



**THE INFLUENCE OF SCHOOL ENVIRONMENT ON LEARNING AMONG STUDENTS
OF BENUE STATE UNIVERSITY, MAKURDI BENUE STATE NIGERIA**

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Abstract

The purpose of this study was to find out the influence of school environment on learning among students of Benue State University, Makurdi. 250 participants were selected but only 244 respondents returned their questionnaire. A descriptive survey method was used and three hypotheses were tested using simple regression coefficient for the first hypothesis and independent t-test for the second and third hypothesis. The result showed that school environment has no significant influence on students' learning. Although statistics has not proven a significant influence of school environment on learning, however, some scholars have substantive works with significant influence the school environment has on learning. For example, Day (off-campus) students did differ significantly from their boarding (on-campus) counterparts on learning. There was a significant difference between mixed and single school students on learning. Finally, the study recommended that provision of facilities like modern laboratories, functional libraries, and comfortable classrooms are for better learning. In addition to effective maintenance or renovation of old buildings, chairs, desks, recreational equipment, among others, should be part and parcel of the schools system. The Benue state government and largely state governments in Nigeria should pay more attention to education by providing the necessary funds to state own universities to not only provide necessary learning facilities but maintain existing structures.

Keywords: *School Environment, Learning, Single Schools or Classes, Mixed-Schools or Classes, Boarding, Day.*

Introduction:

Education is a primary need in this era of globalization. Education not only gives insight, but also grooms the personality, inculcates moral values, adds knowledge and gives skill (Musarat, Sundus, Faqiha, Fozia & Ayesha, 2013). The world is making progress day by day because education is the only key to match the pace of its progress. People are giving preference to higher education. Hence, the quality of students' performance remains at the top priority for educators (Musarat, et al, 2013). Some factors have been found to be related to learning among students; such include school environment among others (Ajayi, 2001 and Duruji, Azuh, & Oviasogie, 2014).

The school environment refers to a factor within the school that influences the teaching-learning process. The school environment includes classrooms, library, technical workshops, teachers' quality, teaching methods, peers, among others variables that can affect the teaching-learning process (Ajayi 2001). Be that as it may, the extent to which students learn could be enhanced depending on what the school environment provides to the learners and the teacher.

Ayoo (2002) agreed that school environment such as classrooms, desks and books have a direct impact on good performance among the students in developing countries. This is because, for instance, classrooms are places where pupils spend the greatest part of their day. Wabuoba quoted in Chuma (2012) observed that overcrowding in classrooms makes it difficult for pupils to write, and this makes it difficult for teachers also to move freely around the class to assist needy pupils and consequently, this affects the teaching-learning process. The implication of this is that a crowded classroom condition is not only difficult for learners to concentrate but inevitably limits the amount of time teachers can spend on innovative teaching methods such as in cooperative learning and group work. Similarly, Bernstein (2006) noted that in the United States of America, pupils who attend well maintained schools with good classrooms have a higher achievement than those who attend poorly maintained schools with poor classrooms. Schools with adequate facilities stand a better chance of providing education effectively. Based on this, Hines (1996) found that student achievement was as much as 11 percentile points lower in substandard buildings as compared to above standard buildings.

More so, availability of instructional materials is a core determinant in the successful implementation of any curriculum. The head teacher should ensure there is proper selection and procurement of teaching-learning resources. According to Agosiobo (2007), the use of teaching resources is important because they motivate learners to learn as they offer stimulus variation and assist

in sustaining learners' attention throughout the lesson. Collin and Rosmiller (1987) assert that even highly competent teachers find it difficult to teach effectively with inadequate facilities or if they are lacking the necessary instructional materials. Ashton (2001) observes that instructional materials are crucial in planning and implementing a successful life skill program. The availability of learning resources is the most influential factor which may explain differing performance levels. It is generally assumed that the use of instructional materials leads to better performance. Kathuri (1986), in his study, found that the presence or absence of resources have an effect on teaching and learning. Avalos (1991) pointed out that the quality of education the learners receive bears direct relevance to the availability or lack of instructional materials. Schools with adequate facilities such as textbooks and other instructional materials stand a better chance of having better results than poorly equipped ones. Textbook ratio should be one book per three pupils in lower primary and one book per two pupils in upper primary (Republic of Kenya, 2003). Asikhia (2010) pointed that adequately well prepared instructional materials determine the amount of learning that can take place in a learning institution. Good quality instructional materials can motivate interest, maintain concentration and make learning more meaningful. One aspect of the school environment that has implications for the physical design of a building and for the kind of education students receive is the class size into which students are grouped. One of the major problems with increasing class size is that, usually it increases spatial and social density. The consequences of high-density promote disruptive behaviours in many situations; the class room is probably no exception. In view of this, Adeyemo (2012), Adepoju & Oluchukwu (2011), Alimi, Ehinola & Alibi (2011), Earthman (2002) and Kamaruddin, Zainal & Aminuddin (2009) argue that the availability and quality of educational facilities such as school buildings, classrooms, chairs, tables, laboratories and the likes have positive impacts of the academic performance on students. This means that the school environment determines how much learning and teaching will be possible. However, Sabitu, Babatunde & Oluwole (2012) adds that the availability of the facilities must be mixed with a skilful usage of them so as to aid teaching and learning. Another different argument was put forward by Ajayi (1998) and Adepoju (2002) that despite the efforts at ensuring educational training facilities available and making students have equal educational opportunities so as to improve their performance in both internal and external examinations, there are evidences of poor performance of students recorded in public examinations like Senior School Certificate Examinations (SSCE) and National Examination Council (NECO) (all cited in

Adepoju & Oluchukwu, 2011). That is to say, despite this claim improvement in infrastructural facilities did not positively impact academic performance.

Adetunde and Asare (2009) examined comparative assessment of performance of Day and Boarding students in senior secondary school certificate mathematics examination in Kassena-Nankana and Asuogyaman districts of Republic of Ghana. An ex-post facto research design was adopted, using a multistage probability proportion to size (MPPS) method to select the samples from the population used in this study. Out of 11 Secondary schools in the two districts, 4 whose results were consistently released for years were selected for the study. Hypothesis was tested while the analyses of data were presented using t-test for differences between sample means. The study revealed that there was a significant difference between a student been a boarding student and day student.

A study by Ellen Hart-Shegos (1999) found that student's academic performance is hampered by their poor cognitive development and by the circumstances of their lack of accommodation, and constant mobility. Numerous findings revealed that, living off campus could negatively affect retention, graduation rates, and general academic performance (Astin, 1973; Riker, 1993 and Thompson, Samiratedu & Rafter, 1993).

Blimling (1989) examined the effect of on-campus versus off-campus living on general student's academic performance; academic progress and retention, and found that living on-campus positively affected academic performance. To buttress the foregoing, Pascarella and Terenzini (2005) also affirmed that living on campus can positively impact retention, graduation rates, and general academic performance. Astin (1993) found that when compared on-campus students with off-campus students, those living on-campus reported more satisfaction with their overall school experience. The author further discussed the direct benefits of living on campus which includes: leadership skills, interpersonal abilities, job skills and cultural awareness. He measured three residency options for students: at home, in the hostel, and in a private room or apartment. The mitigating factor was the distance of the residence from the university. His findings suggested that the most direct effects on students' academic performance were associated with living at home and the distance from home to the university. The greater distance students had to travel from their residence to the university had a negative effect on attainment of a bachelor's degree, satisfaction, and their willingness to continue at the same university.

Again, Pascerella, Terenzini, and Blimling (1994), in the same vein, compared on-campus and off-campus students and found that, on-campus students had a significantly higher level of peer support, greater academic success, social

experiences, greater satisfaction and commitment on their overall educational experiences.

Clarke (1873) purported that academic competition with boys overloaded girls' brains and interfered with the development of their reproductive organs. Research shows that some students may learn better in single-sex education environments than mix-sex education environments. Girls and boys see, hear, and experience the world differently. They learn and behave differently because their brains are biologically wired differently (Sax, 2005 and Gurian & Henley, 2001). These differences are profound, and should be recognized and used to provide a more effective and efficient middle school education for both boys and girls. Ignoring these differences results in a "one-size-fits-all" educational mentality that does not benefit either males or females.

Another difference in how male and female brains work is in the area of navigation. Saucier, Green, Leason, MacFadden, Bell & Elias (2002) found that men are more likely to use absolute direction such as north and south and absolute distance such as miles, while women are more likely to use landmarks that can be "seen or heard or smelled" (Sax, 2005). These different strategies point to the use of different parts of the brain used by males and females to accomplish the same task. Males use the hippocampus to navigate and females use the cerebral cortex to navigate (Gron, Arthur, Manfred, Riepe, 2000; O'Keefe and Nadel, 1978). Transferring this information to the classroom, it can be suggested that using different instructional strategies to teach males and females such subjects as geometry and higher order mathematics classes would be warranted (Sax, 2005). Since males use the hippocampus, an organ with no direct connection to the cerebral cortex, to work with math problems, they are more likely to enjoy "math for math's sake" than the girls (Sax, 2005). To get the same middle school age girls interested in math, it must be connected to the real world. The same concept could be taught to both boys and girls, but different strategies would be used to address the male preference for abstraction, and the female preference for real-world application. Sax states his belief that "there are no differences in what girls and boys can learn. But there are big differences in the best ways to teach them" (Vincent and Steven, 2008). Classroom implications of these facts are relevant to instructional strategies. Asking middle school age girls to write or talk about how they "feel" is a relatively easier assignment for them than for boys, as both feeling and language skills are processed in the cerebral cortex. Asking middle school boys the same question is asking them to link the amygdala for emotions, and the cerebral cortex for language, which is a much more difficult task (Sax, 2005).

Selection of reading materials is also linked to male and female brain differences. Most boys prefer action novels. Ehrhardt states that “They see life as a battle and war stories appeal to that side of their nature” Association for Supervision and Curriculum Development (ASCD, 2001). Most girls prefer fiction, delving into a character’s motives and behaviors (Simpson, 1991). Teachers can also vary how they teach the various content of reading assignments to enhance student engagement. Most girls enjoy role-playing and discussing the pros and cons of various situations in which the characters find themselves (McDonald, 2001). Most boys enjoy a “hands-on” activity to make sense of the reading material, for example, constructing a map of the various locations found in the story (ASCD, 2001). Girls usually have better verbal skills and rely on these skills while boys, usually, rely on non-verbal communication, being less able to verbalize feelings as quickly as girls (Gurian and Henley, 2001). Valeski and Stipik, 2001 and Gurian & Henley, 2001). Since males have more development in the right hemisphere, they are usually more skilled at measuring, mechanical design, geography, and map reading. Eldon (2001) wrote that of the five million participants in the 1999 National Geography Bee, forty-five times more boys than girls were likely to be finalists.

According to Leslie (1999), girls describe their experiences in single-sex classes as “freedom to excel without social pressure”. More generally, the research suggests that girls show personal growth through improved confidence (Arbor, 1998), a positive self-image (Lee, 1986), and higher self-esteem (Mael, 1998). They also show a great interest in academics and an increased educational ambition (Lee, 1986). Boys also benefit from improved self-esteem (Mael, 1998) and tend to ask more questions in class (Arbor, 1998).

Riordan (1990) is one of the few researchers to provide some insight into the effects of single-sex education on at-risk students. He found that black students of both sexes performed better academically and behaviorally in single-sex schools. Riordan’s work supported Coleman’s conclusion that disadvantaged students receive the greatest benefits from single-sex schools (Coleman, 1961). Some feminists suggest that single-sex schools will help “level the playing field” by providing girls with “safe, unthreatening learning environments where girls can thrive and develop their confidence” (Thompson & Ungerleider, 2004). Others fear that the “hidden curriculum” which glorifies masculinity and patriarchy will continue to thrive in single-sex schools unless education policies address these issues in the coeducational setting.

Schneider & Counts, (1982) underscore the more academic orientation of single-sex schools and document more time spent on homework and a desire on the part

of the students to be remembered for their academic abilities rather than their social popularity or involvement in extracurricular activities. According to U.S. Department of Education (2006), some students may learn better in single-sex education environments than mix-sex education environments.

The National Coalition for Women and Girls in Education (2002) expressed opposition to single-sex education and wrote: Single-sex education does not guarantee improved schools. Rather, the elements that enable children to succeed in single-sex education can be replicated in coeducational settings. These elements include a focus on core academics, small class size, qualified teachers, sufficient funding, and parental involvement.

Statement of the problem

The influence of school environment on learning among students is very important. There are problems and a lot of doubts as to what effects, the physically built environment of a school can have on the general learning of students in that environment. There is an idea that when the basic needs for security and comfort are not met then there is laxity or dissatisfaction with the learning result. Therefore, the basic problem of this research to study and come up with reliable facts about influence which the school environment have on learning. Also, it is the problem of this study to explore the impact of school environment on learning among students.

Previous studies on learning among university students and school environment as its determinant were either conducted outside Benue state university or are too outdated. Accordingly, the existing studies could not adequately explain the influence of school environment on learning among students of Benue state university, Makurdi. Thus, the issue of school environment and its influence on learning among university students is a virgin area of research in Benue State in general and in Makurdi in particular. Consequently, this study was conducted to fill this knowledge gap by focusing on school environment, the difference in learning between day (off campus) and boarding (on-campus) students and the difference in learning between mixed and single students.

Objectives of the study

- i. To examine the influence of school environment on learning
- ii. To determine the difference in learning between day (off campus) and boarding (on-campus) students
- iii. To also observe the difference in learning between mixed and single students.

Research questions

- i. Do school environment have significant influence on learning?
- ii. Do differences exist in learning between day (off campus) and boarding (on-campus) students?
- iii. Do differences exist in learning between mixed and single students?

Research Hypotheses

- i. There will be a significant influence of school environment on learning
- ii. There will be a significant difference in learning between day (off campus) and boarding (on-campus) students.
- iii. There will be a significant difference in learning between mixed and single students.

Methodology

Descriptive survey research design was adopted for this study. The study population consisted of undergraduates of Benue State University, Makurdi. 250 students were randomly selected across the institution. They were drawn from different cluster groups of male and female. The age range of the participants was 18-50 years; one hundred and twenty five (125) were males while also, one hundred and twenty five (125) were female. The researchers distributed 250 copies of the questionnaire among the Undergraduates of Benue State University in Nigeria. They were distributed among male and female. Only 244 copies of the questionnaire were returned and were found usable.

Instruments

The instrument for this study was a questionnaire. It was a set of questions relating to the aims and objectives of the study which respondents were required to respond to by ticking their choice. To elicit genuine responses, the twenty three (23) item questions used an adjusted five-point Likert scale based on Agree, Strongly Agreed, Undecided, Disagree and Strongly Disagree.

Procedures for Data Collection

The researchers personally administered the questionnaires to the respondents at their various lecture halls and departmental resorts (parks).

Method of Data Analysis

The simple regression coefficient and independent t-test were used to analyze the data on this research.

Results

Hypothesis one: school environment will significantly influence learning

Table 1: sample regression coefficients showing the influence of school environment on learning

Variables	β	t	S.E	R ²	F	P	Remark
Constant	20.49	1.12	.01	2.78	.05	NS	
School Environment	-.11	-1.67					

Dependent variable: Learning $R=106, R^2 = .01; F = 2.78, P < .05$

The result of the simple regression analysis in table 1 shows that, the independent variable which is school environment does not significantly predict learning ($\beta = -.11; SE = 1.12; P < .05$) and accounted for 10.6% of the variance, in the overall student learning.

Hypotheses two states that there will be a significant difference on learning between day (off campus) and boarding (on-campus) students. Result of this hypothesis is presented in table 2.

Table 2: Independent t-test showing difference between Day (off campus) and Boarding (on-campus) students on learning

Variable	Students	No.	mean	S.D	t	df	p
Day (off campus)		198	21.21	2.69			
Learning		1.37	242	.05			
Boarding (on-campus)		46	21.04	2.62			

The results from table 2 shows that day (off campus) students did differ significantly from their boarding (on-campus) counterpart on learning ($t(242) = 1.37, P > .05$). Based on this finding, the research hypothesis was confirmed. The result further shows that day (off campus) students who responded had a mean and standard deviation scores of ($x = 21.21; SD = 2.69$) while boarding (on-campus) students had a mean and standard deviation scores of ($x = 21.04; SD = 2.62$).

Hypothesis three states that there will be significant gender differences on learning. The result for this hypothesis is presented in table 3.

Table 3: Independent t-Test Showing Gender Difference On Learning

Variable	Students	No.	mean	S.D	t	df	p
Mixed		170	21.20	2.69			

Learning 2.39 241 .05

Single 73 21.05 2.64

The results from table shows that there is a significant difference between single (male or female) students school and mixed (male and females) students school on learning ($t(242) = 2.39, P > .05$). Based on this finding, the research hypothesis was confirmed. The result also shows that mixed participants had a mean and standard deviation scores of ($x = 21.20; SD = 2.69$) while single participants had a mean and standard deviation scores of ($X = 21.05; SD = 2.05$).

Discussion

The first hypothesis stated that, there would be a significant influence of school environment on learning among students. A simple regression coefficient was sued in analyzing the data and the independent variable which is school environment did not significantly predict learning among students. This finding is in line with Sabitu, Babatunde & Oluwole (2012) who opined that the availability of the facilities must be mixed with a skilful usage of them so as to aid teaching and learning. This implies that, school environment on its own cannot influence learning; it must be mixed with a skillful usage of the components of the school environment. This finding also support that the argument put forward by Ajayi (1998), Owoeye (2000) and Adepoju (2002) that despite the efforts at ensuring educational training facilities available and making students have equal educational opportunities so as to improve their performance in both internal and external examinations, there are evidences of poor performance of students recorded in public examinations like (SSCE) and NECO (all cited in Adepoju & Oluchukwu, 2011). This implies that, despite this claim improvement in infrastructural facilities did not positively impact academic performance. However, this finding is contrary to the view of other scholars as they emphasize environment as an influential of learning. Such scholars include Earthman (2002) and Kamaruddin, Zainal & Aminuddin (2009) argue that the availability and quality of educational facilities such as school buildings, classrooms, chairs, tables, laboratories and the likes, have positive impacts on the academic performance of students. This means that the school environment determines how much learning and teaching will be possible.

Relating to the second hypothesis raised, there will be a significant difference in learning between day (off campus) and boarding (on-campus) students. The finding confirmed that day (off campus) students differ significantly from their

boarding (on-campus) counterparts on learning. In line with this finding, learning can be seen in the area of climate. Anderson (1982) chose as an organizing device for reviewing the literature on school climate Tagiuris (1968) taxonomy of climate related terms. Taguiri defined climate as the total environmental quality within an organization. Accordingly, his dimensions of environment includes its ecology (the physical and material components) its milieu (the social dimension of people), its social system (the patterned relationships in the organization), and its culture (the belief systems, values cognitive structures, and meanings). In essence, the difference in learning between day (off campus) and boarding (on-campus) students might be so much determined by the climate which the students find themselves. The finding of this study align with Pascerella, Terenzini, and Blimling (1994) on-campus students that had a significantly higher level of peer support, greater academic success, social experiences, greater satisfaction and commitment on their overall educational experience. This finding are consistent with Numerous findings revealed that living off campus could negatively affect retention, graduation rates, and general academic performance (Astin, 1973, Riker, 1993, Thompson, Samiratedu, and Rafter, 1993). Blimling (1989) living on-campus positively affected academic performance (learning). Pascarella and Terenzini (2005) indicated that living on campus can positively impact retention, graduation rates, and general academic performance. According to Astin (1993), those living on-campus reported more satisfaction with their overall school experience. Adetunde and Asare (2009) posit that there is a significant difference between a student been a boarding student and day student.

The third hypothesis raised states that there is a significant difference between single (male or female) students and mixed (male and females) students on learning. This finding goes in line with Rowe and Rowe (2002), with girls in single-sex schools achieving the highest, then girls in co-educational schools, then boys in single-sex schools, and finally boys in co-educational schools. U.S. Department of Education, (2006) states that some students may learn better in single-sex education environments than mix-sex education environments. This finding is consistent with previous researches such as Vincent and Steven (2008). They maintain that single-sex schools and classes offer girls a “safe place” for learning; Parker and Rennie (1997) hold that girls have more positive attitudes toward math, science, and technology, along with a higher level of comfort, in classes that do not contain boys. Leslie (1999) expands that girls describe their experiences in single-sex classes as “freedom to excel without social pressure”. More generally, the research suggests that girls show personal growth through

improved confidence (Arbor, 1998), a positive self-image (Lee, 1986), and higher self-esteem (Mael, 1998). They also show a great interest in academics (Lee, 1986) and an increased educational ambition (Lee, 1986). Boys also benefit from improved self-esteem (Mael, 1998) and tend to ask more questions in class (Arbor, 1998). The finding of this study is not in line with The National Coalition for Women and Girls in Education (2002) which expressed opposition to single-sex education.

Conclusion

Based on the findings of this study, it was concluded that learning environment in Benue State University, Makurdi in Nigeria has no predictive impact on learning.

The study found that there was a significant difference in learning among students who stayed on campus and those who stay off campus.

The study finally concluded that there is a significant difference on learning between mixed and single schools or classes.

Recommendations

- i. The study recommends provision of facilities like modern laboratories, functional libraries, and comfortable classrooms for better learning; in addition to effective maintenance or renovation of old buildings, chairs, desks, recreational equipment among others should be part and parcel of the school system. The Benue state government and largely state governments in Nigeria should pay more attention to education by providing the necessary funds to state university to not only provide necessary learning facilities but maintain existing structures.
- ii. The Benue state government and the university management should encourage the hostels masters, to be giving counseling to the boarding (on campus) students so that they may know the need why they are in boarding school. Parents and guardians should also do likewise.
- iii. Girls and boys see, hear, and experience the world differently. They learn and behave differently because their brains are biologically wired differently (Sax, 2005; Gurian and Henley, 2001). Ignoring these differences results in a “one-size-fits-all” educational mentality that does not benefit either males or females. Therefore, the state government through the State Ministry of Education should be committed to giving communities more choice as to how they go about

offering varied learning environments to their students. These will enable parents to send their wards to single-sex schools and classes or mix-sex schools and classes as the case maybe.

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