ISSN: 6368 - 7462
Volume 8, Number 1, 2023
Business Education and Entrepreneurial Journal

COMPUTER TRAINING STRATEGIES AND PEDAGOGICAL COMPETENCE OF BUSINESS EDUCATION LECTURERS IN UNIVERSITIES

Dr.Wagbara, Sampson Owazuaka &Ogbu, Recheal Ichechi
Department of Business Education, Ignatius Ajuru University of Education, Rumuolumeni, Port Harcourt, Nigeria

sampsonwagbara@gmail.com

ABSTRACT

The study investigated the relationship between Computer training and pedagogical competence of business education lecturers in Rivers State-owned universities. The design used for the study was a correlational research design. The study was carried out at three universities in Rivers State. The population of the study consisted of seventy-four (74) business education lecturers from Rivers State owned Universities. The population of the study formed the sample size of the study because it was considered manageable by the researcher. The data collected was analysed using Pearson's Product Moment Correlation to answer the research questions, while Linear Regression Analysis was used to test the null hypothesis at the 0.05 level of significance. The findings of the study revealed, among other that there is significant relationship between computer training and pedagogical competence of business education lecturers' in Rivers State-owned universities, The study concluded that capacity building programmes will improve business education lecturers' pedagogical competence and help them play an effective role in the achievement of business education objectives as well as help business education students in their career progression. The study therefore recommended, among others that the management of Rivers State-owned universities should not only increase the number of delegates for training.

Keywords: Computer Training, Pedagogical Competence, Business Education Lecturers

INTRODUCTION

Capacity is the ability to comprehend or perform something. Building is the process of increasing something's quantity over time. For lecturers to build their capacity therefore involves them making a deliberate effort to upgrade, renovate, and acquire skills, abilities, and strategies that must progress steadily over time and enable lecturers to respond appropriately to academic dynamics, including professional development, lesson delivery, effective use of instructional materials, teachers' communication skills, provision of an effective role model, effective discipline and students' control, improved cohesion, and (Gimba, 2010). According to Nwokedi et al. (2018), capacity building strategies are programmes and activities intended to improve the commitment to structured skills enhancement and personal or professional competence for effective service delivery. It is important for everyone, no matter their occupation, role or responsibility within an organisation, to ensure that their skills and knowledge are up-to-date.

The 21st century teaching and learning environment requires continuous capacity building to enhance the competence skills and knowledge of lecturers from the traditional teaching strategies to more advanced modalities that contribute towards effective assessment, lesson planning, teacher management, improving teaching pedagogy, and professional development of lecturers. There is no doubt about the fact that while some universities and institutions of learning adopt one form of capability building program or the other, others keep being caught off guard by changes in course content, syllabus, lesson formats, pedagogy, and other teaching aids. Unfortunately, "one cannot do the same thing with the same approach and expect a different outcome." The following capacity building strategies have been found to be adopted by universities in Rivers State: conference/workshop attendance; training on the use of projecting devices; training on the use of computer assisted instruction; mentorship; monitoring and evaluation.

However, the extent to which these strategies are related to the pedagogical competence of business education lecturers is uncertain. However, the outlined capacity building strategies are briefly discussed below.

Training on the use of computer-assisted instruction (CAI): For many lecturers, the use of CAI is a nightmare filled with technical problems and unexpected problems in its application to teaching and learning. According to Adamu (2011), CAI is the use of a computer to deliver instructions, tests, assignments, and even customised instructions to individuals. CAI provides an interactive presentation of materials by incorporating graphics, text, video, and audio enhancements. CAI has proven to be effective in improving student engagement when used as a tool to facilitate the presentation of lectures. They improve the lecturer's instruction in a variety of ways. When lecturers are trained in the use of CAI, they can demonstrate concepts using appealing animation, sound, and demonstration, which will allow students to work independently or in groups to solve problems at their own pace.

Pedagogical competence is one type of competency that all university lecturers must have. Essentially, pedagogical competence is a lecturer's ability to manage students' education. The ability of teachers to deal with three aspects of teaching skills, namely lesson planning, implementing teaching and learning processes, and assessing students' learning, is referred to as pedagogical competence. Adegbola (2019) defines pedagogical competence as a lecturer's ability to manage students' education, which includes setting up the learning device, implementing the learning, and evaluating. The researcher focuses only on the aspect of pedagogical competence that deals with instructional planning and instructional delivery in this study.

Consequently, this study presumes that there is a link between staff development programme and the pedagogical competence of business education lecturers. However, based on the fact that business education is a vocational and technical discipline that requires skills and competency on the part of business educators to be able to deliver business education, as a means of preparing students for work in the real world, the need for a staff development programme becomes imperative. Buttressing the foregoing, Azih and Wagbara (2018) re-established that business education is an aspect of technical and vocational education and has been recognized the world over as a medium for empowering students for sustainable livelihood and social-economic development.

Purpose of the Study

1. Determine the relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities.

Research Question

1. What is the relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities?

Hypothesis

The following hypothesis were formulated and were tested at the 0.05 level of significance.

1. There is no significant relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities.

Capacity Building Needs of Lecturers

Lecturers are those who transfer knowledge, skills, and attitudes to the learners with the sole aim of knowledge building and production. These education lecturers are embedded with the right knowledge and skills for information and knowledge exchange in universities, polytechnics, and

colleges of education in the department of educational management and administration. They inculcate transferable skills into the learners. They are extensively involved in teaching, research, and community service. Education lecturers are responsible for shaping the destinies of nations and individuals. The greatest man on earth was taught by a teacher. Without the teacher, there would be no educationists, educators, pharmacists, architects, doctors, engineers, chemists, lawyers, accountants, agriculturists, administrators, or even teachers themselves. Generally, the academic staff of universities is of utmost importance in developing human skills, which is vital and fundamental to national development (Dada, 2014).

Capacity building needs are those skills and ideas required of every human for individual development and nation building. Capacity building entails a process of equipping individuals with the necessary skills required for meeting the goals of an organization through developmental programs. This involves staff training and development for organizational development. In an educational setting, it is a process of acquiring new knowledge, teaching methods, techniques, skills, ideas, and changes required for the production of students through training and development (Dada, 2014).

Lecturers' capacity building is the process by which teachers acquire in-depth content knowledge, innovative pedagogical skills, professional ethics, and experiences as they interact thoughtfully with professional experts and colleagues on the theories, techniques, practices, and challenges involved in the implementation of curriculum and resource management in educational institutions. Capacity building programs are usually organized for lecturers at a designated training center within or outside an educational institution, depending on the nature of the training, the time of day, and the work locations of the participants. Teachers' capacity building is aimed at advancing lecturers' knowledge and pedagogical skills for best practices and efficiency in instructional inputs and processes for better learning outcomes in schools (Dada, 2014).

The ICT capacity building needs also include knowledge of operating the ICT devices, good knowledge of handling the devices in teaching, clear skills of manipulating the devices for research development, using the devices to store and present students' data, etc. Such training and development programs include: in-service training, pre-service training, mentoring programs, conferences, seminars, extension programs, team-teaching, and workshops. Through capacity building programs, innovations in methodology, curriculum contents, improvisation of resource materials, administrative skills, supervisory methods and techniques, and evaluation models are made known to teaching staff to improve their competences and effectiveness.

Training on the Use of Computer Assisted Instruction

Training is a type of activity that is planned systematically, and its results enhance the level of skills and knowledge that one needs to perform work effectively. According to Nwiyi and Dominic (2018), on-the-job training for lecturers entails the involvement of lecturers in advanced training activities to enhance the quality of the educational materials and improve the instructional delivery, methods, and techniques. Some of these training activities include the use of ICT tools, simulations, self-learning tasks, role-playing, and in-class testing of lecturers on their teaching practices. The lack of such training could result in low job satisfaction, mediocre performance, and low motivational levels. Computer-assisted instruction (CAI) refers to instruction or remediation presented on a computer (Douglas, 2018). They enhance teacher instruction in several ways. According to Akinyemi (2018), Computer Assisted Instruction (CAI) is an "automated instructional technique in which a computer is used to present an instructional program to the learner through an interactive process." Computer programs are interactive and can illustrate a concept through attractive animation, sound, and demonstration. They allow students to progress at their own pace and work individually or solve problems in a group. Computers provide immediate feedback, letting students know whether their answer is correct or not. If the answer is not correct, the program shows students how to correctly answer the question. Computers offer different types of activities and a change of pace from teacher-centered to student-centered activity.

Computer-assisted instructions improve instruction for students and capture the students' attention because the programs are interactive and engage the students' competitive spirit to increase their scores. They do not move ahead until they have mastered the skill. Programs are provided in different lessons to challenge students who are slow learners, average learners, or gifted. Basically, CAI is a program of instructional material presented by means of a computer system that serves as a medium of instruction to the students who participate through direct interaction (Aduwa, 2017).

The emergence and convergence of various ICT devices such as radios, televisions, computers, internets, telephones, videos, multimedia, CD-ROMS, software, and hardware provide unique opportunities for promoting educational programs on a mass scale in developing nations (Nwabueze, 2015). Practitioners and academics believe that ICTs can be successfully employed to reach out to a greater number of staff to promote teaching and knowledge, along with exposing the students to the technical skills required for employment (Itaas, 2009). Ronald (2011) states that ICT technologies serve as useful tools for teaching, administration, research, and learning purposes for academic staff, aiding them to teach course curriculum and subject contents to students.

ICTs can actually help trigger or tap into lecturers' interest in teaching through new media and have the potential of enhancing their preparation for further education and work (Nwabueze & Ukaigwe, 2015). This is evidenced in today's improved communication technology, which has made time and space less complex in the academic world and other business transactions. It could be observed that this modern age is the age of information exploration and exploitation, in which an average individual wants to explore the information system through modern technology devices.

It also covers a wide-ranging range of applications, techniques, and systems that have automatically changed many aspects of the way of life and academic records (Collis, 2012). Lallana and Margret (2013) identify ICT applications as a broad field encompassing computers, communication equipment, and the services associated with scientific and technical programs. However, ICT promises better economic prospects, fuller political participation, informational communication, an enhanced ability to acquire education and skills, and the ability to transcend various social restrictions. However, ICT devices are tools to facilitate access to a variety of development resources in the education industry for staff and students' productivity. It refers to all purposeful enabling tools for technological and socio-economic advancements and societal development.

Pedagogical Competence

Pedagogical competence refers to educational and teaching qualifications (Shulman, 2018). When assessing pedagogical competence, the quality of teaching be primary consideration (Shulman, 2018). Scope, breadth and depth are also important, as ability to plan, initiate, lead and develop education and teaching, as well as the ability to provide research based teaching on the basis of research in the relevant subject, subject didactics, teaching and learning in higher education. Borko and Putnam (2016) the ability to interact on issues related to teaching and learning in higher education with individuals active both within and outside the university is also included in the concept of pedagogical competence.

Pedagogical competence is based on sound, broad and current knowledge within the subject area, as well as knowledge of students learning and subject-based teaching and learning issues (Borko & Putnam, 2016). This also presupposes elective and critical approach to teaching, learning and pedagogical development over time, as it is tied to one's own professional role. Research-based teaching and the individual's own research are important components in terms of satisfying the scientific grounds demanded in Chalmers' programmes (Borko & Putnam, 2016).Having gone through the variables in the study, it can be understood that variables are very essential for classroom instructional delivery.

A teacher's pedagogical competence refers to the teaching skills teachers use and the activities these skills generate to enable students to learn specialised knowledge and skills related to different subject areas. Several methods are used with the intention of inculcating and giving students insights during instruction (Ololube, 2005). In addition, pedagogical competence could further be characterised based on its functional elements: the ability to adapt to effective work methods; to analyse the task to be performed; to begin the process; to perform the task; and to analyse one's procedures (Ololube, 2005).

Social Cognitive Theory

The Social Cognitive Theory (SCT) was first propounded by Albert Bandura in 1986. The theory posits that learning occurs in a social context with a dynamic and reciprocal interaction between the person, environment, and behavior. The unique feature of SCT is the emphasis on social influence and its emphasis on external and internal social reinforcement. SCT considers the unique way in which individuals acquire and maintain behaviour while also considering the social environment in which individuals perform the behaviour (Bandura, 1986, cited in Moir & Gless, 2011). The theory takes into account a person's past experiences, which factor into whether behavioural action will occur. These past experiences influence reinforcements, expectations, and expectancies, all of which shape whether a person will engage in a specific behaviour and the reasons why a person engages in that behavior.

Application of theory to research

The theory is consistent with the professional development of lecturers. This is because learning occurs in a social context, with a dynamic and reciprocal interaction between the person, their environment, and their behaviour, according to the theory. As a result, capacity building programmes aim to help employees advance in their careers by providing them with the knowledge, skills, and competencies they need to do their jobs well.

The theory also revealed, through the concept of self-efficacy, that one can successfully execute the training required to produce a desired outcome, even in the face of adversity, emphasising that a lecturer's level of efficacy may differ for each specific task. As a result, self-efficacy is an important component in a lecturer's development in order to improve their potential to carry out effective teaching of their students. Essentially, strong efficacious beliefs are developed through the repetition of a successful task. The capacity building program's goal is to continually and repeatedly expose lecturers to situations that are unfamiliar to them and to increase their efficacy through the successful execution of these tasks on a regular basis. Their pedagogical competence will improve as a result, and their future career as a lecturer will move them closer to achieving job satisfaction. As a result, it is critical that lecturers participating in the capacity building programme follow the plans and procedures laid out for them; that they constantly put new skills into practice; and that their competence improves through repeated task execution.

METHODOLOGY

A descriptive research design and a correlational design were adopted for the study. The population of this study consisted of seventy-four (74) business education lecturers from Rivers State owned Universities. The sample size consisted of 74 business education lecturers in the three (3) Rivers State owned universities. The instrument for data collection was a self structured 30-item questionnaire. Pearson Product Moment Correlation (PPMC) was used to answer the research questions while the hypotheses were tested using Simple Linear Regression Analysis, at the 0.05 significance level. However, analyses were carried out using the Statistical Package for Social Sciences (SPSS) version 22.

Results

Research Question One: What is the relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities?

Pearson's Product Moment Correlation analysis on the relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities

Variables	Mean	Std. Dev	n	r	Decision
Computer Assisted Instruction	15.100	2.655	72	0.951	Very Strong
Pedagogical Competence	15.640	2.713			

Source: SPSS Computation, 2022.

Table above shows the extent of the relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities. However, the result indicated that the relationship that exist between interactive training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities is very strong ($r = 0.951$, $r \leq \pm 0.80$ to ± 1.00). The implication of this result is that the extent of relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities is very strong.

Hypothesis One: There is no significant relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities.

Summary of simple linear regression of the relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities

Variables	Coefficients	Std. Error	t	Sig.
(Constant)	0.958	0.576	1.663	0.101
Computer Assisted Instruction	0.972	0.038	25.867	0.000*
R	0.951[a]			
R-squared	0.905			
Adjusted R-squared	0.904			
F-statistic	669.123			
P-value	0.000[b]			
Df	72			

a. Dependent Variable: Pedagogical Competence
b. Independent Variable: Computer Assisted Instruction
c. *Items show significant relationship with the dependent variable at the 0.05 level of significance

Source: SPSS Computation, 2022.

The result of table above shows that r-value of 0.951 indicates a very strong relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities. The r^2-value of 0.905 indicated roughly the variation of 91% to the relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities. Furthermore, since, F-statistic = 669.123, t = 25.867, at df = 72, and $p = 0.000 < 0.05$, hence, null hypothesis three is rejected at the 0.05 level of significance. Therefore, there is significant relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities.

Discussion of Findings

The result in table above shows that the extent of relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities is very strong. While the result of table 4.8 indicated that there is significant relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers' in Rivers State-owned universities. This finding is consistent with the study carried out by Nwokedi et al. (2018) revealed that capacity building needs of education lecturers in universities include: knowledge of operating the ICT devices, good knowledge of handling the devices in teaching, clear skills of manipulating the devices for research developments, using the devices to store and present academic data, using the devices for record keeping, assisting staff with ICT devices to be involved in human capacity building programmes, and regular involvement of staff in knowledge updates through appropriate use of new technological devices. Also, the study is corroborated by Ogbu and Osanaiye (2017), whose study revealed that on-the-job training has a significant relationship with employee productiveness, while off-the-job training has a significant relationship with employee innovativeness in the insurance industry.

CONCLUSION

The study investigated the relationship between computer training and pedagogical competence of business education lecturers in Rivers State-owned universities. The analysis of the data gave results from which the objectives of the study were accomplished. However, some of the results of the study revealed that the extent of the relationship between training on the use of computer assisted instruction and pedagogical competence of business education lecturers in Rivers State-owned universities is very strong. The implication of these results was that capacity-building strategies enabled business education lecturers in Rivers State-owned universities to play an effective role in the development of their pedagogical competence.

RECOMMENDATIONS

Considering the findings, discussion and conclusions of this study, the following recommendations are made:

1. The management of Rivers State-owned universities should pursue formal mentorship programmes for newly employed lecturers by their senior colleagues in order to enhance their pedagogical competence.
2. The management of universities in Rivers State should ensure the business education departments are equipped with computer-assisted instruction materials so that the lecturers can reach higher levels of competence in their instructional delivery.
3. The management of Rivers State-owned universities should install monitoring and evaluation systems, which will not only serve as catalysts for improvement, but also promote ownership and commitment to continuous improvement among lecturers.

REFERENCES

Adamu, U.A, (2001). *Computer assisted teaching and learning: In teacher education in the information technology age*. National Commission for Colleges of Education Press.

Adegbola, F.F. (2019). Teachers' pedagogical competence as determinants of students' attitude towards basic science in South-West Nigeria. *Educational Research and Reviews*, *14*(18), 655-660

Aduwa.O. S. (2017). Application of computer technology for promoting higher education in Nigeria problems and prospects. *West African Journal of Education* 1(2), 126-130.

Azih, N., & Wagbara, S. O. (2018). Leveraging on modern instructional delivery strategies can promote business education students employability skills. *Nigerian Journal of Business Education (NIGJBED),* 5(1), 1-10.

Borko, H. & Putnam. R. T. (2016). Learning to teach, In D. C. Berliner & R. C. Calfee (eds.) *Handbook of Educational Psychology.* MacMillan Publishers.

Colis, B. (2012). *Information technologies for education and training*. Springer Verlag.

Dada, J.O. (2014). Effective human resource management through team building. *The text of a paper presented at the one-day Seminar for Members of Dental Technologist Registration Board*.

Gimba, M.B. (2010). *Building teacher capacity in classroom assessment to improve student learning in basic education level.* Proceedings of the 1st International Technology, Education and Environment Conference of African Society for Scientific Research (ASSR).

Itaas, E. C. (2009). *Capacity building for secondary schools' teachers on the ICT Literacy Training Programme*. www.unescobkk.org/fileadmin.

Lallana, E.C. & Margaret, U.Y. (2013). *The information age*. www.eprimers.org .

Moir, E. & Giless, J. (2011). Quality induction: An investment in teachers. *Teacher Education Quarterly,* 28(1). 109 – 114.

Nwabueze, A. I. & Ukaigwe, P.C. (2015). Application and utilization of information and communication technology devices for record management in Universities in South-East, Nigeria. *Journal of Education in Developing Areas (JEDA),*23(2), 323-335.

Nwiyi, G., & Dominic, I. (2018) *Contemporary human development*. Nee Era Press.

Nwokedi, O. C. U., Amaewhule, W., & Nwafor, So. O. (2018). Capacity building needs of education lecturers in information and communication technology in universities. *African Journal of Educational Research and Development (AJERD)* 11(1), 145-158.