



OFFICE TECHNOLOGY AND MANAGEMENT CURRICULUM CONTENTS AND THE USE OF MODERN INFORMATION COMMUNICATION AND TECHNOLOGY FACILITIES AMONG STUDENTS OF POLYTECHNICS IN NASARAWA STATE, NIGERIA

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Abstract

The study investigated Office Technology and Management (OTM) curriculum content and the use of modern information communication and technology (ICT) facilities among students of polytechnics in Nasarawa State, Nigeria. Two research questions guided the study and two hypotheses were tested at .05 level of significance. The population of the study was made up of all ND II and HND II students of Office Technology and Management in Nasarawa State Polytechnic and Federal Polytechnic, Nasarawa. The total of these stood at 267. Simple random sampling technique was used in selecting a sample of 122 respondents for the study. The instrument used for gathering data for the study was a researcher made questionnaire titled “Office Technology and Management Curriculum Content and the Use of Modern Information and Communication Technology Facilities Questionnaire (OTMCCUMICTFQ)”. The instrument was validated by three experts in Office Technology and Management. The questionnaire which comprised two parts: A and B had a reliability index of .78 using Chronbach Alpha reliability coefficient after it was pilot tested. The collected data was analyzed using mean and standard deviation, while t-test was used to test the hypotheses at .05 level of significance. Findings revealed among others that there is no significant difference in the mean rating of Polytechnics OTM National Diploma and Higher National Diploma students on the integration of modern ICT facilities into their curriculum for teaching and learning. It was recommended that government and other stakeholders in education sector should call for an OTM inclusive curriculum review, take into consideration the modern ICT facilities that are prevalent in the present world of work and integrate same in the curriculum of OTM so that graduates of this program will be usable for themselves and the society.

Keywords: *Office Technology and Management (OTM) curriculum, modern Information Communication and Technology (ICT) facilities, Polytechnic*

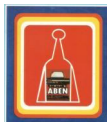


Introduction

Office Technology and Management Education is an integral component of business education program. It is a program of study that seeks to provide knowledge and skills for would-be office managers, confidential secretaries, computer operators, typists as well as stenographers to perform efficiently and effectively in the world of work. It also avails its learners with the acquisition of skills, knowledge and competencies that could make them proficient in secretarial profession. According to Ihedioha (2008), Office Technology and Management is a course of study offered in Colleges of Education, Polytechnics and the Universities primarily to educate and train students to become competent office managers.

Office technology as a concept is the deployment of scientific knowledge, devices and systems to facilitate and enhance information processing and delivery (Oludale&Dosunmu, 2013). It is also viewed as a concept associated with office automation, electronic technology and office globalization. This all important field of study is not an entirely new academic program in Nigerian polytechnics, as the polytechnics are known to be among the producers of skilled and self-employable office and workshop workers for the nation. Hitherto, this program of study was known as secretarial studies, but later renamed Office Technology and Management (OTM) (NBTE, 2004). In the words of Omeje (2008), OTM program was designed for two major reasons. First, as a response to the yearnings of the secretarial studies students and practitioners on the need to change the name of the program as their graduates appear solely trained for the traditional office environment as it were. Secondly, as a response to the call for a change in the curriculum with more emphasis on ICT and entrepreneurial content so as to broaden the knowledge of the students and equip them with necessary skills needed in today's office environment

The National Diploma (ND) and Higher National Diploma (HND) curriculum for the erstwhile Secretarial Studies was published in 1989. After the initial five years of its implementation, it was generally agreed that there was the need to review the Secretarial Studies curriculum (Azuka, 2000, Makari, Gami and Otoiwo, 2005). This change subsequently came with the renaming of the program to OTM. In 2001, the National Board for Technical Education (NBTE), the regulator of the polytechnic programs embarked on a comprehensive review of all minimum guide curricula, which sought to radically transform the polytechnics programs to meet new technological and socio-economic trends and demands of the world of work. The main focus was to ensure that every program embodied ICT and entrepreneurship modules. The revised curricula hence, emphasized more of psychomotor domain (i.e. practical work).



The curriculum content of Office Technology and Management no doubt has been plagued with challenges in a bid to providing the desired knowledge, skills and competencies to her students (Olawole & Abuya, 2011). These authors further explained that nowadays, many tertiary institutions in Nigeria including the polytechnics offering Office Technology and Management as a program of study do not have adequate computers and functional internet facilities and laboratories that can provide the secretarial students with the needed knowledge, skills and competencies needed for the advancement of office technology and information systems worldwide. Products of such tertiary institutions seem not to have any depth of the fundamentals of information processing and computer literacy (Folahan & Monofi, 2003). Some of them do not possess the basic skills required to utilize computer operating system such as word processing, e-mail and the internet. Those of them who sometimes boast of being able to operate the computer or browse the internet may have gone the extra mile to learn from the 'roadside' computer centers or institutes (Adeola & Bolarinwa, 2010).

The recently emerging challenges are that more than ever before, the Nigerian economy calls for competent workforce with relevant psychomotor, cognitive and affective domains. While the present curriculum may provide the agenda for adequate preparations to harness its immense potentials, the emerging challenge hinges on effective capacity building of Technical and Vocational Educators taking into focus their instructional challenges. On his part, Ihedioha, (2008) asserted that the implication of the program's curriculum is that many, if not all the academic staff and non-academic staff are expected to be computer competent and not just literate and this create a gap.

Mumah, (2008), acknowledged Ojukwu's view on the urgent need to close any gap between teachers qualifications and job requirements for Office Technology and Management curriculum implementation, but added that the material and non-material challenges for ICT implementation includes: (a) Insufficient number of computers; (b) Teachers lack of knowledge and skills; (c) Difficulty in integrating ICT into instruction (d) Scheduling computer time; (e) Insufficient peripherals; (f) Inadequate copies of soft-ware; (g) Insufficient teacher time; (h) Lack of enough simulation access, and (i) Lack of technical staff.

Other challenges include; changing the individuals' orientation, creating new ways of thinking and outlining new roles for teachers, students and administrators. Generally speaking, if the content of OTM's curriculum is deficient and faulty like



other academic programs in Nigeria's polytechnics, then the result may be the production of half-baked and poorly equipped graduates who cannot perform effectively and efficiently in the world of work. Hence, graduates of the program would become deficient in knowledge and skills. On the whole, according to Ohakwe and Njoku (2009) the curriculum is likened to the constitution which is not static; but rather fluid and elastic in application, administration, change and principally modulated by the environment and technology. Therefore, developing a curriculum could best be described as an ongoing exercise.

However, the rationale for studying OTM program stem from the fact that in a globalized, digitalized and computerized era that we are today, information in diverse forms are transmitted from one form to another; and from one medium to another, as well as from one location to another without the senders and receivers having to meet with each other face-to-face. This being true, it has become expedient for professionalism to be sustained in the OTM world, and polytechnics which is one of the tertiary institutions provide the platform where such advocacy could be entrenched.

The main features of the current OTM curriculum include the incorporation of relevant ICT course modules; and Entrepreneurship Education Course and a significant change (i.e. reduction) in the contact hours of shorthand from 10 hours to 4 hours (Akpotohwo, n.d). More specifically, the OTM courses are structured along four areas; viz:

1. General/liberal studies courses as seen in the teaching of Citizenship Education for all programs.
2. Foundation/Basic courses as seen in introduction of:
 - a. Use of English
 - b. Principles of Accounts
 - c. Business Mathematics
 - d. Introduction to Business
 - e. Principles of law
 - f. Professional ethics and social responsibility
 - g. Entrepreneurship Education
 - h. Business Communication
 - i. Technical English
3. Professional/Technical courses as in:
 - a. Keyboarding
 - b. Shorthand



- c. Office Practice
 - d. Project
 - e. ICT
 - f. Modern Office Technology
 - g. Records Management
4. The Students Industrial Works Experience Scheme (SIWES) for National Diploma Students (Ohakwe and Njoku, 2009).

According to Oludale and Dosunmu (2013), this new OTM curriculum purports to provide students with in-depth administrative office preparation to meet the demands and challenges in the business environment. Through the program, students can acquire marketable skills applicable to various careers and industries as well as cognitive skills transferable to employment situations and work life experiences. The contents of this vogue OTM curriculum appear to be responsive to a global initiative with an objective that portends new academic direction in favour of ICT. The objectives, theoretical and practical contents of the new curriculum are geared towards integrating graduates of OTM departments into the world of technology.

Despite the huge academic and ICT- based content of the new Office Technology and Management (OTM) curriculum contents, the stakeholders- the regulatory authorities, government, professional bodies, and the institutions are yet to incorporate such reforms in the civil service career structure for Office managers. This therefore, causes frustration on the students and even the office manager (Ike, 2008). These stakeholders seems to forget that the success of Office Technology and Management program are sometimes measured and determined by the effectiveness, competences and job performance of the graduates of the program (NBTE, 2004).

Statement of the Problem

The secretarial profession in Nigeria has no vibrant professional body collaborating with both federal and state ministries and establishments to evolve new career structure for secretaries to improve their productivity. The current effort by the Institute of Certified Secretaries and Reporters of Nigeria (ICSR) to seek legislative backing has not paid off. Consequently, it may be right to assert that there is yet any professionally recognized secretarial body in Nigeria that could synergize with the Federal and State Ministries and other establishments to adopt the use of 21st century OTM facilities and equipment, and develop the professional content for secretaries and would-be secretaries. This situation causes low morale among students and it birth declining productivity among office managers (Akpotohwo, n.d).



Therefore, there seems to be no clear job description for secretaries at each career level as a result. For tertiary institutions in Nigeria particularly Polytechnics that offer Office Technology and Management education program to deliver on their mandates, there is a serious need to use modern facilities and equipment in the teaching and learning processes such that can give adequate skills and information needed in the real world of work and making her products- the graduates employable. This underscores why the researcher decided to examine office technology and management curriculum and the use of modern information communication and technology facilities among students of Polytechnics in Nasarawa State, Nigeria.

Research Questions

The following research questions were raised for the study

1. To what extent does OTM curriculum integrate modern ICT facilities for use by ND 11 and HND 11 students of Polytechnics?
2. To what extent are modern ICT facilities available for use by OTM students Federal and State Polytechnics?

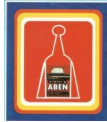
Hypotheses

The following hypotheses guided the study:

1. There is no significant difference in the responses of OTM ND students and their HND counterparts regarding the integration of modern ICT facilities into their curriculum for teaching learning process.
2. There is no significant difference in the responses of federal polytechnic OTM students and their state polytechnic folks regarding the use of modern ICT facilities in the teaching learning process.

Methods

The study used descriptive survey design. The population of the study was made up of all ND 11 and HND 11 students of Office Technology and Management in Nasarawa State Polytechnic, Lafia and Federal Polytechnic, Nasarawa, both in Nasarawa State. The total of these stood at 267. Using simple random sampling technique, a sample of 122 respondents was used for the study. A structured questionnaire titled “Office Technology and Management Curriculum Content and the Use of Modern Information and Communication Technology Facilities Questionnaire (OTMCCUMICTFQ)”. The instrument was validated by three experts from Office Management and Technology Department in Federal Polytechnic Nasarawa. The questionnaire comprised of two parts which are Part A



and Part B. Part A contained the personal information about the respondents while part B contained items which were used to illicit responses from the respondents about office technology and management curriculum contents and the use of modern information communication and technology facilities among Polytechnics students. The collected data was analyzed using mean and standard deviation, while independent t-test was used to test the hypotheses at .05 level of significance, the null hypothesis was rejected used descriptive survey design. The population of the study was made up of all ND 11 and HND 11 students of Office Technology and Management in Nasarawa State Polytechnic, Lafia and Federal Polytechnic, Nasarawa, both in Nasarawa State. The total of these stood at 267. Using simple random sampling technique, a sample of 122 respondents was used for the study. A structured questionnaire titled “Office Technology and Management Curriculum Content and the Use of Modern Information and Communication Technology Facilities Questionnaire (OTMCCUMICTFQ)”. The instrument was validated by three experts from Office Management and Technology Department in Federal Polytechnic Nasarawa. The questionnaire comprised of two parts which are Part A and Part B. Part A contained the personal information about the respondents while part B contained items which were used to illicit responses from the respondents about office technology and management curriculum contents and the use of modern information communication and technology facilities among Polytechnics students. The collected data was analyzed using mean and standard deviation, while independent t-test was used to test the hypotheses at .05 level of significance, the null hypothesis was rejected

Table 1: *Population and Sample of the Study*

S/N	Institutions	Population		Sample	
		ND 11	HND 11	ND 11	HND 11
1	Federal Polytechnic, Nasarawa	47	34	24	16
2	Nasarawa State Polytechnic	23	12	11	9
	Total	70	46	35	25

Source: *Field Survey, 2019*

Result

Research Question 1

To what extent does OTM curriculum integrates modern ICT facilities for use by ND and HND students of Polytechnics?



Table 2: Respondents' mean ratings and standard deviation on the extent that OTM curriculum integrates ICT facilities for use by students for learning

S/N	ICT facilities	X	SD	Remarks
1	Computers	3.64	1.09	Great extent
2	USB/memory card	2.23	1.08	Low extent
3	MS Excel, power point database, publisher, word	3.67	1.97	Great extent
4	Projector	3.55	1.23	Great extent
5	Television	2.11	1.04	Low extent
6	Fax machine	1.87	0.98	Low extent
7	Web cameras	1.17	0.78	Very low extent
8	MODEM	1.45	0.66	Low extent
9	Radio	2.05	1.53	Low extent
10	Phone	1.17	0.56	Very low extent
11	CD ROM	1.40	0.80	Very low extent
12	Computer speaker	1.98	0.75	Low extent
13	Light pen/joy stick	2.66	1.23	Low extent
14	Router	2.97	1.19	Low extent
15	Electric bulletin board	2.28	1.02	Low extent
16	Network card	1.69	0.97	Very low extent
17	Satelite dish	1.43	0.62	Very low extent
18	Printer	3.97	1.76	Great extent
Grand Mean		2.29	1.07	Low extent

Source: Field Survey, 2019

Data in table 2 reveals that out of the 18 modern ICT facilities listed, OTM curriculum integrated 4 at great extent- computers; MS excel, power point database, publisher, word; projector and printer. It integrates 9 at low extent- USB memory card, television, fax machine, MODEM, radio, computer speaker, light pen/joy stick, router and electric bulletin board. And integrates 5 at very low extent- web cameras, phones, CD.ROM, network card and satellite dish. The grand mean of 2.29 indicates that OTM curriculum integrate modern ICT facilities for students learning at low extent. The standard deviation ranging from 0.96 to 1.97 confirms the low integration of modern ICT facilities into the OTM curriculum for students learning.

Research Question 2

To what extent are modern ICT facilities available for use by students of federal and state Polytechnics?

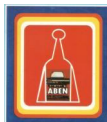


Table 3. Respondents' mean rating and standard deviation on the extent that modern ICT facilities are available for OTM students of federal and state polytechnics

S/N	ICT facilities	X	SD	Remarks
1	Computers	3.51	1.59	Great extent
2	USB/memory card	3.63	1.42	Great extent
3	MS Excel, power point database, publisher, word	3.73	1.48	Great extent
4	Projector	2.22	1.11	Low extent
5	Television	1.60	0.19	Very low extent
6	Fax machine	2.45	1.14	Low extent
7	Web cameras	1.30	0.78	Very low extent
8	MODEM	2.38	1.73	Low extent
9	Radio	1.09	0.16	Very low extent
10	Phone	3.55	1.78	Great extent
11	CD ROM	3.64	1.62	Great extent
12	Computer speaker	2.19	1.35	Low extent
13	Light pen/joy stick	2.50	1.72	Low extent
14	Router	1.64	0.75	Very low extent
15	Electric bulletin board	1.43	0.66	Very low extent
16	Network card	1.77	0.09	Very low extent
17	Satelite dish	2.31	1.51	Low extent
18	Printer	3.70	1.65	Great extent
Grand Mean		2.48	1.15	Low extent

Source: Field Survey, 2019

Data in table 3 shows that 6 modern ICT facilities- computer; USB/memory card; MS excel power point database, publisher, word; phone; CD ROM and printer were available at great extent for use by students of federal and state polytechnic. 6 Projector, fax machine, MODEM, computer speaker, light pen/joy stick, and satellite dish were available at low extent for federal and state polytechnics students learning. And 6- television, web cameras, radio, router, electric bulletin board and network card were available at very low extent for federal and state polytechnics students learning. The grand mean of 2.48 shows that modern ICT facilities for federal and state polytechnics students learning was at low extent. The standard deviation of 1.15 confirms the low availabilities of modern ICT facilities for students use.

Hypothesis 1

There is no significant difference in the responses of OTM National Diploma students and their Higher National Diploma counterparts regarding the integration of modern ICT facilities into their curriculum for teaching learning process.

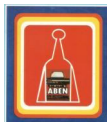


Table 4: Summary of t-test analysis of Polytechnics OTM National Diploma and Higher National Diploma students' respondents on the integration of modern ICT facilities into their curriculum for teaching learning process (N=60)

Category	N	X	SD	Df	p-value	Decision
National Diploma	35	4.34	2.31	58	0.23	Significant
Higher National Diploma	25	3.56	1.76			

Table 4 shows that there is no significant difference in the mean ratings of Polytechnics OTM National Diploma and Higher National Diploma students on the integration of modern ICT facilities into their curriculum for teaching and learning process. This is shown by the p-value of 0.20, which is greater than the 0.05 level of significance. The null hypothesis of no significance is therefore accepted.

Hypothesis 2

There is no significant difference in the responses of federal polytechnic OTM students and their state polytechnic folks regarding the use of modern ICT facilities in the teaching learning process.

Table 5: Summary of t-test analysis of responses from OTM students of federal and state Polytechnics on the use of modern ICT facilities in their teaching learning process (N=60)

Category	N	X	SD	Df	p-value	Decision
Federal Polytechnic	35	4.15	2.66	58	0.04	Significant
State Polytechnic	25	3.76	1.97			

Table 4 reveals that there is a significant difference in the mean ratings of federal polytechnic students studying OTM and their state counterparts regarding the use of modern ICT facilities for teaching learning process. This is shown by the p-value of 0.04, which is less than the significance level of 0.05. The null hypothesis of no significant was rejected.

Discussion of Findings

Findings concerning hypothesis one shows that there is no significant difference in the mean ratings of Polytechnics OTM National Diploma and Higher National Diploma students on the integration of modern ICT facilities into their curriculum



for teaching and learning. This finding agree with Olawole and Abuya (2011) that the curriculum content of Office Technology and Management has been plagued with challenges in a bid to providing the desired knowledge, skills and competencies to her students. Supporting this finding, Ihedioha (2008) put it straight that the implication of the program's curriculum is that many, if not all the academic staff and non- academic staff are expected to be computer competent and not just literate. Folahan & Monofi (2003) disclosed that products of such tertiary institutions may not have any depth of the fundamentals of information processing and computer literacy.

Findings of hypothesis two revealed that there is no significant difference in the mean ratings of federal polytechnic students studying OTM and their state counterparts regarding the use of modern ICT facilities for teaching learning. This finding supports Azuka (2000) & Makari, Gami and Otoiwo (2005) for agreeing that there should be a review of the erstwhile Secretarial Studies curriculum.

Conclusion

Office Technology and Management is indeed a laudable educational program. It is an innovative response to the new demands of the world of work particularly the business world. Based on the findings of the study, there are various challenges to contend with in the course of implementing the curriculum of OTM which ranges from the exclusion of modern ICT facilities to the inadequacy in the supply of ICT equipment and facilities. However, these challenges could be overcome if the certain strategies which include the conscious inclusion of modern training facilities/equipment as well as the procurement of modern ICT facilities for use in the teaching/learning are adopted. The curriculum of OTM could further be enriched with the inclusion of other relevant courses that will not only make the graduate to be marketable but also self-reliant.

Recommendations

Based on the findings of this study and the conclusion drawn, the following recommendations were made:

1. Government and other stakeholders in education sector should call for an OTM inclusive curriculum review, take into consideration the modern ICT facilities that are prevalent in the present world of work and integrate same in the curriculum of OTM so that graduates of this program will be usable for themselves and the society.



2. Government, school authorities and other regulatory bodies should collaborate with donor agencies for the donation of modern ICT facilities and equipment for use by the student. They should equally purchase these items for themselves.
4. A review of the curriculum of OTM should be made by the National Board for Technical Education (NBTE) by including more courses that have ICT and entrepreneurial opportunities.
5. The various resources that are essential requirements in the teaching and learning process should be provided by institutions offering the course to enable students have more practical experience.

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