

# Assessment of The School Environment of Public and Private Primary Schools in Ekiti State

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## Abstract

The study assessed the school environment of public and private primary schools in Ekiti State. The study adopted cross sectional descriptive research design. The target population for this study comprises primary schools, both public and private in Ekiti State. The population comprised of 158 private primary schools and 457 public primary schools in all the 3 Senatorial Districts of Ekiti State. A Multi-stage sampling procedure was used in selecting 266 private and public primary schools for this study. A standardized observational checklist was adapted from the school health programme evaluation scale and a well-structured questionnaire was used. The face and content validity of the instruments were ensured. Internal consistency reliability method was used; Cronbach's alpha statistics was used to test for the internal consistency of the instrument (questionnaire) which yielded reliability index of 0.806. Descriptive analysis and inferential analysis were used to analyze the data collected. Findings from the study showed that the physical environment of public and private primary schools were not in good condition. It was also concluded that a little above average number of teachers had good knowledge of physical school environment. It was recommended among others that an intensive and comprehensive educational initiative should be organized for the pupils and teachers on the importance of healthful school environment.

**Keywords:** Assessment, School Environment, Public, Private, Primary Schools,

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## Introduction

Environment, according to Eboh (2017), refers to a person's surroundings and objects in their vicinity. Anikweze (2018), defined environment as the physical and non-physical space in which human-beings start their lives, mature, grow, develop and eventually die. Environment has also been defined by Garrison, Kingston and McDonald (2017) as a place in which an individual's behaviour and growth occur. Physical environment is the objects or materials found in the home, school or community. It also includes the people like parents, siblings and peers (Anene, 2015).

Pupils are often exposed to environment hazards (chemical, physical and biological) as a result of the inter-personal relationship man create with his environment. The school is considered the most important organized social institution in influencing family and community (Amaran et al., 2017). As the second home of children, the school is important in terms of cognitive, affective and psychomotor development of a child, so it is expected that the best possible conditions for the growth of students' talent will be provided in the school, as such, a healthful environment is needed for proper learning and growth (Amaran et al. 2017). Schools environment are the only institutions that can nearly reach all children and are in a unique position to improve health status and general well-being of children (Amaran et al., 2017).

School Environment is a component of school health program which involves the safety and health of the entire school population. According to (Wargo, 2015), the physical school environment has a strong influence on the health of children, a contaminated environment can cause or exacerbate health problems, exposes pupils to danger and injuries with subsequent reduction in school attendance and learning ability whereas the reverse is the case with a healthy school environment. The site on which a school is sited and the surrounding environment including the air, water and materials with which children may come into contact as well as nearby land uses roadways and other perils (Aina, 2014).

Substandard school buildings are commonly found in public schools which frequently have unsafe drinking water, mouldy environments, inadequate fire alarms and fire safety, inadequate ventilation, insufficient lighting, noisy classrooms, no wiring for technology, peeling paint, and crumbling plaster (Yeoman, 2012). The age of a school building is a strong predictor of building condition. Older buildings in most public schools are less likely to have features such as controlled temperatures, acceptable lighting, good acoustics, and wiring for technology that are necessary for a quality learning environment (Earthman, 2015). School buildings in some private schools are also in a poor state. For example, most private schools have poorly constructed classrooms and playgrounds, insufficient and broken-down toilet facilities, gender insensitive location of toilets, and inadequate and inappropriate desks and other furniture.

Unhealthy school physical environment has negative effect on children's health, attendance, concentration and performance as well as lead to expensive, time-consuming clean up and remediation activities (Aina, 2014). In another development, Nwachukwu (2017) observed in Imo state that pupils study in overcrowded classrooms as indicated by 78% of his subjects and 70% also indicated that toilets, water and recreational facilities and equipment are insufficient in their schools. Marx and Wooly (2016) in their account about schools in New York stated that a school environment that is well maintained with safe and clean facilities will naturally attract pupils more; it will promote their health and glue them to their studies which in turn will boost academic achievement. Aina (2014) stated that pupils who attended schools with adequate facilities for learning were much happier than pupils

who do not have such opportunity. It implies therefore that pupils learning environment must be properly equipped so as to enhance appropriate satisfaction. Also, with the increase in private schools there is need to compare the environment of private and public primary schools environment in Ekiti State, Nigeria. This study was therefore aimed at assessing the school environment of public and private primary schools in Ekiti State. Specifically, the study was designed:

1. to assess the physical environment of public and private primary schools in Ekiti state;
2. to determine the knowledge of teachers on healthful school environment;
3. to examine the difference between the physical environment of public and private primary schools; and
4. to determine the association between knowledge of teachers on healthful school environment and their socio-demographic characteristics.

### Research Questions

The following research questions were answered in this study

1. What is the state of the physical environment of public and private primary schools in Ekiti state
2. What is the level of knowledge of primary school teachers on healthful school environment?

### Research Hypotheses

The following research hypotheses were tested at 0.05 level of significance.

1. There is no significant difference between the physical environment of public and private primary schools in Ekiti state
2. There is no significant association between knowledge of teachers and their socio-demographic characteristics on healthful school environment

### Methodology

The study adopted cross sectional descriptive research design that employed the use of a standardized well-structured adapted checklist to assess the school environment of both public and registered private primary schools in Ekiti State. This study was carried out in Ekiti State. Ekiti State is one of the States in the South-West region of Nigeria. It has an estimated size of 6,353 km<sup>2</sup>. It has 3 senatorial districts comprising of 16 local governments. The people of Ekiti are mainly of the Ekiti sub-ethnic group of the Yoruba and Edo peoples. There are 158 registered private schools and 457 public primary schools in Ekiti state with a total of 17,891 teachers in all (Source: Ekiti State Universal Basic Education Board, 2020).

The target population for this study comprises primary schools, both public and private in Ekiti State. The population comprised of 158 private primary schools and 457 public primary schools in all the 3 Senatorial Districts of Ekiti State. The sample size (266) determination for the school and head teachers were calculated using Taro Yamane's sample size formula. A Multi-stage sampling procedure was used in selecting sample for this study. In stage one of this research, 6 Local government Areas were selected from 3 senatorial district using simple random sampling technique. In stage 2 of this research, 4 towns were selected in each of the selected local government area. Stage 3 involved selection of 266 public and private primary schools from the 24 selected towns using stratified sampling technique (166 public and 100 private schools). Purposive sampling technique was used to select the head teachers.

A standardized observational checklist was adapted from the school health programme evaluation scale by Nwadub et al. (2016) and a well-structured questionnaire was used. The checklist covered all the domains of the school physical environment while the structured

self-administered questionnaire with open and closed ended questions elicited teachers' knowledge on healthful school environment. To establish the face and content validity of the questionnaire, experts in the area of study ensured the appropriateness of instruments to measure important variables in the study. Internal consistency reliability method was used; the instrument was tested on participants with similar characteristics to the population. The corrected and validated version of the instrument was administered on 10% of the sample size, within public and private primary schools outside the sampled area to ensure internal consistency of the instrument. Cronbach's alpha statistics was used to test for the internal consistency of the instrument (questionnaire) which yielded reliability index of 0.806.

Data was collected by the researcher and five (5) well-trained research assistants. The purpose of the study was explained to the research assistants. Research assistants were also taken through the checklist and questionnaire and how they will be used to collect data. The researchers and research assistants visited each school and assessed the environment of the selected primary schools with the use of the checklist. The questionnaire was administered to after the inspection and assessment of the school environment. Filled questionnaire were retrieved immediately after completion. Descriptive analysis and inferential analysis were used to analyze the data collected. Frequency count, simple percentages and tables was used while student t-test and chi-square was used to test the hypotheses. All the hypotheses were tested at 0.05 level of significance.

## Results

**Table 1: Socio- demographic characteristics of schools and teachers**

Variables		Public schools		Private schools	
Local Government Area (LGA)		Frequency (n = 166)	Percentage % (100)	Frequency (n = 100)	Percentage % (100)
Ado		31	18.7	20	20.0
Ikere		31	18.7	20	20.0
Gboyin		26	15.7	15	15.0
Oye		26	15.7	15	15.0
Ikole		26	15.7	15	15.0
Efon		26	15.7	15	15.0
Age as at last birthday:	20 – 29	43	25.9	24	24.0
	30 – 39	55	33.1	39	39.0
	40 – 49	49	29.5	21	21.0
	50 and above	19	11.4	16	16.0
Age as at last birthday Mean		31.28± 2.68		27.28±2.68	
Religion	Christian	158	95.2	89	89.0
	Islam	8	4.8	11	11.0
	Traditional	0	0.0	0	0.0
Academic Qualification	Post-secondary education	0	0.0	16	16.0

	Grade two	0	0.0	15	15.0
	NCE	106	63.9	30	30.0
	BSC/B.ED	60	36.1	39	39.0
Rank Head Teacher		166	100.0	100	100.0
Gender	Male	70	42.2	42	42.0
	Female	96	57.8	58	58.0
Years of teaching experience	1 – 10	46	27.7	37	37.0
	11 – 20	46	27.7	22	22.0
	21 – 30	33	19.9	12	12.0
	Above 30	41	24.7	29	29.0

Table 1 presented the socio-demographic characteristics of the respondents. Majority of the public (18.7%) and private (20.0%) schools used under this study were from Ado and Ikere Local Government respectively. However, the remaining four (4) LGA of study; Gbonyin, Oye, Ikole, and Efon had a uniform distribution (15.7% and 15.0%) in public and private schools respectively. Also, the table 1 presented the socio-demographic characteristics of respondents overall mean age of the respondents in public were (31.28±2.68) and private (27.28±2.68) schools respectively. Majority (62.4%) of respondents were from public schools. Majority (95.2% and 89.0%) of the respondents were Christians in both public and private schools respectively. Less than average (36.1% and 39.0%) of the respondents from both public and private schools respectively had BSc/B.Ed. qualifications. All (100.0%) of the respondents in public and private schools were head teachers. More than average of the respondents in the public (57.7%) and private (58.0%) schools were females. However, less than average (37% and 27.7%) of the respondents from private and public schools respectively had teaching experience of 1-10years.

**Research Question 1:** What is the state of the physical environment of public and private primary schools in Ekiti state?

### Table 2: The physical environment of public and private primary schools

Table 2 showed the state of the physical environment of public and private primary schools. Majority (52.4% and 51.0%) of respondents in the public and private schools respectively did not comply with the recommended classroom pupil ratio of 1:20. Also, the majority (95.2% and 89.0%) of respondents in the public and private schools respectively had well-ventilated classrooms. More than average (71.7%) in the public schools had old offices but with strong walls. while less than average (37.0%) in private schools had old offices but with strong walls. Also, less than average (39.0% and 27.1%) in both public and private schools respectively had no sporting and recreational resources. Also, the majority (77.7% and 80.0%) of both public and private schools respectively practiced the open dumping and burning method. Less than average (27.7% and 37.0%) of public and private schools respectively had no sources of water, Most schools had at least one source of water.

**Research Question 2:** What is the level of knowledge of primary school teachers on healthful school environment?



**Table 3: Distribution of Respondents Knowledge on Healthful School Environment**

Schools	Poor		Fair		Good		Total
	Frequency	Percentage (%)	Frequency	Percentage (%)	Frequency	Percentage (%)	
<b>Public</b>	61	36.4	12	7.4	93	56.2	166
<b>Private</b>	35	35.0	15	15	50	50.0	100
<b>Total</b>	96		27		143		266

Table 3 showed the knowledge of teachers on healthful school environment. Majority of the respondents in public schools (56.2%) and an average (50.0%) of those in private schools had good knowledge, less than average (36.4%) respondents in public and (35.0%) Private schools had poor knowledge on healthful school environment. Each question on the instrument for measuring knowledge had scores attached and this was used to create a composite score of knowledge. Based on the cumulated scores, the mean scores of the respondent was taken as cut-off point and respondents who scored above the mean 12.4 were considered to have "Good Knowledge" while at the point of mean was said to have "Fair Knowledge" and below mean was said to have "Poor Knowledge".

#### Test of Hypotheses

**Hypothesis 1:** There is no significant difference between the physical environment of public and private primary schools in Ekiti state

**Table 4: Difference between the physical environment of public and private primary schools**

Variables	Groups	Mean(SD)	T	p-value
State of Infrastructure in the school	<b>Private</b>	10.44(2.43)	0.45	0.64
	<b>Public</b>	10.28(2.36)		
State of the School Toilet Facility	<b>Private</b>	9.94(4.91)	0.87	0.56
	<b>Public</b>	10.56(4.90)		
Presence of Health Hazards in the School Environment	<b>Private</b>	4.72(1.91)	0.23	0.38
	<b>Public</b>	4.66(1.85)		
Presence of Safety Measure in the School Environment	<b>Private</b>	17.83(1.57)	0.93	0.81
	<b>Public</b>	17.62(1.52)		
	<b>Public</b>	2.66(0.81)		

Table 4 showed that there is no significant difference in the healthful school environment of public and private schools at p- value in all the domains were more than 0.05. Thus, the null hypothesis was accepted and alternate rejected. T-test was used to test the significant difference between variable.

**Hypothesis 2:** There is no significant association between knowledge of teachers and their socio-demographic characteristics on healthful school environment

**Table 5: Association between knowledge of teachers and their socio-demographic characteristics on healthful school environment**

Variables	Knowledge	$\chi^2$	p-value
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		Poor Knowledge	Fair Knowledge	Good Knowledge		
<b>Age</b>	20-29	17(25.4)	4(6.0)	46(68.7)	13.07	<b>0.04*</b>
	30-39	35(37.2)	8(8.5)	51(54.3)		
	40-49	22(31.4)	10(14.3)	38(54.3)		
	50 and above	18(51.4)	5(14.3)	12(34.3)		
<b>Religion</b>	Christian	85(34.4)	25(10.1)	13(55.5)	0.05	0.97
	Islam	7(36.8)	2(10.5)	10(52.6)		
	Traditional	0(0.0)	0(0.0)	(0.0)		
<b>Academic qualification</b>	Post-secondary education	5(23.8)	2(9.5)	14(66.7)	8.81	0.18
	Grade	3(42.9)	0(0.0)	4(57.1)		
	NCE	27(41.5)	11(16.9)	27(41.5)		
	BSc/BE	37(34.3)	8(7.4)	63(58.3)		
<b>Rank</b>	Head teacher	48(28.4)	15(8.9)	106(62.7)	15.40	<b>0.01*</b>
	Class teacher	28(40.6)	7(10.1)	34(49.3)		
	Head of department	16(57.1)	5(17.9)	7(25.0)		
<b>Gender</b>	Male	43(38.4)	18(16.1)	51(45.5)	10.80	<b>0.03*</b>
	Female	49(31.8)	9(5.8)	96(62.3)		
<b>Years of teaching experience</b>	1-10	30(36.1)	16(19.3)	37(44.6)	16.10	<b>0.01*</b>
	11-20	27(39.7)	1(1.5)	40(58.8)		
	21-30	14(31.1)	3(6.7)	28(62.2)		
	Above 30	21(30.0)	7(10.0)	42(60.0)		

Table 5 showed the fisher exact chi-square test used to test the association between socio- demographic variables and teachers' knowledge on healthful school environment. The results showed that age was statistically associated with teacher knowledge ( $\chi^2= 13.07$ ,  $p=0.04$ ). Also, the rank of teacher was statistically associated with teacher knowledge on healthful school environment ( $\chi^2=15.40$ ,  $p=0.01$ ). Gender was also statistically associated with teacher knowledge ( $\chi^2=10.80$ ,  $p=0.03$ ). Furthermore, teaching experience was also found to be statistically associated with knowledge on healthful school environment ( $\chi^2= 16.10$ ,  $p=0.01$ ). For religion and academic qualification, both were not significantly associated.

## Discussion

This study revealed that majority of the respondents were from public schools (62.4%) compared to private schools (37.6%). Majority of the respondents from both Private



and Public Schools were from Ado and Ikere Local Government Areas. However the remaining four Local governments in the study area had uniform respondents. Majority (44.0%) of the respondents from private schools had BSC/B.E.d. On the contrary, respondents from public schools majority (63.9%) had NCE qualifications. Furthermore, majority (37.0%) of respondents from private schools had teaching experience within 1-10 years compared to teaching experience of respondents from public schools where majority (27.7%) were within 11-20years. This findings was consistent with a similar study (Amaran et al., (2017) who reported that majority of the respondents in his study had NCE qualifications. Advanced education and years of experience are important for teachers to know the ideal on healthful school environment and to be able to identify risk factors.

Findings also showed that majority of the public and private schools had dilapidated walls. This findings was similar to the work of (Amaran et al., (2017) who reported that majority of public and private schools had dilapidated walls. Dilapidated buildings are risk in a school environment and it endangers the life of pupils'. In recent times there are reports of collapse of buildings in school environment in Nigeria (Amaran et al., (2017). Majority of the public schools did not comply with recommended classroom pupils' ratio of 1:20 compared to what was obtained in private schools, also public schools classroom were well ventilated than private schools. Oovercrowding and poor ventilation will expose the pupils to infectious diseases and this may have negative impact on the health and pupils' academic performances. This finding was consistent with a previous study of Ofovwe and Ofili (2016). Also, finding showed that majority of public schools had sporting and recreational facilities than private schools. Finding was similar to study of Amaran et al., (2017) who reported that public schools had more sporting and recreational facilities. Provision of sporting and recreational facilities provides opportunity for pupils to be active and to engage in exercises that have positive implications on their quality of life and wellbeing. Despite the perennial scarcity of water in Enugu, two-third of the schools studied have a form of water supply (better in the private schools).

This contrasts other studies done in other parts of Southwest Nigeria where water was found in 30% and 35% of schools, respectively, but similar to the finding of water in 88% of schools in Oredo by Mbaerie et al.(2015) Water is essential for life and existence and is thus celebrated on March 22 every year. In schools, it is used for drinking, hand washing, flushing toilets and cleaning. In addition, findings from the study showed that the state of physical environment in public schools have (25.9%) of buildings are new, (71.7%) with old but strong walls, 19.3% with good waste disposal system, these are in poor state in private school but little better in public schools due to government intervention in public schools, private schools are autonomous with limited sources of funds. It is important that community health nurses must provide school support programs educating school owners on the impact of school environment on pupil's health and learning ability, they can also make recommendations on healthful practices and policy to adopt in private schools that will prevent environment hazards.

The study showed that just above average number of teachers in public schools had good knowledge while an average of teachers in private schools had good knowledge This finding was similar to the studies of Aluko (2018), who reported that the majority of the respondents in his study have good knowledge of school health programme in public and private schools. Knowledge of teachers about healthful school environment is significant to achieving a healthful school environment.

This study showed that age, rank, gender and years of teaching experience have significant relationship which is statistically associated with teacher knowledge, there is significant association between age and teacher knowledge ( $\chi^2=13.07$ ,  $p=0.04$ ) this is in line with the p-value, Rank of teacher is also statistically associated with teacher knowledge on healthful school environment ( $\chi^2=15.40$ ,  $p=0.01$ ). Gender is also statistically associated with teacher knowledge ( $\chi^2=10.80$ ,  $p=0.03$ ). Teaching experience also have significant relationship with knowledge on healthful environment  $\chi^2=16.10$ ,  $p=0.01$ . This was in agreement with the study of Oseji and Okolo (2011). Religion and academic qualification were not significantly associated with knowledge on healthful school environment.

### Conclusion

Findings from the study showed that the physical environment of public and private primary schools were not in good condition. It was also concluded that a little above average number of teachers had good knowledge of physical school environment.

### Recommendations

Based on the findings of this study, the following recommendations were made;

- i. More health personnel needs to be employed to cater for the health of the school pupils.
- ii. There is a need for the ministry of education and inspectors to monitor and enforce the implementation of national guidelines on healthful school environment.
- iii. Schools without fences should have functional doors and windows that can be locked to prevent faecal matter in class.
- iv. An intensive and comprehensive educational initiative should be organized for the pupils and teachers on the importance of healthful school environment.
- v. Community nurses should also prioritize health education in primary schools

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