



**POSSIBLE USAGE OF ZOOM VIDEO CONFERENCING TOOL FOR
LECTURING IN FEDERAL POLYTECHNIC, MUBI ADAMAWA
STATE, NIGERIA**

**1BULUS LUCY DALHATU, 2WILLIAMS BETTY TEMITOPE &
3MUSTAPHA KASSIM**

*1, 2, 3 Department of Computer Science, Federal Polytechnic, Mubi, P.M.B.
35, Mubi Adamawa State, Nigeria*

ABSTRACT

Zoom Video conferencing tools have been widely adopted by Nigerians. It has been daily use in people's life, either for communication, research, social activities or any other purpose including academics and vacations. The study takes a look at the possible usage of zoom video conferencing tool for lecturing in Federal Polytechnic, Mubi Adamawa state. The study conducted in the institution and the survey form was employed where 100 copies of questionnaire were issued out as the research tool. A stratified sampling technique was used across three sample Departments (Computer Science, Computer Engineering and Office Technology and Management) with a total population of 100 Academic Staff, 98 questionnaires were returned and used. From the results, we reject the null hypothesis and accept the alternative hypothesis. Hence conclude that lecturers in Federal Polytechnic, Mubi are not using the zoom video conferencing tool for lecturing despite the fact that they are aware zoom video conferencing is good for teaching and learning process. The result also showed that despite the existence of Zoom in the information age, lecturers' passion for zoom and desire to use it for lectures is very minimal and so they depend on the conventional method. This is a situation that needs to be addressed by government, educational institutions and Federal Polytechnic Mubi at large.

Keywords: *Zoom, Usage, Video Conferencing and Tools*

INTRODUCTION

Zoom video conferencing tool is a collaborative, cloud-based videoconferencing service offering features including online meetings, group messaging services, and secure recording of sessions. As with comparable platforms like Skype, Zoom offers the ability to communicate in real time with geographically dispersed individuals via computer, tablet, or mobile device. More so, Zoom possesses a number of additional advantages that enhances potential research. A key advantage of Zoom is its ability to securely record and store sessions without recourse to third-party software. This feature is particularly important in research where the protection of highly sensitive data is required. Other important security features include user-specific authentication, real-time encryption of meetings, and the ability to backup recordings to online remote server networks (“the cloud”) or local drives, which can then be shared securely for the purpose of collaboration (Lo *et al.* 2016). According to Mandy *et al.*, (2019), advances in information and communication technologies offer new opportunities, yet research into the use of digital technologies as data collection tools is still at an early stage. Key advantages of digital technologies include:

- i. Increased use of electronic devices worldwide;
- ii. Convenience and cost-effectiveness of online methods compared to in-person, particularly when conducting research with participants over a large geographical spread; and
- iii. The understanding that online methods can replicate, complement, and possibly improve upon traditional methods.

The importance of using Zoom cannot be underestimated; it is the vehicle of thought and communication that derive the population of learners especially during the COVID 19 pandemic.

People are living in a world where technology is omnipresent. Due to the ubiquitous presence of technology the pedagogy of teaching methodology has also undergone a mighty change. The phrase “Online distance learning” has become the eminent word in educational environment. Infusing technology into education is really important as it caters the needs of the contemporary learners. The classroom environment, today, is completely different from the traditional classroom. The technological component of learning is constantly growing. More and more classes are taking place online, yet rather than simply being a substitute for classroom courses, they can be blended with a classroom-based approach (Guzacheva, 2020).

The widespread use of methods, activities and tools of Computer Assisted Learning enabled many lecturers all over the world, enhance their lecturing and

maximize learning opportunities for their students. More so, many high schools on the one hand and households on the other have computers and Internet access to make technology-assisted learning possible as seen in the developed countries. The online distance learning tools are changing the world we live in and the way we learn to live. One of these software-based conference room solutions is Zoom technology. It helps; lecturers bring their students together in a frictionless environment to get more done. Zoom is the leader in modern enterprise video communications, with an easy, reliable cloud platform for video and audio conferencing, collaboration, chat, and webinars across mobile devices, desktops, telephones and room systems (Guzacheva, 2020).

According to Watson *et al.* (2017), in addition to screen sharing, Zoom allow lecturers to record their lessons to the Cloud and turn recording ON and OFF as many times as they like during a lesson, if the lecturer enables this feature. Lecturers can record lessons and watch them again to assess students' strengths and weaknesses and learners can self-assess their skills by watching recorded lessons. Students can watch the recorded lessons in a sequence to see their improvement over time. Zoom grants lecturers to present the content of their lessons in various ways. Zoom's screen sharing can give lecturers a great opportunity to develop students' intercultural skills by sharing engaging materials such as videos, articles and presentations.

Online distance learning in educational process has become a very important tool in the education and today it caters to the needs of modern-day learners. Infusing technologies in classroom learning have added to stimulus and enhanced learner's interaction within the classroom. Distance learning has a vast presence in almost every field, (Beldarrain, 2006).

Computer Science is about solving problems using computer techniques. One of its resultant effects on the environment is the marriage of Information and Communication Technology (ICT). Information and Communication Technology (ICT) is greatly transforming the world, making the world a global village. This is possible through the Internet and several internet-based applications such as social media, news and information, entertainment, email services etc. These applications are now more popular in Africa, especially in Nigeria through the wide spread of mobile devices and its application software like the Zoom (Osisanwo, Ajaegbu, and Akande 2014).

According to Mandy, Rachel, Mavourneen and Michael, (2019), advances in ICT offers new opportunities for research participants, yet research into the use of digital technologies as data collection tool is still an early stage. A key advantage of digital technologies for research includes:

- a. Improved internet access and increase use of electronic devices world wide

- b. Convenience and cost effectiveness of online methods compared to in-person interviews or focus groups, particularly when conducting research with participants over a large geographical spread.

Advantages of Using Zoom Video Conferencing Tool

- i. In the Zoom Rooms communication, one can stream dual screen for different users at the same time.
- ii. It provides dynamic voice detection capacity to enhance the standard of virtual meetings
- iii. Users can enjoy group collaboration for different operating systems such as Mac, Windows, iOS and Android
- iv. It supports high quality desktop and application sharing
- v. Zoom features hybrid cloud service with private cloud Meeting Connector and virtualized setup
- vi. It also offers 24×7 online monitoring
- vii. It also provides admin feature control options for better security
- viii. It has waiting room to engage audience before the beginning of the conference
- ix. It has whiteboard for easier collaboration

Limitations

- a. Difficulty in connections. Despite finding Zoom to be user-friendly, 75% of the users experience some of difficulty in joining session at any time they use zoom due to low Internet bandwidth, out-dated hardware, or microphone functionality. As a result most experience frustration
- b. Sound quality, video quality, and live feedback.

OBJECTIVES

The aim of the research is to determine if the lecturer in Federal Polytechnic, Mubi are using Zoom video conferencing tool in terms of lecturing. Specific objective of the study is to:

- i. find out the level of zoom usage among lecturers
- ii. examine if the lecturers have interest in using zoom for lecturing and
- iii. Find out the percentage of lecturers using the zoom video conferencing tool.

Research Question

Are lecturers of Federal Polytechnic, Mubi using the zoom video conferencing tool in teaching-learning process?

Hypothesis

H0: Zoom conferencing tool is used for teaching-learning process by lecturers in Federal Polytechnic Mubi.

H1: Zoom conferencing tool is not used for teaching-learning process by lecturers in Federal Polytechnic Mubi

MATERIAL AND METHOD

Questionnaire was used to find out the respondents view if actually they are familiar and are using zoom video conferencing tool in lecturing. One hundred Questionnaires were issued out to respondents of three sampled Departments (Computer Science, Computer Engineering and Office Technology and Management) Federal Polytechnic Mubi, Nigeria.

Instrument for Data Collection

The research instrument is the questionnaire, titled “Possible Usage of Zoom Video Conferencing Tool for lecturing in Federal Polytechnic, Mubi Adamawa State, Nigeria” was administered to respondents.

RESULTS AND DISCUSSION

One hundred questionnaires were issued out, ninety eight (98) were returned filled; respondents’ sex and age groups were specified.

From Table 1, the study revealed that 69% of the population are men, while 31% are female. The study further examined age groups, 25-34, 35-44, and 45 & above representing, 36%, 46% and 18% respectively in Table 2. Based on this research, energised men/women engaged much in the use of Zoom video conferencing tool.

From Fig.1, a very good number of lecturers have access to computer and in their respective Departments they also have laboratories (55-90%), while lecturers that know and are not using the zoom video conferencing are from 43-82%, which shows that lecturers are using the zoom but not for lecturing.

In terms of using the zoom video conferencing for lecture, very few append to that. We further established the fact that zoom video conferring tool is good for lecturing and lecturers have not been using it nor any of the video conferencing tools like Skype or Google classroom as seen in 48% to 52% respectively from the graph.

Table 3 shows users and Non-users of Zoom conferencing tool while Table 4 shows the chi-square distribution. From Table 4, we reject the null hypothesis and accept the alternative hypothesis hence, conclude that lecturers knows zoom video conferencing tool but are not using it for lecturing in Federal Polytechnic, Mubi.

CONCLUSION

The study was carried out with the intention to explore the effectiveness of Zoom for lecturing purposes and to guide on how zoom video conferencing tool can be successfully used to complement the conventional method of teaching and learning process. Zoom and similar technologies are likely to make important contributions to teaching-learning process in the future.

Finally, if lecturers in Federal Polytechnic, Mubi will use Zoom video conferencing tool for lecturing, students will appreciate that their lecturers are few miles away from them. The technology approach of Zoom video conferencing enhances positive learning outcomes for diverse groups of students as well as encouraging higher education in remote areas while potentially reducing workloads for lecturers.

RECOMMENDATIONS

Amidst the COVID 19 pandemic, lecturers and students around the world are frustrated and so find it useful to use the online distance learning. This enables robust collaboration and encouragement for any school: Zoom video conferencing tool has become an indispensable technology for the way we work, lecture and learn together. Below are some of the recommendations for using zoom video conferencing tool:

- i. Zoom video conferencing tool should be encourage and use by all lecturers in institutions of higher learning to curtail incidences like the COVID 19 (Zoom is Simple and user friendly).
- ii. Zoom video conferencing tool should also be used by other staff in conducting meetings due to its advantage of Privacy and security (The ease with which many participants securely logged into Zoom using a standard username).
- iii. Zoom video conferencing tool existence in the information age, therefore lecturers' should have passion and desire to use it for lectures and stop over dependant on the conventional method.
- iv. Government, Educational Institutions and Federal Polytechnic Mubi at large should addressed the situation of non-using of Zoom video conferencing tool for lecturing.

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APPENDIX

Table 1: Respondents Sex

Sex	Frequency	Percentage (%)
Male	68	69
Female	30	31
Total	98	100

Source: Field Survey, 2021

Table 2: Respondents Age group

Age group	Frequency	Percentage (%)
25-34	35	36
35-44	45	46
45 & above	18	18
Total	98	100

Source: Field Survey, 2021

Table 3: Users and Non-users of Zoom conferencing tool

No./Responses	Yes	No	Total
1	30	68	98
2	20	76	96
3	9	87	96
4	11	85	96
5	46	50	96
6	15	81	96

Total	131	447	578
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$$C_{ij} = \frac{(Rx C)}{G}$$

Table4: Chi-square computational table

O	E	(O-E)	(O-E) ²	(O-E) ² /E
30	22.21	7.79	60.6841	2.73
20	21.76	-1.76	3.0976	0.14
9	21.76	-12.76	162.8176	7.48
11	21.76	-10.76	115.7776	5.32
46	21.76	24.24	587.5776	27.00
15	21.76	-6.76	45.6976	2.10
68	75.79	-7.79	60.6841	0.80
76	74.24	1.76	3.0976	0.04
87	74.24	12.76	162.8176	2.19
85	74.24	10.76	115.7776	1.56
50	74.24	-24.24	587.5776	7.91
81	74.24	6.76	45.6976	0.62
				57.91

X² = chi- square value, O = observed value, E = expected value

$$X_{tab}^2 = (R - 1)(C - 1),$$

$$df = (6-1)(2-1) = 5,$$

$$5, 5\% = 11.070$$

$$X_{cal}^2 = \sum_{i=1}^n \frac{(O_{ij} - E_{ij})^2}{E_{ij}}, \quad X_{cal}^2 = 57.91$$

Decision Rule: $x_{cal}^2 > x_{tab}^2$ that is, $H_0 > H_1$ we reject the H_0 and accept H_1

We reject the null hypothesis and accept the alternative hypothesis. Hence conclude that most people are not using the zoom conferencing tool in Federal Polytechnic, Mubi.