Integration of Modern Educational Technologies in Teaching and Learning of Secretarial Education in Tertiary Institutions in Sokoto State

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ABSTRACT

This study investigated the integration of Modern Educational Technologies in Teaching and Learning of Secretarial Education in Nigerian higher institutions. Descriptive survey research design was adapted where three objectives and research questions were formulated to guide the study. Population of the study consists of 8 lecturers from Sokoto Polytechnic, 12 lecturers from Shehu Shagari College of Education sokoto and 120 secretarial students from polytechnic and college of education were randomly sampled. A total of 140 respondents were employed to form the sample size. A validated questionnaire adapted by the researcher and vetted by experts. The reliability was established through Cronbach Alpha formular. Three instruments namely the modern office technology needed availability (MOTA), modern office technological Usage (MOTU) and Secretarial lecturers competent (SLCT)were used to elicit information from the respondents. The data collected was analysed giving a 95 percent response rate using Statistical Package for Social Science (SPSS 22.0 version). A narrative approach and quantitative tools such as frequency tables and percentages were used to arrange and present the result. The findings of the study revealed that tertiary institutions teaching Secretarial Education/OTM in Sokoto state are lack of modern educational technologies to equip their students and which led most secretarial students have not use to modern office technological gadgets in their institution. Finally, the researcher recommends some points from the conclusion that secretarial education has to make adequately modern office gadgets and curriculum of secretarial administrator and secretarial educator in higher institution of learning should be reviewed to accommodate modern educational technological gadget for effective teaching of secretarial course in tertiary institution in the country.

Keywords: Integration, Modern Educational, Technologies, Teaching, Learning, Secretarial and higher institution

INTRODUCTION

Education is the priority of any nation's economic, social and political development. Thus, every government is trying to embark on viable projects in order to promote education of her people and to fairly eradicate the massive illiterate ratio. Okoye (2016), since there is need to promote interest in more and advances technology, provision should also be made for institution, the nation as a whole, curriculum planners and business world.

According to Agboola and Ademiluyi (2014). Office Technology and Management came into being mostly as a result of the change in secretarial studies curriculum with more emphasis on ICT and management courses in order to enrich the knowledge of the students and teach them how to use equipment, then with the necessary skills needed in today's office environment. According to Adekola E. et al (2018), secretaries are integral part of the organization. They are the wheel upon which the activities of the office rotate. Information passes across them every minute. As a result, it behoves them to acquire the skills and

competences for modern information processing by taking the advantages which new technology has provided. In spite of the huge opportunities presented by technology, public organizations are without modern equipment as a result of management lack of support in the acquisition of modern equipment especially higher education institution. The secretarial students on the other hand, Giannakoulas, A., & Xinogalos, S. (2018)seem to exhibit conservative attitude by dragging feet in personal development of acquiring skills needed for modern organization. New technology which has to do with the utilization of computer systems and software, and other internet facilities in service delivery seems to inadequate in higher educational institutions.

It is however disturbing that some graduate students could not perform or utilize those office technology facilities during industrial training. Could it be due to non-availability or incompetency of the training or poor students' attitudes to ICT learning? Do they have qualified personnel to handle these equipments? In the light of fore-going several questions can therefore be formulated in examining how modern technology can be effectively utilised and to improve the teaching and learning of secretarial education in tertiary institutions in Sokoto state.

This research work will benefit the secretarial education students by exposing them to the utility of modern facilities and for better understanding on technological improvements and development. The technology as a resource has the power to give students immediate and instant gratification by showing them as successful learners. This is a unique facet of technology.. By finding out the position of the effective integration of educational technology in teaching and learning of secretarial education in tertiary institution. Emerging Technology such as Artificial Intelligence (AI) is changing value chains for creative content from start to finish (WEforum 2018).The secretarial education lecturers by the findings of this study, will get to understand the need for using integration office technologies and upgraded teaching materials and styles for better comprehension and help who lack adequate knowledge and skill in the usage of integration modern office technology/equipment should be retraining to fit into the current trend of technological advancement for effective performance. The result of this study will also help the general public to know the importance of integration of modern educational technology and secretarial education objectives in tertiary institution of learning and serve as an indicator to employer so as to know the type of modern office equipment needed by the secretary that will be best for maximum efficiency and productivity of secretarial work and entire organisation.

The education and training provided to the secretarial students in office management, technology and information systems in tertiary institutions today are far inadequate for secretarial education graduate.

Research Questions
1. Are the modern office technologies needed for training secretarial/OTM students available in tertiary institutions?
2. What is the extent of usage of modern office technological gadget by secretarial students in tertiary institutions?
3. What is the extent of the secretarial/OTM lecturer's competence in the use of modern office technology facilities in tertiary institutions in sokoto state?

LITERATURE REVIEW

Technology

Technology has fundamental important in very field include education intuition, health, banking industry, aviation law and security just to mention but a few (Jawade et al 2014). Ramond H. (2006) Technology as general term for the processes by which human beings fashion tools and machines to increase their control and understanding of the material environment. Teaching and learning have been easy with the introduction of technologies. According to Mumuni I. A. et al (2014) technology is considered to be the process by which humans modify nature to meet their needs and want. They do this modification through the use of various technological tools to perform taught that would have been performed by man. Alnabhan M. et al

(2018),also observed it as the application of the scientific method to solving problems in our daily life. Technology does not only support creating new knowledge but facilitates problem-solving and enhances the human capacity to work effectively as well. Technology enhanced learning is becoming more popular as it can constitute an integral part of 21st century education and It can enrich traditional education, assist educators, improve education quality, and successfully meet the emerging educational needs (Jame 2022).Every office in today's business world, be it government, industry or other human endeavours, require facts and accurate information for quick decision-making. The office worker, including the secretary, expects certain support from the organization into which he/she is employed. Different electronic devices now play important roles in aiding both students and lecturers in the learning and teaching process. Okoye R. and Onyenwa M.A. (2016) posited that electronic mail, real time text conferencing, and online tutorials have been used in the teaching and learning process for several years. Other devices include computers (desktops, laptops, notebooks etc.), projectors, Digital Versatile Discs (DVD), Compact discs (CDs), Closed Circuit Television (cctv), mobile phones with applications that run on the internet etc.(Kukulska-Hulme, A. 2016)

ICT

Communication via technology is just as important as oral and written communication in the work environment. Technology continues to play a vital role in transforming the work and business environment. Abdullah M. et al, (2021) Teachers are using ICT to facilitate learners by using modern teaching tools and resources. Ojo (2016), listed ICT facilities as radio set, television set, audio tape player/ cassette and video players, projectors, satellites connection, sensor and other hardware and software, essential in delivery of instruction. According to Atakpa (2010) stated that secretarial functions everywhere in the world have undergone a lot of technical changes. Therefore, the modern office technology used in teaching and learning of secretarial/OTM courses includes Desktop computer, Laptop, Electric typewriter, Cassette plyers, Scanning machine, Photocopiers, Electric calculators, Electronic whiteboard, Video tape recorder, Duplicating machines, Shredding machines, Franking machines, Filling/Equipment, Telephone equipment, Mobile- note taking device, Electronic Email, Database, Word processor (e.g. Word), Spreadsheet (e.g. Excel), Presentation (e.g. Power point) and include technology applications and processes as well as other electronic devices. According to Abdullah M. et al (2023), online learning depends on availability of internet, suitable infrastructure, learning management systems (LMSs) and the effective educational policies.

Secretarial Education

Secretarial Education /Office Technology and Management(OTM) is a vocational programme that is offered in Secondary schools, Polytechnics, Colleges of Education and Universities primarily to educate and train students to become secretarial teachers and administrators with the appropriate skills and competencies to take up a career in teaching, office occupation and business. Secretarial Education is an option in the business education programme that has its main aim of raising proficient secretaries and secretarial educators that will be self-reliant. At the end of the programme, graduates should become secretarial educators, proficient "typist, computer operators, shorthand-typist or stenographers, confidential secretaries and personal secretaries", (Agboola and Ademiluyi 2014).

Aliyu (2006) opines that business education (secretarial inclusive) is an education offered in Colleges of education, Polytechnics and Universities primarily to education and train students to acquire knowledge, skills and competence to become professional secretarial educator and administrator. Armah, E. D. A. (2015), defines a secretary as an executive assistant, who possesses a mastery of office skills, demonstrates the ability to assume responsibility with or without supervision, exercises initiative and judgement and makes decision within the scope of assigned authority. The modern office has changed dramatically since the 1990s or even prior to that period. Offices in today's society are transmitting information via electronic mail (e-mail), electronic calendars, and teleconferencing, media that deliver text, audio, and streaming video. To effectively bridge the gap between what is being taught in various institutions and what is used in the world of work; different modern office technology facilities should be used to teach secretarial/OTM students. Amoor et al (2015) for our education systems to deliver on their mandates, the quality of the training given to individuals passing through a course or the other should be such that can give adequate skills and information needed in the real world sense.

Modern Educational Technology Skills Required by Secretarial Educator or Administrator

According to Nwaosa, Egbule and Olannye (2013), the following skills are required by office secretarial educator or administrator:

1. Document management system skills: this include Word processing skills: Word processing is the use of advanced hardware to manipulate words, sentences and paragraphs. The word processor is a type of electric typewriter with storage and processing components. One of the major features of the word processor is that as the words are typed, they are displayed simultaneously at the VDU which enables the secretary to effect corrections like deleting or inserting words, sentences and paragraphs before printing the documents (Agomuo, 2005).

2. Message handling system skills: Secretarial Educator or Administrator are expected to possess skills in the following message handling system; Skills in Fax e.g. Skills in using computer technology and communication links to send quality graphics, charts and handwriting in the fax machine at one end, where it is digitalised, Skills in Telex: skills in transmitting and receiving messages over the telephone line, Skills in electronic mail: Skills in sending and receiving mails from one computer to another computer system, Skills in voice mail: Ability to store voice messages at the receiving location digitally, Skills in tele text: Ability to receive data such as news, airline and training schedules; through existing television network.

3. Telecommunication Skills: These are skills that are needed for effective transmission of information by electromagnetic means which include; knowledge to manage audio conferencing, ability to operate video conferencing equipment during net meeting, Skills in understanding and managing telecommunication facilities.

4. word processing skills: Skills in coping, cutting and pasting text in a document, Skills in retrieving of files, Skills in editing existing document, Skills in typing a text document and spelling command, Skilling in pagination of typed materials, Skills in naming, renaming saving of files.

5. Reprographic skills: Reprographic is the process of reproducing multiple copies of a document, and the following skills are required in performing this task, Skills in operating electronic filing, indexing and cataloguing, Skills to capture images, files creations, file updating, report writing and file inquire.

6. Data processing skills: Data processing application is a computer package that is limited exclusively to structural manipulation of data done through programs. The following skills are needed by secretarial educator or administrator in performing this task; Skills in interpreting computer printout to management, Skills to maintain and update stored data.

7. Desktop publishing skills: Desktop publishing application is computer software that enables one to produce well designed pages that combine charts and graphic with text and headlines in a variety of typefaces. The following skills are required in desktop publishing. Skills in using mouse, scanner, leaser, or link jet printer, for mixing text, Skills in the use of graphic to produce high quality output for commercial printing

METHODOLOGY

The research design employed is a descriptive survey. The descriptive study attempts to generalize from a sample to a population so that inferences can be made about some characteristics, attitude or behaviour of the population (Senese, 1997). The study type was preferred because of the economy of the design and the rapid turnaround in data collection. The population of the study consists of 8 lecturers from the Department of Office Technology and Management Ummaru Ali Shinkafi Polytechnic, Sokoto, 12 lecturers from Business Education Department Shehu Shagari College of Education sokoto as the lecturers teaching secretarial education are very few in all institutions and 120 secretarial students were randomly sampled. The entire population of 140 was used for the study. The administration was done personally by the researcher to ensure a safe recovery of the questionnaires. Three instruments namely the modern office technology needed availability (MOTA), modern office technological Usage (MOTU) and Secretarial Lecturers Competent in the used of Technologies(SLCT)were used to elicit information from the respondents. Data collected was analysed giving a 95 percent response rate using Statistical Package for Social Science (version 21). A narrative approach and quantitative tools such as frequency tables and percentages were used to arrange and present the data.

RESULTS

Table 1. Availability of modern office technologies needed for training secretarial/Office Technology and Management students in tertiary institutions

Variable(OTA)	Available	Not Available
Desktop Computer	46 (32.9%)	94(67.1%)
Laptop Computer	58 (41.1)	82 (58.6)
Electric Typewriter	78 (55.7)	62 (44.3)
Cassette Player	95 (67.9)	45 (32.1)
Scanning Machine	80 (57.1)	60 (42.9)
Photocopier	100 (71.4)	40 (28.6)
Electric Calculator	115 (82.1)	25 (17.9)
Duplicating Machine	110(78.6)	30 (21.4)
Shredding Machine	112 (80.0)	28 (20.0)
Franklin Machine	110 (78.6)	30 (21.4)
Filing Equipment	108 (77.1)	32 (22.9)
Telephone Equipment	107 (76.4)	33 (23.6)
Mobile Note taking Device	107 (76.4)	33(23.6)

Table 1 above shows that 67.9% – 82.0% of the respondents agreed that Photocopier, electric calculator, duplicating machine, shredding machine, franklin machine, filing equipment, telephone equipment, mobile note taking device and 55.7% electric typewriter were not provided in their institution, 67.1% had desktop computer, 58.6% laptop computer. This implies that tertiary institutions teaching Secretarial Education in Sokoto state are lack modern educational technologies to equip their students. The machines have replaced human effort. The efficiency and effectiveness of the secretarial students in every business organisation and institutions depends on the availability of office technologies (AKpomi and Ordu, 2009).

Table 2: The use of modern office technological gadget by secretarial students in tertiary institution.

UOT Variable	I can't use it	I can use it to small extent	I can use it satisfactory	I can use it very well
Desktop Comp	50 (37.7%)	58 (41.4%)	16 (11.4%)	16 (11.4%)
Laptop Comp	50 (35.7)	53 (37.9)	15 (10.7)	22 (15.7)
ElectrTypewri	76 (54.3)	47 (33.6)	9 (5.7)	8 (5.7)
Cassette Player	90 (65.0)	33 (23.6)	11 (7.9)	5 (3.6)
Scanning Mach	83 (59.3)	41 (29.3)	12 (8.6)	4 (2.9)
Photocopier	69 (48.6)	49 (35.0)	13 (9.3)	9 (5.7)
Electric Calcul	89 (63.6)	31 (22.1)	11 (7.9)	9 (5.7)
Duplicating M	99 (70.7)	27 (19.3)	9 (5.7)	5 (3.6)
Shredding Mach	105 (95.0)	26 (18.6)	6 (4.3)	3 (2.1)
Franklin Mach	99 (70.7)	31 (22.1)	6 (4.3)	3 (2.1)
Filing Equip	97 (69.3)	31 (22.1)	9 (6.4)	6 (4.3)
Telephone Equip	97 (69.3)	28 (20.0)	8 (5.7)	6 (4.3)
Mobile Note taking Device	97 (69.3)	31 (22.1)	8 (5.7)	4 (2.9)

Table 2 above shows that 54.3% and above of the respondents agreed that electric typewriter, Cassette player, scanning machine, Photocopier, electric calculator, duplicating machine, shredding machine, franklin machine, filing equipment, telephone equipment and mobile note taking device shows I can't use it

and 41.4% desktop computer and 58.6% laptop computer indicated the number of I can use it to small extent. This implies that secretarial students in tertiary institutions in sokoto state cannot used modern office technologies gadgets. This confirms the assertion of Mumni and Sam (2014) that a highly skilled and competent secretary will be able to put technology/equipment into full use which helps them to save time in order to perform other tasks.

Table 3. What is the extent of the secretarial lecturer's competence in the use of modern office technology facilities in tertiary institutions

Variable (OTC)	I can't use it	I can use it to small extent	I can use it satisfactory	I can use it very well
Desktop Comp	49(35.0%)	24(17.1%)	54(38.6%)	13(9.3%)
Laptop Comp	48 (34.3)	22 (15.7)	55 (39.3)	15 (10.7)
ElectrTypewri	45 (32.1)	74 (48.1)	10 (7.1)	11 (7.9)
Cassette Player	38(27.1)	87 (62.1)	7 (5.0)	8 (5.7)
Scanning Mach	45 (32.1)	75 (53.6)	9 (6.4)	11 (7.9)
Photocopier	45 (32.1)	9(6.4)	77(55.0)	9 (6.4)
Electric Calcul	42 (30.0)	84 (60.0)	5 (3.6)	9 (6.4)
Duplicating M	6 (4.3)	35 (25.0)	90 (65.0)	9 (6.4)
Shredding Mach	10 (7.1)	33 (23.3)	90 (65.0)	7 (5.0)
Franklin Mach	9 (6.4)	31 (22.1)	94 (67.1)	7 (5.0)
Filing Equip	10 (7.1)	32 (22.9)	90 (64.3)	8 (5.7)
Telephone Equip	7 (5.0)	31 (22.1)	94(67.1)	8 (5.7)
Mobile Note taking Device	12 (8.6)	36 (25.7)	83 (59.3)	9 (6.4)
Internet Access	15 (10.7)	41 (29.3)	74 (52.9)	10 (7.1)

Table 3 above shows that 67.1% of the respondents agreed that Desktop computer, Laptop computer, Photocopier, duplicating machine, shredding machine, franklin machine, filing equipment, telephone equipment, mobile note taking device and internet Access indicated numbers of I can use it satisfactory. While 48.1% Electric Typewriter, 62.1% Cassette Player,53.6% Scanning Machine and 60.0% Electric Calculator indicated numbers of I can use it to small extent. The investigation shows that the lecturers of secretarial education competent in the use of modern office technological skills. This is because machines have replaced human effort significantly and since they are designed to perform specific combination of actions repeatedly, this helps in increasing the productivity level of the organization (Spencer 1981).

DISCUSSION

The results in the research question, which was analysed and presented in Table 1, indicate that the tertiary institutions teaching Secretarial Education in Sokoto state are lack modern educational technologies to equip their students and it make technology illiteracy among students. The results of this study show vividly that many students are still technologically unreceptive. This also shows that utilization of technology devices in Nigerian tertiary institutions is still in its infancy stage as argued by Eke (2011). Most students appreciated that modern office technologies have a great potential for educational purposes. These technologies assisted students in being more prepared before classes as well as supplementing and reinforcing material beyond the classroom.

The results in the research question, which was analysed and presented in Table 2, indicate the students had phobia for the use of the technology Many of students, who were asked to submit an assignment via e-mail, complained of their inability to use the internet while some of the students asked somebody else to do it for them. The machines have replaced human effort. The efficiency and effectiveness of the secretarial students in every business organisation and institutions depends on the availability of office technologies (AKpomi and Ordu, 2009). This follow-up seemed useful and made them aware of the instructional possibilities of the

technologies. The realization that this technology was being utilized in learner by lecturers is important in this process.

The results in the research question, which was analysed and presented in Table 3, The investigation shows that the lecturers of secretarial education competent in the use of modern office technological skills. This is because machines have replaced human effort significantly and since they are designed to perform specific combination of actions repeatedly, this helps in increasing the productivity level of the organization (Spencer 1981). most of the students agreed that lecturers are competent in the utilization of technologies in teaching and learning process.

CONCLUSION

Based on the finding of this study. It is concluded that tertiary institutions teaching Secretarial Education in Sokoto State are lack modern educational technologies gadgets to equip their students and which lead to most secretarial students have not use to modern office technological gadgets in their institution. The investigation shows that Desktop computer, Laptop computer, Photocopier, duplicating machine, shredding machine, franklin machine, filing equipment, telephone equipment, mobile note taking device and internet Access lecturers of secretarial education competent in the use of them to satisfactory.

In summary, the finding established that effective performance of the secretarial administrators and secretarial educators depends upon the modern educational technological gadgets skills and competencies.

RECOMMENDATIONS

Based on the results and findings of the study, current and future trends in Office administration, office technology, Information system and Secretarial Education, it has become necessary to restructure secretarial education programme in Nigeria tertiary institutions and broaden its scope to meet the ever advancing Office administration, office technology, Information system and Secretarial Education so as to produce competent secretarial administrator and secretarial educators. The following vital recommendations were made:

1. Both government and private organizations should procure adequate modern office technology/equipment to enhance the productivity of their secretarial students
2. Organizations should involve in deciding the kind of technological device they wish to procure since the latter are going to use them and curriculum of secretarial administrator and secretarial educator in higher institution of learning should be reviewed to accommodate modern educational technological gadget for effective teaching of secretarial course in tertiary institution in the country
3. Secretaries who lack adequate knowledge and skill in the usage of modern office technology/equipment should be retrained to fit into the current trend of technological advancement for effective performance.
4. Generally secretarial students should undergo regular training on the usage of new technological gadgets in order to enhance their skill and keep them abreast with the technological dynamism in the 21st century.

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