EXTENT OF ACQUISITION OF DIGITAL SKILLS BY OFFICE TECHNOLOGY AND MANAGEMENT STUDENTS IN TERTIARY INSTITUTIONS IN BENUE STATE

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Abstract
This study investigated the extent of acquisition of digital skills by Office Technology and Management (OTM) students in tertiary institutions in Benue State. Two research questions guided the study and two null hypotheses were tested. Survey research design was used. The population of the study was 515 office technology students drawn from four tertiary institutions in Benue State. Simple random sampling was used to get a sample size of 51 students for the study. Instrument used for data collection was a 5- point rating scale structured questionnaire. Data collected were analyzed using mean and standard deviation to answer the research questions while t-test and ANOVA were used to test the hypotheses at 0.05 level of significance. The overall result showed that the acquisition of these digital skills by OTM students in tertiary institutions in Benue State was at a moderate extent. The result of the hypotheses test showed that there was no significant difference in the mean ratings of OTM students in universities, polytechnics and colleges of education on the extent of acquisition of skills in the two digital applications. Similiary, gender was significant. It was concluded that, OTM students in tertiary institutions in Benue State did not have enough of the two digital skills applications to meet the challenges of competitive nature of office work today. It was recommended that tertiary institutions should try to provide adequate digital facilities for better training of students to enhance mastery of the needed skills upon graduation.
Keywords: Digital Skills, Office, Students, Tertiary Institutions and Gender

Introduction

In this modern world, fast changes have taken place in all facets of human life including the office environment due to global technological advancement. Modern business offices (government or private) require effective and efficient information for better decision making. The processing of information and management functions in various offices rest mainly on the secretaries who are office information managers. Therefore, the management of any organization expects office technology management graduates in their domain to possess relevant digital skills to perform the office functions effectively and efficiently. In the ame vein, the management of today's tertiary institutions requires relevant digital kill to perform effectively.

Tertiary institutions play critical role in the digital transformation of the societies, particularly equipping the office technology and management (OTM) students with relevant digital skills that will enable the students fit evenly into the labour market. The labour force is changing drastically as new technologies are evolving each day. Therefore, if OTM students are familiar with new technologies, they will be able to use these technologies in their future place

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of work which will be of great benefit to the students and the nation at large. Tertiary institutions comprise universities, colleges of education and polytechnics, monotechnics, colleges of agriculture, enterprise initiative institutions among others. Tertiary institutions are higher education institutions beyond the secondary school level, especially education and training at colleges of education, universities, polytechnics, monotechnics and research institutions. University is the highest educational institution in all nations of the world. It is the highest level or final resort for knowledge acquisition hence it is termed the citadel of learning. For this obiligation it is expected that the use of digital tools must be used in today's university.

According to Jorgensen (2019) digital tools are machines that are used to ease today's office work. To operate these digital tools, there is need for OTM students to acquire digital skills to operate in the present 21st century office work. Coward, (2019) opined that the world is living in the mist of digital revolution, that more people are connected to the internet than ever before, using digital devices and services for work and all aspects of their life. Coward also asserted that new technologies have proliferated over the past decade such as artificial intelligence, big data, block chin, cloud computing, internet of things, machine learning, mobile applications, nanotechnology and 3D printing among others. This shows that presently every aspect of human activities is being done digitally.

Office managers and administrative assistants are employed in organizations of every type. They are employed in firms providing services ranging from education and health to legal and business services. Others work for firms engaged in manufacturing, construction, wholesale and retail trade, transportation, and communication. Banks, insurance companies, investment firms, and real estate firms are also important employers, as well as Federal, State, and local government agencies. This non-restrictive nature of office managerial services provides its recipients with a lot of access to job employment opportunities. Habila (2013) opined that, from the pervasive nature of office managerial services, it is clear that virtually all spheres of life need office technology and management intervention. All organizations need good information management systems, good record keeping for effective competitiveness and profit making. Secretarial education has been evolving and developing with the advancement in office work and technology. As a response many tertiary institutions in Nigeria have now changed the nomenclature from Secretarial Education/Studies to Office Technology and Management (OTM). It has provided job opportunities for both men and women. In the past secretarial studies were dominated by women but of recent, with the changes in the nomenclature to office technology and management (OTM), many men have found comfort in the profession.

Like any other profession, there is often gender disparity in OTM, even though the course of study is for both men and women. There should be no gender bias, but in the real life situation, men are likely to have access to information and communication technology (ICT) than their female counterpart as the men used the internet more often. A reduced digital gender gap will have significant economic implication if office technology and management students acquired the needed digital skills irrespective of their gender for optimal performance.

The UNESCO (2018) stated that there are major inequalities in digital skills in both developing and developed countries along a number of lines, notably socio-economic status, race, gender, geography, age and educational background. Gender divides in digital skills are severe. Women are 1.6 times more likely than men to report lack of skills as a factor impeding their use of the internet. The proportion of women using the Internet is 12% lower than the proportion of men using the Internet, and the gender gap in Internet usage has widened between 2013 and 2017, especially in least developed countries. Without policy interventions, ongoing

technological developments threaten to exacerbate the inequalities between those with and without digital skills. Integrated and comprehensive responses are urgently needed Government and state actors need to play pivotal role in setting up the fundamental principles for inclusive and equitable digital skills development, providing programmes and capacity development initiatives for disadvantaged groups, and re-skilling adults at risk of job displacement. Ensuring that everyone has relevant digital skills helps to promote inclusive and equitable education and lifelong learning for all.

Statement of the Problem

Secretaries are the mainstay of every organization whether public or private. In the past, graduate secretaries secured employment easily and succeed rapidly especially those with requisite skills and knowledge. Today however, the reverse seems to be the case probably because of dearth of appropriate knowledge and skills. For instance many graduates of the programme are seen roaming the streets in Benue State where this study was conducted with their certificates in search of employment when they are supposed to be self-employed and employers of labour.

Azih (2016) observed that most graduates of OTM programme of some universities seem to be lacking in skills related to skills in some modern office applications needed for employment and effective performance in today's offices and business environment dominated by technology. This means that where students fail to adequately acquire knowledge and relevant skills while in school, it will be very difficult for them to apply them to effectively manage any modern office on graduation. This puts a question mark on the quality of service such OTM graduates that are not well exposed to relevant digital skills will render to prospective employers. Currently, there is a high demand for technologically trained and skilled workers but, regrettably, most OTM graduates seem to possess only theoretical knowledge which does not match the demands of the modern workplace.

Office work and business activities today have gone digital replacing the manual and technical procedures of the past. Today's office manager (secretary/OTM graduate) is required to apply digital skills in office and business activities and need to be adequately equipped with them in the course of training as students but the reverse appears to be the case.

Purpose of the Study

The main purpose of this study was to ascertain the extent of acquisition of digital skills by OTM students of tertiary institutions in Benue State. Specifically, the study ascertained the extent of acquisition of:

1. Microsoft word processing application skills by OTM students in tertiary institutions in Benue State.
2. Microsoft Excel application skills by OTM students in tertiary institutions in Benue State.

Research Questions

The following research questions guided the study:

1. What is the extent of acquisition of Microsoft word processing application skills by OTM students in tertiary institutions in Benue State?

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2. What is the extent of acquisition of Microsoft Excels application skills by OTM students in tertiary institutions in Benue State?

Hypotheses.

The following null hypotheses were tested at 0.05 level of significance.

1. There is no significant difference between the mean ratings of OTM students in universities, polytechnics and colleges of education on the extent of acquisition of Microsoft word processing application skills.
2. Gender does not significantly influence the mean ratings of OTM students on their extent of acquisition of Microsoft word processing application skills.
3. There is no significant difference between the mean ratings of OTM students in universities, polytechnics and colleges of education on the extent of acquisition of Microsoft excel application skills.
4. Gender does not significantly influence the mean ratings of OTM students on their extent of acquisition of Microsoft excel application skills.

Theoretical framework

The Theory on which this study is based was Theory of Skill Acquisition.

The theory of skill acquisition was propounded in 1986 by Hubert and Stuart. The theory postulated that the formal system of education is a process that involves the development of skills which will make it possible for individuals to deal with different activities. The theory went further to said that 'Knowing what or "Knowing that" and "Knowing how" are acquired through formal education and training. According to the theory, people are born as novice, and expertise is acquired through instruction and experiences that leads from "Knowing that" to "Knowing how". The theory stated more that skill acquisition or skill development is important for effective and efficient operation of everyday activities which can be social, economic, political or technological.

Method

The researcher adopted descriptive survey research design for the study. The population of the study comprised 513 Office Technology and Management (OTM) students in all tertiary institutions offering the programme in Benue State. Out of the population of 513 and sample size of 51 was taken using proportionate strategy random samply technique to ensure that the subgroup (colleges of education, polytechnic and university) of the population participated in the study in the same proportion. The sample used for this study comprised 153 OTM students drawn from the 513 OTM students from four tertiary institutions under study using simple random sampling technique.

The instrument used for data collection was a structured questionnaire developed by the researcher in line with the purpose of the study. The instrument has two main sections:- A and B. Section A contained two items on the respondents' bio-data such as gender and institution type, while Section B had two clusters B1 – B2 which contain 16 and 14 items respectively. The questionnaire was structured on a five point rating scale. VGE (Very Great Extent), GE (Great Extent),ME (Moderate Extent), SE (Small Extent), VSE (Very small Extent)

One hundred and fifty-five copies of the questionnaire were distributed to the respondents personally by the researcher with the help of two research assistants who work in

the office of the Heads of Department in the institutions. The two assistants covered College of Education, Katsina/Alla in Benue State and Benue State Polytechnic, Ugbokolo, respectively while the researcher personally covered College of Education, Oju, and Benue State University (BSU) Makurdi. All copies of the questionnaire were returned.

Descriptive and inferential statistical tools were used in analyzing data collected. Mean scores were used to answer the research questions and determine the spread of the respondents' views. ANOVA and t- test were used to test the hypotheses. Where the For t computed was equal or greater than the p-value at 0.05 level of significance, the null hypothesis was rejected and where For t computed was less than p-value, the null hypothesis was not rejected.

Results

Data collected with respect to the research questions and hypotheses were analyzed and presented in Tables 1- 4

Research Question 1

What is the extent of acquisition of Microsoft word processing application skills by OTM students in tertiary institutions in Benue State?

Table 1

Respondents' mean ratings on the extent of acquisition of Microsoft word processing application skills by OTM students in tertiary institutions in Benue State

S/N	item statement	$\bar{X}$	SD	Remark
	Ability to			
1.	Insert text	4.25	0.95	GE
2.	Cut, copy and paste for edit document	3.88	0.89	GE
3.	Save document in the primary storage device	3.99	1.01	GE
4.	Save document in the secondary storage device	3.59	1.06	GE
5.	Retrieve files from the primary storage	3.82	1.09	GE
6.	Create and edit tablets	3.52	0.99	GE
7.	Cut, copy and paste icons	3.74	1.11	GE
8.	Insert borders and shade in document	3.45	1.03	ME
9.	Use the correct fingers on the keyboard	3.67	1.17	GE
10.	Adjust margins	3.41	0.96	ME
11.	Retrieve files from a secondary storage	3.62	1.11	GE
12.	Suitably align text in a document (left align, right align, centre align and justify)	3.22	1.11	ME
13.	Change font type, style and size	3.71	1.04	GE
14.	Insert page numbers and symbols in a document	3.39	0.99	ME
15.	Print document	3.82	1.12	GE
16.	Preview a document before printing	3.58	1.14	GE
	Cluster Mean		**3.67**	**GE**

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Data in Table 1 show that the respondents rated items 8, 10, 12, and 14 as moderately acquired while the remaining items are rated as greatly acquired. The cluster mean value of 3.67 indicates that on the whole, Microsoft word processing application skills is rated by OTM students in tertiary institutions in Benue State as greatly acquired digital skill. However, the small standard deviation value of the items shows that the values in the statistical data are more concentrated around the mean.

Research Question 2

What is the extent of acquisition of Microsoft excel skills by OTM students in tertiary institutions in Benue State.

Table 2:Respondents' mean ratings on the extent of acquisition of Microsoft excel skills by OTM students in tertiary institutions in Benue State

S/N	Item Statement (Ability to …)	X	SD	Remark
17	Create new workbook	3.66	1.18	GE
18	Navigate a worksheet	3.31	1,02	ME
19	Find text and numbers in a workbook	3.44	1.29	ME
20	Insert and delete sheets	3.29	1.12	ME
21	Create a formula	3.09	1.29	ME
22	Perform calculations	3.14	1.21	ME
23	Edit cell contents	3.18	1.27	ME
24	Insert rows and columns in a worksheet	3.26	1.17	ME
25	Insert blank cells in a worksheet	3.08	1.34	ME
26	Group and ungroup data	3.05	1.31	ME
27	Prepare stock inventory	3.01	1.36	ME
28	Prepare bank statements	2.94	1.37	ME
29	Create result sheet	3.17	1.42	ME
30	Create budget consolidation	2.92	1.43	ME
	Cluster	3.18		ME

Data in Table 2 show that the respondents rated item 17 as greatly acquired while the remaining items are rated as moderately acquired. The cluster mean value of 3.18 indicates that on the whole, Microsoft excel skills is rated by OTM students in tertiary institutions in Benue State as moderately acquired digital skill. However, the small standard deviation value of the items shows that the values in the statistical data are more concentrated around the mean.

Hypothesis 1: There is no significant difference in the mean ratings of OTM students in universities, polytechnics and colleges of education on the extent of acquisition of Microsoft word processing skills.

To test this hypothesis, the mean of the three groups were computed to obtain the p-value at 0.05 level of significance. The result of the computation is shown in Table 3.

Table 3: ANOVA Result on the extent, of acquisition of Microsoft word processing skills

Sources of Variance	Sum of squares	df	Mean of Squares	F	p-val	Decision

Between Groups	2052.2	2	1026	110.4	0.00	Significant
Within Groups	14453.8	150	96.4			
Total	16506	152				

Data in Table 3 show that the *p*-value is less than F=10.6, P=.001. This result indicates that there is a significant difference in the mean ratings of OTM students in universities, polytechnics and colleges of education on the extent of acquisition of Microsoft word processing skills. Therefore, the null hypothesis is rejected.

Hypothesis 2: Gender does not significantly influence the mean ratings of OTM students on their extent of acquisition of Microsoft word processing skills.

To test the first hypothesis, the mean of the two groups were computed to obtain the p-value at 0.05 level of significance. The result of the computation is shown in table 4

Table 4: **T-test Result on the extent** of acquisition of Microsoft word processing skills

Source of variation Gender	**N**	**Mean**	**SD**	**tf**	**p- value**	**Decision**
Microsoft word processing	Male	78	57	11.1	151	0.05 Significant
skills	Female	75	60.3	9.4		

Data in Table 4 show that *p*-value is equal to the chosen significance level $\alpha = 0.05$, *p* (0.05) = 0.05, at 151 degree of freedom. This suggests that there is no significant difference in the mean ratings of male and female OTM students on their extent of acquisition of Microsoft word processing skills. Therefore, the null hypothesis is not rejected.

Discussion of findings

The findings of this study relating to Microsoft word processing skills revealed that OTM students in tertiary institutions in Benue State greatly acquired Microsoft word processing application. However few of the items such as insert borders and shade in document, adjust margins, suitable align text in a document (left align, right align, centre align and justified) and insert page numbers and symbols in a document were rated moderately acquired. Since Microsoft word processing is greatly acquired by most OTM students in tertiary institutions in Benue State, it means that the students will be able to handle any document that might come their way. This can be linked with the definition of word processing as stated by Ezenwafor (2012) that word processing assists OTM graduates in producing different types of office based documents such as memos, reports, letters and many more. In the same vein, Ogbonna, Ibezin and Obi in Jorgensen, (2019) posited that Word processing skills are crucial as they constitute the basic skills that will usher students into effective use of other software applications.

The finding also conforms to the views of Uzochukwu (2017) who held that skill acquisition is like a key used in opening door of fortune. Therefore, the acquisition of Microsoft word processing skill in great extent by OTM students will lead to greater performance upon graduation which will motivate employers to employ them or be self employed. The study also found out that there was a significant difference in the mean ratings of OTM students in the

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universities, polytechnics and colleges of education on the extent of acquisition of Microsoft word processing skills.

Therefore, with the rejection of the null hypothesis, it means that institution type influence the extent of acquisition of Microsoft word applications. The result also showed no significant difference in the mean ratings of male and female OTM students on their extent of acquisition of word processing skills. This means that gender did not significantly influence the extent of acquisition of word processing skills.

The findings of the study revealed that the acquisition of Microsoft Excel application skill by OTM students of tertiary institution in Benue State was moderate, with only one item in great extent; the remaining items were acquired moderately. This finding can be linked to the view of Otowe and Amiaya in Bako (2015) which asserted that employees with digital technology skills are today's business rock- stars and that employers in every industry need them, but most do not have enough of them and demand for them is growing daily. If the need for digital technology is increasing, then there is need for OTM students to acquire these skills at a very great extent not just the moderate aspect of these skills.

The findings further revealed that there was a significant difference in the mean ratings of OTM students in the universities, polytechnics and colleges of education. The rejection of the null hypothesis showed that the extent to which OTM students in the universities, polytechnics and colleges of education have acquired digital skills in Microsoft Excel Application differs. This could be linked to the views of Edokpolor (2017) that OTM in polytechnics are more competent than the OTM students in the universities. This might be true because most of the universities concentrate more on the theoretical aspect while polytechnics and colleges of education have more practical. Gender therefore, did not significantly influence the mean ratings of OTM students on the extent of acquisition of Microsoft Excel application skills in tertiary institutions in Benue State.

Conclusion

The findings of the study implied that the extent of acquisition of word processing application skills were greatly acquired while Microsoft Excel application, skills were moderately acquired. The findings of the study therefore, have shown that acquisition of digital skills by OTM students in tertiary institutions was at a moderate extent. This implies then that the acquisition of digital skills by OTM students in tertiary institutions is not enough to meet the current challenges of competitive work environment. These calls for drastic action by these institutions to lay more emphasis on practical skill acquisition to enable the OTM students meet the demands of the labour market upon graduation.

Recommendations

On the basis of the findings of the study, the following recommendations were made:

1. Tertiary institutions in Benue State should provide adequate equipment for the training of the students by equipping the computer laboratory for better performance.
2. The OTM students should try to work extra to improve their digital skills in the area of Microsoft Excel, applications for better performance in work place.
3. Students should be more proactive towards their studies by giving lots of time to practical skills to enable them achieve the aims of the programme.

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