research design was appropriate because it enabled the researcher to ask questions that concern the level of participation and attitude of students towards Environmental Sanitation.

However, based on the aim, objectives, the research questions and the theory of this study, questions were raised to actualize this aim. However, the research made use of survey design method that consists of asking questions, collecting and analyzing. The questions were embodied in a questionnaire for the respondents to answer and return. Through the research design, it was possible to examine the level of students' participation and attitude towards environmental sanitation in Nnamdi Azikiwe University. The questionnaire

contained four sections "section A" which contained the personal data of the respondent, "section B" contained questions seeking to identify the students awareness level towards Environmental Sanitation, "section C" covers information on the participation level of the student towards Environmental Sanitation and "section D" asked pertinent questions addressing the attitudes of the student towards environmental Sanitation. The parts consisted of five items each measured in a 5-point Likert scale of "Strongly aware 5points" | "Aware 4points | undecided 3 point "Unaware 2points" | and "Strongly Unaware 1point" | for the level of awareness, "All the time 5points" | "Most of the time 4points" | undecided 3point, "Sometimes 2points" | and "Never 1point" | for the level of participation, while the student attitudes were ranked thus; "Strongly agreed 5points" | "Agreed 4points" | undecided 3point "Disagree 2points" | and "Strongly Disagree 1point" |.

### 2.2 Sources of Data

The various data used in the study comprises primary and secondary data.

#### 2.2.1. The Primary Source of Data Collection

These are data from analyzed and gotten from the distribution of questionnaire, from the student of the seven different faculties of the university which comprised of Faculty of law, Faculty of Arts, Faculty of Bio-Sciences, Faculty of Social Science, Faculty of Engineering, Faculty of Bio-Sciences and Faculty of Environmental Sciences of which the questionnaires were used to explain some relevant information. The data concentrated on the student's level of awareness, participation and attitude towards Environmental Sanitation.

#### 2.2.2 Secondary Source of Data Collection

These are research works gotten from text books, articles both published and unpublished, journals, national dailies, internet pages and so that were considered necessary to complement the data collected from the field.

### 2.3 Method of data collection.

The researcher personally collected data from the respondents. After distribution of the questionnaire, some respondents filled the questionnaire immediately, while others were given time to fill in the questionnaire. This time frame was given in order to give enough time to the respondents to reflect on the items on the questionnaire to facilitate valid responses.

### 2.4 Population of the Study Area

The population of the study consisted of the students of Nnamdi Azikiwe University main campus to whom the research findings would be generalized. Basically, Neuman (2007) defines population as the name for the large general group of many cases from which a researcher draws a sample. It is the group that is of interest to the researcher, the group to which the researcher would like to generalize the findings of the study (Fraenkel and Wallen, 2003). Thus, the total

population of the study according to the student's affairs of Nnamdi Azikiwe University main campus Awka is 37, 187 which becomes the population size of the study.

#### 2.4.1 Sample Size Determination

However, the sample size based on the study area population can be calculated using Taro Yamane's formula given as;

$$S = \frac{N}{1 + N(e^2)} \quad \text{Thus, } S \sim 396.$$

#### 2.4.2 Sampling Technique

The study adopted a random sampling technique in the selection of the students to be examined, administering 66 questionnaires across each faculty which when summed up, gives a total of the sample size. The questionnaire was administered to students who were at ease in their various classes to answer calmly. Some of the other students in a hurry kindly answered the questionnaires days after.

#### 2.5 Method of Data Analysis

Data analysis has been defined as those techniques used whereby the researcher extracts relevant information from the data which would enable a summary description of the subject studies to be made.

In analyzing the data, frequency tables and percentages were used to interpret the raw data collected from the field and to analyze research questions. This is to make it more comprehensive to the reader. The data obtained were presented in table form, figures, and bar charts; subjected to descriptive statistical analysis (95% confident limit).

However, Chi square as a statistical technique would be used to verify the significance of the study and test for the Research hypothesis.

### III. DATA PRESENTATION AND DISCUSSION OF RESULT.

#### 3.1 Analysis of the Study of Questionnaire

This chapter deals with data presentation, analysis and representation. The collection of data is hence presented and analyzed in the form of table and figures. In order to achieve the objectives of the study, the following factors were considered and analyzed which were the levels of Participation and attitudes of the students towards environmental sanitation in Unizik.

Table 3.1 Administration of Questionnaire

Questionnaire	Frequency Number	Percentage
No of copies of questionnaire administered	396	100%
Number of questionnaires collected	350	88.4%
Number of questionnaires not collected	46	11.6%
Number of questionnaires used for the analysis	350	88.4%

The table shows that 396 copies of the questionnaire were administered to student in the seven faculties in the University of which 350 were dully answered and completed which represents 88.4%. However, 46 questionnaires were not collected which represents 11.6% of the total sample. This leaves 88.4% fit for analysis. Therefore, since 88.4% questionnaires were representative of 100%, the findings of the study are based on the responses of the 88.4% valid questionnaires.

#### 3.2 Data presentation

##### Section A: Bio-Data

Basically, SECTION A contains the frequency distribution and analysis of the respondent's demographic and bio-data.

##### a. Where do you stay in the campus?

Result shows that a 72.9% of the students in unizik have their accommodation off the school campus and only 27.1% stay in the school hostel. Thus, this shows that a higher population of the study stays off the school campus compared to the school hostel.

##### b. What is your program of study?

The result shows that a 95.1% of the students were B.sc, 4.0% M.sc and only 0.9% PhD. However, this shows that there is a higher number of B.sc students compared to M.sc and PhD. Thus, a higher percentage of B.sc students were administered questionnaire

##### c. What is your faculty?

13.7% of the respondents were from the faculty of Environmental Management, 13.1% faculty of Engineering, 20% faculty of Education, 14.8% faculty of Arts, 14.8% faculty of social sciences, 14.3% faculty of Law and 9.1% faculty of Bio-Sciences ranking faculty of Education with the highest number of respondents.

##### d. What is your gender?

Result shows that 44.6% of the respondents are male, 55.4% female. However, the female gender was above to have the highest frequency.

##### e. What is your age?

The result in the respondent's variation in age shows that 10.6% of the respondents are between the ages brackets (15-20), 34.6% (20-25), 39.4% (25-30), 15.4% (30- above). This result is reflected in the fact that a higher percentage of the respondents were B.sc students thus the age bracket (25-30) took the highest percentage.

##### f. home address/ residence is located?

Result indicates that 64.9% of the respondents reside in the urban area, while 35.1% come from the rural part of the society.

*Section B: Environmental Sanitation Awareness Level.*

SECTION B contains the analysis of the respondent to the level of their environmental sanitation awareness.

*a. I am aware of what environmental sanitation is and I practice it?*

The result here shows above, 29.1% are strongly aware, 27.7% are aware, 24% are Unaware and 19.1% are strongly unaware. Strongly aware and aware ranking the highest percentage shows that a higher number of students are aware of what environmental sanitation is, and they practice it. Also, the results of the unaware and strongly unaware might be as a result of if they students practice it or not. This may be the case where a student probably knows the meaning and definition of environmental sanitation but may not be engaged in any practicing activity.

*b. I am aware environmental sanitation should be practiced by all student*

Here, 41.4% were strongly aware, 37.1% were aware, 14.3% were unaware and 7.1% were unaware. However, the result shows that there is a higher percentage of the students were very much aware and certain that environmental sanitation should be practiced by all student, while other may think environmental sanitation is more individual than societal.

*c. I am aware poor environmental sanitation has negative impact on human*

The respondent's level of awareness to the negative impact of poor environmental sanitation to human's results shows that 52.9% are strongly aware, 33.1% are aware, only 8.9% are unaware and 5.1 are strongly unaware. This strongly indicates that a very high percentage of the students are strongly aware and aware of the negative impact of poor sanitation on human health.

*d. I am aware environmental sanitation betters a healthy environment*

The table above shows the bar chart and frequency distribution in percentage of the respondent's awareness level of the betterment of environmental sanitation to the environment. The results show that 56% were strongly aware, 27.7% are aware, only 9.1% are unaware and 7.1% are strongly unaware. However, this shows that majority of the betterment of environmental sanitation to the environment.

*e. I should be responsible for my immediate environment*

Result shows that 26.6% of are strongly aware, 30.3% are aware, 28.6% are unaware while 14.6% are strongly unaware. However, the percentage of the aware ranks the highest percentage indicating that the students are aware, but some may not be aware given that the do not consider their various hostel as their home/Residence.

*Section C: Environmental Sanitation Participation Level.*

This section contains the analysis of the respondent to the level of participation towards environmental.

Result shows that 22.9% of the respondents practice cleaning their surrounding all the time, 52.6% most of the time, 24.6% sometime. However, this signifies that more than half percent of the respondents clean their surrounding most of the time.

*a. I participate in disposing waste indiscriminately and littering*

From the respondent's level of participation, 6.6% ranks most of the time, 50.9% most of the time, 33.1% sometimes and 9.4 never. However, from the percentage, it is observed that all most percent of the students are involved in littering of the environment.

*b. I participate in the monthly environmental sanitation observed in my hostel*

The result from the respondent's level of participation in the monthly environmental sanitation observed in their various hostels, 26.9% participate all the time, 28.6% participate most of the time, and 44.5% participate sometimes. practically, this indicates that a reasonable percentage of the students participate in the monthly environmental sanitation observed in their various hostels most of the time.

*c. I dispose waste properly and avoid littering the environment*

The respondent's level of participation toward proper disposing of waste result shows that 16.6% all the time, 31.4% most of the times, 50.5% sometimes and 1.4% never. However, the result indicates that up to half percent of the respondents only dispose waste properly.

*d. I participate in campaigns for a better environmental sanitation*

Respondent's level of participation in campaigns for a better environmental sanitation. The result shows that 7.7% participate all the time, 13.7% participate most of the time, 31.1% participate sometimes, 47.4% ranks never, this indication shows that a significant high level of students do not participate in environmental sanitation campaigns.

*Section D: Attitude of students towards Environmental Sanitation.*

SECTION D contains the analysis of the respondent to their attitude towards environmental.

*a. I agree I should practice environmental sanitation in the society*

Respondent's attitudes towards practicing environmental sanitation in the society. Results here shows that 20.5% strongly agreed, 47.1% agreed, 16.9% undecided, 12.6% disagree, and 2.9% strongly disagreed. The frequency distribution shows that a high level of the student agrees that they should practice environmental sanitation in their society.

*b. I agree I should be concerned about environmental sanitation*

The attitude towards being concerned about environmental sanitation. 38.5% strongly agrees, 45.7% Agree, and 15.7% are undecided. The result shows that a good number of students agreed to being concerned about environmental sanitation.

*c. I agree that environment is a vital part of the society*

Respondent's attitude towards the environment as a vital part of the society, 35.7% strongly agreed, 45.1% agreed and 19.1% undecided. However, it can be identified that the not up to 50% of the respondents agrees that the environment is a vital part of the society and as such should be kept clean.

*d. I agree I should dispose waste in an appropriate manner*

The respondent's attitude towards the disposal of waste in an appropriate manner. 50.9% strongly agreed, 44.6% agreed and 4.6% are undecided. However, this shows that a good percentage of the students strongly agreed to this attitude.

*e. I agree I should reduce the amount of waste I generate*

The respondent's attitudes to reducing the amount of waste generated to encourage environmental sanitation. 40% strongly agreed, 37.4% disagreed, 18.9% undecided and 3.7% disagree. However, the result shows that a very high level of the respondents strongly agrees and agreed that reducing waste can help to encourage environmental sanitation.

### 3.3 Test of Hypothesis.

#### Introduction.

Basically, hypothesis testing is a statistical test used to determine whether the hypothesis assumed for the sample of data stands true for the entire population or not. However, the type of statistical testing tool employed by the researcher depends on the nature of the data and the reason for the analysis.

**Statistical tool:** The chi square statistical test (p-value approach) was adopted for the testing of all the stated null hypothesis with a 0.05 level of significance. However, the chi square was calculated using the SPSS statistical software.

#### Hypothesis 1.

**H<sub>0</sub>:** There is no significant difference between the awareness level of the student and age.

#### Conclusion

Since all the P value is less than the level of significance (0.05), we therefore reject the null hypothesis (There is no significant difference between the awareness level of the student and age.) and therefore accept the alternative hypothesis which states thus: There is a significant difference between the awareness level of the students and age.

#### Hypothesis 2

**H<sub>0</sub>:** There is no significant difference between the participation level of the student and gender.

#### Conclusion

Since all the P value is less than the level of significance (0.05), we therefore reject the null hypothesis (There is no significant difference between the participation level of the student and gender.) and therefore accept the alternative hypothesis which states thus: There is a significant difference between the participation level of the students and gender.

#### Hypothesis 3

**H<sub>0</sub>:** There is no significant difference between the attitudes of the student and their permanent residence.

#### Conclusion

Since all the P value is less than the level of significance (0.05), we therefore reject the null hypothesis (There is no significant difference between the attitudes of the student and their permanent residence.) and therefore accept the alternative hypothesis which states thus: There is a significant difference between the attitudes of the student and their permanent residence.

## IV. DISCUSSION OF FINDINGS

Generally, from the findings, it can be concluded that the level of participation and attitudes of students towards environmental sanitation is seemingly on the average. However, it can also be said that the level of their awareness is directly proportional to the attitude and level of participation the show towards environmental sanitation.

More so, it was observed and therefore can be concluded that the level of participation varied across gender as female tend to participate more in environmental sanitation than male. The attitude posed by the students coming from the urban towards environmental sanitation compared to the rural was identified to be better. Lastly the awareness level of the students varied across age as those that fell under the age bracket of (25-30) ranked highest followed by (20-25) and (15-20). This however shows that the higher the aged were better informed than the lower age.

## V. SUMMARY, CONCLUSION AND RECOMMENDATION

#### Introduction

Basically, this Study examined the participation level and attitude of students towards environmental sanitation in Nnamdi Azikiwe University Awka (unizik) main campus. The study provided a summary and highlighted the conclusion that was arrived at. More so, based on the findings, recommendations were made.

### 5.1 Summary

This study sought to establish a baseline of descriptive information and examination on student's level of participation and attitudes towards environmental sanitation. The findings of the present study have made it abundantly clear that the level of participation and attitude of students towards environmental sanitation is significantly low although the level of awareness is significantly high. I observed several significant findings and differences between students' level of participation, attitudes and the level of awareness towards environmental sanitation.

In summary, the findings indicate that most respondents understood the importance of sound environmental sanitation in the university but failed to cultivate the right behavior or attitudes towards environmental sanitation. However, some demographic factor was also identified to be a contributing factor to the level of participation, attitudes and awareness demonstrated by student towards environmental sanitation. Another major factor that was identified is that the residence home of the student as to urban or rural area had a great significance to their attitudes. Thus, Findings indicate that the propensity of student's level of participation, attitude and awareness differ by gender, age and residence.

### 5.2 Conclusion

Environmental sanitation therefore, must go beyond spasmodic and sporadic clean-up exercise. There is no doubt that the clean-up campaigns and sanitation edicts have succeeded to some extent in instilling the required sense of cleanliness among Nigerians but Environmental Sanitation Education programs will serve to complement existing activities and strategies such as seminars, these activities are necessary in order to effectively impart, sensitize and infuse in the student a sense of decency, discipline and responsibility towards environmental sanitation.

However, based on the research findings, it was revealed that environmental sanitation is a good pointer to a better and healthy environment. Findings from the study revealed that residents' age, gender and residential characteristics are strong predictors of environmental sanitation attitudes, level of participation and awareness among Nnamdi Azikiwe University student Awka, Anambra state. Thus, these findings have implications for practice and the attitudes of students towards environmental sanitation. More so, based on the findings of the study, it was concluded that the majority of respondents were knowledgeable about environmental sanitation but have intentionally ignored the practice, Students should be encouraged to participate and show positive attitudes as environmental sanitation is one of the basic elements of the health living of human being.

Generally, from the findings of the study, it can be concluded that several respondents had a consistent knowledge but lopsided attitude and practice towards environmental sanitation. Based on the finding of the study, there was statistically significant difference in the influence

of gender, age and level of education on attitude of people associated with environmental sanitation. Also, based on the findings of the research it is possible to say that there was statistically significant difference in the influence of gender, age, and residence characteristics towards environmental sanitation.

### 5.3 Recommendations

The findings from this study have great implications and significance towards achieving a high level of participation, awareness and attitude in environmental sanitation among Nnamdi Azikiwe university students. Consequent upon this, there is therefore need to increase student's level of participation, awareness and attitude by initiating a good behavioural and attitudinal change. Thus, the study recommends;

1. The University Management should organize seminars and workshops for students on environmental sanitation and its environmental and health consequences and of course providing strategies to address environmental sanitation issues.
2. The University Management should introduce basic environmental sanitation concepts and themes through environmental education in university curriculum at all levels, to enhance student's understanding of environmental sanitation as well as encouraging consistent practice.
3. The University Administration should encourage more awareness creation through the University media station (unizik FM) and social Media pages as the use of this facilities has become very common to an average student within the university, so as to change the negative attitudes and increase the level of environmental sanitation awareness among the student.
4. The Management should provide such opportunities for students to engage in campaigns and actions against poor level of participation, awareness and attitudes towards environmental sanitation.
5. This study further recommends that the Ministry of Education should set up a structure to champion education outside the classroom in primary and secondary schools so as to build up the right attitude towards environmental sanitation before they get into the university and other spheres of life.
6. Furthermore, the University should provide proper sanitary facilities that would discourage indiscriminate attitudes of the students towards the environment by defecating and urinating in bushes, burning of solid waste around the university, careless dumping of solid waste on the open environment, careless littering of the environment, dumping of solid and liquid waste in drainages that block channel for surface run-offs.
7. Generally, the Management should encourage students to participate in various activities of environmental sanitation.

8. Environmental sanitation should be taught across all academic institutions, re-defining environmental sanitation as being a way of life rather than an occasional practice.

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