

## THE IMPACT OF THE BUILT ENVIRONMENT ON VOCATIONAL EDUCATION IN BAYELSA STATE

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### ***ABSTRACT***

This research investigated the effects of the built environment on vocational education in Bayelsa state. The study utilized qualitative and quantitative interviews with critical stakeholders such as Trainees, Instructors, School Administrators and Youths in the host communities where the case studies were carried out; constituting a sample size of 270. The stratified sampling technique was used. Questionnaires were developed to obtain data and a null hypothesis was formulated to guide the study. Tables, percentages and bar chart were used to analyze the data and Chi-square was also used to test the level of significance of the impact of the variables on vocational education. Findings from the study revealed that the built environment has direct impact on the perception/psychology, learning, performance, enrollment and health of the trainees learning traits in vocational training centers. One of the major findings was the great level of significance of the impact of the built environment on vocational education as regards perception, learning, performance, enrollment and health of the trainees and trainers. And based on the findings, the author recommends that government and school proprietors should consider the built environment of their training centers as paramount as the establishment of same in the areas of design, availability and maintenance (sustainability).

**Keywords:** Built environment, vocational training and education.

### **INTRODUCTION**

The success of a student according to Lennie, (2013) is influenced by myriad of variables ranging from socio-economic background to internal motivation; a variable often underemphasized is the role of the built environment. Kingsley, (2011) referred to the built environment as simply to the buildings and spaces between them. It also embraces components such as light, noise, safety,

humidity, temperature, physical activity, air quality, distance, attractiveness, housing improvements, locality, immediate surroundings, accessibility, spaces, social network and time. It is a known fact that the purpose of architecture is to give order to certain aspects of our environment. Thus, from an architectural stand point, the physical environment is generally known as the built environment. The physical environment is considered as the most important component of the environment because it is that aspect with which the individual or group is in direct contact and whose effects are mostly directly visible and tangible.

The built environment in resonance with the learning environment is one of the most essential elements in the teaching and learning of vocational skills. It is on this premise Biao and Tawo (2007) opined that the presence of a conducive learning environment stimulates the learning process of the learners. It is therefore crucial for the instructor to ensure that the right environment is created for the trainees in order to achieve the objective of producing individuals that are skillfully trained in their vocations.

Vocational and Technical Education is conceived to mean the provision of relevant and functional education, which would lead to acquisition of practical and applied creative skills. It allows the individual to be productive and resourceful; so as to make progressive contributions to societal development. Arikpo (2007) defined vocational education as that training which helps Nigerians to gain the needed skills and know-how for occupation. Omoruyi and Osunde (2004) further contribution on the advantages of vocational Education, assert that, it is capable of ensuring gainful employment opportunities to other members of the society. It is pertinent to note that vocational education is a matchless and dynamic human resources development field of study. In effect, Dokubo (2010) revealed that numerous studies have shed more light on the relevance of vocational education programmes on the empowerment of rural adults and poverty reductions.

### **Impacts of the built environment on vocational skill acquisition**

The following variables were identified as the remote effects of the built environment on vocational skill acquisition in Bayelsa state. Namely: perception (psychology), learning, performance, enrollment and health.

### **STATEMENT OF THE PROBLEM**

There is the non-existence of built environment for vocational training in Bayelsa state and the few centers where it exists, it was not planned, structure dilapidated and the built environment could best be described as a slum. Cases such as these led Omieibi-davids (2006) to insist that learning environment should be created in a manner that will make trainees feel pleasurable to learn and that they should be intrinsically motivated to learn, that is, learning for the joy of learning. As such, the instructor can motivate trainees intrinsically by guiding them to satisfy their hunger and thirst for knowledge and curiosity. This is obviously not the situation the author observed in the field. The poor attitude and low enrollment rate registered in all the case study location coupled with the low turnout skilled-manpower can certainly be attributed to poor state of the built environment within the vocational training centers investigated.

### **Research Questions**

The following are basic research questions of this study;

1. What are the effects of the built environment on vocational education in Bayelsa state?
- 2 To what extent do these effects influence vocational skill acquisition?

### **AIM OF STUDY**

The aim of this study is to investigate the perception, learning, performance, enrollment and health status of students with respect to the built environment

### **OBJECTIVE OF STUDY**

- 1 To evaluate the effects of the built environment on vocational skill acquisition
- 2 To assess the level of significance of these effects on vocational education

### **Scope of Study**

The study is conducted in the eight (8) Government Craft Development Centers and Selected vocational skill training centers within Yenagoa metropolis.

### **Hypothesis**

A null hypothesis is formulated as follows: The poor built environment does not have any significantly impact on vocational education in Bayelsa state.

### **METHODOLOGY**

The data used for this study was obtained from primary sources through the administration of questionnaires. The questionnaires contained both closed and open ended questions. The research design for this study was the Ex-post Facto type. The aim of using this type of research design was to find the level of significance the built environment impacts on the vocational education.

### **RESULTS AND DISCUSSION**

The population of the study comprises of 80 trainees representing 30% of the total respondents, 10 from each of the 8 Government Craft Development Centers selected at random; 40 instructors representing 15% of the total respondents, 5 from each of the 8 Government Craft Development Centers selected at random; 25 vocational school administrators representing 9% of the total respondents, randomly selected from both public and private training centers and lastly, 125 youths representing 46% of the total respondents, randomly selected from communities hosting various vocational training centers within Bayelsa state. There the sample size was 270. The chi-square test was implored to check the impact of the various variables identified to influence vocational education as it relates to the built environment. See table 1 below.

**Table 1: Distribution of respondents based on categories**

S/N	Category	Respondents	Percentages
1	Trainees	80	30
2	Instructors	40	15
3	Administrators	25	9
4	Youths	125	46
TOTAL		270	100

Table 2 (A-D) shows the effects of the built environment on vocational education from the view points of the various respondents. Table 2A shows that 15 trainees representing 19% of the respondents considered Perception as a major effect of poor built environment on vocational education. Whereas, 19 trainees representing 23% of the respondents thought it was Learning and 18 trainees representing 22% of the respondents said it affect performance. While 16 trainees representing 20% of the respondents felt it greatly impact the enrollment rate of trainees. Health was the focus of 13 trainees representing 16% of the respondents. In like manner, the responses of Instructors, school Administrators and Youths are tabulated in tables 2B, 2C and 2D respectively.

**Table 2: Distribution of respondents to the effects of vocational education**

Table (2A) TRAINEES

S/N	Variable	Respondents	Percentages
1	Perception	15	19
2	Learning	19	23
3	Performance	18	22
4	Enrollment	16	20
5	Health	13	16
TOTAL		80	100

Table (2B) INSTRUCTORS

S/N	Variable	Respondents	Percentages
1	Perception	8	19
2	Learning	8	21
3	Performance	9	23
4	Enrollment	9	23
5	Health	6	14
TOTAL		40	100

**Table (2C) SCHOOL ADMINISTRATORS**

S/N	Variable	Respondents	Percentages
1	Perception	5	21
2	Learning	4	16
3	Performance	5	22
4	Enrollment	7	25
5	Health	4	16
TOTAL		25	100

**Table (2D) HOST COMMUNITY YOUTHS**

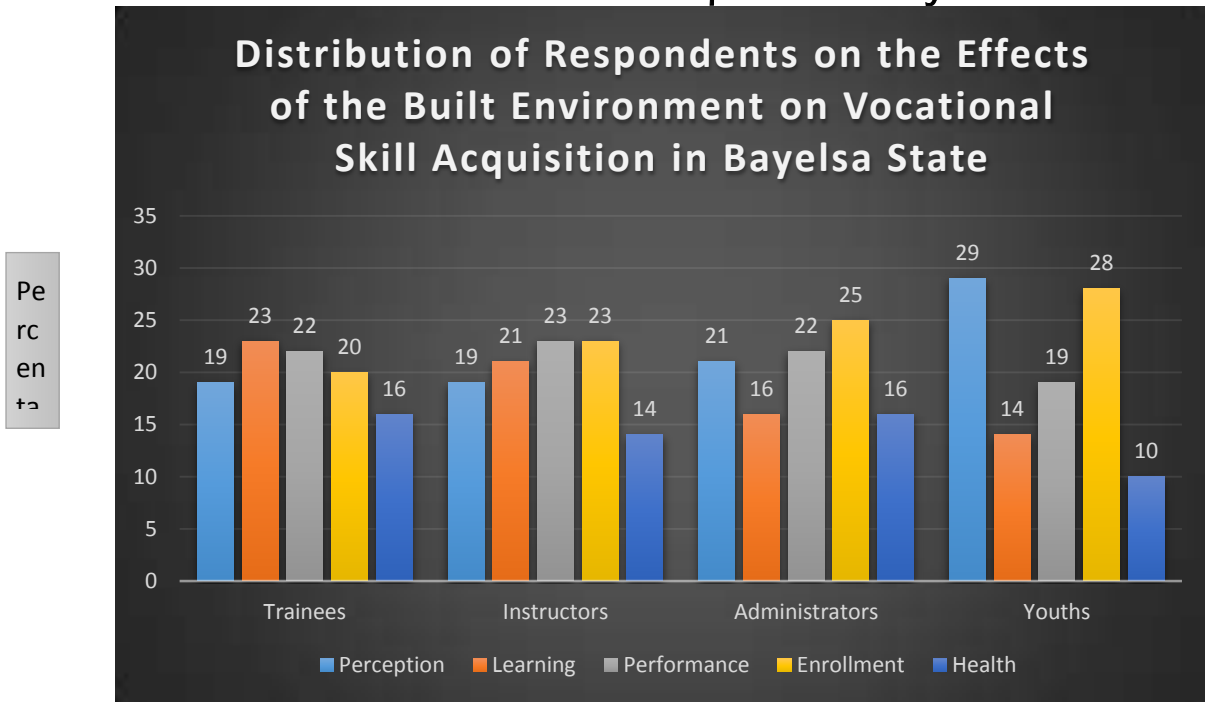
S/N	Variable	Respondents	Percentages
1	Perception	36	29
2	Learning	17	14
3	Performance	24	19
4	Enrollment	35	28
5	Health	13	10
TOTAL		125	100

The summary of the statistical analysis of the above data is represented in table 3 and graphically in figure 1.

**Table 3: Summary of the distribution of all respondents to the effects of vocational education**

S/ N	Variables	Perceptio n	Learnin g	Performanc e	Enrollmen t	Healt h
	Respondents					
1	Trainees, (%)	19	23	22	20	16
2	Instructors, (%)	19	21	23	23	14
3	Administrators, (%)	21	16	22	25	16
4	Youths, (%)	29	14	19	28	10

Figure 1: Distribution of Respondents on the Effects of the Built Environment on Vocational Skill Acquisition in Bayelsa State



### Hypothesis Testing

The chi-square test was used to ascertain the level of significance of the impact of a poor built environment on vocational skill acquisition/training.

The formula for chi-square is:

$$\chi^2 = \sum \frac{(O - E)^2}{E}$$

Where: O = Observed frequency

E = Expected frequency

N = Number of observations

$\chi^2$  = Chi-square

The hypothesis was tested at 0.05 level of significance. The computation of chi-square from the view point of various respondents are shown in tables 4, 5, 6 and 7. This null hypothesis proposed that the poor built environment does not significantly impact on vocational skill acquisition. The built environment is considered the independent variable while skill acquisition is the dependent variable. From the computation, it

could be seen that the calculated values of chi-square are ( $\chi_{cal}^2 1 = 1.419753$ ), ( $\chi_{cal}^2 2 = 0.75$ ), ( $\chi_{cal}^2 3 = 1.2$ ) and ( $\chi_{cal}^2 4 = 17.2$ ) corresponding to the views of trainees, instructors, administrators and youths respectively. When compared to the tabulated value ( $\chi_{Tab}^2 = 9.49$ ), the calculated values from the trainees, instructors, administrators is less than the tabulated value ( $17.2 > 9.49$ ), ( $0.75 > 9.49$ ) and ( $1.2 > 9.49$ ) respectively, indicating that there exist a negative relationship between poor built environment and vocational skill acquisition/training. While the youths showed the contrary ( $17.2 < 9.49$ ).

**Table 4. Computation of  $\chi^2$ : Trainees**

S/N	Variable	O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
1	Perception	15	16	-1	1	0.061728
2	Learning	19	16	3	9	0.555556
3	Performance	18	16	2	4	0.246914
4	Enrollment	16	16	0	0	0
5	Health	13	16	-3	9	0.555556
						$\Sigma_1 = 1.419753$

**Table 5. Computation of  $\chi^2$ : Instructors**

S/N	Variable	O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
1	Perception	8	8	0	0	0
2	Learning	8	8	0	0	0
3	Performance	9	8	1	1	0.125
4	Enrollment	9	8	1	1	0.125
5	Health	6	8	-2	4	0.5
						$\Sigma_2 = 0.75$

**Table 6. Computation of  $\chi^2$ : Administrators**

S/N	Variable	O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
1	Perception	5	5	0	0	0
2	Learning	4	5	-1	1	0.2
3	Performance	5	5	0	0	0
4	Enrollment	7	5	2	4	0.8
5	Health	4	5	-1	1	0.2
						$\Sigma_3 = 1.2$



Table 7. Computation of  $\chi^2$ : Youths

S/N	Variable	O	E	O-E	(O-E) <sup>2</sup>	(O-E) <sup>2</sup> /E
1	Perception	36	25	11	121	4.84
2	Learning	17	25	-8	64	2.56
3	Performance	24	25	-1	1	0.04
4	Enrollment	35	25	10	100	4
5	Health	13	25	-12	144	5.76
						$\Sigma_4 = 17.2$

### Decision

If  $\chi^2_{cal} > \chi^2_{tab}$  the study accept the null hypothesis that poor built environment does not significantly impact on vocational skill acquisition/training. Otherwise, the study rejects the hypothesis. Since ( $\chi^2_{cal1} > \chi^2_{tab}$ ), ( $\chi^2_{cal2} > \chi^2_{tab}$ ) and ( $\chi^2_{cal3} > \chi^2_{tab}$ ) at 0.05 significance, the study reject the null hypothesis and accept the alternative hypothesis that, the poor built environment have negative significantly impact on vocational skill acquisition/training in Bayelsa state. On the other hand, ( $\chi^2_{cal4} < \chi^2_{tab}$ ), therefore the null hypothesis is accepted that the poor built environment does not significantly impact on vocational skill acquisition/training in Bayelsa state.

### CONCLUSION

This study has investigated into the impact of the poor built environment on vocational skill acquisition/training in Bayelsa state. From the result, it was discovered the poor built environment have negative significantly impact on vocational skill acquisition/training in Bayelsa state.

### RECOMMENDATIONS

The author recommends that government and school proprietors should consider the built environment of their training centers as paramount as the establishment of same in the areas of

1. Design
2. Availability and
3. Maintenance (sustainability).

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