



**EXTENT OF AWARENESS AND ADOPTION OF ZOOM TECHNOLOGY IN  
TEACHING AND LEARNING AMONG LECTURERS' IN COLLEGES OF  
EDUCATION, ANAMBRA STATE**

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**Abstract**

There is need for lecturers of Colleges of Education to enjoy the enormous benefits of Zoom technologies and tools which students use mainly for entertainment and recreation. This necessitated this investigation on the extent of awareness and adoption of zoom technology in teaching and learning among lecturers in colleges Education in Anambra State. Three research questions guided the study. A survey research design was adopted for the study. Population of the study was 1050 lecturers with a sample size of 50 lecturers in the two Colleges of Education (one State and one Federal ) in Anambra State. The research instrument was a structured 4-point scale questionnaire validated by two experts in science Education and one from measurement and evaluation. The instrument was analyzed using mean and standard deviation. The study found out that the respondents were highly aware of Zoom technologies and adopt Zoom technologies for teaching and learning to a very low extent. It was recommended, among others, that management of Colleges of Education should organize seminars, workshops and training for their lecturers on the usage of Zoom for educational activities.

**KEYWORD: Awareness, Adoption, Zoom technology, colleges of Education lectures**



## Introduction

It is widely accepted that the future is going Information age where every nations prosperity will depend on its ability to process information. Therefore being disconnected from this age is as equivalent of non- existence. Information Communication Technology (ICT) is an umbrella term that includes any communication device or application. Encompassing, radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as video-conferencing and distance learning.

According to Sharma (2009), ICT are diverse set of technological tools and resources used to communicate and to create, disseminate, store and manage information. According to Onuselogu (2016) Information communication Technology enables the documentation of knowledge and support the creation and sharing of knowledge in the same was as it does with information. ICT are set of technological facilities systematically and scientifically harnessed for transmission of information from one point to another, ICT is communication made easy. The field of education has been affected by ICTs, which have undoubtedly affected teaching, learning and research. Great deal of research has proven its benefit to the quality of education. Further more, ICT facilities have brought tremendous changes in the way the students learn, with the global networking, new avenues and resources of learning are available. ICT facilities are as follows; computer, audio and video machine, faxmachine.

Teaching is an attempt to assist people to acquire some skills, attitudes, knowledge or ideas. Teaching is also an interaction between teachers and students under the auspices and responsibilities of the teacher in order to bring about the expected change in the students` behavior. It involves the process of assisting the learner to gain useful skills, attitudes, knowledge, ideas; values in an arranged or unarranged environment that will assist the learner become an acceptable person to the society as well as be independent in life. Teaching is an exchange of ideas between a teacher and a student(s) on how to learn through the use of instructional methods and technologies. Teaching is an interaction between teachers and



students, students and students, students and environment under the auspices and responsibilities of the teacher in order to bring about the expected change in the students behavior through the use of instructional methods and technologies The use of Zoom technology in teaching and learning by lectures depends on the use of instructional methods, environment and technologies which may be old or new technologies.

College of Education is the unit of tertiary education in Nigeria saddled with the responsibility of training teachers to obtain non-degree but qualitative professional certificate in education. The origin of Colleges of Education in Nigeria dates back to the 1950s. In the report of Ashby Commission of 1959, it is evident that there was a need to provide middle level manpower to meet Nigerian needs in the area of teaching. Ashby observed that many teachers were not certificated and trained in computer skills, this observation was followed by a suggestion for greater expansion of intermediate education for intermediate teachers, which was targeted at upgrading the existing teaching force (Isiyaku, 2007). The philosophy underpinning teachers education at the Colleges of Education as pointed out by Isiyaku , includes the desire of the Nigerian Government to ensure uniformity of content and educational standard. It also aimed at producing teachers with high technology literacy and professionals and teachers who are dedicated, and with appropriate skills and intellectual depth that would facilitate easy achievement institutional goals. . Zoom is the leader in modern enterprise video communications, with an easy, reliable cloud platform for video and audio conferencing (Maggie Tillman, 2021). He asserts that Zoom was founded in 2011 by Eric Yuan and launched its software in 2013. During the COVID-19 pandemic, zoom saw a major increase in usage for remote work, distance education and online social relations. Thousands of educational



institutions switched to online classes using zoom. Maggietillman (2021) describe the main features of Zoom as;

**Video communications:** allow educational institutions to expand their impact across geographies to reach more students and offer new learning opportunities from guest lecturers, to research among institutions, to reaching students off campus. Regardless of whether it is known as e-Learning or distance learning, the use of video communications increases productivity, reduces training costs, allows access to subject matter experts (regardless of location), and offers students real-time, immediate access to classes and course materials. The combination of multimedia and instructional design, coupled with practice activities and feedback, results in a learning environment that helps students retain course content. Learners need control of their time and e-Learning gives them the opportunity to learn from anywhere at any time (Ann Earon, 2017). To remain competitive and increase revenue, educational institutions need to use video communications to reach existing and new students, provide access to outside experts, collaborate with other institutions, and virtually communicate with students, faculty and staff.

**One-on-on meetings:** host unlimited one-on-one meetings even with the free plan.

**Screen sharing:** Meet one-on –one or with large groups and share your screen with them so they can see what you see.

**Recording:** you can record your meeting or teaching and learning.

### **Statement of the problem**

The researchers are worried that students in colleges of education seem not to harness the enormous potentials of Zoom technologies as they are constantly busy with their laptops and mobile phones taking pictures, chatting, updating profiles even when classes/lectures are on. This ugly situation could be traced to whether or not lecturers in colleges of education are aware of Zoom and whether they adopt it in the teaching and learning process. Ezenwafor (2012) affirmed that the extent students are exposed to the use of technologies depends on lecturers' use of technologies to engage them in practice sessions. Although studies have been conducted on the use of Zoom in education in Nigeria, none to the best of the researchers' knowledge sought lecturer's opinion on awareness and adoption of Zoom for specific educational instruction. This



study therefore sought to ascertain the extent of awareness and adoption of Zoom technology for teaching and learning in Colleges of Education in Anambra State.

### **Purpose of the Study**

The main purpose of the study is to examine the extent of awareness and adoption of Zoom technology for teaching and learning in Nwafor Orizu College of Education, Anambra State. Specifically this study sought to:

1. Determine the extent of lecturers' awareness of zoom technology in teaching and learning in colleges of Education in Anambra State.
2. Determine the extent of lecturers' adoption of zoom technology in teaching and learning in Colleges of Education in Anambra State.
3. Determine the factors limiting the adoption and use of zoom technology in teaching and learning in Colleges of Education in Anambra State.

### **Significance of the Study**

This research work will be of great importance to lecturers in Colleges of Education, student, school administrators and other researchers.

This research work will be of great help to College of Education lecturers hence aiding them to know the use of modern technology such as zoom and understanding its effect on their students. This research work will also review the academic performance of students.

This research work will be of great help to students as it will aid them see other means to which Information and Communication Technology can be learnt and aid them to improve in their studies. The study will also help the students to know the effect of zoom on their academic performance.

This research work will also be of help to school administrators, hence providing a possible solution on how to solve the problem facing the development of business education by providing the business educators with modern technology facilities which will aid them in teaching of business education in Universities.

This research work will be a source of reference to future researchers who may embark on a relative topic and help them in presenting relevant information to the society.



### **Scope of the Study**

The scope of the study is delimited to the extent of awareness and adoption of Zoom technology for teaching and learning among lecturers in Colleges of Education, Anambra State. Therefore, this study was carried out in two (one State owned College of Education and one Federal) government owned Colleges of Education in Anambra State.

### **Research Questions**

The following research questions will guide the study:

1. To what extent do Lecturers use zoom technology in teaching and learning among lecturers' in Colleges of Education in Anambra State?
2. To what extent do lecturers' adopt and use zoom technology in teaching and learning in among lecturers' in Colleges of Education in Anambra State?
3. To what extent do these factors limit the adoption and use of zoom technology in teaching and learning among lecturers' in Colleges of Education in Anambra State?

### **METHOD**

The study used a descriptive survey. According to Nworgu (2015) descriptive survey research are those studies which aim at collecting data and describing in a systematic manner the characteristics features or facts about a given population. Survey research is of paramount important because it is determinant factor in the choice of the population and sample to be studied.

### **Area of the Study**

This study is being carried out in Anambra State. Anambra State is composed of civil and public servants, traders, partisans, farmers. Hence, there is need to find out the extent of awareness and adoption of Zoom technology by lecturers in Colleges of Education in carrying out their duties effectively in this modern age of computer and technology. This should help the graduates of these colleges in their workplace and in any business they will engage in.

### **Population of the Study**



The population of the study comprises 1050 lecturers' in the two (2) two Colleges of Education (one state and one federal) in Anambra State.

### **Sample and Sampling Techniques**

The sample for the study consist of 50 lecturers from the two colleges of Education, one State and Federal owned College of Education in Anambra State. The sampling was done using accidental sample technique to select 50 lecturers from the two Colleges of Education in Anambra State.

### **Instrument for Data Collection**

The instrument for data collection is through questionnaire. The questionnaire is carefully prepared by the researcher to provide answers to the research questions. The questionnaire has 20 items. There are 3 sections in the questionnaire.

### **Method of Data Collection**

The researcher administered copies of the questionnaire to the respondents personally without any assistance. Copies of the questionnaire were filled by the respondents and were collected back immediately; this was to ensure high percentage of returned questionnaire and to avoid bias.

### **Method of Data Analysis**

The administered questionnaire after collection was analyzed using mean scores and standard deviation so as to achieve answer to the research questions. The following four-point scale was used: Very High Extent (VHE), High Extent (HE), Low Extent (LE), Very Low Extent (VLE). Each of the response option was weighed with the following values.

VHE = 4

HE = 3

LE = 2

VLE = 1

### **Decision rule**

In this regard, 2.5 is the acceptance level. Therefore, the response with the mean score of 2.5 and above was accepted as indicator of very high extent whereas the mean score 2.4 below was regarded as indicator of high extent. Mean score with 2.0 below was regarded as low extent and mean score with 1.0 below was regarded as very low extent.

### PRESENTATION AND ANALYSIS OF DATA

The data collected for this study are presented here in sections and analyzed using means scores. Data for each research questions were collected and fully analyzed for easy comprehension, interpretation and discussion. The following sections presented the results.

**Research Question 1:** Extent of lecturers' awareness of zoom technology in teaching and learning in colleges of Education in Anambra State.

S/N	Items	$\bar{X}$	SD	Remark
1	Knowledge of digital Technology	2.5	0.8	High Extent
2	Use phones that can access the internet	2.0	1.2	Low Extent
	Have Zoom enabled phones	2.0	1.1	Low Extent
4	Use Zoom application on their phones	1.9	1.1	Low Extent
5	Have access to internet data collection	1.8	1.0	Low Extent

The result in the table 2 revealed that the item 1 indicates the High Extent to which lecturers are aware of Zoom technology in teaching while the items 7,8,9,and 10 was of Low Extent.

**Research Question 2:** Extent of lecturers' adoption of zoom technology in teaching and learning in Colleges of Education in Anambra State

S/N	Items	$\bar{X}$	SD	Remark
6	Use Zoom to pass across information to students	1.9	1.9	Low Extent
7	Chat with students on topic that have been taught in class	1.5	0.6	Low Extent
8	Helps students in explanation of difficult aspect of their subject	1.6	0.9	Low Extent
9	Send links to web address for students to get access of information online	1.7	0.9	Low Extent
10	Give assignments to students to	1.5	0.7	Low Extent



assess their abilities through Zoom

11	Teach students at a convenient time	1.6	0.9	Low Extent
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The result revealed that the items on 6, 7, 8, 9, 10 and 11 indicates Low Extent to which lecturers’ adopt Zoom in teaching and Learning in Colleges of Education in Anambra State.

**Research Question 3:** What factors limiting the adoption and use of zoom technology in teaching and learning in Colleges of Education in Anambra State

S/N	Items	$\bar{X}$	SD	Remark
12	High cost of maintenance of Zoom app due to its consumes much data	2.4	1.2	High Extent
13	Some Students cannot afford Zoom enabled phones	2.1	1.1	High Extent
14	It distracts students when studying	2.3	1.2	High Extent
15	Reduce respect on the part of the teacher	1.3	0.7	Low Extent
16	Unstable network service	2.5	1.5	Very High Extent
17	Method used by the educator’s	2.7	1.6	Very High Extent
18	Degree of acceptance both by teachers and students	2.2	1.1	High Extent
19	Motivation, interest and Enthusiasm	2.5	1.5	Very High Extent
20	Self- efficacy and time Management	2.9	1.7	Very High Extent

The result in Table 3, revealed that items on 16,17,19 and 20 indicates Very High Extent to which these factors limit the adoption of Zoom by lecturers in teaching and learning in Colleges while items on 12, 13, 14 and 18 shows High Extent and Item no 15 indicates Low Extent to which these factor affect teaching and learning in Colleges of Education in Anambra State.

**Summary and Discussion of the findings**

It was found out that high percentage of lecturers’ are aware of Zoom technology but do not have phones that could surf the web and those who have phones that could surf the web do not make use of the Zoom application on their phones. Those who wish to make use of this technology are hindered by some factors, which include: unstable network service, disrespect from students, students not having money to afford phones that uses the Zoom technology, it



could also distract students from studying amongst others. This create the poor adoption of the Zoom technology in teaching and learning in Colleges of Education in Anambra State.

Findings of the study regarding the extent lecturers are aware of Zoom technologies, showed that lecturers in Colleges of Education in Anambra State were aware of Zoom to a high extent. This finding is in disparity with the findings of Mtega, Dulle, Malekani and Chailla (2014) who reported that teaching staff in Tanzania are not aware of Zoom tools. This finding is however in agreement with the findings of Ajise and Fagbola (2013) who reported a high level of awareness of Zoom by lecturers in tertiary institutions in Nigeria. Zoom technologies which Colleges of Education lecturers' are aware of most include Facebook, Wikis, Twitter, WhatsApp and online discussion forum. Lecturers awareness of these technologies could be as a result of the presence of Zoom application in smartphones, tablets, netbooks which people use for day-to-day communication and interaction. With regards to the awareness and adoption of Zoom technologies for teaching and learning, Twenty research questions were listed using Zoom for class interaction. The adoption of eleven activities out of the twenty activities was rated low extent while the adoption of five out of twenty were rated as high extent the remaining 4 activities was rated very high extent by the respondents. On the other hand, a mean of 1.41, which fell within the range of very low extent, indicated that respondents adopted Zoom technologies for teaching and learning to a low extent. This finding is in line with the findings of Olasina (2011) who reported a low adoption of Zoom in teaching and learning processes among lecturers in tertiary institutions. Light and Polin (2010) emphasized that the use of Zoom enhanced interaction and communication among students, between students and teachers and among educators. In addition, Weller (2013) noted that teachers need to be able to interact and deliver lessons in or out of class using Zoom technologies as it is not only beneficial for students' class tasks, but a fun to use. Echeng (2013) recommended that a better learner centered approach can be achieved when education and training institutions adopt 21st-century technologies like Zoom to improve learner engagement.

### **Conclusion and Implications of the Study;**



It is concluded from the findings that awareness of Zoom technologies has not resulted in its adoption in the instructional process. Lecturers' degree of awareness of these Zoom application is not matched with their utilization for class instruction. This implies that teaching and learning in Colleges of Education in Anambra State is not structured around learners' interest as to allow the learners to seek appropriate resources and to support the development of learning outcomes of contemporary learners.

### **Recommendations**

In the light of the findings and conclusion of the study, the researchers proffer the following recommendations:

- 1) Management of Colleges of Education in Anambra State should provide electronic learning facilities such as computer studios with high-speed internet access facilities to enable lecturers and students have adequate access to the Zoom.
- 2) Lecturers' of all age brackets should keep abreast of emerging Zoom technologies and adopt same for instruction to effectively cater for the learning needs of tomorrow's learners. This is to ensure that all business educators are attuned with the current methods and application of web technologies in education.
- 3) Colleges of Education management and professional bodies should organize workshops, symposia and seminars to train business educators on the use of Zoom technologies. This would strengthen lecturers' teaching and learning capabilities.

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