

ANALYSIS OF COMPUTER SKILLS ACQUIRED BY BUSINESS EDUCATION STUDENTS IN CROSS RIVER UNIVERSITY OF TECHNOLOGY, CALABAR

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Abstract

The study investigated the level of computer skills acquired by Business Education students; their level of perception of the factors militating against computer skills acquisition. Two research questions were answered while one null hypothesis was tested at 0.05 level of significance. The descriptive survey design was adopted for the study. The population comprised all the final year Business Education students in the 2012/2013 session in Cross River University of Technology, Calabar. The entire population, 197 (69 male and 128) students participated in the study. The “Computer Skill Acquisition Questionnaire” (CSAQ) was used to obtain data for the study. Descriptive statistics of mean and standard deviation was used to answer research questions one and two while hypothesis one was tested using independent t-test. The results indicated that students are competent in performing only five computer tasks (booting, word processing, internet browsing, software development and downloading and uploading). Also, students perceive shortage of computers/accessories, shortage of personnel, lack of encouragement from department/faculty and low motivation from lecturers as

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serious impediments to computer skills acquisition. Gender difference exists in the level of computer skills acquired among male and female students. It was concluded that a gap exists between ICT policy initiative and its actual implementation in education. It was recommended among others that departments, faculties and institutions should initiate, support and strength ICT skills acquisition programmes for both male and female students.

Business Education occupies a major place in the development of Nigeria's economy and the achievement of the Millennium Development Goals (MDGs). This is because Business Education, if it properly positioned and programmed, is expected to prepare managers and institutions to face the challenges of globalization. It influences human enterprise, information and communication technology, trade and labour market (Ejeka, 2010).

Furthermore, Business Education refers to education for skill acquisition, vocation and competency. It is a component of vocational education which involves skills acquisition, knowledge and competencies which make the beneficiaries proficient (Ayodele, 2002). It is the type of education that covers activities that are aimed at planning, teaching, inculcating and developing through a vocation that will enhance self-reliance.

The subject covers a wide range of specialized areas of economic life activities. It covers accounting, marketing, management, secretarial skills, and Information and Communication Technology (ICT) skills. A Business Education graduate if well trained could be self-employed and self-reliant.

The 1999 Constitution of the Federal Republic of Nigeria in Section 16.1:13 of Chapter II provides for the role of Business Education in the economy *inter alia*:

- i. It is a tool for harnessing the resources of the nation and promoting national propensity and an efficient, a dynamic and self-reliant economy.
- ii. It is a tool for controlling the national economy in such a manner as to secure maximum welfare, freedom and happiness of every citizen on the basis of justice and equality of status and opportunity.
- iii. It is a tool for managing and operating the major sectors of the economy.

The inclusion of Business Education in the Constitution attests to the fact that it is major tool that propels the economy, hence, Business Education could be used to reduce some natural/societal maladies such as poverty and unemployment while enhancing the employability of the beneficiaries.

Therefore, Business Education if well packaged and accessed by students will enable individuals to make judicious socio-economic decision; provide skills needed to

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compete effectively in the competitive global society; provide career opportunities for effective interpersonal and human relations skills etc (Ejeka, 2010).

These objectives will be better attained if ICT skills are made an integral part of Business Education programme. ICT has been known to contribute immensely to knowledge and skills acquisition. In fact, it is highly beneficial if it is properly integrated in conducting affairs in education, commerce, economics, medicine and other facets of human life. In Business Education, ICT is used to enhance learning and teaching. It transforms teaching and learning through shared ideas. In addition, it allows students to communicate with one another and with their teachers.

Specifically, ICT enables students to conduct business affairs online which keeps them in tune with current global business practices propelled by digitization. Hence, it is a tool for conducting business, communication, secretarial, accounting and auditing affairs as might be obtained in real economic and commercial life. In view of the foregoing, this study examined the connection between Business Education and ICT with the purpose of determining whether the students have the requisite ICT skills that will place them in a vintage position to carry on in the globalized world.

Theoretical Framework

The theoretical bedrock upon which this study is anchored is the Diffusion and Adoption Theory (Adopter Based Theory). The major adherents of this theory are Rogers (1995) and Surry (1995). Diffusion theory states how major factors (the product itself, time and nature of the social system) and other factors interact to aid or militate against the adoption of a specific product among members of an adopter group. Therefore adoption is the decision to use a product or a technology.

Since some innovative products have suffered from lack of utilization, it is necessary that instructional technologists turn to diffusion theory to increase the adoption of ICT in education. Thus, in the context of this study, it is perceived that ICT utilization in schools is low and the probable causes that this study investigated are low competence in the computer operation, poor access to computers, low motivation and interest etc.

Method

A descriptive survey research design was used to assess the students' level of computer skills acquired and their perception of the level of seriousness of the factors militating against computer skills acquisition.

The target population of the study was all the final year Business Education students in the 2012/2013 academic session in Cross River University of Technology,

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Calabar. There was no sampling since the entire population of 197 (69 males and 128 females) Business Education students was involved in the study.

The “Computer Skills Acquisition Questionnaire” (CSAQ) was used to obtain data for the study. The CSAQ was constructed by the researchers. It contains two sections. Section ‘A’ contains five items on the respondents’ bio-data. Section ‘B’ contains fifteen items which centered on the computer skills acquired by the respondents. A four-point likert scale was adopted to rate the level of computer skills required. Thus, it ranges from “Very High” = 4; “High” = 3; “Low” = 2 and “Very Low” = 1 point(s) respectively. Similarly, Section ‘B’ also elicited responses on students’ perception of the factors militating against computer skills acquisition. The scale adopted ranges from “Very Serious” = 4; “Serious” = 3; “Not Serious” = 2 and “Not Very Serious” = 1 point(s) respectively.

One expert each in Educational Technology and Business Education subjected the instrument to face validation. To establish the internal reliability of the instrument, it was pre-tested using split-half reliability test method. The scores were analyzed using Cronbach alpha. The value obtained was 0.78.

The data were analyzed using mean (\bar{x}) and independent t-test. The cut-off point for the mean was fixed at 2.50 being the average of 4-point scale used for the study.

Statement of the Problem

Teaching and learning in Nigeria is largely characterized by the traditional patterns of instruction. Presently, teachers still rely greatly on textbooks, and chalkboard (Ogar, 2007) while workshops and laboratory facilities are inadequate to cope with type of skills, information and competencies expected of learners (Nbina, 2010). Also, most teachers hardly cover the course content due to large class size, inadequate time, curriculum overload, and interruption of the academic calendar. It is expected that the adoption of ICT in the teaching and learning of Business Education is germane especially as many Universities face a dearth of qualified lecturers in the area. The utilization of ICT in Business Education is likely to enhance virtual learning, tele-learning, online learning, distance learning, networked learning, and computer assisted instruction. However, this can only be achieved when students acquire basic skills in computer use and application.

Some factors have been identified as impediments to the effective utilization of ICT in instruction. They include high cost, incessant power failure, inadequate funds and expertise (Enwereuzoh, 2010). However, the present student sought to ascertain whether computer skills acquired by Business Education students are high. It also provided answers to the following questions: Do male and female Business students

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differ in the computer skills acquired? How do Business Education students perceive the various factors militating against the acquisition of computer skills? The study is considered necessary because it provides empirical evidence to support the assertions on ICT skills acquisition and perceived factors inhibiting their acquisition in the order of magnitude.

Research Questions

Two research questions were posed to guide the study:

1. What is the level of computer skills acquired by Business Education students in Cross River University of Technology (CRUTECH), Calabar?
2. How do Business Education students perceive the factors militating against computer skills acquisition among them?

Hypotheses

One null hypothesis was tested at 0.05 level of significance:

Hypothesis One: Male and female students do not differ significantly in the computer skills that they have acquired.

Results

The results of the analysis are presented below:

Research Question One: What is the level of computer skills acquired among Business Education students in CRUTECH?

Table 1: Level of Computer Skills Acquired among Business Education Students

S/N	Skill	Very High	High	Low	Very Low	No Response	Mean	S.D.
1	Booting	134 (68.0)	22 (11.2)	26 (3.2)	9 (4.6)	6 (3.0)	3.36*	1.06
2	Word processing	44 (22.3)	64 (32.5)	83 (42.1)	6 (3.0)	-	2.90*	0.62
3	Internet browsing	20 (10.2)	45 (22.8)	64 (32.5)	68 (34.5)	-	2.74*	0.82
4	Using Microsoft Excel	14 (7.1)	89 (46.2)	73 (37.1)	21 (10.7)	-	2.08	0.92
5	Software development	34 (17.2)	63 (34.0)	72 (36.5)	26 (13.2)	2 (1.0)	2.62*	1.09
6	Data processing/analysis	32 (16.2)	61 (31.0)	46 (33.4)	58 (29.4)	-	2.48	0.77
7	Downloading/Uploading	137 (69.5)	30 (15.2)	14 (7.1)	16 (8.1)	-	2.51*	0.96
8	Storage and retrieval	34 (17.3)	125 (63.5)	28 (14.2)	10 (5.1)	-	2.34	1.06

* Significant Mean values

* The number of students who responded to each item are as indicated while the percentages are written in parenthesis.

The data in Table 1 indicates that the students are competent or very competent in performing only five computer tasks. The tasks are item 1 – booting (x = 3.36); item

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2 – word processing (x = 2.90); item 3 – internet browsing (x = 2.74); item 5 – software development (x = 2.62); and item 7 – downloading and uploading (x = 2.51).

A greater percentage of the respondents indicated that they are not competent in three items. A large proportion of the respondents indicated that they are not competent and tended to need help in using item 4 – Microsoft Excel (x = 2.08); item 6 – Data processing/analysis (x = 2.48) and item 8 – storage and retrieval (x = 2.34).

Research Question Two: How do business education students perceive the various factors militating against computer skills acquisition?

Table 2: Perception of Factors Militating against Computer Skills Acquisition among Business Education Students N = 197

S/N	Factor	Very Serious	Serious	Not Serious	Not Very Serious	No Response	Mean	S.D.
9	Shortage of computers/accessories	30 (15.2)	49 (29.9)	95 (48.2)	19 (9.6)	4 (2.0)	3.46*	0.93
10	Shortage of computer personnel	21 (10.7)	44 (22.3)	43 (21.8)	79 (40.1)	10 (5.1)	2.92*	0.71
11	Power outages/failure	91 (46.2)	44 (22.3)	47 (23.8)	15 (7.6)	-	2.41	1.93
12	Low interest on my part	21 (10.7)	146 (74.1)	71 (10.7)	9 (4.6)	-	0.93	1.12
13	Lack of encouragement from Department/Faculty	134 (68.0)	22 (11.2)	26 (13.2)	9 (4.6)	6 (3.0)	3.07*	1.00
14	Low motivation from lecturers	32 (16.2)	108 (54.8)	49 (24.9)	8 (4.1)	-	2.83*	0.94
15	Low motivation from home	40 (20.3)	46 (23.4)	75 (38.1)	36 (18.3)	-	2.45	1.01

* Significant Mean values

* The number of students who responded to each item are as indicated while the percentages are written in parenthesis.

As revealed in Table 2, the respondents indicated that they perceive four factors as militating against computer skills acquisition. The factors are item 9 – shortage of computers/accessories (x = 3.46), item 10 – shortage of computer personnel; item 13 – lack of encouragement from department/faculty (x = 3.07) and item 14 – low motivation from home (x = 2.83).

A large percentage of the respondents indicated that three factors do not militate against their acquisition of computer skills. As revealed in Table 2, a large proportion of the respondents indicated that item 11 – power outage/failure (x = 2.41); item 12 – low interest on my part (x = 0.93) and item 15 – low motivation from home (x = 2.45) were not militating against computer skills acquisition among students.

Hypothesis One: Male and female students do not differ significantly in their level of computer skills acquired.

Table 3: Independent t-test Analysis of Gender and Computer Skills Acquired

Group	N	Mean	SD	t-value	df	Sig.
Male	69	21.78	4.16	2.02	195	0.007
Female	128	20.68	3.32			

* Significant at $P < .05$, $df = 195$; critical $t = 1.97$

The data in Table 3 indicate that male students have greater mean value ($x = 21.78$; $SD = 4.16$) than female students with mean value of ($x = 20.68$; $SD = 3.32$). The two groups yielded a t-value of 2.02 which is greater than the critical value of 1.97 at 0.05 level of significance with 195 degree of freedom. This implies that the null hypothesis is rejected while the alternate hypothesis is upheld. Therefore, there is significant difference between male and female students in terms of computer skills acquired.

Discussion of Findings

The findings in relation to research question one is that students' skills in computer utilization is high with regards to performing five tasks. The tasks in the degree of competence are booting, word processing, internet browsing, software development and downloading and uploading. Conversely, their level of incompetence in a descending order is revealed thus: Data processing/analysis, storage and retrieval, and using Microsoft Excel. The finding indicates that students still face a lot of challenges in computer utilization. The disturbing trend is that some necessary computer skills such as data processing, storage and retrieval of information and use of Microsoft Excel which are almost indispensable in modern day transactions in offices have not been mastered by them. One wonders how they can function as accounting officers, secretarial staff and managers without acquiring these computer skills. The probable reason for low ICT use in particularly in Nigeria and Africa in general could be hinged on poor operational skills (Tiamiyu & Aina, 2008) such as these. Also, researchers (BECTA, 2004; Yusuf, 2005) related the low use of ICT in schools to lack of pedagogical training and lack of skills.

In addition, the finding in relation to research question two is that the perception of students regarding the factors militating against computer skills acquisition is serious in the following order of magnitude: shortage of computers/accessories, lack of encouragement from department/faculty, shortage of

computer personnel, and low motivation from lecturers. On the other hand, the least factor that hinders their computer skills acquisition is low interest on students' part. This finding clearly validates earlier findings that limited access to computer equipment, appliances and online resources poses a challenge to ICT use in tertiary institutions (Anyagou, 2012). Similarly, Obilor, Iheonunekwu and Uguta (2012) identified ineffective technological leadership in schools as a barrier to utilization. Perhaps, the department/faculty have no clear cut programme to upgrade students' computer skills, hence, the students might have resorted to self-help. This finding also corroborates the finding of Spodark (2003) that lack of incentives from teachers and lack of teachers' participation in planning for ICT integration are barriers to ICT utilization. It is implied that if teachers are poorly motivated and lack the basic skills, they probably will not encourage their students to acquire the needed skills. Motivation of teachers could be propelled by the provision of computers and other accessories *vis-a-vis* training opportunities.

Furthermore, the finding as regards hypothesis one indicates that significant gender difference exist in the computer skills acquired. A cursory look at the result reveals that the mean score for the male student is 21.78 while their female counterpart recorded a mean score of 20.68. This implies that the male students have acquired more computer skills.

Perhaps the relatively low computer skills acquired by female students could be attributed to the deprivation they encounter in gaining ICT-related knowledge and skills. In fact, African women have the lowest enrolment rates in the world in science and technology education at all levels. Also, a research undertaken in four African countries indicates that women are less confident than men in their computer skills (Derbyshire, 2003). The finding in this study indicates that this negative trend still persist.

Conclusion

The implication of this study for ICT utilization in Business Education and other aspects of education is mind searching. It is worrisome that in this globalized and digitized age, students who are almost graduating into the labour market and the larger society still fall below average in carrying out certain computer operations that will enable them compete favourably with their peers elsewhere. Hence, there is a yawning gap between ICT policy initiatives which encourages the integration of ICT in schools and its implementation. Therefore, there is need to consider practical steps which will eliminate the barriers to ICT skills acquisition.

Recommendations

Based on the findings of the study, the following recommendations are imperative for enhanced ICT skills acquisition:

1. Departments, faculties and institutions should initiate, strengthen and support ICT skills acquisition programmes in order to enable students to be acquainted with practical skills needed for learning and in the work-place. These programmes should be skill-oriented (hands-on).
2. All lecturers should be encouraged also and supported to acquire the requisite computer skills needed for their professional duties and other sundry daily activities. This will enable them to impart ICT skills and encourage students to acquire same.
3. Federal, state and local governments, and public spirited organizations should fund training programmes for lecturers and students. They should also provide or subsidize the ownership of laptops and other computer equipment for lecturers and students. The policy of one-student-to-a- laptop should be implemented while bursary awards from local and states governments should be channelled to providing/subsidizing computer purchase for their respective indigenes. Also, ICT laboratories with adequate desktops should be established and properly maintained in the departments/faculties.
4. Students especially females should be encouraged to partake in all computer activities which will enhance their skills in computer utilization and application in teaching/learning and other daily activities. Gender stereotype or discrimination should be discourage at all the stages of computer acquisition programmes and activities.

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