



APPLICATION OF INTERNET FACILITIES IN COVID-19 ERA AS A MEDIUM FOR TEACHING AND LEARNING AND IT'S EFFECT ON STUDENTS' ACADEMIC PERFORMANCE IN YOBE STATE UNIVERSITY

ABSTRACT

The application of internet facilities as a medium of teaching and learning, especially in this period of COVID-19 cannot be over emphasized. In fact, it is a common thing these days to see teachers holding and manipulating some sort of gadgets using the internet to accomplish different aspects of teaching and learning aimed at imparting knowledge in student. The internet is a powerful tool that enable users to communicate virtually and be

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INTRODUCTION

The use of internet facilities as a medium of communication especially during this period of covid-19 pandemic cannot be over emphasized. There has never been a time in history where the use of the internet took center stage other than now. It is not out of place to say that the internet has replaced most of our activities been done physically as they are now carryout virtually to avoid contact with one another thereby reducing the rate of corona virus infections and transmission among lecturers and students. According to Glenn (2009), the internet has undoubtedly become a huge part of our lives. Many people in today's generation are using the internet to do a lot of tasks. He further defined internet as a communication system over which data can be transferred. As technology continuous to increase the transfer rates of that system, the content of the data being transferred will only be limited by one's imagination. The internet is a very powerful tool that can make your work and other activities very productive and profitable when instant messages, teleconferencing and social media are used effectively by lecturers and students.



more productive and profitable when used effectively; streamlining office work, communication among students and teachers for passing instructions are some of the benefits (Dimaggio, 2004). But for the revolution in information and communication technology that has turned the world into a global village; teaching and learning would not have been achieved without internet and its facilities, especially in the era of COVID which brought about “lock down, social distancing” etc to curtail the spread of the disease. The researcher developed some objectives which include to determine how the use of instant messaging can affect students learning process, how the use of teleconferencing by institutions of higher learning can encourage communication efficiency and effectiveness among students and teachers etc. Three research questions were also posed to guide the study. The area of study was department of accountancy, Yobe state university, Damaturu where 100 students in the department was used and there was no need for sampling since the number was manageable. The methodology used by the researcher is descriptive survey as data was gathered from respondent using questionnaires, frequency distribution table and mean score for analysis. After retrieving and analyzing 83 out of the 100 distributed to respondents, with values allocated to the 4 points Likert Scale rating of Strongly Agreed (SA) = 4, Agreed (A) = 3, Disagreed (D) = 2 and Strongly Disagreed (SD) = 1 and cut-off point as 2.5. The cut-off point is got through the use of the formula. $X = (EFX) = (4+3+2+1) = 10/4 = 2.5$. Findings revealed that the use of internet facilities like instant messages as medium of communication enhanced teaching and learning and increased students' performance academically during this COVID-19 period. It also showed that teleconferencing assisted teachers in passing instructions to students without having to come together physically; hence reducing the stress of travelling long distances and danger of contracting coronavirus infection. Based on the findings, the researcher recommended that government at all levels (Federal, State and Local) should endeavor to encourage students and institutions by assisting them financially to enable them procure the necessary internet gadgets and devices for instructional purposes. The management of the institution should as a matter of necessity, ensure the provision of internet connectivity to all the nooks and crannies of the university for effective teaching and learning.

KEYWORDS: Internet, teaching, performance, learning, application

Before the covid-19 pandemic, lecturers and students congregate almost on daily basis in order to carry out the business of teaching and learning. Instructional deliveries are done in classrooms and laboratories under close contact. But all that have been replaced by



various technologies using the internet as a medium of communication. Instead of gathering for lectures and other educational activities, applications like Skype, zoom, emails, social media etc are used to achieve instructional feats from the comfort of our homes and offices. Ayeni (2004) is of the view that the internet allows you to communicate and interface with your students without necessarily coming in contact physically. Apart from the educational sector, the internet also benefits other users like the operators of industries, entrepreneurs and even artisans as they don't need to travel overseas to speak to clients. Business negotiations are made from their homes and offices (Raymond, 2009).

Technologies like the internet are easy to deploy and they cost less, yet they speed up communication within the organization. Institutions rely on communication among teachers and students at all levels to decide on and implement their key goal of imparting and acquiring of knowledge. Every institution has to use communication to improve on how information flows within and outside. The rate at which these information flows determine the speed at which decisions are made and this is made easier by the use of internet facilities (Healthcote, 2002).

Review of Related Literature

Concept of internet

Otuka, Akande and Iginla (2010) see internet as a global collection of computers connected to each other, sharing available resources and communicating effectively. This global network links thousands of computers in universities, government agencies, research institutions and business houses throughout the world. The internet is often referred to as World Wide Web (www), but this is only one aspect of the internet. The internet is transmission system. It delivers the messages of all applications without prejudice or even awareness of the message content. It has a transmission level that is universal and an application level that is particular to each application (Raymond, 2009). Also, Heathcote (2002) states that internet gives us access to a vast wealth of knowledge and access to tools that facilitate research. The internet enhances the opportunity for the conduct of remote classes, allow access to remote libraries and create an environment innovative and cooperate learning experiences. Ayeni (2004) agreed that internet access provides all users with general information that is shared across areas. It is used for housing of organization policies, procedures, business forms and templates directory among others which make the internet to be an indispensable tool for management knowledge and passing information across the organization.

Yusuf (2007) also says that the internet is primarily a communication system which makes possible all types of communication. It allows digital signals to be converted to analogue signals which is transmitted through telephone lines to a particular computer. From the



above definitions, the author is of the view that internet is made up of different computer networks put together to facilitate the sharing of information.

Concept of communication:-

According to Hassan (2011), communication is the means whereby people in organization exchange information regarding the operations of an enterprise. It is the sharing of ideas, facts and emotions between two or more persons by the use of words, letters and symbols. It could be broken down into the following:-

- i. Communication is a process: which means it is ongoing and always changing
- ii. Communication is systematic: That is it occurs within systems of interrelated and interacting parts.
- iii. Communication is symbolic: symbols are the basis of language, much nonverbal behavior and human thought. They can be arbitrary, ambiguous, abstract representations of other phenomena.
- iv. Communication involves meanings: which are the significance humans bestow on phenomena.

Importance of communication

Hassan (2011) said the main reasons for people to communicate are as follows:-

- (a). Communication is essential for the internal and external functioning of organizations because it integrates the managerial functions.
- (b). To give specific instructions to others on a range of business matters both procedural and strategic.
- (c). It is used for establishing and disseminating goals of an organization to relevant parties and persons. A major reason for communication is to give information. For example, a manager may want to give people information on a wide range of corporate matters such as the mission statement, policies, and issues or in the case of external market on price changes and new promotional initiatives.

Types of internet facilities

Raymond (2009) listed the following as basic internet facilities used in communication:-

- (1). Instant messaging (IM):- One of the fastest growing form of internet communication facility is instant messaging. It is a text based computer conference between two or more people. Instant messaging communication service enables you to create a kind of private chat room with another individual(s) in order to communicate in real-time over the internet. Typically, the IM system alerts you whenever somebody or contact list is online. You can then initiate a chat session with that particular individual(s). One reason why IM has become so popular is its real time nature, unlike emails where you will wait for the



recipient to check his or her mails and send a reply. It is used by millions of internet users to contact family and friends and for educational purposes. A very good example of instant messaging (IM) is the whatsapp, facebook messenger etc.

(2). Teleconferencing:- A teleconferencing is an audio-visual meeting among participant involving technology more sophisticated than a simple two way phone connection. At its simplest, teleconference is a conference with people on both sides sharing speakers and visuals in real-time. With considerably more equipment and sophistication it can also be referred to or called video conference in which the participants can see still or motion video images of each other.

Because of the high bandwidth of video and the opportunity for larger and multiple display screens, a video conference requires special telecommunication arrangements and a special room at each end. As equipment and the high- bandwidth cabling become more common place, it is possible that video conferences can be held from your own computer or even in a mobile devices like phones. Typical examples of video conferencing applications include Skype, Zoom etc.

(3). Email: - short for electronic mail, email is the transmission of message over communication network using the internet. The message can be notes entered from the keyboard or electronic files stored on disk. Most computer networks have an email system. Using an email, you can compose a message and send it to another person anywhere as long as you know the recipient email address. Usually it takes only few seconds for an email to arrive at its destination. It is particularly an effective way to communicate with a group because you can broadcast a message or document to everyone in the group at once.

(4). E-chatting: - This refers to electronic chatting online, which means having a conversation with people over the internet. The chatting feature of the internet lets you instantly communicate with people anywhere in the world by sending and receiving messages in real time. Examples of E-chats include: - facebook, twitter, instagram, whatsapp and skype.

Benefits of internet in facilitating communication

In Yusuf (2007), various aspects where internet can facilitate communication are: (1) speed (2) Accessibility and (4) Accountability.

Speed: - The internet has made communication between parties in an organization much faster. Despite oral conversation over the phone or face to face communication. Emails and instant messaging and teleconferencing allow for people to ask direct questions. Speed also impacts how fast an institution is able to communicate with the outside world. Institutions and organizations now use social networking media like twitter to get their messages out to get their messages out to new demographic in recorded time.



Accessibility: - The internet has enabled people (especially students and teachers) to access messages from almost anywhere. Telecommuting has been made far more feasible as they access their emails from home without stress. The internet has accorded us the opportunity to access information quickly from libraries, products and services on websites while in our pyjamas. The dawn of “smart phones” with web browsing and email capabilities has significantly increased this accessibility.

Accountability: - The internet has in many ways increased expectations for accountability in organizational communications. Stakeholders now receive timely news from their website. Moreover, with information being passed so freely around the internet and personal website publishing and combining forces with citizen’s journalism, very few cooperate secrets can be kept. If an institution is not transparent already, that transparency will be forced on them. The result of this is that organizations are held accountability by the people on a more frequent basis

Statement of the problem

In this period of restrictions as a result of coronavirus crisis and pandemic popularly referred to as covid-19, it is difficult, if not impossible for formal teaching and learning to take place. This was made worse by the government proclamation of “lockdown” characterized by “social distancing” phenomenon which forbids closeness and physical interaction of all sort. Since this “new normal”, the dissemination of information and imparting of knowledge was stalled except by the use and application of internet facilities. In as much as internet has a lot of advantages during this time, it does not go without its myriads of problems which institutions and organizations has got to contend with in course of applying these internet facilities especially by students and teachers in Yobe State university. To be able to communicate effectively using the internet, sufficient skills and knowledge has to be displayed which most times is lacking especially among the students.

Since effective teaching and learning using the internet is critical during this lockdown, it has been observed that inadequacy of these resources has been a stumbling block. The rate of poverty is alarming as most students could not afford to secure the necessary gadgets that will enable them get connected. Where the gadgets are available, the cost of data remains a problem. Despite the importance and contribution of internet facility to the sustenance of education, it is however, observed that the epileptic or non-existence of power supply in homes has greatly militated against the smooth application of these facilities as a medium of teaching/learning in Yobe state university, since electricity is needed to be able to operate the devices that will enable the usage of internet facilities such as instant messaging, teleconferencing and social media applications.



Objectives of the study

The main objective of this study is to assess the application of internet facilities in this era of COVID-19 as a medium for teaching and learning and its effect on students' performance in Yobe State University. The specific objectives of the study are:-

1. To determine if the use Instant Messaging (IM) can affect students' academic performance in Yobe State university.
2. To ascertain if the use of teleconferencing have effect on the academic performance of students in Yobe State university.
3. To find out how the application of social media affect the academic performance of students in Yobe State university.

Research questions

The following research questions were posed to help in determining the purpose of the study:-

1. How does the application of Instant Messaging affect the academic performance of students in Yobe State university?
2. How does teleconferencing affect students' academic performance in Yobe state university?
3. What effect does social media have on the academic performance of students in Yobe state university?

Methodology

The researcher adopted descriptive survey and carried out the study on the students of Department of accountancy, Yobe State University Damaturu who are one hundred (100) in number and all were used for the study since the number was manageable, hence no need for sampling. One hundred (100) questionnaires were distributed to the respondents and eighty three (83) were retrieved. Frequency distribution table and mean score method was used to analyze the data gathered.

It deals with the use of values allocated to the 4 points Likert Scale rating of Strongly Agreed (SA), Agreed (A) Disagreed (D) and Strongly Disagreed (SD). SA = 4, A = 3 D = 2, SD = 1 with cut-off point as 2.5. The cut-off point is got through the use of the formula:

$$X = (EFX) = (4+3+2+1) = 10/4 = 2.5$$

The mean score was calculated by multiplying each variable by the value allocated to each of the 4-point and sum up to get the summed frequency (EFX) which will be divide by number of the sample size (N) to get the mean score. Therefore, the cut-off point (2.5) determines whether such variables is accepted or rejected (remark).



Analysis of result

Table 1

Research Question 1: How does the application of Instant Messaging affect the performance of Students?

S/N	VARIABLES	SA	A	D	SD	EFX	X	REMARKS
1.	Instant Messaging helps the students to send messages	168	87	20	2	277	3.33	Accepted
2.	Lecturers receive Feedback from Students using IM	184	90	8	3	285	3.43	Accepted
3.	Lack of skills affects the use of IM	148	90	28	2	268	3.22	Accepted
4.	Powersupply affect the use of IM	80	150	16	5	251	3.02	Accepted
5.	Not all students have access to Instant Messaging	176	84	22	0	282	3.39	Accepted
Total Mean Score							3.27	

In table 1 above, variables 1, 2, 3, 4 and 5 have mean score of 3.33, 3.43, 3.22, 3.02, and 3.39 respectively. The total mean score is 3.27 and all accepted. It shows that instant messaging is useful to the students, lecturers get feedback from students, lack of skills and knowledge of instant messaging affects the students' use of it. It also shows that lack of power supply and all students not having access to instant messaging is a great setback.

Findings

In table 1, it was discovered that instant messaging is useful to the students and lecturers get feedback from students through IM. Lack of skills, power supply and internet access to IM affected students negatively.



Table 2: Research question 2. How does teleconferencing assist students' performance?

S/N	VARIABLES	SA	A	D	SD	EFX	X	REMARKS
6.	Teleconferencing has a lot of benefits in teaching and learning	96	126	30	2	254	3.06	Accepted
7.	Using teleconferencing save cost for lecturers and students	116	132	18	0	266	3.20	Accepted
8.	Absence of internet affect the use of Teleconferencing negatively	160	99	16	0	275	3.31	Accepted
9.	Lack of fund to Procure devices for Teleconferencing by Students is a big challenge	140	120	10	0	270	3.25	Accepted
10.	Teleconferencing should be adopted as a medium for teaching/ learning in our universities	100	117	30	4	251	3.02	Accepted
Total Mean Score							3.16	

In table 2 above, the following variables 6,7,8,9 and 10 got the total mean score of 3.16. The analysis shows that teleconferencing has a lot of benefits in teaching and learning in our University, it also revealed that it saves cost both for lecturers and students. Absence of internet connectivity affect the use of teleconferencing negatively and that lack of fund to procure devices, especially by the students, for teleconferencing is a challenge. It was widely accepted that teleconferencing should be adopted as a medium of communication in our Universities.

Findings

Table 2 findings indicated that the use of teleconferencing is beneficial in teaching and learning. It further showed that procurement of devices, cost of data is a big challenge and majority of the respondents accepted that adopting teleconferencing as a medium communication in Universities will be a welcome development.



Table 3: Research Question 3: What effect does social media have in the performance of students?

S/N	VARIABLES	SA	A	D	SD	EFX	X REMARKS
11.	Whatsapp application is important in passing information	160	81	20	6	267	3.21 Accepted
12.	Teaching and learning can be done using skype	132	90	22	9	253	3.04 Accepted
13.	Facebook is a very important tool for teaching/learning	180	84	18	1	283	3.39 Accepted
14.	Zoom application reduced the gap Stress faced by lecturers/students in learning during COVID19 Lockdown	140	114	18	1	273	3.28 Accepted
15.	Social media enable teaching and learning to take place without close contact	164	102	10	3	279	3.36 Accepted
Total Mean Score							3.25

The above presented data in table 3 had five variables 1, 2, 3, 4 and 5 indicating mean score of 3.21, 3.04, 3.39, 3.28 and 3.36 respectively. It got a total mean score of 3.25, and considering the cutoff point of 2.5, all of the respondents accepted. They all agreed that whatsapp, facebook messenger, Skype and zoom applications helped teaching and learning during this era of COVID-19.

Findings

It was discovered that in table 3 that Skype, Zoom, Facebook messenger, whatsapp and other social media applications were used as a medium of communication during this period of COVID-19 for teaching and learning.

Major Findings:

Based on the data collected and analyzed the following findings were made:

1. The use of instant messaging as a medium of communication enabled students and teachers to engage in teaching and learning during this COVID-19 pandemic.



2. Teleconferencing is very beneficial and efficient for passing and receiving information
3. Other social media application like whatsapp, Skype, zoom and facebook Enhance communication.

Discussion of Findings:

It is interesting to note that internet facilities such as instant messaging, teleconferencing, and social media applications enhanced the performance of students especially during this era of COVID-19 pandemic. From the above interpretation, internet facilities and its application is deemed very effective and efficient. Internet has really revolutionized the world of communication and has shaped the lifestyle of its users internally and externally (Vinna, 2004).

Conclusion

It is very pertinent for our Universities to know that communication as it involves (teaching/learning) could be achieve using the internet. Technologies like the internet are easy to deploy and they cost less. There is no other way to avoid physical contact thereby reducing the possibility of infection transmission during this period except with the application of internet facilities which has so far been efficiently and effectively utilized, the paper concluded.

Recommendations

The following recommendation were made considering the findings above:-

1. Government at all levels (Federal, State and Local) should endeavor to encourage students and institutions by assisting them financially to enable them procure the necessary internet gadgets and devices for instructional purposes.
2. Government should also, as a matter of necessity, ensure that cost of data is subsidized and provision of internet connectivity to all the nooks and crannies of the universities for effective teaching and learning.
3. Educational institutions should ensure that information and communication technology (ICT), as a course of study, is made compulsory by including it in their curriculum in order to equip the students with sufficient skills and knowledge to be proficient in the application of various internet facilities.
4. Institutions of higher learning should ensure regular training and retraining of teachers on internet usage and maintenances to boost their experience and efficiency.

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