



## EXAMINATION OF ICT RESOURCES SITUATION AND ACADEMIC ACHIEVEMENT OF BUSINESS EDUCATION STUDENTS IN ADEYEMI COLLEGE OF EDUCATION ONDO, NIGERIA

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### **Abstract:**

This study examined the ICT resources situation and academic achievement of business education students. It was conducted in the Department of Business Education, Adeyemi College of Education, Ondo, Nigeria. Descriptive survey research design was used. The population and samples used for the study were 2009/2010, 2010/2011, 2011/2012, 2012/2013 and 2014/2015 set of business education students. Three research questions and two hypotheses were raised to guide the study. Primary data collected from the Department of Business Education of the college which is ICT resources data and students' academic performance obtained from the final year results of the sessions under study were used for the study. The data were analyzed using simple percentage and mean. Findings revealed that ICT resources were grossly short-supplied and the available ones have become obsolete. It was also revealed that the students' academic achievement were very low as a result of dearth of resources required for effective teaching and learning. There is no significant difference between the academic achievements of the students but there is significant relationship between resource allocation and students' academic achievement in the sampled college. Government and other stakeholders in education were encouraged to come together to salvage the resource situation and the poor academic condition obtained from the programme.

**Keywords:** ICT; resources situation; academic achievement; business education; college of education

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## 1. Introduction

This study is an exploration of the information and communication and technology (ICT) resources situation and academic achievement of business education students. Every child's future, as well as the future of a society in general, depends largely on the quality of the educational system. The expectations of students and teachers are to perform at higher levels, and for schools to guarantee the success of all students; the question of how best to offer quality education through the effective and efficient allocation of resources becomes even more critical. Equitable distribution of educational resources for all students and adequate provision of sufficient resources for all students is expedient in order to achieve the expected performance levels. Available resources must be provided if better students' performance improvements are to be achieved. Institutions are expected to conduct ongoing planning and resource allocation base on its mission and goals, develops objectives to achieve them, and utilizes the results of its assessment activities for institutional renewal. Implementation and subsequent evaluation of the success of the strategic plan and resource allocation should support the development and change necessary to improve and to maintain institutional quality (Odden & Archibald, 2010). This is a clear indication that effective use of institutional resources is crucial to institutional performance. The technical and other resources necessary to achieve an institution's mission and goals are to be made available and accessible and in the context of the institution's mission, the effective and efficient uses of the institution's resources are to be analyzed as part of ongoing outcomes assessment (Odden, & Busch, 2008). Today, ICT has made time and space less complex. At the modern information technology age, it has become imperative for all institutions globally to be computer technology compliant with digitalize processes and procedures where average individual is able to explore information system by means of ICT resources for timely acquisition, utilization, communication and retrieval of relevant and accurate information. ICT resources are nowadays being used for better teaching-learning process. The use of technology and knowing how technology can support student learning has become essential skills for professional teachers in today's world. They seems to have the potentials of being used to meet the learning needs of individual students, promote equality of educational opportunities; offer high quality learning materials, increase self-efficacy and independence of learning among students, and improve teachers' professional development.

The Federal Government of Nigeria recognizes these prominent roles of ICTs in the modern world, and has integrated ICTs into education in Nigeria. This is articulated in the *National Policy on Education* (Federal Government of Nigeria, 2004). It has been established that students who use ICT equipment gain deeper understanding of complex topics and concepts and are more likely to recall information and use it to solve problems outside the classroom (Apple Computer, 2002). In addition, through ICT, students extend and deepen their knowledge, investigation, and inquiry according to their needs and interest when access to information is available on multiple levels (CEO Forum on Education and Technology, 2011). Business Education at the college of

education level is a double-major programme comprising Accounting and Secretarial options. The two options equip graduates with the right skills that will enable them to engage in a life of work in the office as well as for self-employment. They are also designed to prepare qualified and competent Nigeria Certificate in Education (NCE) graduates in business subjects who will be able to teach business subjects in our secondary schools and other related educational institutions (Federal Republic of Nigeria, 2002, 2009 and 2012). The ICT resources require for effective teaching and learning of business education programme as articulated in the National Commission for Colleges of Education (NCCE) minimum standard for NCE include computers, radios, fax machines, copier machine, printers, overhead projector, Magnetic board, digital cameras, television, cell phones, broadcasting networks, etc. (Federal Republic of Nigeria, 2009 & 2012). Research efforts have helped broaden our understanding of the role of school resources in student outcomes and how their distribution and use might be improved (Odden & Busch, 2008; Odden, Archibald, & Tyehsen, 2009; Odden & Archibald, 2000; Archibald & Odden, 2010; and Adedeji, 2007). But how much of the ICT resources are available and utilized vis-à-vis the academic achievement recorded by the students over time. What is the relationship between resources and student achievement? The instruction provided at the school was of questionable quality because resources required for effective and efficient delivery of instruction were either short-supplied or supplied but not suitable and/or not available at all. Students spent less than instructional time during the school day, all because there are not enough teachers and other instructional resources to fully engage them in class (Odden, Archibald, and Tyehsen, 2009). The question then is how much could students do in terms of knowledge and skills acquisition if they remained in the classroom without or with insufficient resources particularly ICT resources in this ICT era? It is against this background that the study was set out to examine the ICT resources situation and students' academic achievement in business education programme in Nigeria.

## **2. Research Questions**

1. What are the ICT resources available for the delivery of business education programmes in college of education?
2. Is there any significant relationship between ICT resources situation and students' academic achievement?
3. Is there any significant difference between the academic achievement of business education accounting and secretarial students?

### **2.1 Hypothesis**

1. There is no significant relationship between resource allocation and students' academic achievement in the sampled college.
2. There is no significant difference between the academic achievement of business education accounting and secretarial students in the sampled college.

## **2.2 Statement of the Problem/Purpose of Study**

The expectations of students and teachers to perform at higher levels and for schools to guarantee the success of all students keep rising, the question of how best to achieve these goals through effective resource allocation becomes more critical. Government (federal and state) policies and fund support for school funding had greatly affected school and local spending practices in each college. The government finance systems, in conjunction with reform efforts, can be used to direct resources to support student performance. The federal and state government is majorly responsible for the funding of tertiary education in Nigeria. Attention in the school finance policy arena focused heavily on equity issues from about a decade when federal government attempted to address the disparity of education resources within and among all tiers of education through her funding agencies like ETF, PTDF and TETFUND. In another dimension, the attention shifted somewhat away from equity issues to focus on the continuing rise in performance standards and the expectation for adequate resource support for student achievement. For education in Nigeria to move towards holistic information society there is need to regularly carry out a review of the government policy statement with regard to performance standards. The only avenue the review could be done is through research that compares standard (government expectations) with the actual to obtain deviations. The study therefore, examined ICT resources situation in relation to students' academic achievement in business education. The purpose was to explore and identify ICT resources allocation practices for the programme in relation to varying levels of students' achievement. It was intended that the results of this study would provide education policy makers with information for improving on allocation of ICT resources and non-ICT resources to support greater student success. The following research questions and hypotheses were raised to guide the study.

## **3. Method and Material**

The survey research design was used for the study because it was found adequate in collecting information from the sampled college of education on which we can describe the resource situation and students' academic achievement in business education. The study was conducted in Adeyemi College of Education, Ondo. The college was located in the south west geo political zones of Nigeria. The population for the study was all the business education students in the sampled colleges of education. The samples used were entire population for five academic sessions; 2009/2010, 2010/2011, 2011/2012, 2012/2013 and 2014/2015 graduating sets. The instruments used for the study were primary data collected from the Department of Business Education of the college which are ICT resources data and students' academic performance obtained from the final year results for 2009/2010, 2010/2011, 2011/2012, 2012/2013 and 2014/2015 graduating sets. The data from the study were analyzed using simple percentage, mean, Pearson product moment correlation and t- test statistical techniques.

### 3.1 Analysis/Results

The results obtained from the analysis conducted on the study are shown in table 1, 2 and 3 presented below.

**Table 1: ICT Resources Situation in Business Education Laboratories**

Resources	Required quantity for 30 students	Quantity supplied	Remark
Tape Recorder	30	15	Inadequate
Consoles	30	Nil	Not provided
Headphone	30	Nil	Not provided
Air conditioning	1	Nil	Not provided
Magnetic board	1	2	Inadequate
Punching machine	1	1	Inadequate
Photocopier	1	1	Inadequate
Electric typewriter	10	Nil	Not provided
Adding machine	1	1	Inadequate
Listing machine	1	Nil	Not provided
Calculators	1	1	Inadequate
Computer	10	48	Inadequate
Swivel typing chairs	30	48	Inadequate
Convertible desk	30	48	Inadequate
Overhead projector	1	2	Inadequate
Public address system	1	2	Adequate

**Table 2: Population Distribution of Business Education Students**

Classification of students by programme and achievement	No of students per academic session									
	2009/2010		2010/2011		2011/2012		2012/2013		2014/2015	
<u>Graduating</u>	N	%	N	%	N	%	N	%	N	%
Accounting	73	16.67	110	27.99	76	22.62	109	20.68	80	18.82
Secretarial	<u>28</u>	<u>6.39</u>	<u>29</u>	<u>7.38</u>	<u>11</u>	<u>3.27</u>	<u>40</u>	<u>7.59</u>	<u>22</u>	<u>5.18</u>
Subtotal (a)	101	23.06	139	35.37	87	25.89	149	28.27	102	24.00
<u>Non-graduating</u>	N	%	N	%	N	%	N	%	N	%
Accounting	273	62.33	202	51.40	176	52.38	247	46.87	209	49.18
Secretarial	<u>64</u>	<u>14.61</u>	<u>52</u>	<u>13.23</u>	<u>33</u>	<u>21.73</u>	<u>131</u>	<u>24.86</u>	<u>114</u>	<u>26.82</u>
Subtotal (b)	337	76.94	254	64.63	249	74.11	378	71.73	323	76.00
<b>Total (a + b)</b>	<b>438</b>	<b>100</b>	<b>393</b>	<b>100</b>	<b>336</b>	<b>100</b>	<b>527</b>	<b>100</b>	<b>425</b>	<b>100</b>

**Table 3: Students' Academic Achievement in Business Education**

Academic Session	Programme option	No of students with						Mean
		Distinction (5)	Credit (4)	Merit (3)	Pass (1.5)	Fail (0)	Total (13.5)	
2009/2010	Accounting	1	7	23	42	273	346	0.5
	Secretarial	1	1	6	20	64	92	0.6
	<b>Combined</b>	<b>2</b>	<b>8</b>	<b>29</b>	<b>62</b>	<b>337</b>	<b>438</b>	<b>0.5</b>
2010/2011	Accounting	3	18	43	46	202	312	0.9
	Secretarial	1	4	9	15	52	81	0.9
	<b>Combined</b>	<b>4</b>	<b>22</b>	<b>52</b>	<b>61</b>	<b>254</b>	<b>393</b>	<b>0.9</b>
2011/2012	Accounting	7	6	36	27	176	252	0.8
	Secretarial	-	3	3	5	73	84	0.3
	<b>Combined</b>	<b>7</b>	<b>9</b>	<b>39</b>	<b>32</b>	<b>249</b>	<b>336</b>	<b>0.7</b>
2012/2013	Accounting	4	22	60	23	247	356	0.9
	Secretarial	1	7	23	9	131	171	0.7
	<b>Combined</b>	<b>5</b>	<b>29</b>	<b>83</b>	<b>32</b>	<b>378</b>	<b>527</b>	<b>0.8</b>
2014/2015	Accounting	-	10	29	41	209	289	0.7
	Secretarial	1	2	7	12	114	136	0.4
	<b>Combined</b>	<b>1</b>	<b>12</b>	<b>36</b>	<b>53</b>	<b>323</b>	<b>425</b>	<b>0.6</b>

#### **4. Discussion**

Results obtained in table 1 above revealed that most of the ICT resources that were supposed to be provided for training business education students during the academic sessions 2009/2010, 2010/2011, 2011/2012, 2012/2013 and 2014/2015 were not provided or inadequate where provided. The few that appear to have been provided were obsolete considering what technology dictated at that period. This situation contradicted what was articulated in the National Commission for Colleges of Education (NCCE) minimum standard for Nigeria Certificate in Education (Federal Republic of Nigeria, 2002, 2009 and 2012). No wonder poor students' academic achievements were recorded for the programme during the period under study. A close look at the trend of the academic achievement expressed in percentage value shown in table 2 over the academic sessions under study revealed distinct differences in the achievements of the students from the two specialized option. The accounting option students appear to achieve better than the secretarial option students. However, the mean value obtained in table 3 revealed significant relationships between the academic achievement of the business education accounting option and secretarial option students in the academic sessions except in 2011/2012 and 2014/2015 academic session where there were noticeable difference in the mean value. This can further be interpreted to mean that there is no significant difference in the academic achievements of both categories of the students. A careful look at the trend of the obtained mean value in table 3 also revealed general low academic achievements in business education. Results obtained in table 2 also revealed that less than 30% of the students enrolled for business education programmes managed to attain success in their academic pursuits while over 70% failed. This is accounted for lack or non-provision of required resources that enhance teaching and learning of the programme, though other factors such as class overpopulation noted in table 1 which are outside the scope of this study may suffice.

#### **5. Conclusions and Recommendations**

The purpose of the study as aforementioned was to explore and identify ICT resources allocation practices for the programme in relation to varying levels of students' achievement. The results of this study were proposed to provide education policy makers with information for improving on allocation of ICT resources and non-ICT resources to support greater student success. It was very glaring from the results obtained from the data analyses conducted that resources required for effective teaching and learning of business education were not available and the few ones that were available were not sufficient or become obsolete which is next to non-provision of the needed resources. What and who are responsible for the resource situation is outside the scope of the study. We therefore recommend that concerned stakeholders in education should conduct further investigation on factors responsible for the ICT and non-ICT resources situation in order to improve on the academic success in business

education in the college used for the study and in other colleges alike. Parents, teachers students and non-governmental organizations should come together to salvage the situation since the products of the programme recycle back into the society to also compete with counterpart around the globe. Government should be faithful to her policy statements and reduce economic wastes that usually arise from over expenditure incurred on the large number of students that could not complete the programme and graduate in record time.

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