



Application of E-learning Tools for Improving Instructional Delivery of Office Education Skills in Colleges of Education

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ABSTRACT

The study investigated ways application of e-learning for improving instructional delivery of office education skills in Colleges of Education in Cross River State. Three research questions and three hypotheses guided the study. Descriptive survey research was adopted. The population of the study was 243 comprising of the total number of students and lecturers in Business Education Department in colleges of education in Cross River colleges of education. The entire population was studied; hence no sampling. A structured questionnaire containing 45 items validated by three experts from Faculty of Education, Ebonyi State University was used for data collection. Test of reliability of the questionnaire was done using the Cronbach Alpha reliability method which gave co-efficient values of 0.82, 0.93, and 0.92 for the clusters; the entire instrument yielded a reliability index of 0.89. A total of 243 copies of the questionnaire were distributed to the respondents and all were retrieved. The data was analyzed using mean and standard deviation and t-test. The results showed that word processing skills and Microsoft excel skills are ways application of e-learning could improve instructional delivery of office skills in colleges of education in Cross River State. Hypotheses tested showed that there is no significant difference in the mean ratings of male and female respondents on the level of application of E-learning in the teaching of word processing skills, word excel skills and PowerPoint skills in Colleges of Education in Cross River State. Based on the findings, it was recommended that Business educators should use MS word in preparing lecture notes, test, examination question papers and students should be encouraged to prepare assignment and project chapters in MS word typeset. The implication of the study is that every business educator should attend regular in-service training so as to keep abreast of current and future innovations in teaching.

Keywords: E-learning, Tools, Instructional Delivery, Office Education, Skills

INTRODUCTION

The traditional instructional delivery system in educational institutions has for a long time been in existence, where in a classroom an instructor gives lectures to students and the students listen and take notes. Communication between the instructor and students has been identified to be a critical learning component in this instructional delivery system. In recent times, there have been calls for change from this traditional approach to the application of electronic learning (e-learning) system of education make educational instructional delivery more interesting to learners (Bakare, Orji, Wogu and Ogbonna,

2018). E-learning mainly involves the use and application of Information and Communication Technologies (ICT) through websites, Personal Computers (PC), tablets, mobile phones, Learning Management Systems (LMS), televisions, radios and other devices in teaching and learning (Taha & Rasha, 2018). Khan in Kyle (2021) pointed out that E-learning has been described in various ways as learning using a number of different technologies and methods for instructional delivery, such as Computer Based Training (CBT), Internet-Based Training (IBT), Advanced Distributed Learning (ADL), Distributed Learning (DL), Distance Learning, Online Learning (OL), Mobile Learning (or M-Learning) or Remote Learning and Learning Management Systems (LMS). Similarly, Ezenwafor and Nwaokwa (2017) described E-learning as the delivery of training and education via networked interactivity and distribution technologies. Also, Sambrook in Emehi and Nwosu (2023) saw e-learning as learning and communication exercises across computers and networks or for that matter any other electronic source. E-learning is an open access learning that makes provision for independent learning that is achievable. Since the world has entered into the third millennium, learning has become easier and exciting with the help of the internet and intranet for both educators and learners.

E-learning is defined as the delivery of instruction electronically with the increased value of maintaining quality and standard, throughout the process without hindrances to particular locations or zones (Fiokedi, 2019). Iyamu and Chiedu (2020), noted that electronic learning technologies are becoming increasingly popular in tertiary institutions, especially colleges of education as they are used for teaching, managing courses, providing simulations, enriching existing courses, programming and problem-solving. The catalyst for growth in e-learning is its suitability for simulation and experiential learning through the internet and computer applications. According to Owate, Afolabi, and Akanwa (2017), the application of e-learning facilities in tertiary institutions in South-South Nigeria has come up as relevant materials are produced in the 21st century to help in the delivery of some tasks by educators. The authors further stated that new technologies are produced and applied in most of the western world, but currently, e-learning facilities are used in developing countries also. Ezema (2019) noted that e-learning is the application of modern technologies to improve skills and knowledge. E-learning allows students to be in charge of their pace of study, sequence of learning, content, time, and access management of materials. E-learning creates adaptive learning, which makes learning by students highly individualised, resulting in improved learning interactions with other learners, which is called collaborative learning. In this knowledge and information driven era, Nwosu and Crossdele (2022) noted that there is need for educators to adjust from the conventional methods of teaching to a more technologically advanced methods of instructional delivery through the application of e-learning tools for improved instructional delivery in office education skills.

Office Education is a programme of instruction under business education. Office Education is a subsidiary of Business Education whose nature was described by Federal Republic of Nigeria in the National Policy on Education (2014) as to provide trained manpower in the applied sciences, technology and business particularly at craft, advanced craft and technical levels. Amiaya (2013) described office education as a comprehensive activity-based educational programme that is concerned with the acquisition of office education skills, understanding, attitudes, work habits and competencies that are requisite to success in secretarial and office management occupations. Office education provides students with in-depth administrative office preparation to meet the demands and challenges in the business environment. It is a course that provides the business world with multi-skills knowledge workers who manage information efficiently, equipped with a comprehensive range of skills including managerial, technological and communication skills. Office graduates find employment in variety of fields in the business world. The work performed by the office education includes the management of information, public relations in office administration, and teaching office practices in junior and secondary schools. Office Education is an integral part of Business Education which plays a significant role in economic development by providing knowledge and skills to the learners thereby enabling them to handle sophisticated office technologies and information systems. The goal of office education is primarily to

produce competent, skilful and dynamic business teachers, office administrators and businessmen and women that will effectively compete in the world of work (Odunaike & Amoda 2018).

Therefore, the teaching and learning of office education skills require the application of e-learning technologies/tools for the inculcation of skills, especially to keep pace with changes already experienced globally in the way office work and business activities are carried out. E-learning technology helps to promote opportunities for knowledge sharing throughout the world. These can help educators and students have up-to-date information, which is necessary for effective teaching and learning of office skills. Amoor and Udoh, (2018) noted that with the invention of e-learning technology, teachers and students secured skillful benefits, and their level of knowledge on the use of these facilities has also improved. Teachers in the course of teaching office education require E-learning skills such as Word Processing skills, Microsoft Excel skills, Power-point Presentation Skills, database management skills among others in instructional delivery. Therefore, in order to keep abreast of this change, teaching/learning in office education programme for improved skills, there is need for the application of e-learning tools such word processing skills, Microsoft skills and PowerPoint skills for instructional delivery in office education.

Word processing skill is important in the application of e-learning for improve instructional delivery of office education programme especially in college of education. It is an important tool that enhances the information management functions of office education graduate. Ntukidem in Peter (2020) posited that word processing is the application of computer technology to the inputting, editing, merging, storing, formatting and printing of text. Agomuo in Emehi and Nwosu (2023) explained that word processing is the use of automated equipment to produce such document as letters, reports and other text materials. In the words of Azuka in Ofulue (2018), word processing is the use of computer to handle text and produce typed and/or printed document. Onyewuenyi (2014) stipulated that word processing is the writing, editing and production of documents such as letters, reports and books through the use of a computer programmed or a complete computer system designed to facilitate rapid and efficient manipulation of text. Onah (2014) also stated that the application of word processing in e-learning can improved instructional delivery of office education programme especially in college of education.

Microsoft Excel Skill is another elearning tools for improve office education skills of students. Microsoft Excel Skill refers to competence to integrate the use of spreadsheet software into teaching and learning process to make a connection to the real world application of quantitative analysis (Onah, 2014). As a teacher in a 21st century, Microsoft Excel is invaluable software that allows pertinent aspects of teaching in a convenient and highly methodological way. Some of the most notable of aspects of application of e-learning to teaching are compiling grades of students, mastering of charts, tracking survey, storing huge amount of data, analysing statistical data, creating graphics, modeling and planning etc. According to Claudio (2016) it is a software application that provides digital simulation of paper accounting worksheet, that can also have multiple intermingle sheets to display numerical and text data in a graphical form. According to Technokids (2021) teachers adequate knowledge of Microsoft Excel can help students to acquire essential techniques in organizing data in a worksheet and manipulating them using computational strategies to calculate data, generate graphical representation of data, compare set of data using tables, graphs and models, examine patterns in data using charts and trend line. Invariably, teacher's ability to identify and manipulate any of the following spreadsheet programs: worksheet, workbook, cell value, auto-sum tools etc in teaching and learning process is said to be computer literate after graduation. Furthermore, application of PowerPoint skills is another e-learning tool that can be used to improve office education skills. Power Point Presentation Skills according to Ogundele and Etejere (2013) enables the teachers' to use Microsoft PowerPoint software which is the most popular presentation program to create, acquire, process, store, disseminate vocal, pictorial, textual and numerical information in electronic based systems in a more dynamic ways than lecturing and writing on the blackboard. Ugah and Ukpai (2009) defined PowerPoint as a powerful and ubiquitous presentation software from Microsoft that has facilities to create stunning presentations that supports multimedia and animation. An effective teacher is an excellent communicator and therefore thinks about techniques that can be incorporated into teaching and

learning to increase spontaneity and interactivity of students. Appropriate knowledge and use of PowerPoint by the teacher enhances instruction and becomes effective tool to present lesson materials in the classroom and encourages student learning activities in office education. It improves learning experience and overall comprehension of students' knowledge on complex ideas. PowerPoint can be used to project visuals which would otherwise be difficult to bring to class; this enhances the students' abilities to retain what they are being taught, especially those who are virtual learners. A teacher who uses PowerPoint skills such as create, open, edit, construct charts, add slide, shapes in a presentation, etc, help the students create their own presentations easily. This is a great way to teach them how to use visual aids while working on their presentation and public speaking abilities: these enhance their understanding, provide annotations and highlights, add variety to the work and create lasting impact.

Lecturers and students are supposed to upgrade their skills in the use of e-learning technologies like projectors, educational video devices and computer software among others. They should also upgrade their skills in the use of network connectivity of the available computer facilities which can help in improving e-learning in colleges of education in Cross River State. Lecturers and students need to equally contribute their quota to the effective utilization of e-learning technologies in teaching and learning by doing assignments through internet, learning through computer aided instruction and other e-learning facilities so as to meet up with the pace of technological advancement (Eze, 2016).

In recent years, gender gap issues in the application of e-learning technologies have been the subject of many studies both locally and internationally. Gender influence is an important factor on the application of e-learning in instructional delivery. Gender is a characteristic that distinguishes between male and female in the aspects of their behaviour, activities, and attitudes, which must be considered in the investigation process of this work. Adeleke (2018) noted that males performed better than females, especially on higher-order knowledge. A few others saw females outperforming males, while some others established no significant difference, particularly during early education. Danner and Pessu (2023) have established that females tend to be less interested in the utilisation of modern instructional technologies than males. In addition, a study by Debyshire (2023) found that females are less confident than males in their computer skills and that male perform better than females in Information Communication and Technology (ICT)-related knowledge and skills. Onuzulike (2013) further identified that gender is a critical factor that affects lecturers' attitudes towards the use of computers.

Statement of the Problem

The world is technologically becoming more advanced; sometimes it is referred to as a global village. The reason for this assertion is attributed to the influence of Information and Communication Technology. E-learning, as a matter of fact, is fast becoming popular in business education instructional delivery method, most especially in tertiary institutions in Nigeria and other developed and technologically advanced countries. In Nigeria, its usage as instructional method for teaching and learning in office education program in colleges of education, needs to be emphasized in line with what is obtained in other parts of world where e-learning tools is used in their educational system. Application of e-learning involves effective learning with the aid of computer and other information technologies serving as learning aids, which play complementary roles in teaching and learning situations. Technologies such as e-learning necessitate and facilitate learning. The use of e-learning methods promotes learning at a distance and on one's own and pace possible. Modeling, simulation, use of data base, guided instruction, closed world exploration results in changes in terms of teaching strategy, instructional content, role of the lecturer and context of the curricular is made obvious and inevitable. Though the importance of e-learning is enormous, the problems of application of e-learning tools such as word processing skills, Microsoft skills and PowerPoint skills for improve instructional delivery in office education skills in colleges of education in Cross River State is still there. This is so because; research in the area of application of e-learning tools such as word processing skills, Microsoft skills and PowerPoint skills for instructional delivery is scanty. The researcher has seen the gap in the level of application of e-learning tools which has led to the poor application of e-learning technologies in office education programme in colleges of education in Cross River State, Nigeria.

However, despite the glaring relevance of the above mentioned ICT tools in education, coupled with the huge capital investment of both Federal and State governments in ICT infrastructural development that could facilitate e-learning in colleges of education in Nigeria, there seems to be paucity in adoption of e-learning in teaching Microsoft Excel skills, Microsoft office skills, PowerPoint skills in office education in colleges of education in Cross River State. It is against the aforementioned factors that have informed the need to conduct a study on the “level of application of e-learning for improving instructional delivery of office skills education in colleges of education in Cross River State.

Purpose of the Study

The main purpose of this study was the application of e-learning tools for improving instructional delivery of office education skills in colleges of education. Specifically the study seeks to:

1. Ascertain the application of e-learning tools in the teaching of word processing skills for improving instructional delivery of office education skills in colleges of education in Cross River State.
2. Determine the application of e-learning tools in teaching Microsoft Excel skills for improving instructional delivery of office education skills in colleges of education in Cross River State.

METHODOLOGY

Descriptive survey research was adopted. The population of the study was 243 comprising of the total number of students and lecturers in Business Education Department in colleges of education in Cross River colleges of education. The study was conducted in Colleges of Education in Cross-River State. The entire population was studied; hence no sampling. A structured questionnaire containing 45 items validated by three experts from Faculty of Education, Ebonyi State University was used for data collection. Test of reliability of the questionnaire was done using the Cronbach Alpha reliability method which gave co-efficient values of 0.82, 0.93, and 0.92 for the clusters; the entire instrument yielded a reliability index of 0.89. A total of 243 copies of the questionnaire were distributed to the respondents and all were retrieved. Mean and standard deviation were used to answer the research questions and t-test statistic was used for test of hypotheses.

RESULTS

Research Question 1: *What is the application of e-learning in the teaching of word processing skills in Colleges of Education in Cross River State?*

Table 1: Mean Results on Application of E-Learning in the Teaching of Word Processing Skills in Colleges of Education

S/N	Application of Word Processing Skills	N	Mean	Std.	Decision
1	How to open new documents	243	3.48	0.50	Agree
2	How to type texts	243	3.62	0.49	Agree
3	How to indent	243	3.57	0.50	Agree
4	How to spell-check	243	3.48	0.51	Agree
5	How to add water mark	243	3.46	0.50	Agree
6	How to copy	243	3.51	0.52	Agree
7	How to cut	243	3.50	0.50	Agree
8	How to insert images	243	3.49	0.50	Agree
9	How to hyperlink	243	3.47	0.52	Agree
10	How to create tables	243	3.54	0.50	Agree
11	How to save changes	243	3.51	0.50	Agree
12	How to add a header or footer	243	3.38	0.49	Agree
13	How to add page numbers	243	3.41	0.51	Agree
14	How to replace text	243	3.31	0.47	Agree
15	How to review and comment	243	3.47	0.51	Agree
Grand Mean			3.48		Agree

Based on the results in Table 1, all the items were accepted as the application of e-learning in the teaching of word processing skills in colleges of education because they have mean values above the benchmark of 2.50. The standard deviations of all the items are within the same range indicating that respondents are homogenous in their mean ratings.

Research Question 2: *What is the application of e-learning used in teaching Microsoft Excel skills in Colleges of Education in Cross River State?*

Table 2: Mean Results on Application of E-Learning in the Teaching of Microsoft Excel in Colleges of Education

S/N	Application of Microsoft Excel	N	Mean	Std.	Decision
16	How to create a new workbook	243	3.45	0.51	Agree
17	How to enter data accurately	243	3.47	0.52	Agree
18	How to apply cell borders	243	3.49	1.36	Agree
19	How to apply cell shading	243	3.36	0.49	Agree
20	How to apply auto sum to add data	243	3.45	0.51	Agree
21	How to create simple formula	243	3.49	0.53	Agree
22	How to format data	243	3.50	0.51	Agree
23	How to sort data	243	3.44	0.50	Agree
24	How to filter data	243	3.52	0.51	Agree
25	How to apply Quick Analysis	243	3.46	0.54	Agree
26	How to find data	243	3.55	0.49	Agree
27	How to calculate average	243	3.48	0.52	Agree
28	How to merge templates	243	3.50	0.51	Agree
29	How to save data	243	3.44	0.52	Agree
30	How to replace data	243	3.47	0.52	Agree
Grand Mean			3.93		Agree

Based on the results in Table 2, all the items were accepted as the application of e-learning used in teaching Microsoft Excel skills in Colleges of Education in Cross River State because they have mean values above the benchmark of 2.50. The standard deviations of all the items are within the same range indicating that respondents are homogenous in their mean ratings.

Hypotheses

H0₁: There is no significant difference in the mean ratings of male and female respondents on the application of e-learning in the teaching of word processing skills in Colleges of Education in Cross River State.

Table 3: Independent t-test of Mean Ratings of Responses of Male and Female on the application of E-learning in the teaching of word processing skills in Colleges of Education

Items	Gender	N	Mean	Std.	Df	Alpha	p-val.	Decision
Item1	Female	68	3.51	0.50	241	0.05	.699	Not significant
	Male	175	3.46	0.50				
Item2	Female	68	3.66	0.47	241	0.05	.119	Not significant
	Male	175	3.61	0.50				
Item3	Female	68	3.63	0.48	241	0.05	.025	Significant
	Male	175	3.55	0.51				
Item4	Female	68	3.44	0.50	241	0.05	.184	Not significant
	Male	175	3.50	0.52				
Item5	Female	68	3.52	0.50	241	0.05	.936	Not significant
	Male	175	3.44	0.50				
Item6	Female	68	3.45	0.53	241	0.05	.801	Not Significant
	Male	175	3.53	0.52				
Item7	Female	68	3.47	0.50	241	0.05	.640	Not significant
	Male	175	3.51	0.50				
Item8	Female	68	3.57	0.49	241	0.05	.260	Not significant
	Male	175	3.46	0.50				
Item9	Female	68	3.42	0.52	241	0.05	.552	Not Significant
	Male	175	3.49	0.53				
Item10	Female	68	3.51	0.50	241	0.05	.413	Not significant
	Male	175	3.55	0.49				
Item11	Female	68	3.54	0.50	241	0.05	.345	Not significant
	Male	175	3.50	0.51				
Item12	Female	68	3.45	0.53	241	0.05	.007	Significant
	Male	175	3.36	0.48				
Item13	Female	68	3.35	0.54	241	0.05	.820	Not significant
	Male	175	3.44	0.50				
Item14	Female	68	3.30	0.46	241	0.05	.649	Not significant
	Male	175	3.31	0.47				
Item15	Female	68	3.44	0.52	241	0.05	.763	Not significant
	Male	175	3.48	0.51				
					241	0.05	.480	Not significant

The Table 4 shows that the p-values for fourteen items (item 1, 2, 4, 5, 7, 8, 10, 11, 13, 14, and 15) ranged from 0. 260 - 0.936, which is greater than 0.05. Only items 3 and 12 had a p-value of 0.025-.007, which is less than 0.05. Since the p-values for all the fifteen items is greater than p (.05), this implies that the null hypothesis that stated that there is no significant difference in the mean ratings of male and female respondents on the application of E-learning in the teaching of word processing skills in Colleges of Education in Cross River State is not rejected.

H0₂: There is no significant difference in the mean ratings of male and female on the application of E-learning in teaching Microsoft Excel skills in Colleges of Education in Cross River State.

Table 4: t-test analysis of the Respondents on the Mean Ratings on the application of E-learning in teaching Microsoft Excel skills in Colleges of Education Based on Gender

Items	Gender	N	Mean	Std.	Df	Alpha	p-val.	Decision
Item16	Female	68	3.51	0.50	241	0.05	.746	Not significant
	Male	175	3.43	0.52				
Item17	Female	68	3.48	0.53	241	0.05	.776	Not significant
	Male	175	3.46	0.52				
Item18	Female	68	3.39	0.57	241	0.05	.579	Not significant
	Male	175	3.53	1.57				
Item19	Female	68	3.44	0.50	241	0.05	.067	Not significant
	Male	175	3.33	0.48				
Item20	Female	68	3.54	0.53	241	0.05	.318	Not significant
	Male	175	3.41	0.50				
Item21	Female	68	3.50	0.50	241	0.05	.202	Not Significant
	Male	175	3.49	0.54				
Item22	Female	68	3.48	0.50	241	0.05	.382	Not significant
	Male	175	3.50	0.52				
Item23	Female	68	3.45	0.50	241	0.05	.705	Not significant
	Male	175	3.44	0.51				
Item24	Female	68	3.51	0.53	241	0.05	.476	Not Significant
	Male	175	3.52	0.51				
Item25	Female	68	3.52	0.55	241	0.05	.743	Not significant
	Male	175	3.44	0.54				
Item26	Female	68	3.60	0.49	241	0.05	.025	Significant
	Male	175	3.53	0.50				
Item27	Female	68	3.48	0.53	241	0.05	.819	Not Significant
	Male	175	3.48	0.52				
Item28	Female	68	3.51	0.53	241	0.05	.534	Not significant
	Male	175	3.50	0.51				
Item29	Female	68	3.42	0.52	241	0.05	.714	Not significant
	Male	175	3.44	0.53				
Item30	Female	68	3.51	0.56	241	0.05	.125	Not significant
	Male	175	3.45	0.51				
					241	0.05	.480	Not Significant

The Table 5 shows that the p-values for fourteen items (item 1, 2, 3, 4, 5, 7, 8, 10, 11, 13, 14, and 15) ranged from 0.025 - 0.936, which is greater than 0.05. Only items 12 had a p-value of .007, which is less than 0.05. Since the p-values for all the fifteen items is greater than p (.05), this implies that the null hypothesis that stated that there is no significant difference in the mean ratings of male and female respondents on the level of application of E-learning in the teaching of Microsoft Excel skills in Colleges of Education in Cross River State is not rejected.

DISCUSSIONS

The results of the study shows that the e-learning application in the teaching of word processing skills include open new documents, type texts, indent, spell-check, add water mark, copy, cut, insert images, hyperlink, creating tables, saving changes, adding header and footer, adding page numbers, rind and replace text, review and comment. This result collaborates the findings of Ezenwafor and Nwachukwu (2020) who suggested that e-learning can be applied to make educational instructional delivery more interesting to learners. Furthermore, this result supported the findings of Braak and Tondeur (2014) who

noted that most teachers use technology tools such as e-mail, the Internet and other software applications daily to help create, obtain and communicate information effectively from one person to another. The use of e-learning technology for classroom instructions is no longer a luxury but common resources used by many educators as it improves the students quality of learning and enhance employability. This result collaborate the view of MTLSS (2017) who indicated that the influence of e-learning in teaching and learning of Microsoft word skills is that it help select text and make changes to font – including changing the font size, type, style, and effects (bold, underline, italics and colour); cut, copy, and paste text; use undo and redo icons; select and resize graphics, pictures and clip art; select multimedia clips; create a new file using ‘Save As’; use page setup, print preview and to print out documents.

The researcher feels that the result is so because Microsoft office suite has become a vital software package in teaching and learning setup where educational institutions worldwide use the package in their daily activities ranging from academic work such as note preparation, lecture presentation, students’ records, and student’s results computations to administrative ones such as meetings and seminar presentations, annual progressive reports, etc. Furthermore, the hypothesis inferred that there is no significant difference in the mean ratings of male and female respondents on the level of application of e-learning in the teaching of word processing skills in colleges of education in Cross River State. Wagner, Hassan and Head (2018) posited that female business educators are assumed to show lower confidence or knowledge ability than their male counterparts in using blended learning approaches for e-Learning.

The findings of this study shows that application of e-learning used in teaching Microsoft Excel skills in Colleges of Education in Cross River State. The study indicates that the application of e-learning in teaching Microsoft Excel skills are creating a new workbook, entering data accurately, applying cell borders, applying cell shading, applying auto sum to add data, creating simple formula, formatting data, sorting data, filtering data, applying quick analysis, finding data, calculating average, merging templates, saving data and replacing data.

The finding agrees with Technokids (2021) who noted that teachers adequate knowledge of Microsoft Excel can help the student acquire essential techniques in organizing data in a worksheet and manipulating them using computational strategies to calculate data, generate graphical representation of data, compare set of data using tables, graphs and models, examines patterns in data using charts and trend line. Invariably, teacher’s ability to identify and manipulate any of the following spreadsheet programs: worksheet, workbook, cell value, auto-sum tools etc in teaching and learning process is said to be computer literate. Furthermore, this result is supported by the findings of MTLSS (2017) and Wray, (2021) who noted that e-learning is used to teach some excel basic operations such as how to select a cell and enter data into the cell (changing font size, style, colour, alignment, decimal places, currency, date/time, percent), and create a basic chart or graph. It is also used in teaching how to select multiple cells; insert, delete, and format cells, rows or columns, move and copy cells, rows or columns, width, height, colour; manage headers and footers; select appropriate graph and elements to display data; use sort option (ascending and descending); use simple formulas such as sum and average/mean; use editing tools such as fill down and fill across; set print area and print spreadsheets and graphs; insert charts and graphs into other documents; and apply principles and elements of data analysis.

The researcher feels that the result is so because integration of Information and Communication Technology in education is important to the learning and teaching process as it increases learners motivation, makes students understand better abstract concepts, allows collaborative learning and provides the opportunity for learning through simulation.

Furthermore, the hypothesis showed that there is no significant difference in the mean ratings of male and female respondents on the application of e-learning in the teaching of Microsoft Excel skills in colleges of education in Cross River State. The result of this study was also in contrast with the views of Agboola (2016) who suggested that male business educators experience less anxiety about e-Learning and make more frequent use of it.

CONCLUSION

This study was carried out to determine the application of e-learning on instructional delivery of office skills education in colleges of education. Based on the findings it was concluded that e-learning has come to stay under the preview of business education and the only option is to fully embrace it because with the information technological breakthrough in the 21st century, application of e-learning technologies has become invaluable tools for teaching and learning. The study also concluded that gender of respondents is not the determinant of the application of e-learning for instructional delivery of office education skills in colleges of education.

RECOMMENDATIONS

Based on the findings and conclusion drawn from the study, the following recommendations are made:

1. Business educators should use Microsoft Word in preparing lecture notes, administering tests, examination question papers and students should be motivated to prepare assignments and project chapters in Microsoft Word typeset. Periodic ICT training should also be organized for business education teachers for proper knowledge of the use of Microsoft Word in teaching and learning.
2. Business educators should be preparing students' continuous assessment and examination records using Microsoft Excel and its contents should be taught to students to prepare them for its application in teaching and learning and other personal uses.
3. In-service programmes such as seminars, conferences, in-service courses and workshops should be organized by ICT-literate business educators on regular bases to train and retrain serving OTM teachers in colleges of education in Cross River State on the effective use of software e-learning facilities in teaching.

REFERENCES

- Adeleke, M. N. (2018). The Effects of multimedia education on learning and retention in a physiology course. *Media Electronic Learning Magazine*, 6(1), 32-38.
- Agboola, F. O. (2016). Holistic e-learning in Nigeria higher education institutions. *Journal of Computing* 2(11) 20-26
- Amiaya, H. (2013). Use of multimedia for teaching in Nigerian university system: a case study of university of Ibadan" (2012). *Library Philosophy and Practice* (E-journal). 682. <https://digitalcommons.unl.edu/libphilprac/682>
- Amoor, S. S & Udoh, W. R. (2018). Imagine creating rubrics that develop creativity: teaching students to be creative requires that teachers evaluate creativity effectively. *English Journal*; 99(2):74-79
- Bakare, E. W. Orji, R. T. Wogu, B. N. & Ogbonna, F. O. (2018). Lecturers' perception of the role of ICT in the management of university education for sustainable development in Nigeria. *Nigerian Journal of Educational Administration and*
- Braak, H. & Tondeur, U. (2014). Capabilities of Google classroom as a teaching and learning tool in higher education. *International Journal of Science Technology & Engineering*, 5(5), 30-34.
- Claudio, H. (2016). Methodological issues in identifying and describing the way knowledge is constructed with and without ICT. *Journal of Information Technology for Teacher Education*, 10(1 & 2), 157-178.
- Danner, L. V. & Pessu, L. R. (2023). The Impact of using electronic portfolio on attitude, motivation, and educational progress of students' Khaje Nasir Toosi University. *Educational Measurement periodical*, 2(5), 67-96
- Debyshire, K. (2023). Appraising the relationship between ICT usage and integration and the standard of teacher vocation courses in a developing economy. *International Journal of Education and Development using Information and Communication Technology (IJEDICT)*, 2(3), 70-85
- Nwosu, B. O & Emehi, A. (2023). Perceived influence of the use of e-learning technologies in teaching business education courses in public universities in south-south, Nigeria. *British Journal of Education*, 2(1), 56-78

- Eze, T. (2016). The effect of using information and communication technologies in cultivation of creative thinking. *Innovation and Creativity in Humanities*, 3(10), 39-60
- Ezema, H. L. (2019). E-learning and its effects on teaching and learning in a global age. *International Journal of Academic Research in Business and Social Sciences*, 2 (1), 203-210.
- Ezenwafor, J. I & Nwachukwu, H (2020). the extent of utilization of e-learning resources for instructional delivery by office education lecturers in Polytechnics in South-East Nigeria. *International Journal of Scientific Research and Innovative Technology*. 2(4) 34-47
- Ezenwafor J. I. & Nwaokwa, H. (2017) Extent of technical and ICT skills needed for entrepreneurial success by business education graduates in Ondo and Ekiti States. *Nigerian Journal of Business Education*, 4 (2), 235-244.
- Federal Republic of Nigeria (2014). *National policy on education*. Lagos: NERDC press.
- Fiokedi, R. T (2019). ICT integration in accounting education: Evidence from two private higher institutions in Nigeria. *Acta Universitatis Danubius*, 9(2), 114-126
- Iyamu, M. N. & Chiedu, W. E. (2020). E-learning: A modern technological tool for effective teaching and learning of computer science. https://www.researchgate.net/publication/341945988_E-learning_a_modern_technological_tool_for_effective_teaching_and_learning_of_computer_science
- Kyle, B. O. (2021). Technology in America Schools; seven dimensions for gauging progress. Retrieved on April, 2nd 2019, from <http://www.mff.org/pubs/mei58pdf>
- MTLSS, H. (2017). *E-learning Technology: The Nigeria experience*. XX111 FIG Congress. Munich Germany
- Nwosu, B. O. & Crossdele, J. C. (2022). Availability and Extent of Utilization of E-learning Technologies in Business education Programme in Colleges of Education in South-South, Nigeria. *International Journal of Scientific Research and Innovative Technology*. 2(4) 34-47
- Odunaike, L. P & Amoda, N. L (2018). The Effectiveness of Using Technology in English Language Classrooms in Government Primary Schools in Bangladesh. FIRE: Forum for International Research in Education, 2(1). Retrieved from <http://preserve.lehigh.edu/fire/vol2/iss1/5>
- Ofulue. J. I. (2018). Attitudes of Afghan lecturers toward instructional technology. association for educational communications and technology. *Journal of Information Communication and Technology*. 63:170–178 Retrieved online from <https://doi.org/10.1007/s11528-018-0347-9> on 25th February, 2021
- Ogundele, L. C. & Etejere, P. C (2013). Analysis of Effectiveness of Web based E-Learning, *International Journal of Soft Computing and Engineering (IJSCE)*, Vol 1(3), 55-59
- Onah, L. (2014). Self-regulated learning: The educational legacy of Paul R. Pintrich. *Educational Psychologist*, 40(2), 85-94
- Onuzulike, F. (2013). E-learning in higher Education, challenges and opportunities. *International Journal of innovation, creativity and change*. www.ijiccinet.net. 14(11) 57-64
- Onyewuenyi, D. (2014). Enhancement of automatization through vocabulary learning using CALL: Can prompt language processing lead to better comprehension in L2 reading? *ReCALL*, 25(01), 143-158.
- Owate, R. E. Afolabi, W. E. & Akanwa, D. (2017). Relevance of computer assisted instruction (CAI) for effective skill development among technology education students in Nigeria. *Journal of Education and Practice*, 4(21), 80-89.
- Peter, G. D. (2020). Developing students' higher-order thinking skills (HOTS) through technology- rich tasks: The Influence of technological pedagogical and content knowledge (TPACK). *Educational Technology*, 51 (4), 20-26
- Taha, M. J. & Rasha, F. (2018). *Contribution of Facebook to academic performance of University Business Education Undergraduates in Abia State*

- Technokids, B. C. (2021). The impact of E-learning on the desire to learn through increasing motivation from the point of view of the teachers of Al-Balqa Applied University. *Journal Engineering Sciences & Information Technology*, 3(2), 2522-3321.
- Ugah, T. & Ukpai, N. (2009). Pedagogy before technology: RE-thinking the relationship between ICT and teaching. *Education and Information technologies*, 6(4), 251-266
- Wagner, G, Hassan, U. & Head, Y. (2018). Computer, internet, and Email use among older adlts: Benefits and Barriers <https://www.tandfonline.com>
- Wray, K. O.(2021). Attitudes of teachers toward using IWB in teaching in Kuwaiti schools. *Journal of Educational Psychology*, 1(1), 89-99