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TEACHER SKILL IN ICT AND TEACHING EFFECTIVENESS IN BUSINESS EDUCATION IN RIVERS STATE OWNED UNIVERSITIES

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ABSTRACT

The study examined the relationship between teachers skill in ICT and teaching effectiveness in Business Education in Rivers State owned Universities. The co relational research design was adopted for the study. two null hypotheses were formulated to guide the study. The population of the was 43 teachers in Rivers State owned universities and the sample size was 43 teachers using census sampling techniques. The instrument for data was the research designed questionnaire which was validated. Data were analyzed using Pearson Product Moment Correlation Coefficient. the result of the findings showed there is a significant relationship between teachers' skill in information and communication technology operation and the use of real world examples in teaching Business Education in universities in Rivers State. Based on the findings of the study, recommendations were made which include that the Rivers State ministry of education should revitalize and provide where necessary, information and communication gadgets in all the government owned universities in Rivers State.

Keyword: Teachers Skill, ICT, Teaching Effectiveness, Business Education

INTRODUCTION

Worldwide, the advent of information and technology communication (ICT) was seen by many practitioners and policymakers as being important for improving performance of teachers (Olokoba et al., 2014). Therefore, ICT applications have been used in administration and management in schools because of the belief that they facilitate administration activities from data storage to knowledge management and decision making (Ghavifekr et al., 2013). ICT promotes the sharing of valuable resources and collaborative teaching (Livingstone, 2012). Hammami (2016) indicates that ICT bridges forms ofknowledge and literacy and intersects places of learning including school, removing the traditional barriers that existed before its advent in terms of access tobooks, writing and databases among others.

Information and Communication Technology (ICT) is a major factor in shaping the new global economy and producing rapid changes in the society. Within the past few decades, the new ICT tools have fundamentally changed the way people learn, communicate and do business. They have produced significant transformation in educational sector, industries, agriculture, medicine, business, engineering and other fields. They also have the potential to transform the nature of education, where and how learning takes place and the role of students and teachers in the teaching-learning process.

Today's students are growing up in a world where ICT is an inescapable key component of daily life (Lee & Spires, 2009). According to Newbill and Baum (2013), the way the world works is being revolutionized by ICT. By today's standards, ICT envelops the future for which schools are charged with preparing their students (Ritzhaupt et al., 2012). With the advancements of ICT into mainstream life, ICT integration has rapidly

become a driving force in education (Dougherty, 2012). Some of these ICT tools include the computer, an interactive whiteboard, projector, email, the Internet, course specific software, and many other options available today. The teacher uses these tools to extend the student's knowledge level and they complement and enhance what a teacher does naturally.

Today teachers have access to innovative tools with which to enhance their curriculum. One of these ICT tools for effective instruction in the classroom is the Internet, which has given students a new way to do research, allowed teachers to offer a wider topic range, and made available an endless amount of information. Additionally, email connects teachers and students from all over the world so they can work collaboratively with other teachers and students anywhere in the world. Many teachers are allowing students to use the Internet as a source of information for research projects assignments.

Computer as ICT tool can help the teacher facilitate the knowledge-constructed classroom. Many researchers view computers as having a positive influence on the teaching and learning processes. These researchers have confirmed in their research with the use of computers in the classroom, that schools can become more student-centered and offer more individualized learning than ever before, thereby enhancing teacher effectiveness. In some situations, such as distance learning, students may never actually meet the teacher since all of the work for the class is completed online. Research completed by Roshelle, Pea, Hoadley, Gordin, and Means (2000) indicated that computers can be used in collaboration for all subject areas, but teachers must take into account the different styles of teaching and the students' different styles of learning in order to use them effectively.

Research hypotheses

The following hypotheses were tested at 0.05 level of significance:

1. There is no significant relationship between teachers' skill in ICT operation and active involvement of students in class in Tertiary Institutions in Rivers State.
2. There is no significant relationship between teachers' skill in ICT operation and the use of real-world examples in teaching Business Education in Tertiary Institutions in Rivers State.

Teachers' skill in ICT operation and active involvement of students in class

Skill is the ability to perform something well. Skill according to the business dictionary (2019) refers to the ability and capacity acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carryout complex activities or job functions involving ideas (cognitive skills), things (technical skills), and/or people (interpersonal skills). It is the ability to carry out a task with determined results often within a given amount of time, energy, or both which requires special training and knowledge. Besides Allyson (2019), who defines skill as a particular category of knowledge, abilities, and experience necessary to perform a job. Apart from being versed in the subject matter, teachers needs to be skilled in the use and application of ICT for appropriate instructional delivery. Acquisition of ICT skills by teachers will enabled better and swifter communication, presentation of ideas in a more effective and relevant way.

Watts-Taffe et al. (2003) found that teachers can act as catalysts for the integration of technology through ICT. If the encouragement, equipment, and necessary technological support are available from institutes for the teachers, developing an ICT

class will be easier for them. The main responsibilities of these teachers will be changing their course format, creating and explaining the new assignments, and arranging for the computer lab through their technology learning specialists or assistants.

According to Tezci (2011), teachers should learn not only how to use technology to enhance traditional teaching or increase productivity, but also should learn from a student centered perspective how ICT can be integrated into classroom activities in order to promote student learning. This means that teachers need to use ICT in more creative and productive ways in order to create more engaging and rewarding activities and more effective lessons (Birch & Irvine 2009; Honan 2008). Hence, Castro Sánchez and Alemán (2011) suggested that teachers keep an open mind about ICT integration in classroom. It is imperative that teachers learn new teaching strategies to adapt to the new instruments when teaching with technology. Brush, Glazewski and Hew (2008) found that pre-service teacher preparation does not provide sufficient ICT knowledge to support technology based instruction, nor does it successfully demonstrate appropriate methods for integrating technology within a curriculum. More training should be provided in pre-service teachers' curricula, and ICT skills must be applied in the classroom in order to integrate effective technology strategies (Supon & Ruffini 2009). it is important to note that subpar technical skills of teachers reduce access to ICT in classroom.

Teachers' skill in ICT operation and the use of real-world examples in teaching

As indicated by Reid (2002), ICT offers students more time to explore beyond the mechanics of course content allowing them to better understand concepts. The use of ICT also changes the teaching and learning relationship. Based on the findings of Reid's study, teachers reported that the relationship between teacher and learner is sometimes reversed with regards to information technology. This relationship boosts students' confidence when they are able to help teachers with technical issues in the classroom. Therefore, ICT changes the traditional teacher centered approach, and requires teachers to be more creative in customizing and adapting their own material.

Results of a previous research (Cox & Marshall, 2007) shows that teachers are having high confidence and competency in using ICT in classroom even though it does not represents the types of ICT used. This is because they believe that ICT is a tool could help in learning process especially to relate with real life practices. This factor has reformed the teaching method to integrate ICT in order to create and construct knowledge for the students.

In conjunction with preparing students for the current digital era, teachers are seen as the key players in using ICT in their daily classrooms. This is due to the capability of ICT in providing dynamic and proactive teaching-learning environment (Arnseth & Hatlevik, 2012). While, the aim of teachers' skill in ICT operation is to improve and increase the quality, accessibility and cost-efficiency of the delivery of instruction to students, it also refers to benefits from networking the learning communities to face the challenges of current globalization (Albirini, 2006).

More so, teachers skill in ICT operations affords teachers the opportunity to deliver their lectures in absentia, via audio or video tape which makes it easier for students to get these notes in the comfort of their homes. Teachers skill in Information Communication Technology (ICT) encourages collaboration by teachers who are domiciled in different parts of the world with the use of webcam or videoconferencing. This is why Mikre (2011) asserts that teachers skill in ICT encourages interaction and cooperation among teachers,

and experts regardless of where they are. Apart from modelling real world interactions, teachers skill in ICT-supported learning provides opportunity to work with students from different cultures, thereby helping to enhance learners' communication skills.

Teachers' skill in ICT operation in higher education institutions is perceived to be a major actor in building capacity and capability in addressing the changing global pedagogic needs which includes enhancing the delivery of content to a global education market (James, 2008).

Gregoire, et al, (1996), highlighted the access of cell phones during class time, cell phone technology continues its development and that device appears capable of contribution to students
learning and improved academic performance. For instance, modern "Smart phone" provide students with immediate capacities as an internet-connected computer such as online information
retrieval file sharing and interacting with instructors and fellow students (Tao & Yeh, 2013). This means that a student that is accessible to a cell phone can acquire knowledge any time both in class and outside class environment. These assist to accomplish assignments by learners.

Diffusion of Innovations Theory of Rogers (2003)

Diffusion of innovations, according to Rogers (2003) occurs through a five–step process. These stages through which a technological innovation passes are: Knowledge, Persuasion, Decision, Implementation and Confirmation. Whether or not an innovation is accepted depends entirely on the benefits it is perceived to bring to the adopter. Rogers further argues that an individual might reject an innovation at any time during or after the adoption process.

Explanation of the five stages of the innovation adoption process:

Knowledge: Here, the individual or organization is exposed to the innovation for the first time but does not have concrete information about it and is therefore inspired to find out more about the innovation.

Persuasion: At this stage would-be users develop a keen interest in the innovation and the individual actively seeks detailed information about it.

Decision: Here, the decision on whether or not to adopt the innovation is reached based on the supposed merits, comparative advantage and demerits of using it.

Implementation: At this stage, the individual puts the innovation into practice and assesses its usefulness depending on the situation and may be spurred into seeking more information about it.

Confirmation: At this stage the individual makes up his/her mind on whether to continue using the innovation or not. S/he may decide to use the innovation optimally, sparingly or reject it.

Additionally, Roger also explains the characteristics of innovation that foster or hamper its adoption.

Relative advantage – how better it is compared to what it replaces. The level of relative advantage can be measured not only in economic terms but also the social prestige it brings to the user, the convenience of its use and the amount of satisfaction the user derives from it.

Compatibility –its consistency with existing values, past experiences and needs of potential adopters. The speed with which an innovation diffuses to the general public also depends with its compatibility with societal values and norms.
Conversely, adopting an innovation that contravenes societal norms and values more often than not necessitates the changing of the value system of the society in question so that there is compatibility with the new innovation. Needless to say, it takes a very long time for any society to form a value system and even more so to change one.
Complexity –the ease with which the technology can be used. Naturally, some innovations do not necessitate the acquisition of new skills and knowledge in order to be understood by potential users. On the other hand, others are not easily comprehensible and call for would- be users to acquire new knowledge and skills on how to use them. The easier it is to understand an innovation the quicker it will be to diffuse it and the reverse is also true.
Trialability –this has something to do with the level at which the new innovation can be experimented on. Many people would adopt an innovation in an incremental manner. They would rather have a piecemeal add-on process of adoption than adopting it wholesale. So, the more trialable an innovation is, the better its chance of adoption.
Observability –this simply means the visibility of its results to others. If the results of a new innovation can easily be observed by peers then it is a lot easier to spread it to the general population because it becomes a topic of discussion consequently spurring interests among members of a social group and hence giving it a better chance of adoption.
In order to understand how individuals respond to new innovations in a system, the classification of people in different adopter categories will be fundamentally important.

Research Design

The study adopted the correlational research design. This is because the study intends to ascertain the relationship between Information and Communication Technology utilization and teachers' effectiveness in Business Education in Rivers State owned tertiary institutions. This research design is also appropriate because it agrees with Nwankwo (2016) who opined that correlational research design usually seeks to establish the relationship which exist between two or more variables.

Population of the Study

43 teachers in the Department of Business Education constituted the population of the study. This consisted of 13 teachers in the Department of Business Education, Ignatius Ajuru University of Education and 30 teachers in the Department of Business Education, Rivers State (source: Registrar's office, IAUE and RUS, 2023).

Sample and sampling technique

43 teachers were sampled for the study using the Census sampling technique. The 43 teachers were sampled for the study since the population of the study was small and was not large enough for any randomization.

Instrument for Data Collection

The instruments for data collection for the study was the researcher's designed 20-item questionnaire titled "Information and Communication Technology Utilization and

Teachers' Effectiveness Questionnaire (ICTUTEQ). The questionnaire was divided into two sections: A and B. Section A elicited the demographic data of the respondents, while items in section B were used to answer the research questions. The scoring and rating scale which were used to rate the instrument were: Strongly Agree (SA)=4, Agree (A)=3, Disagree (D)=2, Strongly Disagree (SD)=1.

Validation of the Research Instrument

The instrument was validated by the researcher's supervisor and two other specialists. One from the Department of Business Education and the other from measurement and evaluation in the Department of Educational Psychology, Guidance and Counseling in the Faculty of Education, Ignatius Ajuru University of Education for content and face validity. These experts carefully and critically examined the instrument in terms of relevance, content clarity and difficult level. The instrument was modified after due scrutiny from the specialists for face and content validity.

Reliability of the Instrument

The test-retest method was used in determining the reliability of the instrument. The instrument was pre-tested on 20 teachers in University of Port Harcourt who were not a part of the study to assess the reliability of the instrument. The reliability coefficient of the instrument wasdetermined using Pearson product moment correlation coefficient which gave a reliability index of .73. The instrument was therefore adjudged to be reliable for the study.

Administration of Instrument

The instrument was personally administered by the researcher, with the assistance of two trained research assistants. The researcher informed the research assistants on the methods of administering the questionnaire. To ensure maximum returns of the questionnaire, the copies of the questionnaire were administered and collected on the spot. All the 43 copies of the instrument that were administered were retrieved and used for analysis.

Method of Data Analysis

Data collected were analyzed using mean and standard deviation to answer the research questions, while Pearson Product Moment Correlation Coefficient was used to test the null hypotheses at 0.05 level of significance.

Results

Null hypothesis one: There is no significant relationship between teachers' skill in ICT operation and active involvement of students in class in Tertiary Institutions in Rivers State.

Correlation coefficient between teachers' skill in ICT operation and active involvement of students in class

		Teachers skill in ICT operation	Active involvement of students
Teachers skill in ICT operation	Pearson Correlation	1	.730**
	Sig. (2-tailed)		.000
	N	43	43

Active involvement of students	Pearson Correlation	.730**	1
	Sig. (2-tailed)	.000	
	N	43	43

**. Correlation is significant at the 0.01 level (2-tailed).

Table above showed the Correlation coefficient between teachers' skill in ICT operation and active involvement of students in class in Tertiary Institutions in Rivers State. The correlation between teachers' skill in ICT operation and active involvement of students in class was significant at (r=.730, p<.000). Therefore, the null hypothesis is rejected. This means that there is a significant high positive relationship between teachers' skill in ICT operation and active involvement of students in class in Tertiary Institutions in Rivers State.

Null hypothesis two: There is no significant relationship between teachers' skill in ICT operation and the use of real-world examples in teaching Business Education in Tertiary Institutions in Rivers State.

Correlation coefficient between teachers' skill in ICT operation and the use of real-world examples in teaching Business Education

		Teachers skill in ICT operation	Use of real world examples in teaching Business Education
Teachers skill in ICT operation	Pearson Correlation	1	.640**
	Sig. (2-tailed)		.002
	N	43	43
Use of real world examples in teaching Business Education	Pearson Correlation	.640**	1
	Sig. (2-tailed)	.002	
	N	43	43

**. Correlation is significant at the 0.01 level (2-tailed).

Table above showed the Correlation coefficient between teachers' skill in ICT operation and the use of real-world examples in teaching Business Education in Tertiary Institutions in Rivers State. The correlation between teachers' skill in ICT operation and the use of real-world examples in teaching Business Education was significant at (r=.640, p<.000). Therefore, the null hypothesis is rejected. This means that there is a significant moderate positive relationship between teachers' skill in ICT operation and the use of real-world examples in teaching Business Education in Tertiary Institutions in Rivers State.

Discussion of Findings

Findings in hypothesis one shows that there is a significant relationship between teachers' skill in ICT operation and active involvement of students in class in Tertiary Institutions in Rivers State. This finding agrees with the finding of Lindfors (2007) who conducted a study and his findings revealed that teachers skill in ICT operation wield immense powers in influencing the use of ICT by students. He asserted that the teacher's skill and confidence in using ICT influenced the degree to which his students used the

same. This means that the teacher determines to a large extent, the extent of ICT use by the students. Also, the finding of the study is in consonance with the views of Moeller and Reitzes (2011) who opines that teachers skill in ICT operation allows teachers to diagnose and address individual needs, making it easier for them to act as guides and advisors. Moreover, teachers skill in ICT operation facilitates the repetition of tasks; for instance, weaker students can repeat tasks if necessary, while stronger students can proceed to higher-level tasks. Again, the finding of the study is consistent with the views of Motschnig-Pitrikq and Holzinger (2002) who states that with teachers skill in ICT operation, students can freely explore different forms of learning material and solve problems independently, which enhances their creativity, self-management and higher-order thinking skills.

Findings in hypothesis two shows that there is a significant there is a significant relationship between teachers' skill in ICT operation and the use of real-world examples in teaching Business Education in Tertiary Institutions in Rivers State. The finding of the study supports the views of Mikre (2011) who asserts that teachers skill in ICT encourages interaction and cooperation among teachers, and experts regardless of where they are. Apart from modeling real world interactions, teachers skill in ICT-supported learning provides opportunity to work with students from different cultures, thereby helping to enhance learners' communication skills. Also, the finding of the study is in agreement with the views of James (2008) who stresses that teachers' skill in ICT operation in higher education institutions is perceived to be a major factor in building capacity and capability in addressing the changing global pedagogic needs which includes enhancing the delivery of content to a global education market. Furthermore, the finding of the study is in tandem with the views of Moeller and Reitzes (2011) who observes that the teachers' effective skill in ICT operation and integration in education can yield an invaluable learning experience that can motivate students to become lifelong learners. For instance, teachers can use ICT to produce authentic and challenging tasks, and this can stimulate inquiry and curiosity among students, helping them to relate their knowledge to issues in the real world.

CONCLUSION

Information and Communication Technology greatly enhance the effectiveness of teachers. The information and communication technology functions as a link in the teaching/learning experience. The teaching in higher institutions could be herculean to the teacher. To this end, the information and communication technology could help the teacher for effective lesson delivery and enhanced students' actively involvement in the teaching/learning experience.

RECOMMENDATIONS

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

(1) There is the need for retraining programmes for teachers in higher institutions in the utilization of ICT gadgets in the classroom.
(2) There is the need to encourage non-governmental organizations and public-spirited individuals to help in providing these ICT gadgets in the higher institutions in the state.

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