

Research Journal of Education

ISSN(e): 2413-0540, ISSN(p): 2413-8886

Vol. 2, No. 8, pp: 129-136, 2016

URL: <http://arpgweb.com/?ic=journal&journal=15&info=aims>

A Survey of Sanitation and Hygiene Facilities in Public and Private Primary Schools for Effective Implementation of Ube Programme In Onitsha, Anambra State

Nwankwo, I. N.

Department of Educational Management and Policy Faculty of Education, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria

Uzoehina, G. O.

Department of Educational Foundations Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Nigeria

Oguegbu, A. E.*

Department of Public Health Kaplan University, USA

Abstract: This paper surveyed the availability of sanitation and hygiene facilities as well as the sanitation and hygiene practices among public and private primary schools in Onitsha, Anambra State. Two research questions guided the study. The study adopted descriptive survey research design. The population of the study comprised 97 and 71 public and private primary schools in the Area respectively. A sample of 48 primary schools consisting 27 public and 21 private was used. The proportionate stratified random sampling technique was used for sampling. A checklist was used to obtain data for question 1 while a researcher developed questionnaire adapted from Implementation Guidelines on National School Health Programme 2006 of the Federal Ministry of Education was used to gather data for research question two. The instrument was validated by three experts. Percentage score and statistical Mean score were used to answer research question one and two respectively. It was found that sanitation and hygiene facilities such as waste bins, water supply, toilet etc are lacking among public and private primary schools in Onitsha Area and that the primary schools are yet to embrace sanitation and hygiene practices hence pupils still defecate in the bush among others. It was recommended among others that Government, proprietors and teachers should take urgent steps to provide sanitation facilities to the schools and pupils should be taught rhymes, poems and plays that promote sanitation and hygiene.

Keywords: Sanitation; Hygiene; UBE; Hygiene practices; Sanitation facilities.

1. Introduction

A healthy environment through sanitation and hygiene practices ensures good health and makes one sound for worthwhile activities including learning. Stating that a healthy environment and hygiene practices in primary schools has a fundamental importance in achieving the universal Basic Education programme (UBE) in Nigeria is only to state the obvious. The Universal Basic Education programme was launched by the president Olusegun Obasanjo led Federal Government in 1999. It was Nigeria's own effort towards the Education for All (EFA) initiative of the UNESCO. The programme is aimed among other objectives to provide both effective and self-reliant education for every Nigerian child of school age (NPE, 2004). Government at all levels, non-governmental organizations and other stakeholders have devoted financial, material and human resources towards the achievement of the programme. Regrettably, the resources being devoted to UBE programmes have not yielded the much required output as the achievement of the aims and objectives remains a difficult task and concern to all involved.

No doubt, for the effective implementation of the programme, provision of a healthy environment and proper hygiene practices for healthy living of both pupils and teachers is a sine qua non (Agbo *et al.*, 2012). Sanitation literally means measure necessary for improving and protecting health and wellbeing of the people. It is any system that promotes proper disposal of human and animal wastes, proper use of toilet and avoiding open space defecation. While hygiene on the other hand is the practice of keeping oneself and surroundings clean, especially to avoid illness or the spread of preventable diseases (UNICEF, 2008; WHO, 2006).

Nigeria government and Anambra state in particular have made efforts to eradicate filth and ensure adequate sanitation of the environment but have not come up to the maximum effort required to combat unsanitary practices and hygiene abuses in the state as people still engage on indiscriminate disposal of wastes (Anija-obi *et al.*, 2013; Idehen and Oshodin, 2008). Though the Anambra State Waste Management Agency (ASWAMA) have distributed waste disposal containers at strategic places in the Anambra metropolis but they have failed to reach the rural areas

of the state and in many occasions the ASWAMA do not come on time to dispose packed refuses which begins to litter the environment. The promulgation of environmental decrees and legislation such as 1985 War Against Filth (WAF), 1989 National policy on environment, the 1993 water resources decree no 101, the rural water supply and sanitation policy 2000, the National water supply and sanitation policy 2000, and the National water resources management policy 2003 have proved abortive at the implementation stage. Many Nigerians still go with the dangerous impression that “dorti no dey kill black man” (dirty does not kill Blackman) (Anija-Obi, 2001; WaterAid, 2012).

In 1985, War Against Filth which emphasized environmental sanitation, established Task Forces and sanitation courts in all the states of the Federation. The last Saturday of every month was set aside as National environmental day, however, the objectives of the sanitation exercise was completely missed and defeated as sanitation courts charged with the responsibility of implementing /enforcing environmental sanitation became more interested in revenue generation for the government or for their personal pockets rather than actually using the exercise as corrective measures by persuading defaulters to change their habit and attitude and show more commitment to keeping their environment clean (Anija-Obi, 2001). This practice of money extortion and humiliation from sanitation enforcement Task Force has not stopped in Anambra State. It becomes paramount that there should be adequate sensitization through mass media, schools, churches etc. to the public on the imperatives of sanitation and healthy environment. The sanitation exercise in Anambra State and Onitsha Area in particular should go beyond the occasional street sweeping and clearing of dirty drainage systems to embrace personal hygiene and purification.

Meanwhile, the school is regarded as a microcosm of the macrocosm which is the society/school community. By implication what happens in the society directly or indirectly affects what happens in the schools. Some of the unhygienic and sanitation abuse practices in primary schools especially in the rural areas include indiscriminate defecation in open place and bush, drinking of dirty and untreated water from home or school, urinating at the school compound, over population of pupils in classroom, indiscriminate disposal of wastes, unhealthy canteen environment, lack of ventilation and light in classrooms etc (Adu and Aremu, n.d; UNICEF, 2008). The implication of the ongoing for the UBE programme is endemic as it hampers pedagogic and general school programmes. According to UNICEF (2008), one gram of excreta can contain ten million viruses, one million bacteria, one thousand parasites cysts and one hundred parasite eggs. Agbo (2008) mentioned some of the diseases caused by sanitation abuse and unhygienic practices to include typhoid and para-typhoid fever, dysenteries, diarrhea, cholera, hookworm, ascariasis, viral hepatitis, schistosomiasis, guinea worm disease, genito-urinary tract infections including eye infections like trachoma caused by chlamydia trachomatis which may lead to blindness. WHO (2004) reported that an estimated 5,000 children die from diarrhea every day while 88% of diarrhea diseases is cause by unsafe water supply and inadequate sanitation and hygiene. UNICEF (2008), lamented that the diarrhea prevalence rate in Nigeria is 18.8% and one of the worst in sub-Sahara Africa and above the average of 16%. An estimated 150,000 deaths mainly amongst fewer than five children occur annually due to diarrhea in Nigeria.

Sanitation fact sheet Nigeria

	Basic indicators	
1	Total population (1000s) ¹	140,004
2	Population Growth Rate(%) ¹	3.2
3	Under five mortality Rate (per 1000) ²	194
4	Life expectancy at birth (years) ²	44
5	Population living on under\$1/day (%) ²	71
6	Primary school enrollment Rate, net (%) ²	60
7	Access to improved sanitation (%) ⁷	44
8	Access to improved water sources (%) ⁷	48
9	Primary schools with improved sanitation facilities (%) ¹⁰	41.35
10	Primary schools with improved water sources (%) ¹⁰	51.46

Source: UNICEF (2008) sanitation fact sheet Nigeria

Using the above table, it can be inferred that water sanitation and hygiene are linked to school attendance and performance in primary school hence lack of toilet in schools increases the number of student absence especially among girls. If about 150,000 children below the age of five die every year in Nigeria, it is a clear indication that the achievement of UBE programme depends so much on improved sanitation and hygiene. Agbo *et al.* (2012) argued that optimal sanitary environment which is safe and conducive ensure physical, mental and emotional health of the students and help them to gain maximum benefit from educational programme.

In combating the sanitation and hygiene inadequacy in schools, the Federal Ministry of Education came up with the National school health policy in 2006 and implementation Guidelines on National School Health programme 2006. It advocated all primary schools in the country to become health promoting schools. A health promoting school according to the document is one that is constantly strengthening in capacity as a healthy setting for living, learning and working, such school foster healthy and learning environment and provides health services like immunization, school feeding, counseling, sick bay and school dispensaries.

The document outlined certain wonderful strategies for ensuring sanitation and hygiene practices in the schools. For instance on page 3, it stated that “there shall be adequate supply of safe water for drinking, washing, cleaning

and flushing of toilets, adequate and sufficient number of rust resistant, water and rodent proof covered container must be provided, toilet should be provided and must be kept clean not more than 30 pupils per toilet among other provisions. The same document recorded that a combined study of the school Health system in Nigeria by FMOH and FME in collaboration with WHO in 2003 found out that five common health problem that contributed to students' absenteeism are fever/typhoid (56%), headache (43%), stomach ache (21%), cough/catarrh 38%, malaria (40%). All these health problems are primarily caused by sanitation abuse and unhygienic practices in these schools and at home. [Agbo et al. \(2012\)](#) on the assessment of toilet facilities in secondary schools in Jos North Local Government Area discovered that 84.9% of the schools assessed had toilet facilities for the students while those without toilet formed 1/6th of the schools studied.

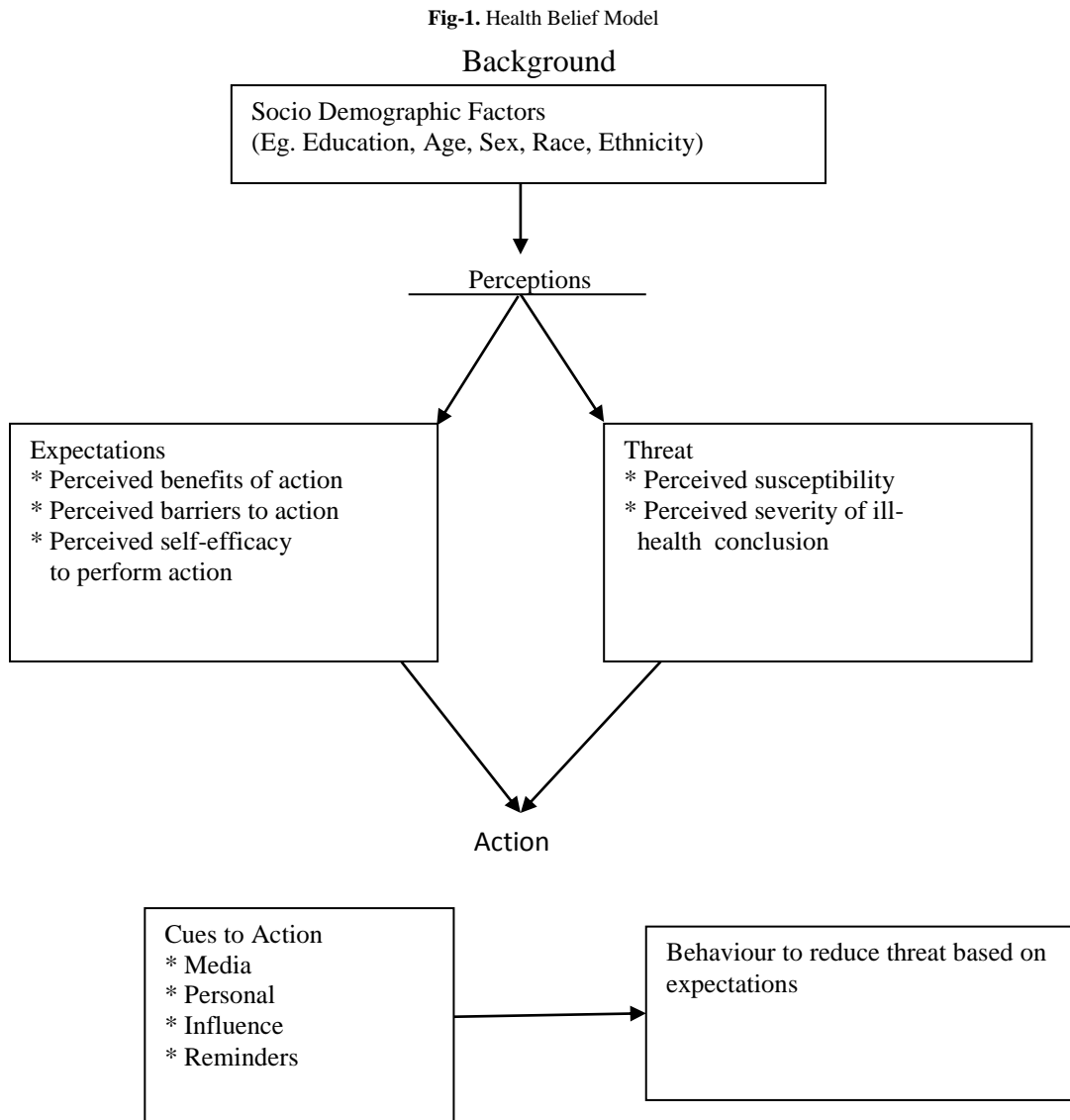
This very study tended to survey not only the provision of toilet facility in the schools but with other sanitary and hygiene facilities such as water provision, classroom ventilation, method of waste disposal etc as contained in the Implementation Guidelines on National school health programme, 2006.

1.1. Theoretical Framework

One model and one theory formed the theoretical base for the study. They include the health belief model and the theory of reasoned action.

1.2. Health Belief Model

The Health Belief Model (HBM) was developed in the 1950s by Kurt Lewin. It is a psychological model that explains and predicts health behaviours by focusing on the attitudes and beliefs of individuals. The model is presented in [Figure 1](#).



Source: [Lewin \(1951\)](#)

The model covers three major areas: background, perceptions and action. The background covers diverse demographic, socio-psychological and structural variables that affect an individual's perception and thus indirectly influence health related behaviour.

Perceptions cover perceived threat and perceived expectations. The perceived threat consists of perceived severity of a health condition.

The HBM model is interactive in nature and has four primary dimensions which include: Perceived susceptibility, Perceived severity, Perceived benefits, Perceived barriers.

Perceived Susceptibility: This is a person's subjective perception of the risk of contracting a particular health condition. In health education, a person who feels that a dirty environment can contribute to a health problem will do everything possible to avoid contracting the disease condition. On the other hand a person who for some reasons sees himself as immune to the disease may not feel susceptible to the health condition.

Perceived Severity: This has to do with a person's feeling concern the seriousness of contracting an illness or leaving it untreated when contracted. This includes the difficulties the illness will create.

Perceived Benefits: This involves the effectiveness of the various available health strategies one has designed to reduce the threat of illness or the benefits one can gate in reducing the perceived threat from the health problem.

Perceived Barriers: This refers to the perceived negative aspect of the recommended course of action which may act as impediment to full appreciation of the indicated health behaviour. Sometimes, actions do not take place even though individuals may believe that the benefits of the action are effective.

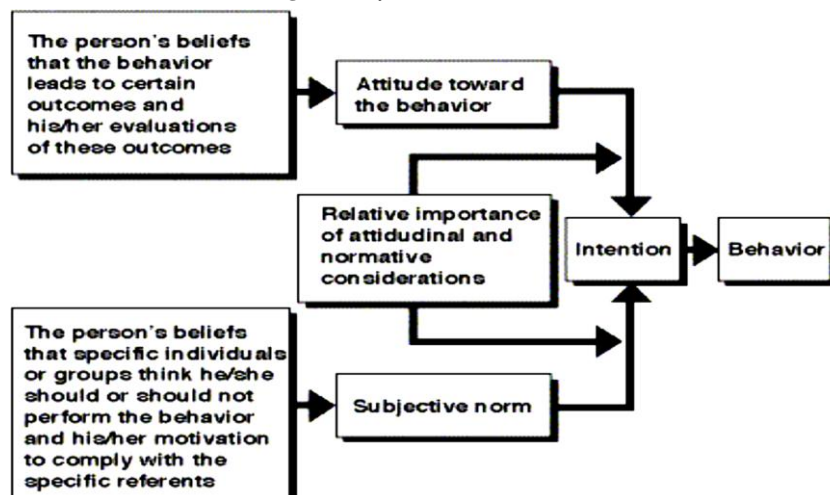
The relevance of the model to this study lies in its implications for health behaviours. It can form a basis for any research meant to explore a variety of health behaviours in diverse populations. A health educator using this model is expected to investigate the background of the research subjects and guide them to appreciate threats (dangers) posed by their activities. The severity of the problem is also expected to be understood by them. This will help them to appreciate the benefits of the health education programme and take necessary actions to overcome such barriers. Their perceived self-efficacy to perform the action required to maintain a clean environment and personal hygiene. In the application of this model, the pupils need to be made to understand that they are susceptible to health problems emanating from dirty environment. They should also be made to understand the severity of diseases resulting from unhygienic practices in both in the school and at home. They should as well understand the benefits of maintaining clean and safe environment within the school in order to avoid contacting sicknesses. In this same vain they should be taught the necessary steps to overcome the barriers to maintaining healthy environment or personal hygiene. The reason for the above is explained in the theory for reasoned action.

1.3. Theory of Reasoned Action (TRA)

The theory of reasoned action (TRA) was developed by Ajzen and Fishbein (1980). This theory provides a construct that links individual beliefs, attitudes, intentions and behaviours based on the premise that human beings are rational and that the behaviours being explored are under volitional control.

The theory is presented Figure 2:

Fig-2. Theory of Reasoned Action



Source: Ajzen and Fishbein (1980) Understanding attitudes and predicting social behaviour. New Jersey: Prentice-Hall, Inc

1. Behaviour: A specific behaviour defined by a combination of four components: action, target, context, and time (e.g., teaching the students personal hygiene by the teacher (action) to help the pupils (target) in the schools maintain hygienic practices (context) every time (time)).

2. Intention: The intent to perform a behaviour is the best predictor that a desired behaviour will actually occur. In order to measure it accurately and effectively, intent should be defined using the same components used to define behaviour: action, target, context, and time. Both attitude and norms, described below, influence one's intention to perform behaviour.

3. Attitude: A person's positive or negative feelings toward performing the defined behaviour.

4. Behavioral Beliefs: Behavioural beliefs are a combination of a person's beliefs regarding the outcomes of a defined behaviour and the person's evaluation of potential outcomes.

In the context of this study, behavioural beliefs may refer to the pupils' beliefs regarding environmental health and benefits (concerns) derivable from environmental sanitation and personal hygiene.

5. Norms: A person's perception of other people's opinions regarding the defined behaviour.

6. Normative Beliefs: Normative beliefs are a combination of a person's beliefs regarding other people's views of a behaviour and the person's willingness to conform to those views.

The TRA provides a framework for linking each of the above variables together. Essentially, the behavioural and normative beliefs -- referred to as cognitive structures -- influence individual attitudes and subjective norms, respectively. In turn, attitudes and norms shape a person's intention to perform a behaviour. Finally, as the proponent of the TRA argues, a person's intention remains the best indicator that the desired behaviour will occur. Overall, the TRA model supports a linear process in which changes in an individual's behavioural and normative beliefs will ultimately affect the individual's actual behaviour.

TRA is very relevant to the current study. First, it implies a health educator wishing to improve on the health knowledge and practice of pupils, for example, should take action, identify the target group, the context and time for action. These are very important as their absence may not lead to the desired behaviour. In the same manner, the above behavioural components should define the intention of both the teacher and the pupils. This will guide them to work towards the same goal based on the norms establishing the school or environmental norms with reference to human activities and human health.

1.4. Research Questions

The following research questions guided the study:

1. What is the availability of sanitation and hygiene facilities in public and private primary schools for effective implementation of UBE programme in Onitsha Area of Anambra State?
2. To what extent do public and private primary schools carry out sanitation and hygiene practices for effective implementation of UBE programme in Onitsha Area of Anambra State?

1.5. Statement of the Problem

The effective implementation of the UBE programme still remains a difficult task in Nigeria educational system despite its long age of establishment (kick off) in 1999. Sanitation and healthy school environment is no doubt a prerequisite for the implementation of the UBE programme. The primary school pupils cannot take adequate care of themselves and their environment. This calls for proper provision of sanitation and hygiene facilities and its practices in our primary schools. However, this aspect of implementing UBE programme has not gotten the needed attention from the government, heads of schools and teachers. Lack of proper sanitation and hygiene practices in primary schools in Onitsha Area of Anambra State have caused various harms ranging from snake and scorpion bites, pupils' sickness as a result of communicable diseases, injury from broken bottles and other harmful objects to mention but a few. It is the intent of this study to call attention to this important factor of achieving the UBE aims and objectives.

2. Research Method

This study was carried out in Onitsha Area of Anambra State. Onitsha Area is the most business centre in Anambra State. The major occupation of the people is trading. The population of the study consists of all the 91 public primary schools and 71 private primary schools in the Area (Ministry of Education, Anambra State).

Out of the 162 primary schools in the area, a sample of 27 public and 21 private primary schools representing 30% of the population was sampled. The choice of 30% is in line with [Howitt and Cramer \(2011\)](#) recommendation of 30% to 40% of the population as adequate for a large population if the population parameter must be fully investigated. The proportionate stratified random sampling technique was applied for the sampling.

Instrument for data collection was a checklist on the availability of sanitation and hygiene facilities for research question one. The checklist used percentage (%) to ascertain availability of the facilities with the categories of 1 – 24.9 Highly Unavailable (HU), 25- 49.9 Unavailable (U), 50-74.9 Available (A), and 75-100 Highly Available (HA). For research question two, a researcher developed questionnaire adapted from "Implementation Guidelines on National School Health Programme 2006" of the [Federal Ministry of Education \(2006a\)](#) titled "School Sanitation and Hygiene Practice Questionnaire (SSHPQ)" was used. The SSHPQ instrument has sections A and B. section A contained background information on how to respond to the items, while section B contained SSHPQ items numbered 1-15. The SSHPQ used Rating scale structured thus: Very High Extent(VHE) = 4, High Extent (HE) = 3, Low Extent (LE) = 2 and Very Low Extent (VLE) =1.

The reliability of the instrument was ascertained from a standard tool which was "Implementation Guidelines on National School Health programme 2006" published by the Federal Ministry of Education. The instrument was validated by three experts: one from the department of Human Kinetics and Health Education and one from the department of Educational Management and Policy, all from Faculty of Education, Nnamdi Azikiwe University Awka.

The researchers were assisted by research assistants who were duly advised on how to administer and collect the instrument. All the sampled schools were visited and instrument shared and collected on the spot. It took four days to complete the field work. Data were analyzed using statistical Mean.

3. Results

Research Question 1: what is the availability of sanitation and hygiene facilities in private and public primary schools for the effective implementation of UBE programme in Onitsha Area of Anambra State?

Table-1. Percentage scores of availability of sanitation and hygiene facilities

S/N	The Schools have:	% Public	Dec	% Private	Dec
1	Adequate supply of water for drinking	33.5	U	30.5	U
2	Adequate supply of water for washing and flushing toilet	20	HU	16	HU
3	Borehole as source of water	00	HU	10	HU
4	Hand dugWell as source of water	00	HU	00	HU
5	Commercial water suppliers as source of water	56	A	50	A
6	No source of water	44	U	50	A
	Wash hand basins in all the classrooms	26	U	30	U
7	Wash hand basins in staff room and principal’s office	60	A	65	A
8	Rust resistant containers as waste bins	20	HU	22.9	HU
9	Toilets	15.5	HU	30	U
10	Separate toilets for boys	00	HU	00	HU
11	Separate toilets for girls	00	HU	00	HU
12	Separate toilet for teachers	14	HU	25	HU
13	Pit toilet system	15.5	HU	30	U
14	Water closet(WC) toilet system	00	HU	00	HU
15	A toilet per 30 pupils	00	HU	00	HU
16	Fitted urinary for boys	00	HU	00	HU
17	Functional drainage system for water disposal	00	HU	15	HU
18	Well ventilated classrooms	90	HA	80	HA

Table 1 presented the findings on the availability of sanitation and hygiene facilities in private and public primary schools in Onitsha Area of Anambra State. The finding shows that there is lack of adequate water supply among the primary schools, private and public alike. Majority of the schools buy water from commercial water suppliers and pupils bring water from home.

Research Question Two: To what extent does private and public primary schools carry out sanitation and hygiene practice for effective implementation of UBE programme in Onitsha Area of Anambra State?

Table-2. Private and public primary schools’ Mean scores on sanitation and hygiene practices.

S/N	To what extent do your school	\bar{X} Public	Dec	\bar{X} Private	Dec
1	Treat drinking water very well.	2.28	LE	2.11	LE
2	Pupils wash their hands with soap and water after break period	2.42	LE	2.33	LE
3	Teachers wash their hands after break period	3.71	HE	3.8	HE
4	Wash its water tank at least 3 months	2.19	LE	2.85	LE
5	Dispose waste with waste bins	2.76	LE	3.0	LE
6	Pupil defecate in the bush	3.60	HE	3.84	HE
7	Pupils urinate at open place	3.23	LE	3.04	LE
8	Clean regularly charges and gutters with disinfectants	2.80	LE	2.56	LE
9	Wash and clean its toilet using disinfectants regularly	2.28	LE	2.45	LE
10	Dispose refuse immediately from the point of generation to the point of final disposal	2.52	LE	2.37	LE
11	Have domestic animals that enter and defecate in the school compound	2.71	LE	2.88	LE
12	Use dug holes as final refuse disposal	2.71	LE	2.66	LE
13	Pupils sweep school compound every morning	3.57	HE	3.50	HE
14	Pupils sweep classrooms every morning	3.5	HE	3.87	HE
15	Grown grasses in the compound are cut regularly	3.53	HE	3.70	HE
	GRAND MEAN	3.07		3.33	

Table 2 presented findings on the extent of sanitation and hygiene practices carried out in private and public primary schools in Onitsha Area of Anambra State. The findings as presented in table 2 show that there is poor sanitation and hygiene practices among private and public primary schools in Onitsha Area of Anambra State.

4. Discussion of Findings

The first finding of the study is most of the primary schools in Onitsha Area of Anambra State lacked portable water. Thus, as presented in table 1, only about two private primary schools among the schools sampled have borehole as their source of water while none of the public primary schools sampled have borehole. Half of the schools have no source of water. These findings are in line with UNICEF (2007), UNICEF (2008) which reported that only 48% of primary schools in Nigeria have access to improved water supply. Also, Ministry of Education Anambra State (2013) reported that primary schools in the State majorly get water through “other sources” other than pipe born water, Borehole, and Well. The same document stated that only 4.4% of primary schools in Onitsha Area of Anambra State have access to safe drinking water.

The issue of lack of adequate sources of water for portable and non-portable purposes poses a great challenge to these schools since there is never enough fund to carter for all school needs in addition to buying water from commercial suppliers. The study equally revealed that provision of wash hand facilities such as wash hand basins, soap and towel is lacking in the schools’ classrooms. The findings of the study agreed with Sada (2008) who found that majority of the schools in Borno state lacked adequate supply of water. The importance of water in the schools for the implementation of the UBE programme has been documented by Ogbonna (2002) who found that pupils in Enugu state needed water in their schools to maintain personal hygiene. They need water to wash their hands after break periods. This is true because, Ezeoha (2000) had found that many school children are infected by different diseases while playing during breaks. Meanwhile, majority of the schools have enough wash hand facilities such as wash hand basins in the staff rooms and principals’ office. The National guidelines for implementation of school Health Programme (2006) had recommended provision of wash hand facilities such as wash hand basins, soap and towel at classrooms, staff rooms, principals’ office and other strategic places.

Provision of toilet facilities and drainage system in both private and public primary schools also proved highly insufficient. Majority of the schools (over 70%) both private and public do not have toilet in their schools. The few that have toilet only have pit toilet while there is no separate toilet for girls and boy.

Again, data analysis as presented in table 2 showed that pupils in both types of school drink untreated water gotten from either home or school. The pupils fail to wash their hands regularly after break period. Though, the school water tank is regularly washed at least every 3 months in the private primary schools, in the public primary schools, the school water tank is not regularly washed. Meanwhile teachers from both schools wash their hands after break regularly. Lack of proper washing of hands by children according to Chukwu (2008) has resulted in the spread of epidemics among school children in Enugu State. The finding of this study is also supported by Adara (2010) who found that inability to wash hands after toileting caused cholera among primary school children in Benue state. Again, Abiola (2005) found that some school children, especially those in rural areas, normally come to school with untreated water. This can lead to ill health if urgent steps are not taken to reverse the trend.

The findings concurred with UNICEF (2007) which reported that National estimate from 2004 showed that less than half of the Nigerian population do not have access to improved sanitation facilities. In the same vein, Federal Ministry of Education (2006b) lamented poor sanitation and hygiene practices in Nigerian primary schools. Ministry of Education Anambra State (2013) equally stated the poor sanitation and hygiene abuse in primary schools of the state. Unacceptably, majority of the pupils due to lack of toilet still defecate in the bush and also urinate in the open places within the school compound; toilets are not regularly washed with disinfectants while domestic animals still find their way into the school compound and litter it with their waste products. However, wastes other than human bye products and refuses are properly disposed with waste bins, classrooms and school compound are properly swept and cleaned and grown grasses are frequently cut.

5. Implications of the Study

The following are the implications of the study based on its findings:

The state government can provide sanitation and hygiene facilities in the schools to help prevent some diseases. From the findings in the study, it clearly implied that the achievement of Universal Basic Education aims and objectives will continue to be a difficult task due to lack of adequate provision of sanitation and hygiene faculties.

Pupils’ enrolment will decrease significantly and there will be high rate of pupils’ absenteeism, due to sickness and diseases contacted from dirty environment and food. Communicable diseases will also be prevalent. Child mortality rate shall continue to be at the increase. This will be caused by unhygienic and unsanitary practices in schools and homes. The probability of children to survive fast killing disease such as diarrhea, dysentery, malaria and typhoid becomes low. The findings of the study also imply that Government and other educational stakeholders in Anambra State and Onitsha in particular can take policy actions capable of eradicating unhygienic and unsanitary practices in the area.

6. Conclusion

Based on the findings of this study and the discussion of the findings, the conclusion of the study is that private and public primary schools in Onitsha Area of Anambra State lack adequate sanitation and hygiene facilities for the effective implementation of UBE Programme. Also they still fail to carry out proper sanitation or hygiene practices for the realization of the UBE programme.

7. Recommendations

Based on the findings of the study, the following recommendations were made:

- (1) Government should put more effort to provide sanitation and hygiene facilities to public primary schools.
- (2) Proprietors of private primary schools should map out strategy to provide sanitations and hygiene facilities in their schools.
- (3) The Local Government Education Authorities (LGEAs) in the area and the school board should always make both routine and on the spot visits to schools to ensure compliance on sanitation and hygiene practices.
- (4) Head teachers and teachers should be properly sensitized on the importance of sanitation and hygiene practices.
- (5) Pupils should be encouraged to observe sanitation and hygiene practices by teaching them rhymes, songs and plays on sanitation and also forming Health and Sanitation Club in the schools.

References

- Abiola, R. (2005). *Impact assessment of industrial effluent on water quality of the receiving alaro river in Ibadan*. Nigeria: 1: 1-13.
- Adara, O. A. (2010). Effects of environment on human productivity. *Nigeria Journal of Health Education and Welfare of Special People*, 3(1): 12-17.
- Adu, D. A. and Aremu, A. S. (n.d). Assessment of sanitation facilities in selected private primary schools within ilorin metropolis.
- Agbo, H. A. (2008). Biotechnology Innovation in Africa. Available: www.scincemag.org
- Agbo, H. A., Envuladu, E. A., Adah, U. G. and Zoakah, A. I. (2012). An assessment of toilet facilities in secondary schools in jos north local government area of plateau state. *Greener Journal of Educational Research*, 2(4): 91-94.
- Ajzen, I. and Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Prentice-Hall: Englewood Cliffs, NJ.
- Anija-Obi, F. N. (2001). *Environmental protection and management: Planning, process and strategies for sustainable development*. University of Calabar Press.
- Anija-obi, F. N., Eneji, C. O., Ubom, B. A. E., Dunnamah, A. T. and William, J. J. (2013). Introducing environmental sanitation education in the primary school curriculum. *International Research Journal*, 4(3): 227-30. <http://www.interestjournals.org/ER>
- Chukwu, O. (2008). Analysis of groundwater pollution from abattoir waste in minna, Nigeria. *Research Journal of Dairy Sciences*, 2(4): 74-77.
- Ezeoha, S. L. (2000). *Pollution and biogas production potentials of abattoir wastes*. Unpublished m. Eng. Project report, department of agricultural engineering. University of Nigeria, Nsukka: Nigeria.
- Federal Ministry of Education (2006a). *National school health policy*. Federal Ministry of Education Publications: Abuja.
- Federal Ministry of Education (2006b). *Implementation guidelines on national school health programme*. Federal Ministry of Education Publications: Abuja.
- Howitt, D. and Cramer, D. (2011). *Introduction to Research Methods in Psychology*. Pearson Education Ltd: Essex.
- Idehen, C. O. and Oshodin, O. G. (2008). Factors affecting Health instruction in secondary schools. *Ethno med*, 2(1): 61-66.
- Lewin, K. (1951). The health belief model and personal health behavior. *Health Education Monographs*, 2(4): 409–19.
- Ministry of Education Anambra State (2013). *Annual school census report*. Ministry of Education Publications: Enugu.
- NPE (2004). *National Policy on Education*. 4th edn Federal Republic of Nigeria.
- Ogbonna, J. C. (2002). Food hygiene training: The next step Jnl. *Royal Soc of Health*, 4(2): 209–21.
- Sada, J. L. (2008). Food and nutrition: Attitudes, beliefs, and knowledge in the United Kingdom. *American Journal of Clinical Nutrition*, 65(19): 55-95.
- UNICEF (2007). *Information sheet on water, sanitation and hygiene in Nigeria*. UNICEF office: Abuja.
- UNICEF (2008). *Frequently asked questions on sanitation and hygiene*. UNICEF office: Abuja.
- WaterAid (2012). Annual Reports. Available: <http://www.wateraid.org/us/who-we-are/annual-reports>
- WHO (2004). The world health report 2004 - changing history. Available: <http://www.who.int/whr/2004/en/>
- WHO (2006). The World Health Report 2006 - working together for health. Available: <http://www.who.int/whr/2006/en/>