INFORMATION AND COMMUNICATION TECHNOLOGY SKILLS POSSESSED BY VOCATIONAL AND TECHNICAL EDUCATION STUDENTS FOR SELF-SUSTENANCE IN EDO STATE

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Abstract
The study investigated the ICT skills required by vocational and technical education students in Edo state. Three research questions guided the study. The study employed descriptive survey design. 65 vocational and technical education students were randomly selected from University of Benin and College of Education Ekiadolor. Survey research design was used for the study. The researcher developed questionnaires tagged vocational and technical students information and communication skills questionnaire (VTSICSQ) was validated by three experts in the field of computer and industrial and vocation education. The instrument was tested for reliability using Cronbach alpha reliability. The coefficient of 0.71 was obtained. The research questions were answered using mean and standard deviation. The results indicated that vocational and technical education students did not have ICT skills such as online and networking skills possessed by students of vocational and technical education for business venture. It was recommended that the curriculum be reviewed for more practical oriented learning as this will lead to self-sustenance thereby reducing poverty and unemployment in Nigeria

Introduction

Information and Communication Technology (ICT) is defined as computer based tools used by people for information and communication processing needs of an organisation. It encompasses the computer hardware and software, the network and several other devices (video, audio, photography camera, etc.) that convert information such as text, images, sound, and motion into digital form (Ojukwu & Ojukwu, 2002). It is an eclectic application of computing, communication, telecommunication and satellite technology (Yusuf, 2000). Information communication technology has contributed to making life easy and convenient. It is changing the world and has become imperative that hardly can anyone do without ICT. It has enhanced governance through e-government by reducing waste and improving efficient service delivery of government which has enabled sustainable national development. ICT is of a great importance in sustainable development in Nigeria as it assists in providing resources which will contribute meaningfully to the global challenges of information age. The high rate of unemployment in Nigeria can be reduced if the job opportunities offered by information and communication technologies sector can be harnessed. There are a lot of opportunities in the world of ICT that can create jobs for vocational and technical education students. Such opportunities include working as technical support, system administrator or sales and services of computer equipment. This is because the use of ICT is gradually gaining ground in every facet of our economy. It is therefore pertinent that students of vocational and technical education tap into these opportunities.

Vocational and technical education refers to those aspects of the educational process involving in addition to general education, the study of technologies and related science and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. Vocational and technical education students are those students that have been exposed to courses in education and vocational and technical in the Universities or Colleges of Education. This exposure is to make them fit to teach vocational and technical education to students in the primary and secondary schools. In these four years they are not only exposed to education courses but also to basic computer knowledge such as how to teach with computers, how to network, email services, if these skills are imbibed by these students, they can become self-employed or become an entrepreneur. For a vocational and technical education graduate to be an entrepreneur after successfully completing the four years course there is need for the individual to be competent in networking and computer services. This according to Akingbola (2007) will enable students to have a mind-set necessary for preparation for business and professional lives. Despite efforts over the years by successive government to tackle poverty through

various wealth creation, and poverty alleviation programme not much has been achieved. Vocational and technical education graduates are left with no other choice than to be empowered with skills needed for them to make positive change and contribute their own quota towards sustaining themselves and improving the nation's economy. Since the government is not able to provide job for all job seekers there is need for these graduates to be equipped with ICT skills that would help them to be self-employed, self-sufficient and become employer of labour thereby reducing the problems of unemployment and poverty. Changes in economic competitiveness are creating an increasing demand for information and communication technology for competent young men and women with requisite ICT skills.

In this world of economic recession and the challenges of unemployment, it is no longer gainsaying that self-employment and sustenance is one of the ways out. There is need to develop in youths ICT skills of participation and responsibility. As a developing country we need ICT education that is functional and useful. The nation need a transformation agenda through the use of ICT that will lead and fuel the emergence of a 21st century workforce highly adept at meeting the needs of the public, private and labour markets to usher in growth in job opportunities and wealth creation through ICT skills. This wouldn't be so if the students possessed ICT skills relevant for self-employment and entrepreneurial. Education especially in ICT is a tool necessary for self-employment. Entrepreneurs have a vast array of opportunities in ICT to engage or create businesses vocational and technical education.

It has been discovered that most students do not know the viable businesses they can fit in outside the course they studied thereby lining up for government job which has become a mirage. The increase in poverty and unemployment has become a source of problem to the government and society at large. The problem of unemployment is pathetic as the number of graduates from higher institution is increasing every year. It has become imperative that these issues cannot be addressed without embedding ICT skills that can be used for self-sustenance. Thus it becomes necessary to determine how much of such ICT skills needed by vocational and technical graduates can be identified and capable of performing if they must be successful in their businesses. It is against this background therefore that this study seeks to investigate ICT skills possessed by students of vocational and technical education for self-sustenance.

The purpose of the study is to determine ICT skills possessed by vocational and technical students for self-sustenance. Specifically, the study determined; basic ICT skills possessed by vocational and technical education students, online ICT skills required by vocational and technical education students and hindrances to the acquiring of ICT skills by vocational and technical education students.

Methodology
Descriptive survey design was adopted for the study. The study was carried out in Benin municipal. The population of study comprises of 21 NCE vocational and technical education graduates from College of Education Ekiadolor and 18 vocational and technical education graduates from the University of Benin. Due to the small size of the population, the entire population was used for the study. A structured questionnaire tagged Vocational and Technical Graduates Information and Communication Skills (VTGICS) was developed by the researchers for data collection. The instrument was validated by three experts in computer and vocational and technical education. Cronbach alpha technique was used to determine the reliability of the instrument which was 0.71. The response options of Strongly Agreed (SA), Agreed (A), Disagree (D) and Strongly Disagree (SD) was used. Descriptive mean and standard deviation were used to analyse the data. The average mean for the study was 2.50. This indicates that any item that had a mean score below 2.50 is considered as disagreed. While item with a mean score above 2.50 is considered agree and any mean above 2.50 is considered accepted.

Results
Research Questions 1
What are the basic ICT skills possessed by students of vocational and technical education students?

Table 1
Mean and Standard Deviation of Basic ICT Skills possessed by Vocational and Technical Education Students

S/No.	Items	Mean	SD	Remark
1.	Ability to booth the computer	4.50	1.23	A
2.	Ability to produce text document	4.10	1.12	A
3.	Ability to save document	4.20	1.32	A
4.	Ability to retrieve saved document	3.80	0.56	A
5.	Edit a document	3.10	0.54	A
6.	Page a text	2.90	0.43	A
7.	Copy and update document	3.00	0.55	A
8.	Knowledge of graphics and design	3.20	0.45	A
9.	Print document	4.60	1.42	A
10.	Ability to delete document	4.10	1.22	A
11.	Ability to use design and layout	3.90	0.65	A
12.	Create subdirectories	2.40	0.46	D
13.	View document	3.00	0.34	A
14.	Scan text or photographs into computer	3.60	0.44	A
15.	Ability to store document in CD and flash drive	3.90	0.67	A
16.	Ability to operate electronic filling	2.40	0.53	D
17.	Ability to use scanning machine	2.60	0.34	A
18.	Fax messages	2.40	0.42	D
19.	Browse download information from the net	3.90	0.34	A
20.	Ability to use internet	3.40	0.58	A
21.	Ability to use email	3.90	0.77	A
22.	Ability to use photocopier	4.00	1.50	A
23.	Centre, align and justify text	3.20	0.56	A
24.	Plot and make entries in a graph	2.70	0.66	A

The data presented in Table 1 revealed that out of the 24 basic ICT skills listed only three (3) skills were not possessed by vocational and technical education students. These are the skills to create subdirectories, operate electronic filling and fax messages with mean below 2.50 and standard deviation ranging between 0.42 – 0.46.

Research Question 2
What are the online ICT skills possessed by vocational/technical education students?

Table 2
Mean and Standard Deviation of the Online ICT Skills Possessed by Vocational/Technical Education Students

S/No.	Items	Mean	SD	Remark
25.	Ability to use the internet	3.80	1.56	A
26.	Knowledge of the www, LAN	2.30	0.54	D
27.	Ability to create and send document via email	2.10	0.23	D
28.	Browse and download information from net	2.50	0.45	A
29.	Use social networking sites	3.00	0.65	A
30.	Ability to create web sites	1.20	0.43	D
31.	Ability to upload information into the net	2.20	0.56	D
32.	Ability to chat on line	3.20	0.34	A
33.	Ability to source information using web engines	2.20	1.22	D
34.	Ability to make business transaction on line	1.20	1.30	D
35.	Ability to network with individual and group	2.00	0.23	D
36.	Ability to create web sites for customers	2.20	1.00	D
37.	Ability to protect sites from hijackers	1.10	1.20	D

The date presented in table 2 shows that out of the thirteen online ICT skills listed, vocational/technical education students possessed four of the skills with means ranging from 2.50 – 3.80 and standard deviation of 0.45 – 1.56. The online skill mostly possessed by vocational/technical education students is the ability to browse and chat on line. They do not possess online skills such as the ability to protect sites from hijackers with mean of 1.10 and standard deviation of 1.20

Research Question 3

What are the hindrances to the acquiring of ICT entrepreneurial skills by vocational/technical education students?

Table 3
Mean and Standard Deviation of Hindrances to the Acquiring of ICT Skills by Vocational/Technical Education Students

S/No.	Items	Mean	SD	Remark
38.	Lack of interest by students	1.50	0.47	D
39.	The facilities are costly to procure by the school	3.30	0.56	A
40.	Inadequate ICT facilities	3.90	0.57	A
41.	Lack of adequate or constant power supply	4.00	0.36	A
42.	Lecturers are not competent to teach these skills	2.10	0.65	D
43.	Lack of awareness of these entrepreneurship opportunities	4.60	0.55	A
44.	Lack of entrepreneurship education	3.20	0.45	A
45.	Poor funding on the part of government	4.10	0.47	A
46.	programme content is not enough	3.90	0.44	A
47.	Non-inclusion of these skills in the program	4.20	0.53	A
48.	Lack of technicians maintain the facilities	2.20	1.21	D

Table 3 revealed that item 38, 42 and 48 with mean scores below 1.50 – 2.20 and standard deviation of 0.47 – 1.21 indicate that these are not the hindrances to acquiring ICT skills by vocational and technical education students. While 11 items with mean scores of 3.20 – 4.60 and standard deviation of 0.45 – 0.57 show that the items are hindrances to acquiring ICT skills by vocational and technical education students.

Discussion
The study investigated ICT skills possessed by vocational and technical students for self-sustainment. The mean responses of the respondents on the data presented in table 1 show that all basic computer skills are highly needed by students for effective self-sustenance. This shows how important these skills are for successful business enterprise. This is in line with Obora (2008) who stated that graduates who do not have ICT skills cannot be employed in the present world of work. Table 2 revealed that out of the thirteen on-line skills identified, eleven were possessed by vocational and technical education students for self-sustenance. The findings are in line with McCloud (2005) who stated that students need basic online skills such as the ability to protect sites from hijackers and ability to create web site and make business transactions amongst others. These ICT skills will help students attain economic growth and self-sustain, improves the quality of lives and contribute to the economy. Table 3 show the result on the hindrances to the acquiring of ICT skills by vocational and technical education students. The result also revealed that out of the 11 items, 9 of the items were required by vocational and technical education students. This includes inadequate ICT facilities, lack of technicians to maintain the facilities and lack of power supply. This is in consonance with Osuwa (2002) who asserted that the problem of electricity instability is a major setback to Nigerian technological development. The lack of access to technological infrastructure such as computers, poor internet connectivity, high cost of cyber café tariff, high cost of maintaining computer and non-inclusion of these skills in the program are hindrances to acquiring ICT skills. Curriculum is tailored to theory not practical skills. If they possess these competencies they can be self-employed thereby reducing poverty and unemployment in Nigeria

Recommendations

- Students of vocational and technical education should be train in basic ICT skills and computer activities.
- ICT skills identified in this research should be included in the curriculum of vocational and technical education students so as to make them employable or self employed upon graduation.
- All hindrances to acquiring ICT skills as identify in the study should be address by stakeholders in education to improve students skills in ICT.

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