

Impact of E-mail Services on Supervision of Research Project of undergraduate Physics Students in Ikere-Ekiti, Ekiti State, Nigeria

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ABSTRACT: This study examined the impact of E-mail Services on Supervision of Research Project of undergraduate Physics Students of the defunct College of Education, Ikere-Ekiti and Physics Students of University of Nigeria, Nnsukka in affiliation with College of Education, Ikere-Ekiti but, now students of Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, Ekiti State, Nigeria. The design was a descriptive survey. The target population for this study comprises of all Physics Students of the defunct College of Education, Ikere-Ekiti and Physics Students of University of Nigeria, Nnsukka in affiliation with College of Education, Ikere-Ekiti but, now students of Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, Ekiti State, Nigeria. A simple random sampling technique was used to select forty (40) final year Physics students who have just completed their NCE and B.Ed research project (i.e. EDU 311 and EDU 451 respectively). The Research Instrument used for this study was questionnaire. The instrument was subjected to validity and reliability mechanism and it was found appropriate for the study. The instrument was administered on the respondents. The data collected was used to analysed the two null hypotheses formulated for the study. The research hypotheses was tested using inferential statistics of Chi-square (χ^2) at 0.05 level of significance. The findings of the study showed that E-mail services impact positively on supervision of physic students' research project. Therefore, based on the findings, conclusion and appropriate recommendation were made.

Key Words: Utilization, E-mail service, Supervision, Lecturers, students' Projects

Introduction

One of the educational tools that are suitable for the measure in our various schools is the use of computer. The development of computers has changed the industrialized parts of our planet greatly. While the computer initially was used only as a device for calculating, it now has resulted to a communications tool that has turned the whole world to a global village as a result of computer application known as electronic mail (e-mail).

The learning environment is constantly changing as the technologies used by faculty and students change. Current students expect technology to be part of their education and e-mail is commonly used for communication and teaching technology (Jeffrey, Marla & Corine, 2016). University students tend to be ahead of the rest of society in the adoption, use, and abandonment of technologies (Jeffrey, Marla & Corine, 2016). In the early days of e-mail, there was not much choice in which e-mail account to use. Faculty only had their school account. With free accounts, anonymous accounts, and accounts tied to cell phones, many faculty members now have their choice of a number of e-mail addresses (Jeffrey, Marla & Corine, 2016).

An email service is a company that provides businesses with tools to send bulk emails and implement email marketing. Email services offer user-friendly features to manage mailing lists, email design, and metrics to monitor your success. Also known as webmail, online email service providers enable users to send, receive and review e-mail from their Web browsers. Email services offer easy access and storage of e-mail messages for users who are not connected to the Internet from their usual location (Online, webopedia).

When logging into an email service, users simply enter the Webmail Web site URL in their browser's address or location field, and use their Webmail account by typing in a username and password. Instead of the e-mail being downloaded to the computer used for checking the e-mail account from, the messages will stay on the provider's server, allowing the user to access all their e-mail messages regardless of what system or ISP is being used (Online, webopedia).

Email services offer many of the same features and functionality for managing e-mail as desktop email software counterparts like Microsoft Outlook and Mozilla Thunderbird. Some of the more popular online email services are Yahoo! Mail, Gmail, Hotmail and AOL Mail (Online, webopedia).

Electronic mail (e-mail) can be a useful educational tool that can enhance learning in any curriculum. This article will provide instructors with a conceptual framework and several examples of how e-mail can be integrated into a variety of classroom and independent learning situation (James, Charles & Sara, 1995).

Palmer (2005) reported that Email facilitates communication by its high speed, a synchronousness, and computer process ability. In line with this, Safayen, Lee & MacGregor (2008), Rice and Bair (2014) enthused that it provides opportunities to increase productivity, workers' satisfaction, and organizational viability. Among users of internet, email is rated as the most laudable application on the internet (Katz & Aspden, 2007).

In Nigeria, the number of users connected to the internet has doubled each year for several years (Sunet, 2007; Nigerian Communication Commission. NCC, 2020). One group, according to Alexander, Helms & Wilkins (2009) and Hessner (2013), that deserves special attention when it comes to email usage is lecturers, whose ability to communicate efficiently are considered essential for their students.

Researches, for instance, Markus (2004), Lantz (2006), Whittaker & Sidner (2006) revealed that lecturers have been using email frequently and to have more less difficulties handling email. E-mail is not just an application to communicate over long distance. Supervising deals are closed by e-mail, and a major part of the communication even with fellow lecturers and students in close proximity takes place online (Renaud, Ramsay & Hair, 2006). E-mail is not time-consuming, more dependable, and more efficient than a face to face meeting or a telephone conversation (Berghel, 2007).

There are more evidences that e-mail encourages people to communicate more (Bälter, 2008) and is critical for usefulness in supervising students project (Vile and Collins, 2004). The way in which lecturers manage time and attention in relation to answering e-mail is susceptible to mismanagement. Other benefit, according to Manger, Wicklund & Eikeland (2003), is that people can be contacted easily and quickly, which is probably the reason why e-mail is rated as such an attractive medium. The profit of e-mail might be that most receivers have the habit to answer messages the minute they arrive, which makes e-mail almost as quick as a phone call (Markus, 2014). However, Smith, Whiteley & Smith (2012) reported the ineffectiveness of email as a supervising discursive tool.

Statement of the Problem

With the advent of coronal virus which led to sudden closure of schools which consequentially paralysed academic activities (supervision of research work inclusive) in our various tertiary institutions. To forestall future occurrence, there is need for urgent research on the alternative way of supervising and managing research work students by the lecturers. To this end, this study is poised to examine utilization of e-mail service by Physics lecturers in supervising and managing Physics students' projects in Ekiti State tertiary institutions.

Research Hypotheses

The following null hypotheses were formulated and tested at 0.005 level of significance:

1. There is no significant impact in the utilization of E-mail service by the supervisor on the effectiveness of supervision of students' research project.
2. There is no significant impact in of use of E-mail services on the time of completion of the research project by the students.

Methodology

The design was a descriptive survey. It was designed to investigate the impact of E-mail Services on Supervision of Research Project of undergraduate Physics Students of the defunct College of Education, Ikere-Ekiti and Physics Students of University of Nigeria, Nnsukka in affiliation with College of Education, Ikere-Ekiti but, now students of Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, Ekiti State, Nigeria.

The target population for this study comprises of all Physics Students of the defunct College of Education, Ikere-Ekiti and Physics Students of University of Nigeria, Nnsukka in affiliation with College of Education, Ikere-Ekiti but, now students of Bamidele Olumilua University of Education, Science and Technology, Ikere-Ekiti, Ekiti State, Nigeria.

A simple random sampling technique was used to select forty (40) final year Physics students who have just completed their NCE and B.Ed research project (i.e. EDU 311 and EDU 451 respectively).

The Research Instrument used for this study was questionnaire. The questionnaire is designed to elicit relevant information in the areas of impact of E-mail Services on Supervision of Research Project of

undergraduate Physics Students which include effectiveness of supervision and the time of completion of the research project by the students. The instrument was subjected to validity and reliability mechanism and it was found to be appropriate for the study. The instrument was administered on the respondents. The data collected was used to analysed the two null hypotheses formulated for the study. The data collected was used to analysed the two null hypotheses formulated for the study. The research hypotheses was tested using inferential statistics of Ch-square (χ^2) at 0.05 level of significance.

Data Analysis

Research Hypothesis 1

There is no significant impact in the utilization of E-mail service by the supervisor on the effectiveness of supervision of students' research project.

Table 1: Chi-square analysis of data on the impact in the utilization of E-mail service by the supervisor on the effectiveness of supervision of students' research project.

S/N	Items	$\chi^2 - \text{cal}$	$\chi^2 - \text{table}$	df	Remark
1	Utilization of E-mail services enables my work to be effectively corrected by my supervisor.	17.23	7.82	3	S
2	Utilization of E-mail services enables the success of my research project.	16.45	7.82	3	S
3	Utilization of E-mail services enables the efficacy of my research work.	19.12	7.82	3	S
4	Utilization of E-mail services enhances the usefulness of my research project.	15.89	7.82	3	3
5	Utilization of E-mail services enables the efficiency of my research work.	13.56	7.82	3	S

$P < 0.05$ level of significance. S = Significant.

Research Hypothesis 2

There is no significant impact in of use of E-mail services on the time of completion of the research project by the students.

Table 2: Chi-Square analysis of data on impact in of use of E-mail services on the time of completion of the research project by the students.

Complete

S/N	Items	$\chi^2 - \text{cal}$	$\chi^2 - \text{table}$	df	Remark
1	Utilization of E-mail services enables my work to be faster with my supervisor.	18.89	7.82	3	S
2	Utilization of E-mail services enables to quickly effect all the correction in my research project.	20.14	7.82	3	S
3	Utilization of E-mail services enables me to quickly get the relevant materials for my research work.	23.45	7.82	3	S
4	Utilization of E-mail services enhances me my research project to be completed in record time.	24.87	7.82	3	3
5	Utilization of E-mail services enables me to quickly completed my research work.	25.86	7.82	3	S

$P < 0.05$ level of significance. S = Significant.

Discussion of Findings

The results in table 1 (i.e Chi-square analysis of data on the impact in the utilization of E-mail service by the supervisor on the effectiveness of supervision of students' research project) revealed that $\chi^2 - \text{calculated}$ value of 17.23, 16.45, 19.12, 15.89 and 13.56 for items in serial numbers 1, 2, 3, 4 and 5 respectively in the questionnaire at $P < 0.05$ and if $df = 3$.

A cursory look at the values showed that all the calculated values (i.e $\chi^2 - \text{cal}$) is greater than the critical values of 7.82 (i.e $\chi^2 - \text{table}$ value). This shows that all the items are significant. This implies that there is significant impact in the utilization of E-mail service by the supervisor on the effectiveness of supervision of students' research project of undergraduate Physics Students in Ikere-Ekiti, Ekiti State,

Nigeria. This supported the report of Markus (2004) and Lantz (2006) that lecturers were found to use email frequently due to the nature of their job in relation to their students.

Similarly, the result in table 2 (i.e Chi-square analysis of data on the influence of audio-visual materials on students' academic performance in physics in secondary schools) revealed that χ^2 – calculated value of 18.89, 20.14, 23.45, 24.87, and 25.86 for items in serial numbers 1, 2, 3, 4 and 5 respectively in the questionnaire at $P < 0.05$ and $df = 3$. A good look at the values revealed that all the calculated values (i.e χ^2 – cal) is greater than the critical value of 7.82 (i.e χ^2 – table). This shows that all the items are significant. This implies that there is significant impact in of use of E-mail services on the time of completion of the research project by undergraduate Physics Students in Ikere-Ekiti, Ekiti State, Nigeria. This supported the report of Markus (2004) and Lantz (2006) that lecturers were found to use email frequently due to the nature of their job in relation to their students.

Conclusion

This study has shown that there is significant impact in the utilization of E-mail service by the supervisor on the effectiveness of supervision of students' research project of undergraduate Physics Students in Ikere-Ekiti, Ekiti State, Nigeria. The use of E-mail services enables the effective supervision of students' research work. Similarly, it is also concluded that there is significant impact in of use of E-mail services on the time of completion of the research project by undergraduate Physics Students in Ikere-Ekiti, Ekiti State, Nigeria. The use of E-mail services enables the students to complete their research project in record time.

Recommendations

1. Though face-to-face supervision is very effective, it should be used together with e-mail supervision in order to be kept abreast with technological advancement which will be highly helpful in combating the spread of corona virus when physical contact impossible.
2. Lecturers should go for more training on effective utilization of ICT tools.

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