



Accessibility and Utilization of Information and Communication Technology Facilities for Learning Business Studies in Public Junior Secondary Schools Port Harcourt Metropolis

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ABSTRACT

This study investigated the accessibility and utilization of Information and Communication Technology Facilities for Learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis. The research adopted descriptive survey design. The target population for this study is 13,799 Business Studies Students and Teachers with a sample size of 389 Students and Teachers using Taro Yamane formula was used. Two research questions and two null hypotheses guided the study. Two (2) self-structured research instruments - Accessibility of Information and Communication Technology Facilities for Learning of Business Studies Inventory (AcICTFLBSI) and Utilization of Information and Communication Technology Facilities for Learning of Business Studies Inventory (UtiCTFLBSI) were used for this study to elicit information from the respondents which were validated with reliability coefficient of 0.76 and 0.85 respectively. Test-retest method was used to test the reliability of the instrument. The questionnaire was administered to the respondents from the target population. For data analysis, the research questions were analyzed with mean and standard deviation, while the hypotheses were tested with t-test statistics. The results revealed that Business Studies Students are not aware of the use of Information and Communication Technology facilities for learning Business Studies, also Information and Communication Technology facilities are not available and adequate for learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis, Conclusion drawn from the study was that non-accessibility and utilization of Information and Communication Technology facilities for learning business studies in Public Junior Secondary Business Studies in Port Harcourt Metropolis may not help the students to grow with the modern trends of advancement and innovation in technologies.. Based on the findings the researchers recommended that Information and Communication Technology facilities should be made available for students to have access to them and utilize same in the learning of Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis.

Keywords: Business Studies, learning, Information and Communication Technology, utilization

INTRODUCTION

The accessibility utilization of Information and Communication Technology as a learning material has been found to be very fruitful or rewarding. Despite the enormous benefits of Information and Communication Technology to education, the Nigerian secondary school curriculum did not give adequate priority and attention to acquisition and usage of Information and Communication Technology facilities in the learning exercise (Ido & Asuquo, 2014). Information and Communication Technologies in secondary schools, according to Achugbue (2011), have posed many issues and challenges to business education students not only in learning Business Studies but also in the world of work.

Business Studies in Secondary Schools for some time now has been facing challenges ranging from unawareness, unavailability, inadequacy, not accessible and non-utilization of Information and Communication Technology facilities, also epileptic power supply and so on. This led to factors such as inadequate Information and Communication Technology availability for training of teachers to acquire Information and Communication Technology knowledge, high cost of Information and Communication Technology equipment, electronic equipments and epileptic power supply. Researchers like Ohakwe & Njoku (2010) and Okoli (2010) identified constraints such as unavailability of equipment, inadequate human resources, inadequate textbooks and other educational equipments as the impediments against the use of ICT facilities in learning Business Studies.

However, a close observation of schools in Port Harcourt metropolis shows that Information and Communication Technology facilities seem to be accessed and utilized in some private schools and seem to be scarcely available in public secondary schools. Based on this premise, there is the need to explore the extent of accessibility and utilization of Information and Communication Technology facilities for successful learning of Business Studies in public Junior Secondary Schools in Port Harcourt Metropolis. A study such as this is necessary in this period of technological era so as to empirically document the true fact concerning the significance of Information and Communication Technology in effective learning of school subject, like Business Studies.

1.3 Purpose of the Study

The purpose of this study was to investigate the accessibility and utilization of Information and Communication Technology facilities among Teachers and Students in learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis. Specifically, the study attempted to:

1. Examine whether Information and Communication Technology facilities are accessible by Teachers and Students to learn Business Studies in Public junior secondary schools in Port Harcourt Metropolis.
2. Determine the level of utilization of Information and Communication Technology facilities by Teachers and Students to learn Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis.

Research Questions

The following research questions guided the study:

1. To what extent are Information and Communication Technology facilities accessible to Teachers and Students for learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis?
2. What is the level of usage of Information and Communication Technology facilities among Teachers and Students in learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis?

Hypotheses

The following hypotheses guided the study:

1. There is no significant difference in the mean ratings of Teachers and Students on the extent of accessibility of Information and Communication Technology facilities for the learning of Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis.
2. There is no significant difference in the mean ratings of Teachers and Students on the extent of utilization of Information and Communication Technology facilities for learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis.

METHOD

The study adopted descriptive research design. The population of this study consists of 13,799 Business Studies Student and Teachers (that is 831 Teachers and 12,968 Students) of all Public Junior Secondary Schools in Port Harcourt Metropolis. The breakdown of the population is presented in Table 1.

Table 1: Population of the Study

S/N	Schools	Teachers	Students	Total
1	Government Girl’s Secondary School, Oromenike	68	1214	1282
2	Enitonia High School, Port Harcourt	41	882	923
3	Community Secondary School, Nkpolu-Oroworukwo	73	957	1030
4	Community Secondary School, Okoro-nu-odo	54	764	818
5	Community Secondary School, Rumu-Apara	51	997	1045
6	Akpor Grammer School. Ozuoba	50	564	614
7	Community Secondary School, Rumu-Ekini	47	523	670
8	Government Girls Secondary School Rumuokwuta	69	1035	1104
9	Community Secondary School, Abuloma	59	795	854
10	Community Secondary School, Elekahia	60	886	946
11	Government Comprehensive Secondary School, Borokiri	77	1103	1180
12	Government Girls Secondary School, Rumueme	71	1117	1188
13	Community Secondary School, Rukpokwu	39	502	541
14	Government Secondary school, Amadi Ama	37	894	931
15	Community Secondary School, Ogbogoro	35	635	670
	Total =	831	12,968	13,799

The simple random sampling technique was adopted for this study and Taro Yemen formula was used to draw a total sample size of three hundred and eighty nine (389) business studies students and Teachers (that is, 89 Teachers and 300 Students respectively) of the sample population.

Two (2) self-structured research instruments developed by the researchers known as Accessibility of Information and Communication Technology Facilities for Learning of Business Studies Inventory (AcICTFLBSI) and Utilization of Information and Communication Technology Facilities for Learning of Business Studies Inventory (UtICTFLBSI) were used for this study to elicit information from the respondents, The instruments were made up of seventeen items each with response options of Very High Extent (VHE) – 4 points, High Extent (HE) – 3 points, Low Extent (LE) – 2 points and Very Low Extent (VLE) – 1 point.

The instruments were validated by a specialist in Measurement and Evaluation and two experts in Business Education all from the Department of Business Education carried out the face and content validation. The test re4est reliability method was adopted to determine the reliability of the instrument. The instrument was administered to 30 Junior Secondary School Students of Community Secondary School Rumu-Apara, one of the Government owned school in Obio/Akpor Local Government Area to complete, and after two weeks the same instrument was re-administered to the same group of students. The two results obtained were correlated using the Pearson’s Product Moment Correlation Coefficient (r) to ascertain reliability co-efficient of 0.76 and 0.85 respectively. Mean and standard deviation scores were used to answer the research questions and t-test statistics to test the null hypotheses.

RESULTS

Research Question 1: *To what extent are information and communication technology facilities accessible to teachers and students for learning Business Studies in public junior secondary schools in Port Harcourt Metropolis?*

Table 2: Mean and Standard Deviation Computations about the Extent to which Information and Communication Technology Facilities were Accessible to Teachers and Students for the Learning Business Studies in Port Harcourt Metropolis

(N = 389)					
S/N	ICT Facilities	Total Response	Mean Score	STD. Dev. Score	Remarks
1	Internet facilities	746.88	1.92	0.195	NA
2	Computer	560.16	1.44	0.164	NA
3	Overhead projector	707.98	1.82	0.142	NA
4	Scanner	707.76	1.84	0.175	NA
5	Electronic typewriter	688.53	1.77	0.167	NA
6	Dictating machine	820.79	2.11	0.191	NA
7	Fax machine	474.58	1.22	0.187	NA
8	Telephone	676.86	1.74	0.165	NA
9	Audio conferencing	859.69	2.21	0.173	NA
10	Video conferencing	746.88	1.92	0.195	NA
11	Photocopier machine	560.16	1.44	0.164	NA
12	Laminating machine	715.76	1.84	0.175	NA
13	Electronic mail	88.62	2.11	0.191	NA
14	Social media packages	746.88	1.92	0.195	NA
15	Teleconferencing	560.16	1.44	0.164	NA
16	Educational softwares	906.37	2.33	0.168	NA
17	Printer	614.62	1.58	0.143	NA
Grand Mean			1.082	0.17	

NA= Not Accessible

Table 2 shows the calculated mean and standard deviation scores of the responses of the Business Studies Students in Public Junior Secondary Schools in Port Harcourt metropolis regarding the extent to which information and communication technology facilities were accessible for learning Business Studies in Public junior secondary schools. In the Table, the computed mean scores of Business Studies Students regarding the extent to which all the 17 listed information and communication technology facilities were accessible for learning Business Studies in Public Junior Secondary Schools were lower than the average mean score of 2.5. This indicates that the Information and Communication Technology Facilities were not accessible for learning Business Studies in Junior Secondary Schools in Port Harcourt metropolis. The table also shows that the calculated grand means for the business studies students is 1.802 which is less than the average mean score of 2.5. This reveals that the Information and Communication Technology Facilities for learning Business Studies in junior secondary schools were not accessible. From the foregoing, the researchers therefore conclude that information and communication technology facilities for learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis were not accessible to a high extent.

Research Question 2: *What is the level of utilization of information and communication technology facilities among teachers and students in learning Business Studies in public junior secondary schools in Port Harcourt Metropolis?*

Table 3: Mean and Standard Deviation Computations about the Extent of Utilization of Information and Communication Technology Facilities by Students and Teachers for the Learning Business Studies

(N = 389)					
S/N	ICT Facilities	Total Response	Mean Score	STD. Dev. Score	Remarks
1	Internet facilities	820.79	2.11	0.191	NU
2	Computer	898.59	2.31	0.168	NU
3	Overhead projector	474.58	1.22	0.143	NU
4	Scanner	878.47	1.23	0.183	NU
5	Electronic typewriter	731.32	1.88	0.177	NU
6	Dictating machine	588.53	1.77	0.167	NU
7	Fax machine	820.80	2.11	0.191	NU
8	Telephone	474.58	1.22	0.187	NU
9	Audio conferencing	676.86	1.74	0.165	NU
10	Video conferencing	859.69	2.12	1.173	NU
11	Photocopier machine	746.86	1.92	0.195	NU
12	Laminating machine	560.16	1.44	0.164	NU
13	Electronic mail	902.48	2.32	0.137	NU
14	Social media packages	828.57	2.13	0.192	NU
15	Teleconferencing	513.48	1.32	0.141	NU
16	Educational softwares	447.45	1.15	0.156	NU
17	Printer	470.9	1.21	1.181	NU
Grand Mean			1.722	0.171	

NU = Not Utilized

Table 3 shows the calculated mean and standard deviation scores of the responses of the Business Studies students in Public Junior Secondary Schools in Port Harcourt metropolis regarding the extent to which information and communication technology facilities were utilized for learning Business Studies in junior secondary schools. In the Table, the computed mean scores of Business Studies Teachers' responses and that of the Business Studies Students regarding the extent to which all the 17 listed information and communication technology facilities were utilized for learning Business Studies in junior secondary schools were lower than the average mean score of 2.5. This indicates that the information and communication technology facilities were not utilized for learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis. The table also shows that the calculated grand means for the business studies teachers and that of the business studies students are 1.722 which is less than the average mean score of 2.5. This reveals that the information and communication technology facilities for learning Business Studies in junior secondary schools were not utilized. From the foregoing, the researchers therefore conclude that Information and Communication Technology Facilities for learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis were not utilized

Hypothesis 1

There is no significant difference in the mean rating of teachers and students on the extent of accessibility of information and communication technology facilities for learning of Business Studies in junior secondary schools in Port Harcourt Metropolis.

Table 4: T-test Computation of the Difference in the Mean Rating of Teachers and Students on the Extent of Accessibility of Information and Communication Technology Facilities for Learning Business Studies in Junior Secondary Schools in Port Harcourt Metropolis

Variable	N	Mean Score	Std Dev. Score	Sum of Square	Est. Std. Error	t-ratio Cal.	t-ratio Crit.
Teachers	89	2.373	0.235	1436.29	1.4217	1.832+	±1.960
Students	300	2.411	0.243	1325.73			
N 389	df= 387		P >0.05	+ = Not Significant			

The calculated mean and standard deviation scores of the responses of the Business Studies teachers and Students in Junior Secondary Schools in Port Harcourt metropolis regarding the extent to which information and communication technology facilities were accessibility for learning Business Studies in junior secondary schools are presented in Table 4. With N = 389, df = 387 and P > 0.05, the calculated t-ratio was 1.832 and the critical table value of t ratio was ±1.960. Consequently, the calculated t-ratio is not statistically significant at $\alpha = 0.05$ level of significance since it is smaller than the given critical value of t-ratio. The hypothesis is thus accepted (that is not rejected) and the conclusion is that there is n significant difference in the mean rating of teachers and students on the extent of accessibility of information and Communication Technology facilities for learning Business Studies in Junior Secondary Schools in Port Harcourt Metropolis.

Hypothesis 2

There is no significant difference in the mean ratings of teachers and students on their level of utilization of information and communication technology facilities for learning Business Studies in junior secondary schools in Port Harcourt Metropolis.

Table 5: T-test Computation of the Difference in the Mean Ratings of Teachers and Students on their Level of Utilization of Information and Communication Technology Facilities for Learning Business Studies in Junior Secondary Schools in Port Harcourt Metropolis

Variable	N	Mean Score	Std Dev. Score	Sum of Square	Est. Std. Error	t-ratio Cal.	t-ratio Crit.
Teachers	89	2.382	0.246	1252.47	1.3121	1.982*	±1.960
Students	300	2.278	0.224	1231.33			
N 389	df= 387		P <0.05	* = Significant			

The calculated mean and standard deviation scores of the responses of the Business Studies teachers and Students in Junior Secondary Schools in Port Harcourt metropolis regarding their level of utilization of information and communication technology facilities for learning Business Studies in junior secondary schools are presented in Table 5. With N = 389, df = 387 and P > 0.05, the calculated t-ratio was 1.982 and the critical table value of t-ratio was +1.960. That being so therefore the calculated t-ratio is statistically significant at $\alpha = 0.05$ level of significance since it is higher than the given critical value of t-ratio. The hypothesis is thus not accepted (that is rejected) and the conclusion is that there is no significant difference in the mean ratings of teachers and students on their level of utilization of information and communication technology facilities for learning business studies in junior secondary schools in Port Harcourt metropolis.

DISCUSSION

Based on the results of this study, the researchers discovered that Information and Communication Technology facilities were not accessible for learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis. It was also found out that no significant difference existed in the mean rating of teachers and students on the extent of accessibility of Information and Communication Technology facilities for learning Business Studies. The finding is in accordance with the result of Azih & Nwosu (2012) attributed low extent of utilization of Information and Communication Technology in schools to lack of access to Information and Communication Technology facilities.

Based on the results of this study, the researchers discovered that Information and Communication Technology facilities were not utilized for learning Business Studies in Public Junior Secondary Schools in Port Harcourt Metropolis. In the study, it was also discovered that no significant difference existed in the mean ratings of teachers and students on their level of utilization of Information and Communication Technology facilities for learning Business Studies in Port Harcourt Metropolis. This finding is not in line with the result of (Azih, 2011) who opined that learning work would be meaningless without the use of teaching resources and students would grope in darkness for long before they could get a grasp of what the teacher would be teaching.

CONCLUSION

Based on the results and findings of this study, the researchers therefore noted that unawareness is as a result of non-availability of Information and Communication Technology facilities for learning in Public Junior Secondary Business Studies in Port Harcourt Metropolis is a clear indication that the Information and Communication Technology facilities were not accessible and utilized in learning in Junior Secondary School Business Studies. For the fact that the Students are not aware of any Information and Communication Technology facilities, means it is not accessible and utilized for learning at the Public Junior Secondary Schools in Port Harcourt Metropolis. This implies that it will be a total error to talk about the adequacy, accessibility and utilization of the Information and Communication Technology facilities in the Public Junior Secondary Schools.

Educational Implications

It is a clear indication that in this study the accessibility and utilization of Information and Communication Technology facilities for effective learning of Business Studies were out of context. Therefore, there is need to campaign strongly for Information and Communication Technology to be available for accessing and utilization in order to use same to learning business studies in Secondary Schools in Port Harcourt Metropolis. The implication is that the students will not have the knowledge of these required and valued Information and Communication Technology facilities until graduation. The after effect is that students will find it difficult to participate in the society where Information and Communication Technology is at play.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

1. Educational and Academic planners should make a review of the Junior School curriculum to accommodate the compulsory provision and utilization of Information and Communication Technology facilities in the teaching and learning of Business Studies in Schools in the State.
2. The authorities of secondary education in Rivers State should stress on the need to make Information and Communication Technology accessible for students at Junior Secondary Schools.
3. Efforts should be intensified by the authorities of secondary education in Rivers State to ensure that Information and Communication Technology facilities are utilized for teaching-learning process of business studies in schools.

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