



## **DIGITAL SKILLS REQUIRED BY BUSINESS EDUCATION LECTURERS FOR TEACHING ACCOUNTING EDUCATION COURSES IN TERTIARY INSTITUTIONS IN RIVERS STATE**

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### **Abstract**

*The aim of the study was to identify digital skills required by Business Education lecturers for teaching accounting education courses in tertiary institutions in Rivers State. Three specific objectives, research questions and hypotheses respectively guided the study. The study adopted a descriptive survey research design. The population of the study comprised of Eighty-two (82) Business Education lecturers in Rivers State University (RSU), Ignatius Ajuru University of Education (IAUE) and Federal College of Education (Technical), Omoku FCE (T). The entire population was used as sample and the study adopted census sampling technique. A structured questionnaire titled “Digital Skills Required by Business Education Lecturers for Teaching of Accounting Education Courses Questionnaire (DSRBELTAECQ)” was used as instruments for data collection. The instrument was designed on a 5 point rating scale of agreement (Strongly Agreed to Strongly Disagreed) and used to elicit responses from the respondents. The instrument was face and content validated by two Business Educators and one Measurement and Evaluation expert all in Faculty of Education, Rivers State University, Port Harcourt. Cronbach Alpha was used to establish the reliability coefficient of 0.87. All the copies of the questionnaire were retrieved and used for the analysis. Mean and Standard Deviation were used to answer the research questions, while ANOVA was used to test the hypotheses at 0.05 level of significance. The findings revealed that Business Education lecturers in RSU, IAUE and FCE (T), Omoku require audio-visual content creation skills, software skills and hardware skills for teaching of accounting education courses in tertiary institutions in Rivers State. the researchers therefore recommends that there should be constant training and re-training of lecturers on the use of video in teaching accounting education courses as it will help them to use it maximally when they are available, a modern laboratory should be made available by school authorities for lecturers to enable them access and be equipped with audio-visual skills amongst others.*

### **Introduction**

Digitalization has developed its dominion over all aspects of our life. The world is fast changing from analog to digital and the educational system seems to be the most affected in its pedagogical contest. Teachers and students need to keep abreast of this trend to remain relevant in teaching and learning especially in accounting education. According to Ogbuabor, Gloria and Jesuwunmi (2019), virtually every organization emphasizes on greater importance of accounting education and skills. Organizations use digital skills to enhance efficiency, effectiveness and



improvement of quality in their performance because they believed that the information technology can provide organizations with valuable opportunities to enhance efficiency and performance. Orji, Okanazu and Ali (2015) defined digital skills as the ability to locate, organize, understand, evaluate and create information using digital technology. Orji, Okanazu and Ali further viewed that it is the basic understanding of how to interact with a computer, how to interact with applications on that computer, and how to make it do what you want in real time.

Digital skills have been considered to be vital in teaching and learning as the technology assists the achievement of basic skills, expose students to practical workplace environment, supplement and consolidate what is read in textbooks and journals. According to Usoro and Caleb (2014), digital teaching and learning encompasses many different facets, tools and applications to support and empower teachers and students, including online courses, blended or hybrid learning or digital content and resources.

The role of digital skills in teaching and learning is rapidly becoming one of the most important and widely discussed issues in contemporary education as observed by Thierer in Nimfel, Wetnman and Yongsunghikfu (2017). Therefore, educational professionals seems to accept the fact that digital technologies have the prospects for improving teaching and learning as well as showing workforce opportunities. It is also evident as agreed by Amiaya (2016) that the traditional educational environments are not suitable for preparing students to function or be productive in the workplace in today's society. The effective utilization of digital skills in the teaching of accounting education in our tertiary institutions is very essential as Okoli (2012) observed that no meaningful progress will be made in our educational sector without adjusting to technological innovations and discoveries and noted that tertiary institutions ought to put in place effective Information and Communication Technology facilities to enable both the teachers and students have access to internet, e-mail, collaborative software amongst others.

The use of digital skills in teaching accounting education enhances the quality of education in several ways; it increases learners' motivation and enjoyment by facilitating the acquisition of basic skills and enhancing teacher training (Unw in Ogbuabor, Gloria & Jesunmi, 2019). 21<sup>st</sup> century teaching according to McCoog in Boholano (2017) involves a balance of the objectives of the teacher with the needs and input of the students. to effectively engage and teach students, lecturers will help the educational system meet the requirement of being abreast with digital skills. The school system must be outfitted with a prerequisite of information and communication technology resources and the curriculum must be designed to promote a collaborative learner-centered environment to which students will relate and respond. Education in the 21<sup>st</sup> century highlights globalization and internalization, therefore, any advancement of technology presents theoretical constructs and realistic insights in the development and enhancement of knowledge, skills and attitudes among students and lecturers (Abao, Dayagbil & Boholano, 2015).

With digital skills, lecturers can readily connect their students not just in their own localities, their places of learning and to each other, but also to a huge and ever expanding diversity of social, cultural, political networks and therefore to multiple ways of being knowing and communicating (Eijkman in Abao, Dayagbil & Boholano, 2015). Accounting Education lecturers need to teach concepts and techniques to allow students to work with any digital device or tool, and adapt to new technology quickly using the skills and concepts they have been taught (Orji, Okanazu & Ali, 2015). There is need for Accounting Education lecturers to acquire the right digital skills needed to meet up with instructional delivery and assessment in Accounting Education. There are concepts in Accounting Education that can only be delivered to the students digitally for better understanding. This can only be achieved when Accounting Education lecturers move with the current trends in technological advancement which is reflected in the changing patterns of Accounting Education curriculum. policy makers, researchers, educators and organizations alike are beginning to recognize that closing this digital skill gap is essential to preparing the nation's educational sector especially Accounting Educators for a successful future. Skill is the ability to do something well, usually gained through



training or experience that is needed (Nimfel, Wetnman & Yongsunshikfu, 2019). Effective teaching of accounting education in any learning environment requires the demonstration of various skills which invariably enables students to learn by improving their knowledge, competencies, attitudes and values. Fadere in Inalegwu (2016) viewed skill as expertness, aptitude and competences appropriate for a particular job which has to do with expert knowledge and creative reasoning to a level of mastery. Business education lecturers require digital skills in order to be effective in their profession. In order words, the teaching method adopted by business education lecturers in teaching and learning is very imperative for improving and developing the skills of business education students.

Business education has been recognized as a course of study that equips its students with different skills that are necessary for job placement in business related careers and for self-employment. According to Iwuoha and Peters (2019), business education is a programme basically for skill acquisition, vocational and competency. Obi in Anioke (2019) defined business education as a programme with the primary aim to prepare students for business career, improve those already in the career and also help students achieve all the aims of education. Similarly, Spencer in Amaewhule, Okiridu and Nwoko (2019) emphasized that the effectiveness of a university is directly linked to the quality and vigor of its faculty members. Business education is a skill giving course. The skills acquired by business education lecturers according to Oyewole (2019), allows them to be fitting almost in all facets of life. The mandate of business education according to Ademiluyi, Bello and Akande (2019), is to ensure that students are educated for and about business. Teachers are keys to the success of any educational transformation (Ikeanyionwu & Enwere, 2019). Ikeanyionwu and Enwere further viewed that not only are teachers one of the critical variables that needs to be changed in order to improve the educational system, they are also the most significant change agent in these transformation. Business Education lecturers require exceptional training with respect to modern technologies to enable them possess the ability, power, skill, authority and knowledge required to fit into the digital age. A Business Education lecturer according to Nwokolo and Ekwne in Ikeanyionwu and Enwere (2019) must possess skill such as initiative understanding of hardware, software skills amongst others.

Audio-Visual technology is referred to as a combination of audio technology and visual technology which addresses the sense of sight and the sense of sound to achieve the purpose of a teaching and learning process. The Webster's Encyclopedia Unabridged Dictionary of English Language in Amesi and Ugorji (2019) defined audio-visual as aids for training or educational materials directed at both senses of learning and senses of sight. Examples of audio-visuals according to the Webster's Encyclopedia Unabridged Dictionary of English Language are photographs, films, recordings used in classroom instructions. The uses of this technology plays significant role in instructional delivery as according to Tokentunji in Amesi and Ugorji (2019) audio-visual materials when effectively used have the advantages of overcoming the weaknesses of verbalism, it humanize and vitalize the subject matter, provides interesting approach to new topics and gives initial correct impressions, provides economic time in learning, supply concrete materials needed and stimulates the initiative of the student. There is urgent need to improve the quality of education to bridge the gap between developed and developing nations and audio-visual instruction is considered as a necessary tool for this purpose (Ibrahim, Idris, Adamu & Ibrahim, 2018). However, Hoffman in Ibrahim, Idris, Adamu and Ibrahim (2018) opined that the presence of audio-visual alone will not stimulate significant changes in a school or institution. Teachers are important ingredients in the implementation of audio-visual instruction in education. Without the involvement of teachers, most students may not take advantage of all the available potential benefits of audio-visual on their own. Teachers therefore need to actively participate in the use of audio-visual facilities as they have been trained in the use of audio-visuals and in its integration in the classroom activities to enhance thinking and creativity among students. The teaching model based on digital audio media according to Xin (2020), has the advantage of allowing the students to control their study independently, increasing interaction in learning and improving the psychological superiority which can make up for the insufficiency of the existing skill gap. Factors such as inadequate funding, irregular power supply, lack of skill, non-



provision of professionals to man audio-visual resource centres according to Aina and Ademola (2013), amongst others are responsible for the non-adequacy of audio-visual technology. It is therefore a requirement that Business Education lecturers ought to possess audio-visual skills to enable them effectively and efficiently teach accounting education.

Software tools and techniques are needed for the creation of database, therefore essential for preparing students for the world of business. According to Edet (2019), software tools and techniques includes structured programming that can make software development more visible to management and more controllable. Educational software is computer software and the primary purpose of which is teaching. Some educational software could be designed for use in school classrooms. Such software according to Mishra (2015), may be projected to a large whiteboard at the front of the class and or run simultaneously on a network of desktop computers in a classroom. This type of software according to Mishra is called classroom management software. While lecturers often choose to use educational software from other categories in their information technology suites, a whole category of educational software has grown up specifically intended to assist classroom teaching. Software tools includes word processor, spreadsheets, power-point, desktop publishing, Microsoft excel, Microsoft word, graphics amongst others (Jubril, 2019). Similarly, Akomas, Ekeke and Douglas (2017) stated that software tools includes word processing, spreadsheet, data base management software, project management software, multimedia authorizing system amongst others. Software tools or techniques are digital tools that make collaboration, social interaction and feedback possible for students. According to Yon-Dominguez and Marcelo (2017) software technologies are communication and interactive tools, repositories and social network tools that can be used in enhancing teaching and learning. Beeland (2017) opined that software tools are important in education because they facilitate student's academic learning and achievement when effectively utilized. Beeland further stated that student's motivation which is one of the teacher's concern in the classroom can be improved through effective utilization of software tools. Business Education lecturers could utilize software tools such as WhatsApp, skype and Google talk to exchange academic information, solve self-doubt and carry out online classes with students. Business education lecturers should inculcate the use of computer application software in the teaching of accounting education. This will enable the students the practical use of computer in their various fields of endeavour. Business education lecturers are expected to possess software skills to be able to teach effectively.

Education is a complex business with a long history of practitioners looking for the latest gadget to improve or change learning. The term hardware according to Schofreid (2015) refers to mechanical device that makes up computer. Computer hardware consists of interconnected electronic devices that we can use to control computer's operation, input and output. Computer hardware is a collection of several components working together. Some parts are essential and others are added advantage. According to Kabari (2015), the hardware devices are made of the input devices which accept data and instructions from the user and fed the same into the computer in the form the machine can recognize. Examples of input device according to Kabari, are microphone, scanner, keyboard, mouse, joystick, keyboard amongst others. While the output device make information and other necessary reports to be available to the users (Kabari, 2015). With output devices, results of processed data or instructions are obtained, examples of output devices are printer, monitor, speakers, and plotters amongst others. Hardware is typically directed by the software to execute any command or instruction. A combination of hardware and software forms a usable computing system (Gailo, 2013).

### **Statement of the Problem**

Innovations in new technologies has created a glaring need for teachers to acquire more skills in order to bring up the caliber of graduates that will fit squarely into the modern challenging work trend. Today's students need educators who have the knowledge and skills to facilitate their participation in a collaborative web-based learning culture. Students need teachers who know how to create a learning



culture that looks and functions like the real and virtual workplace of today. However, Business Education lecturers seem lack the ability to cope with the challenges of the digital age due to probably lack of confidence and competence in integrating digitalization into pedagogical practice. In support of this assertion, Nwokocha and Onwuchekwa (2014) observed that despite the enthusiasm towards the use of digital skills and the huge investments on the acquisition of digital tools, the use of digital skills seems to have little impact in the classroom because some Business Education lecturers are showing signs of apathy towards the skill. Similarly, Okoli and Wagbara (2016) observed that most lecturers lack knowledge and skills to use digital tools and in addition are not enthusiastic about the changes due to inadequate training to meet up with technological flux. In view of these, the researchers carried out this study to examine the digital skills required by Business Education lecturers for the teaching of accounting education in tertiary institutions in Rivers State.

### **Purpose of the Study**

The main aim of this study was to identify digital skills required by Business Education lecturers for teaching accounting education courses in tertiary institutions in Rivers State. Specifically, the study sought to:

1. Identify the audio-visual content creation skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State.
2. Identify the software mastering skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State.
3. Identify the hardware usage skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State.

### **Research Questions**

The following research questions were posed for the study.

1. What are the audio-visual content creation skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State?
2. What are the software mastery skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State?
3. What are the hardware usage skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State?

### **Hypotheses**

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

1. There is no significance difference in the mean ratings of Business Education lecturers in Rivers State University, Ignatius Ajuru University of Education and Federal College of Education (Technical) Omoku on their perception of audio-visual content creation skills required for the teaching of accounting education courses in tertiary institutions in Rivers State.
2. There is no significance difference in the mean ratings of Business Education lecturers in Rivers State University, Ignatius Ajuru University of Education and Federal College of Education (Technical) Omoku on their perception of software mastering skills required for the teaching of accounting education courses in tertiary institutions in Rivers State.
3. There is no significance difference in the mean ratings of Business Education lecturers in Rivers State University, Ignatius Ajuru University of Education and Federal College of Education (Technical) Omoku on their perception of hardware usage skills required for the teaching of accounting education courses in tertiary institutions in Rivers State.



### **Methodology**

The study adopted a descriptive survey design. The population of the study comprised of 82 Business Education lecturers in Rivers State University, Ignatius Ajuru University of Education and Federal College of Education (Technical) Omoku as shown in Table 1 is 19, 33 and 30 totally 82. Census sampling technique was adopted since the population was of manageable size. The instrument used for data collection was a structured questionnaire titled “Digital Skills Required by Business Education Lecturers for Teaching of Accounting Education Courses Questionnaire” (DSRBELTAECQ). The instrument was designed in a five point Likert rating of agreement (Strongly Agreed (5), Agreed (4), Undecided (3), Disagreed (2) and Strongly Disagreed (1), used to elicit responses from the respondents. In order to determine the validity of the instrument, the questionnaire was face and content validated by two (2) Business Educators and one (1) Measurement and Evaluation experts all in Faculty of Education, Rivers State University. To ensure the consistency of the instrument, the Cronbach Alpha reliability method was adopted and a reliability coefficient of 0.87 was established. All copies of the questionnaire administered were retrieved and used for the study. The research questions were answered using mean and standard deviation, while ANOVA was used to test the hypotheses at 0.05 level of significance. The criterion mean score of 3.00 and above was agreed, while the mean score below 3.00 was disagreed. In the same vein, the decision rule for the hypotheses was that any hypotheses with ANOVA value less than the F-critical table value was accepted otherwise rejected.

**Table 1: Population Distribution**

S/n	Institution	Total No. of Lecturers
1.	Rivers State University	19
2.	Ignatius Ajuru University of Education	33
3.	Federal College of Education (Technical) Omoku	30
	<b>Total</b>	<b>82</b>

**Source:** Departmental Offices of RSU, IAUE & FCE (T), Omoku  
The Table shows that 19 Business Educators were of Rivers State University, 30 were of Federal College of Education (Technical) Omoku and 33 were of Ignatius Ajuru University of Education with both Business Educators and related Business lecturers.

### **Results**

The result of this study were presented according to each research question posed in the study as thus:

Research Question 1: What are the audio-visual content creation skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State?



**Table 2: Mean Ratings and Standard Deviation on the Audio-Visual Content Creation Skills Required by Business Education Lecturers for the Teaching of Accounting Education Courses.**

S/N	Items	RSU (N-19)			IAUE (N-33)			FCE(T) Omoku (N-52)		
		$\bar{X}$	S.D	Remarks	$\bar{X}$	S.D	Remarks	$\bar{X}$	S.D	Remarks
1	Ability to use photographs for the teaching of accounting education courses	4.42	0.32	Agreed	4.31	0.31	Agreed	4.76	0.34	Strongly Agreed
2	Proficiency in the use of films for the teaching of accounting education courses	4.47	0.32	Agreed	4.63	0.33	Strongly Agreed	4.00	0.29	Agreed
3	Ability to use recordings for the teaching of accounting education courses	4.84	0.35	Strongly Agreed	4.17	0.29	Agreed	4.65	0.33	Strongly Agreed
4	Effective utilization of over-head projectors in the teaching of accounting education courses	4.10	0.29	Agreed	4.23	0.30	Agreed	4.00	0.29	Agreed
5	Being able to use opaque projectors in the teaching of accounting education courses	2.32	0.31	Disagreed	2.97	0.28	Undecided	2.62	0.33	Undecided
6	Ability to use videos in the teaching of accounting education courses	4.37	0.31	Agreed	3.97	0.28	Agreed	4.00	0.29	Agreed
7	Ability to use audio tapes in the teaching of accounting education courses	4.26	0.30	Agreed	4.31	0.30	Agreed	4.74	0.34	Strongly Agreed
8	Being able to use stream charts in the teaching of accounting education courses	2.53	0.32	Undecided	2.25	0.30	Disagreed	2.75	0.34	Undecided



9	Ability to effectively use audio CDs in the teaching of accounting education courses	2.37	0.31	Disagreed	2.06	0.29	Disagreed	2.63	0.33	Undecided
<b>Grand Mean/SD</b>		<b>3.74</b>	<b>0.31</b>	<b>Agreed</b>	<b>3.65</b>	<b>0.29</b>	<b>Agreed</b>	<b>3.79</b>	<b>0.32</b>	<b>Agreed</b>

**Source: Field Survey, 2021.**

Table 2 showed the respondents opinion on the audio-visual content creation skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State. Using the criterion mean of 3.00 as the bench-mark for acceptance, the data on Table 2 showed the respondents had divergent views that Business Education lecturers require audio-visual content creation skill for the teaching of accounting education courses in tertiary institutions in Rivers State. Some of the respondents strongly agreed, some agreed, some undecided while some disagreed. They agreed that Business Education lecturers require photographic skills for the teaching of accounting education courses, they require filming skills for teaching of accounting education courses, they require recording skill for the teaching of accounting education courses, they require the use of overhead projectors for the teaching of accounting education courses, they require the use of videos for the teaching of accounting education courses, they require the use of audio tapes for the teaching of accounting education courses. The analysis revealed a grand mean of 3.74, 3.65 and 3.79 and a grand standard deviation of 0.31, 0.29 and 0.32 respectively which also indicated that Business Education lecturers require audio-visual content creation skills for the teaching of accounting education courses in tertiary institutions in Rivers State.

Research Question 2: What are the software mastering skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State?

**Table 3: Mean Ratings and Standard Deviation on the Software Mastering Skills Required by Business Education Lecturers for the Teaching of Accounting Education Courses**

S/N	Items	RSU (N-19)			IAUE (N-33)			FCE(T) Omoku (N-30)		
		$\bar{X}$	S.D	Remarks	$\bar{X}$	S.D	Remarks	$\bar{X}$	S.D	Remarks
1	Ability to use word processor for the teaching of accounting education courses	4.42	0.32	Agreed	4.31	0.31	Agreed	4.76	0.34	Strongly Agreed
2	Proficiency in the use of spreadsheet for the teaching of accounting education courses	4.23	0.26	Agreed	4.63	0.33	Strongly Agreed	4.00	0.29	Agreed
3	Ability to use power-point for the	4.54	0.35	Strongly	4.34	0.29	Agreed	4.65	0.33	Strongly





	teaching of accounting education courses			Agreed						Agreed
4	Effective utilization of desktop publishing for the teaching of accounting education courses	4.10	0.29	Agreed	4.23	0.39	Agreed	4.31	0.29	Agreed
5	Being able to use Microsoft Excel in the teaching of accounting education courses	4.32	0.24	Agreed	3.27	0.28	Agreed	4.62	0.33	Strongly Agreed
6	Ability to use micro-soft word in the teaching of accounting education courses	4.37	0.31	Agreed	3.97	0.36	Agreed	4.18	0.29	Agreed
7	Ability to use graphics in the teaching of accounting education courses	4.26	0.30	Agreed	4.31	0.61	Agreed	4.14	0.34	Agreed
8	Being able to use Corel draw in the teaching of accounting education courses	2.21	0.41	Disagreed	2.62	0.30	Undecided	2.75	0.34	Undecided
9	Ability to effectively use oracle in the teaching of accounting education courses	2.37	0.50	Disagreed	2.06	0.29	Disagreed	2.63	0.33	Undecided
	<b>Grand Mean/SD</b>	<b>3.86</b>	<b>0.33</b>	<b>Agreed</b>	<b>3.74</b>	<b>0.35</b>	<b>Agreed</b>	<b>4.14</b>	<b>0.32</b>	<b>Agreed</b>

**Source: Field Survey, 2021.**

Table 3 showed the respondents opinion on the software skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State. Using the criterion mean of 3.00 as the bench-mark for acceptance, the data on Table 3 showed that the respondents had divergent views that business education lecturers require software skill for the teaching of accounting education courses in tertiary institutions in Rivers State. Some of the



respondents strongly agreed, some agreed, some undecided while some disagreed. They agreed that business education lecturers require word processing skills for the teaching of accounting education courses, they require spreadsheet skills for teaching of accounting education courses, they require power-point skill for the teaching of accounting education courses, they require desktop skill for the teaching of accounting education courses, they require micro-soft excel skill for the teaching of accounting education courses, they require micro-soft word skill for the teaching of accounting education courses, they require graphics skills for the teaching of accounting education courses. The analysis revealed a grand mean of 3.86, 3.74 and 4.14 and a grand standard deviation of 0.33, 0.35 and 0.32 respectively which also indicated that Business Education lecturers require software skills for the teaching of accounting education courses in tertiary institutions in Rivers State.

Research Question 3: What are the hardware usage skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State?

**Table 4: Mean Ratings and Standard Deviation on the Hardware Usage Skills Required by Business Education Lecturers for the Teaching of Accounting Education Courses.**

S/N	Items	RSU (N-19)			IAUE (N-33)			FCE(T) Omoku (N-30)		
		$\bar{X}$	S.D	Remarks	$\bar{X}$	S.D	Remarks	$\bar{X}$	S.D	Remarks
1	Ability to use printer for the teaching of accounting education courses	4.42	0.32	Agreed	4.31	0.31	Agreed	4.76	0.34	Strongly Agreed
2	Proficiency in the use of scanner for the teaching of accounting education courses	4.47	0.61	Agreed	4.63	0.33	Strongly Agreed	4.21	0.29	Agreed
3	Ability to use CD for the teaching of accounting education courses	2.54	0.37	Undecided	2.18	0.82	Disagreed	2.65	0.33	Undecided
4	Effective utilization of DVD for the teaching of accounting education courses	2.10	0.29	Disagreed	2.23	0.30	Disagreed	2.87	0.29	Undecided
5	Being able to use modems in the teaching of accounting education courses	4.32	0.31	Agreed	3.27	0.28	Agreed	4.62	0.33	Strongly Agreed
6	Ability to use multi-media projector for the teaching of accounting	4.34	0.31	Agreed	3.97	0.21	Agreed	4.97	0.19	Strongly Agreed



education courses

7	Ability to use interactive whiteboards for the teaching of accounting education courses	4.26	0.30	Agreed	4.75	0.30	Strongly Agreed	4.74	0.34	Strongly Agreed
8	Being able to use photocopier for the teaching of accounting education courses	4.43	0.38	Agreed	4.25	0.51	Agreed	4.15	0.37	Agreed
9	Ability to effectively use central processing unit for the teaching of accounting education courses	4.37	0.32	Agreed	4.06	0.29	Agreed	4.63	0.32	Strongly Agreed
<b>Grand Mean/SD</b>		<b>3.91</b>	<b>0.35</b>	<b>Agreed</b>	<b>3.73</b>	<b>0.37</b>	<b>Agreed</b>	<b>4.24</b>	<b>0.31</b>	<b>Agreed</b>

**Source: Field Survey, 2021.**

Table 4 showed the respondents opinion on the hardware skills required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State. Using the criterion mean of 3.00 as the bench-mark for acceptance, the data on Table 4 showed that the respondents had divergent views that Business Education lecturers require hardware skill for the teaching of accounting education courses in tertiary institutions in Rivers State. Some of the respondents strongly agreed, some agreed, some undecided while some disagreed. They agreed that Business Education lecturers require printing skills for the teaching of accounting education courses, they require scanning skills for teaching of accounting education courses, they require the use of interactive whiteboard skills for the teaching of accounting education courses, they require photocopying skill for the teaching of accounting education courses, they require the use of central processing unit skills for the teaching of accounting education courses. The analysis revealed a grand mean of 3.91, 3.73 and 4.24 and a grand standard deviation of 0.35, 0.37 and 0.31 respectively which also indicated that Business Education lecturers require hardware skills for the teaching of accounting education courses in tertiary institutions in Rivers State.

### **Test of Hypotheses**

Hypotheses for the study were tested as thus:

**Hypothesis 1:** There is no significant difference in the mean ratings of Business Education lecturers in Rivers State University, Ignatius Ajuru University and Federal College of Education (Technical) Omoku on their perception of Audio-Visual content creation skills required for the teaching of accounting education courses in tertiary institutions in Rivers State.

**Table 5: Summary of Analysis of Variance (ANOVA) on the Perception of Business Education Lecturers in Tertiary Institutions in Rivers State on Audio-Visual Content Creation Skills Required for the Teaching of Accounting Education Courses.**



Source of Variance	Sum of Square (SS)	Df	Mean Sum of Square (MSS)	F-ratio	F-critical	Level	Decision
Between Group	0.20	2	0.10	1.25	3.55	0.05	Accepted
Within Group	1.39	18	0.08				

**Source:** Field Survey, 2021.

From the analysis in the Table, the result showed that the F-ratio is less than the F-critical ( $F\text{-ratio} < F\text{-crit.}$ ). Hence, the hypotheses was accepted. This is an indication that there is no significant difference in the opinion of respondents in RSU, IAUE and FCE (T), Omoku on their perception of the audio-visual content creation skill required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State.

**Hypothesis 2:** There is no significant difference in the mean ratings of Business Education lecturers in Rivers State University, Ignatius Ajuru University and Federal College of Education (Technical) Omoku on their perception of software mastering skills required for the teaching of accounting education courses in tertiary institutions in Rivers State.

**Table 6: Summary of Analysis of Variance (ANOVA) on the Perception of Business Education Lecturers in Tertiary Institutions in Rivers State on Software Mastering Skills Required for the Teaching of Accounting Education Courses.**

Source of Variance	Sum of Square (SS)	Df	Mean Sum of Square (MSS)	F-ratio	F-critical	Level	Decision
Between Group	3.2	2	1.73	4.75	5.61	0.05	Accepted
Within Group	1.03	24	0.04				

**Source:** Field Survey, 2021.

From the analysis in the Table, the result showed that the F-ratio is greater than the F-critical ( $F\text{-ratio} > F\text{-crit.}$ ). Hence, the hypotheses was accepted. This is an indication that there is no significant difference in the opinion of respondents in RSU, IAUE and FCE (T), Omoku on their perception of the software skill required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State.



**Hypothesis 3:** There is no significant difference in the mean ratings of Business Education lecturers in Rivers State University, Ignatius Ajuru University and Federal College of Education (Technical) Omoku on their perception of hardware usage skills required for the teaching of accounting education courses in tertiary institutions in Rivers State.

**Table 9: Summary of Analysis of Variance (ANOVA) on the Perception of Business Education Lecturers in Tertiary Institutions in Rivers State on Hardware Usage Skills Required for the Teaching of Accounting Education Courses.**

Source of Variance	Sum of Square (SS)	Df	Mean Sum of Square (MSS)	F-ratio	F-critical	Level	Decision
Between Group	0.64	2	0.37	5.26	5.34	0.05	Accepted
Within Group	2.70	24	0.07				

**Source:** Field Survey, 2021.

From the analysis in the Table, the result showed that the F-ratio is less than the F-critical ( $F\text{-ratio} < F\text{-crit}$ ). Hence, the hypotheses was accepted. This is an indication that there is no significant difference in the opinion of respondents in RSU, IAUE and FCE (T), Omoku on their perception of the hardware skill required by Business Education lecturers for the teaching of accounting education courses in tertiary institutions in Rivers State.

### Discussion

Discussions of the study were made according to the research questions posed in the study. The findings in research question one revealed that Business Education lecturers in RSU, IAUE and FCE(T), Omoku require audio-visual content creation skills for the teaching of accounting education courses. In the same vein, the hypothesis testing indicated no significant difference in the opinion of respondents in RSU, IAUE and FCE (T), Omoku on the audio-content creation skills required for the teaching of accounting education courses. The findings is in agreement with the views of Webster's Encyclopedia Unabridged Dictionary of English Language in Amesi and Ugorji (2019) that audio-visuals are used as aids for training or educational materials directed at both senses of learning and sense of sight. Based on the views of Webster's Encyclopedia Unabridged Dictionary of English Language in Amesi and Ugorji, the researchers are of the opinion that Business Education lecturers require audio-visual content creation skills to enable them teach effectively.

The findings from research question two revealed that Business Education lecturers require software skills for the teaching of accounting education courses. Similarly, the hypothesis testing indicated no significant difference in the opinion of respondents in RSU, IAUE and FCE(T), The finding is in agreement with the view of Beeland (2017) who opined that software tools are important in education because they facilitate student's academic learning and achievement when effectively utilized. Based on the views of Beeland, the researchers are of the opinion that Business Education lecturers require software skills for the teaching of accounting education courses.

The findings from research question three showed that Business Education lecturers require hardware skills for the teaching of accounting education courses. In the same vein, the hypothesis testing indicated no significant difference in the opinion of respondents in RSU, IAUE and FCE ((T), Omoku, on the hardware skills for the teaching of accounting education courses. The findings aligns with that



of Murray and Olcese (2011) who pointed out that there are the enthusiasts or early adopters who insist that tablet hardware technology will transform teaching and learning and then there are the skeptics who believe that it will make no difference. Based on the views of Murray and Olcese, the researchers depicts that Business Education lecturers require hardware skills for the teaching of accounting education courses.

### **Conclusion**

Based on the findings of the study, it was concluded that Business Education lecturers possess audio-visual content creation, software and hardware skills in teaching accounting education courses in tertiary institutions in Rivers State.

### **Recommendations**

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

1. There should be constant training and re-training of lecturers on the use of video in teaching accounting education courses as it will help them to use it maximally when they are available
2. A modern laboratory should be made available by school authorities for lecturers to enable them access and equip themselves with audio-visual skills
3. Government should endeavour to make electricity available in tertiary institutions to enable lecturers use the software tools for the teaching of accounting education courses
4. Government through the school authorities should provide electricity for lecturers in tertiary institutions to enable them effectively use the hardware tools for the teaching of accounting education courses

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