APPLICATION OF ARTIFICIAL INTELLIGENCE IN TEACHING BUSINESS EDUCATION COURSES IN RIVERS STATE TERTIARY INSTITUTIONS

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Abstract

Artificial Intelligence (AI) is rapidly enhancing teaching and learning process, and streamline administrative tasks globally. Therefore, this study determined application of artificial intelligence (AI) in teaching business education courses in River"s state tertiary institutions. Two research questions guided the study and two null hypotheses were tested. Descriptive survey research design was adopted. From a population of 62 business education lecturers, a census survey sampling was employed. A four-point response options questionnaire was used for data collection, and it was validated by three experts. The reliability of the instrument was established using Cronbach"s alpha which yielded coefficients of 0.81 and 0.80. Mean and Standard Deviation were used to answer the two research questions and measure the spread in respondents` opinions, while one-way analysis of variance (ANOVA) was used to test the two null hypotheses at 0.05 level of significance. Findings revealedthat all the listed types of AI were highly needed forteaching business education courses, and that all the different types of AI stated for teaching business education courses were very highly beneficial. Based on the findings, it was concluded that if AI is included in the teaching of business education courses, it will transform the programme positively, lead to AI skills development and enable the learners to acquire the needed AI employability skills for the global workplace. Therefore, among other things, it was recommended that AI should be included in the business education curriculum through yearly internal curriculum review by lecturers in collaboration with their institutions and five years national review by all level of government. Also, lecturers should be trained and retrained on the application of AIsforteaching business education courses in River"s state tertiary institutions to enable them transfer the skills to learners.

Keywords*: Artificial intelligence (AI), application of artificial intelligence, teaching business education courses.*

Introduction

Artificial Intelligence (AI) is rapidly transforming various industries, including education. AI as an aspect of information and communication technology is being used in educational management to enhance teaching and learning process, improve student outcomes, and streamline administrative tasks. In recent years, AI has also made inroads into the education sector, particularly in educational management (Mekuri-Ndimele & Ukata, 2024; Igbokwe, 2023). AI can help improve the teaching and learning process, enhance teacher`s performances, student outcomes, and automate administrative tasks. The application of AI in the teaching and learning is still in its early stages, moreover in Nigeria but it has already shown promising results (Gupta, 2020). AI in schools offers multiple possibilities for school administrators, teachers, and students.

One example is ChatGPT, the latest version, GPT-4, is integrated into software such as Microsoft Office, Edge, and Bing, optimizing educational tasks (Forero-Corba, & Negre Bennasar, 2024). AI and Machine Learning (ML) have been oriented towards educational tasks (Zafari et al., 2021), which highlights the need to strengthen Teachers' Digital Competence (TDC).

AI technology in education is expected to grow significantly in the coming decades, presenting new opportunities and challenges (Surugiu, Grădinaru, & Surugiu, 2024; Khosravi, 2022).

Researchers, policymakers, and practitioners are integrating Artificial Intelligence Education (AIE) to enhance teaching, personalised learning, assessments, and administrative services (Zhang and Aslan, 2021; Chiu et al., 2023). AI represents progress in education, offering benefits on multiple levels, and stimulates the evolution of teaching and learning through technologies like chatbots, Marvis Beacon Teaches Typing (MBTT), robots, automated assessment, digitised artefacts, and intelligent tutoring systems, despite occasional organisational challenges (Chiu et al., 2023).

AI is the theory and development of computer systems that are able to perform tasks requiring human intelligence, such as teaching, visual perception, speech recognition, decision-making, and translation between languages (Pattam, 2021). Artificial intelligence is the science of making machines that can think and act like humans. AI is an advanced part of information and communication technology (ICT) which adopts the application of hardware and software in imitating to demonstrate what human beings can do by those technologies.

The subsets of AI covered in this work are Machine Learning (ML) and Deep Learning (DL). This is because they are more related to the topic under study. Machine learning (ML) is a subset of artificial intelligence and it is a science of getting computers to learn and act as humans do, such accurate pronunciation of words by Google, Chatbot (Online Customer Support), and sentence rephrasing. The ML learns by acquiring data and creating rules for how to turn it into actionable information (Veletsianos,2019). ML also reasons by focuses on choosing the right algorithm (procedure) to reach a desired outcome. ML as well do self-correction by continually fine-tuning algorithms (process) and ensure they provide the most accurate results possible (Pattam, 2021). Creativity is also an aspect of AI which uses neural networks, rules-based systems, statistical methods and other AI techniques to generate new images, new text, new music and new ideas. Deep Learning (DL) is a subset of machine learning. Deep Learning (DL) can perform far more complex tasks. Deep learning (DL) can process, interpret, and make use of far larger and more complex data sets. Deep learning mimics the working of our brains such as teaching keyboarding by Marvis Beacon Teaches Typing, Text to image such as to convert text into images, such as in the Google Translate app, I love my PDF etc. Machine learning has a simple ¯if this, then that‖ mechanism, whereas deep learning has ¯if this, then that, then what about (x)?‖ on repeat. In other words, machine learning can ask and answer one question, but it then requires human intervention (Pattam, 2021). Deep learning will ask and answer one question - based on that answer, ask another question, and answer it, and so on. Deep learning is the most advanced and sophisticated artificial intelligence technology. For example, it enables Google to give you a search result that is tailored specifically for your needs, not just something they think everyone may want to know about. Deep learning goes one step further by enabling Google to tell you what other people are searching for as well, which are applicable to business education teachers and learners during teaching, learning and research.

National Universities Commission (2022) posited that Business Education is a specialized profession designed to provide students with knowledge, skills and competence leading to employability and advancement in office occupations, pedagogical skills in teaching business subjects at different levels of educational system as well as self-employment or being

an employer of labour. As an aspect of Vocational Education and Training, Business Education is designed to fill the gap between knowledge and practice by exposing students to General Education as well as specialized areas in Accounting, Entrepreneurship, Marketing and Office Technology and Management (Ukata & Nmehielle, 2024a). Business Education contents are all encompassing programme in which courses contents are in the areas of Business Management, Business Administration, Office Information Management System, Office Technology and Management, (Information and Communication Technology or Information Management System, Purchase/Supply Education (Ukata & Nmehielle, 2024b). Others are Accountancy Education, Communication Skills, English Language, Distributive Education, Entrepreneurship Education, Management/Marketing, Education Psychology, Philosophy and Sociology of Education, Business Law, Research Methodology etc, which require the application of Artificial Intelligence (AI) (Ukata& Sila-Dikibo, 2020: Ukata, 2019). It is an education that theoretically and practically prepared the learners with the required skills needed at the global workplaces (Ukata, Adejola & Okoye, 2018). Business education programme is offered as a course in universities, colleges of education and as an option in the polytechnics. Accordingly, running his list, Lynch cites current areas AI is used in education which are applicable to business education programme to include but not limited to: Classroom/Behavior Management, Lesson Planning, Classroom Audio-Visual, Parent-Teacher Communication, Language Learning, Test Prep, Assessment, Learning Management Systems, Gamification for Enhanced Student Engagement, Staff Scheduling and Substitute Management, Professional Development, Transportation, Maintenance, Finance, Cybersecurity, Academic Fraud Detection, Safety and Security (Ukata&Agburuga, 2024a). Onlinedegrees, 2024; Smith,2021; Singh&Singh,2021).

AI is currently used in Plagiarism Detection (Turnitin, Eagle Scan), Academic Research, Online Teaching and Learning, Chatbots for Enrollment and Retention, Learning Management Systems, Transcription of Faculty Lectures, Enhanced Online Discussion Boards, Analyzing Student Success Metrics and Connected Campuses (Ukata&Agburuga, 2024b). Onlinedegrees, 2024; Smith,2022). According to Rose Luckin, a professor of learning-centred design at University College London, as quoted saying, ¯The real power of artificial intelligence for education is in the way that we can use it to process vast amounts of data about learners, about teachers, about teaching and learning interactions.‖ Ultimately, AI can ¯help teachers understand their students more accurately, more effectively (Ukata&Agburuga, 2024c). Onlinedegrees, 2024).‖ Unfortunately, in the Core Curriculum and Minimum Academic Standard for Nigerian University System (CCMAS) published by the National Universities Commission in 2022 nothing was mentioned about AI in Business Education programme, and its application by business education teachers despite the abundant benefits in the teaching and learning process. These are issues of serious concern looking at the need of current global workplace and if Nigeria wants to produce graduates of high global standard.

Artifical Intelligence Education (AIE) builds upon previous learning theories, facilitating teacher adoption of educational tools and integrating best practices to enhance learning (Cope, Kalantzis, & Searsmith, 2021). AIE benefits teachers and the teaching process through tailored contents for individual learners, at-risk or gifted students, learning predictive models, personalised educational resources, improved classroom management, enhanced teaching across various subjects, academic progress facilitation, and qualified development in pedagogical skills, human behaviour, and interactions (Zhang & Aslan, 2021; Chiu et al., 2023). AI unlocks new research potential in universities and other tertiary institutions by expanding experimental and investigative activities, and disseminating study results. Teachers can focus on complex tasks as AI provides students support and answers (Southworth et al., 2023). Khosravi et al (2022) advocates

integrating explainable AI in education, prioritising human-centred design of educational tools, assessing AI implementation, and enhancing AIE systems for reliability and knowledge transfer support during teaching and learning (Ukata&Agburuga, 2024d).

AI system in education significantly enhance learners' involvement and performance (Zhang and Aslan, 2021). Chiu et al. (2023) identified essential AI roles for learners to include: competency-based task assignments, learner-machine discussions, feedback, and adaptive digital environments. Zhang and Aslan (2021) added other AI facilitations to include; engagement, enriched learning resources, and intellectual stimuli. Southworth et al. (2023) highlight AIE's benefits to be fostering technical skills, creativity, critical thinking, and problem - solving abilities for students. AIE personalises learning experiences and communication to cater for individual needs and abilities, enhancing efficiency (Hopcan et al., 2022; Southworth et al., 2023). AIE customised learning materials that are tailored based on students' evaluations, addressing their strengths and weaknesses (Ukata& Amini, 2025; Hopcan et al., 2022). Li and Wang (2023) proposes using advanced technology (AI) to create a comfortable communication environment, fostering learner networks with increased information accessibility for future generations. Adapting learning experiences sustains student progress and engagement in virtual environments, promoting skill development (Southworth et al., 2023). Interactivity and participation substantially increase among students and teachers. Khosravi et al. (2022) emphasise the significance of AI in various learning interfaces. For remote learners, AI offers a crucial advantage through simulation cases on complex life topics challenging to address in traditional settings (e.g., welfare system, losses, and violence). Ouyang and Jiao (2021) identified three AIE paradigms: ―AI-direct, learner-as-recipient‖, where AI leads learning with a defined pathway for the learner, ―AI-supported, learner-as- collaborator‖, where AI optimises interaction among learners, information, and technology, and ―AI-empowered, learner-as-leader‖, where AI enhances learners' intelligence through a complex system which can be apply in teacing business education courses.

The following are some AIs that can be apply in teaching business education courses with Benefits:

Gentle, (2024) posited that the software Mavis Beacon Teaches Typing was first released in 1987 as a tool to train new computer and advanced users on keyboard skills (touch typing). Beacon was praised for helping make computer education more accessible and easier to people of colour, with modern day super fans going so far as to create deep fake footage of Barack Obama and Oprah Winfrey celebrating her influence.

The software (AI), Mavis Beacon Teaches Typing, whether you want to learn essential keyboarding skills or improve your overall typing efficiency, Mavis Beacon Teaches Typing Anniversary Edition will guide you on your road to success (Ukata&Mekuri-Ndimele, 2025). It gives you beginner ways and improves speed and accuracy with detailed assessments, customized lessons and skill-building games which are needed in different global workplace (Broderbund, 2024).

QuillBot paraphrasing tool (AI) is an online writing platform with a bunch of tools aimed at elevating and perfecting your writings. QuillBot (AI) paraphrases, summarizes, checks for grammar error and plagiarism, translate, outline, create citations and set researchers up for success in schools, workplaces and personal engagements (Ukata& Obinichi-Aaron, 2025; QuillBot, 2024). Onlinedegrees (2024) outlined some AI tools for teachers and learners in educational system to comprise Palitt which was built to help instructors to easily create ―their own custom lecture series, syllabus or textbook for teaching and learning. Jill Watson is also an AI-enabled virtual teaching assistant introduced by the Georgia Institute of Technology in 2016 for

teaching and learning. Brainly is another wonderful social media site for classroom questions. Nuance is a great speech recognition software used by students and faculty; capable of transcribing up to 160 words per minute; especially very helpful for students who struggle with writing or have accessibility needs. Contents Technologies is another instructional design and contents application solutions fuelled by artificial intelligence with research engines to aid in teaching and learning.

Similarly,Smith (2021 & 2022) outlineds everal areas of applications of AI in teaching and learning with benefits as follows: 1. Personalized learning: Is an AI used to create ustomized learning paths for individual students, based on their strengths and weaknesses, learning styles, and interests. 2. Intelligent tutoring systems: Is an AI-powered tutoring system that provides real-time feed back to students, adapt to their individual learning needs, and track their progress. 3. Student performance prediction: Is an AIalgorithm that analyses data on student performance, attendance, and other factors to predict which students may be at risk of falling behind and intervene early. 4. Automated grading: Is an AI that is used to grade multiple-choice and shoot-answer questions, freeing up teacher time for other tasks. 5. Learning analytics: Is an AI that helps educators in analyzing students` data to identify trends and patterns, evaluate the effectiveness ofteaching methods, and make data-driven decisions. 6. Chatbots and virtual assistants: Are AI-powered chatbots and virtual assistants that provide students with instant answers to common questions, freeing up teachers and administrators to focus on more complex tasks. 7. Campus safety: Is an AI-powered surveillance system that detects unusual behavior and potential threats, alerting campus security personnel in real-time. 8. Recruitment and admissions: Is an AI that isused to analyze applicant data and identifycandidates who aremost likelyto succeed in a given program. 9. Financial aid and student services: Is an AI that helps institutions to automate financial aid applications, identify students who may be eligible for scholarships or other forms of aid, and provide personalized support to students. 10. Curriculum development: Is an AI used to analyze trends in the job market and identify the skills and knowledge that students will need in the future, informing the development of new curricula and programs (Ukata, 2024; Southworth et al., 2023; Chiu et al., 2023 & Hopcan et al., 2022).

Zotero (AI) is an open-access, easy-to-use reference management tool that serves as your personal research assistant and helps you collect, organize, cite, and share your research sources. Zotero allows teachers and learners to: save references from library catalogues, research databases, and the web. It allows researchers to add PDFs, images, audio and video files, snapshots of web pages, and more, write annotations and attach them to citations and create bibliographies using most major citation styles (Ukata&Worgu, 2025; Libraries Central Michigan University, 2024).

The subjects for this study are male and female business education lecturers with different levels of educational attainment and years of teaching experience in Rivers state tertiary institutions. Mohammad et al, (2011) averred that how well lecturers demonstrate the knowledge of AI related teaching experience depend on their level of educational qualification, training and retraining, age and teaching experience. For example, lecturers with higher degrees such as (PhD and M.Sc. /M.Ed.) are expected to possess higher knowledge and skills with AI related teaching experience than those with HND/B.Sc./B.Ed (Ukata & Udeh, 2022; Ezenwafor & Ukata, 2022). Accordingly, Ukata and Okeke, (2023), Ukata and Nmiehelle, (2022) claimed that teaching experience and age are among the factors that influence lecturers‘ knowledge and skills with AI related teaching experience because younger and experienced lecturers are more likely to possess them higher than older and less experienced ones. Also, lecturers who have spent 10 years and above in teaching AI related courses are expected to possess higher knowledge and

skills to be able to identify the types of AI and their benefits to apply in teaching business education courses than those with less than 10 years teaching experience.
Consequently, the study tested the influence of these respondents' variables of their level of educational attainment and years of teaching experience with AI related knowledge and skills in teaching business education courses in River`s state tertiary institutions.

Artificial Intelligence (AI) as an aspect of information and communication technologies (ICTs) is rapidly transforming various industries, including education. AI is being used in educational management to enhance teaching and learning process, improve students` learning outcomes, and streamline administrative tasks in tertiary institutions. In recent years, AI in schools offers multiple possibilities for school administrators, teachers, and students. But despite its many available types and rich benefits in aiding teaching, learning and administrative tasks, nothing about AI was mentioned in the Core Curriculum and Minimum Academic Standard for Nigerian University System (CCMAS) of Business Education programme published by the National Universities Commission in 2022. Also, not much about AI have been noticed in the Nigeria educational system in general and its application in teaching business education courses in River's state tertiary institutions in particular. The researcher(s) is highly worried that AI have not been incorporated into the teaching of business education courses, and business education lecturers seem not to have given attention to the various types of AI available and their application in teaching and learning process. The reasons may be associated with not being specifically mentioned in the curriculum, lack of knowledge about the available types of AI and skills required for the application of AI in teaching business education courses. These are the justifications for the study, ¯application of artificial intelligence (AI) in teaching business education courses in River's state tertiary institutions.‖ The study will reveal the necessity for including AI via yearly internal review process by lecturers, the types of AI that could be apply in teaching business education courses and their benefits in River's state tertiary institutions.

Methodology

The study adopted a descriptive survey research design. Population of the study was all the 57 business education lecturers from the four Rivers state tertiary institutions (two universities (Rivers State University (RSU) 21, Ignatius Ajuru University of Education (IAUE) 17), two polytechnics (Captain Elechi Amadi Polytechnic (CEAPOLY) 14, and Kensaro Wiwa Polytechnic (KENPOLY) 10) are the tertiary institutions own by Rivers state that offer business education programme as a course or as an option.Census survey was adopted to sample all the 61 business education lecturers because it is of manageable size. The instrument used for data collection was a self-designed four-point response options questionnaire titled ¯Application of AI in Teaching Business Education Courses (AAITBEC)". It contains two sections. Sections A and B. Each sections carries 15 items and were rated as very highly (4.50 - 500), highly (3.50 – 4.49), moderately (2.50 – 3.49), and lowly (1.50 – 2.49).

The questionnaire was subjected to face and contents validation by three experts from the Faculty of Education in Nnamdi Azikiwe University, Awka. The measure of internal consistency method was used to establish the reliability of the instrument.The instrument was administered to 15 lecturers from the University of Uyo who were not part of the population of the study. The Cronbach's alpha was applied to compute the reliability coefficient that yielded alpha values of 0.81 and 0.80.This high reliability coefficients show that the instrument was reliable for the study as recommended by Nworgu (2015) that a research instrument with a reliability index of 0.70 and above is reliable. The researcher(s) personally administered the copies of the questionnaire to the respondents in their schools with the help of three research assistants who

were adequately briefed on the modalities to follow. The researcher(s) first visited each of the tertiary institutions and sought consent from the relevant Heads of Department for the study. Thereafter, the researcher(s) and assistants visited each school and handed over the required number of copies ofthe instrument to the Heads of the Department to distribute to the business education lecturers for completion and, revisited after five working days to retrieve the completed copies. Fifty-two copies of the instrument were correctly filled, retrieved and used for data analysis. The arithmetic mean and standard deviation were used to answer the two research questions and ascertain how homogeneous or heterogeneous the respondents' opinions were relative to the questionnaire items and the aggregated mean. The one-way analysis variance (ANOVA) was used to test the null hypotheses at 0.05 level of significance. The ANOVA was used for the two null hypotheses because it measured one categorical independent variable with three levels of moderating variables ((PhD and M.Sc. /M.Ed., HND/B.Sc./B. Ed) (10 years and above, less than 10 years teaching experience). A null hypothesis was accepted where the calculated significant (Sig.) value, (p- value) was greater than or equal to (≥) the alpha value of 0.05. Otherwise, the null hypothesis was rejected. The data analysis was carried out using Statistical Package for Social Sciences (SPSS) version 25.

Result Presentation, Analysis and Discussion

Research Question 1

What are the types of AI needed in the application ofteaching business education courses in Rivers state tertiary institutions?

Table1: Respondents' mean ratings on the types of AI needed in the application of teaching business education courses **N = 52**

SN	Types of AI needed in teaching business education courses	$\bar{X}$	SD	Remarks
1	Marvis Beacon Teaches Typing	3.60	.88	Highly
2	ChatGPT and Chatbots	3.67	.92	Highly
3	Intelligent tutoring systems	3.75	.81	Highly
4	Text to image converter (I love my pdf)	3.76	.79	Highly
5	Turnitin, Eagle Scan	3.72	.85	Highly
6	AI-direct, learner-as-recipient	3.56	.84	Highly
7	AI-supported, learner-as- collaborator	3.60	.88	Highly
8	AI-empowered, learner-as-leader	3.67	.92	Highly
9	Quillbot Paraphrasing Tool	3.75	.81	Highly
10	Palitt	3.75	.81	Highly
11	Contents Technologies	3.76	.79	Highly
12	Personalizedlearning AI	3.72	.85	Highly
13	Intelligenttutoringsystems	3.56	.84	Highly
14	Studentperformanceprediction	3.60	.88	Highly
15	Zotero	3.67	.92	Highly
	Aggregate Mean	**3.67**		**Highly**

Table 1 shows that all the 15 listed types of AI were highly needed in the application of teaching business education courses with mean scores that ranged from 3.56 to 3.76.However, the aggregate mean score was 3.67 which also shows that all the listed types of AI were highly needed for teaching business education courses.The standard deviations for the 15 listed items ranged within 0.78 to 0.92 which shows that respondents were homogeneous in their opinions

that all the listed types of AI were highly needed for teaching business education courses in River's state tertiary institutions.

Research Question 2

What are the benefits of the application of the different types of AI for teaching business education courses in River's state tertiary institutions?

Table2: Respondents' mean ratings on the benefits of the application of the different types of AI stated in teaching business education courses N = 52

SN	Benefits of the application of the types of AI stated in teaching business education courses	$\bar{X}$	SD	Remarks
16	Marvis Beacon Teaches Typing teaches keyboarding skills (touch typing)	4.50	.79	Very Highly
17	ChatGPT and Chatbots are online customers and learners support	4.52	.85	Very Highly
18	Intelligent tutoring systems providesfeedbacktostudents,adapttotheirindividual learning needs, and track their progress	4.51	.84	Very Highly
19	Text to image converter (I love my pdf) assist to convert documents of different forms into different format for use	4.51	.88	Very Highly
20	Turnitin is for anti-plagiarism detection and academic fraud	4.50	.92	Very Highly
21	AI-direct see the learner-as-recipient during teaching and learning	4.52	.81	Very Highly
22	AI-supported see the learner-as- collaborator during teaching and learning	4.51	.81	Very Highly
23	AI-empowered see the learner-as-leader in teaching and learnig	4.54	.79	Very Highly
24	Quillbot paraphrasing tool assist to summarizes sentences, checks grammar and plagiarism, translate and create citations	4.53	.85	Very Highly
25	Palitt assist instructors to easily create their own custom lecture series, syllabus or textbook.	4.52	.79	Very Highly
26	Contents Technologies assist in instructional design and contents creation	4.51	.85	Very Highly
27	Personalizedlearning AI is usedtocreatecustomizedlearningpathsforindividualstudents	4.50	.84	Very Highly
28	Intelligenttutoringsystems track learners progress and gives feedback	4.52	.88	Very Highly
29	Studentperformanceprediction predicts which students may be at risk of falling behind and intervene early	4.52	.92	Very Highly
30	Zotero helps you to organize, cite, reference and share your research sources.	4.50	.81	Very Highly
	Aggregate Mean	**4.51**		**Very Highly**

Table 2 shows that all the 15 different types of AI stated were very highly beneficial in the application of teaching business education courses with mean scores that ranged from 4.50 to 4.54. The aggregate mean score of 4.51 also showsthat all the different types of AI stated for teaching business education courses were very highly beneficial. The standarddeviations for the

15 listed items ranged within 0.79 to 0.92 which shows that respondentswere homogeneous in their opinions that all the different types of AI were as well very highly beneficial in the application of teaching business education coursesin Rivers state tertiary institutions.

HypothesesTesting

HO_1: There is no significant difference in the mean rating of male and female business education lecturers on the types of AI needed inteaching business education courses in River's state tertiary institutions based on their educational attainment.

Table3: ANOVA summary of business education lecturers on types of AI needed in the application of teaching business education courses based on educational attainment.

Sources of Variance	Sum of Squares	Df	Mean Square	F-cal.	Sig.	Decision
Between Groups	2.358	2	1.229	1.288	.383	Accept H_{01}
Within Groups	54.357	50	.777			
Total	**57.615**	**52**				

Table 3 shows a calculated F-value of1.28 with a significant (sig.)p-value of 0.38 which is greater than the alpha value of 0.05 (0.38 > 0.05) at degrees of freedom of 2 and 50.This means that there is no significant difference in the mean rating of male and female business education lecturers on the types of AI such as Marvis Beacon teaches typing, Quillbot, Zotero,, Turnitin etc., needed in the teaching business education courses in Rivers state tertiary institutions based on their educational attainment.

HO_2: There is no significant difference in themeanratingof male and female business education lecturers on the benefits of application of the types of AI stated in teaching business education courses in River's state tertiary institutions based on their years of experience

Table 4: ANOVA summary of business education lecturers on the benefits of application of the types of AI stated in teaching business education courses based on years of teaching experience.

Sources of Variance	Sum of Squares	Df	Mean Square	F-cal.	Sig.	Decision
Between Groups	1.741	2	.830	1.161	.362	Accept H_{02}
Within Groups	48.959	50	.784			
Total	**49.600**	**52**				

Data on Table 4 show a calculated F-value of 1.16 with a significant(sig.) p-value of 0.36 which is greater than the alpha value of 0.05 (0.36 > 0.05) at degrees of 2 and 50.This means that there is no significant difference in the mean rating of male and female business education lecturers on benefits of application of the types of AI such ChatGPT, personalise learning AI, Intelligent tutoring, text converter in teaching business education courses in River's state tertiary institutions based on their years of experience.

Discussion

Findings of the study shows that all the listed types of AI were highly needed in the application of teaching business education courses in River's state tertiary institutions. The finding agrees with Forero-Corba and Negre Bennasar, (2024) who augured that AI in schools offers multiple possibilities for school administrators, teachers, and students. One example is

ChatGPT, the latest version, GPT-4, which is usually integrated into software such as Microsoft Office, Edge, and Bing for optimizing educational tasks.

The findings also concur with Ouyang and Jiao (2021) as they identified three AIE paradigms to include: ―AI-direct, learner-as-recipient‖, ―AI-supported, learner-as- collaborator‖, and ―AI-empowered, learner-as-leader‖ as other types of AI for teaching and learning. Furthermore, the findings sees eye to eye with Gentle (2024) who identified Mavis Beacon Teaches Typing, QuillBot, (2024) that indicated Quillbot Paraphrasing Tool, andOnlinedegrees (2024) that outlined Palitt, Contents Technologies, Personalizedlearning among others as types of AI needed for teaching and learning business education courses. The fact that all the lecturers indicated that all the types of AI listed are highly needed for teaching business education courses is a serious call that they should be urgently included in the business education curriculum, and lecturers should do internal inclusion during teaching and learning while waiting for national curriculum review. The findings of the study as well shows that all the different types of AI stated in the application for teaching business education courses were very highly beneficial. Finding of the study harmonizes with the views of Veletsianos, (2019), Onlinedegrees, (2024), Smith, (2022), Zhang and Aslan, (2021); Chiu et al., (2023) who identified ChatGPT and Chatbot as online chat channel for students and customer supports, Turnitin for plagiarism academic fraud detection. Also, AI personalised educational resources, improved classroom management, enhanced teaching across various subjects, and creatte academic progress facilitation. The finding further agrees with the views of Broderbund, (2024), that Beacon Teaches Typing teach various class of learners keyboarding skills (touch typing), while Libraries Central Michigan University, (2024) noted that Zotero AI allows teachers and learners to organize their work, do citations, save references from library catalogues, research databases, and the web.

Findings of the study further shows that there is no significant difference in the views of the business education lecturers on the types of AI needed inteaching business education courses based on their educational attainment. This finding corresponds with the report of Mohammad et al.,(2011) that how well lecturers demonstrate the knowledge of AI in teaching depend on their level of educational qualification, training and retraining.Additionally, finding of the study indicates that there is no significant difference in the views of the business education lecturers on benefits of application of the types of AI stated in teaching business education courses based on their teaching experience. The finding concurs too with the interpretations of Ukata and Okeke, (2023), Ukata and Nmiehelle, (2022) who claimed that teaching experience and age are among the factors that influence lecturers‘ knowledge and skills of AI related teaching experience because younger and experienced lecturers are more likely to possess them higher than older and less experienced ones in the River`s state tertiary institutions.

Conclusion

Based on the findings that emanated from the discussions ofthe study, it was concluded that if AI is included in the teaching of business education courses, it will transform the programme positively, leading to AI skills development and enable the learners to acquire the needed employability skills for the global workplace. Finally, it was concluded that because the needed AI employability skills will be acquired by learners if included and taught to learners, it will assist to drastically reduce the high rate of un-employment among Business Education graduates in River`s state in particular and Nigeria in general.

Recommendations

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

1. AI should be included during the teaching of business education courses through yearly internal curriculum review by lecturers in collaboration with the authorities of their various institutions, and five years national review by federal government for teaching business education curriculum, since all the types listed are highly needed forteaching business education courses. Federal, states and local governments should provide enough funding for the procurement of AI equipment to enable lecturers and students haveaccess them for better teaching and learning experience. Heads of institutions running business education programme should fund the procurement of AIs facilities via internally generated revenue.
2. Since whatever knowledge one acquires remains with the person, the business education lecturers should make personal sacrifices from their earnings and engage in AI trainings through online and offline short courses to enable them acquire a very highly AI knowledge and skills to teach business education courses as well as sustain and remain relevance in their areas of operations. Tertiary institutions running business education should send lecturers on AI specialise training to aid them in gaining the needed skills since the training may be expensive for lecturers to bear.
3. Since the level of educational attainment and years of experience play vital roles in identifying the types and benefits of AIs needed in the teaching of business education, business educators with the required academic qualifications and years of experiences should be employed by institutions running the programme. These will assist in the implementation of AI curriculum and transferring AI skills to learners to acquire the needed employability skills.

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