STUDENTS' UTILISATION OF MOBILE DEVICES FOR LEARNING IN COLLEGES OF EDUCATION, KWARA STATE

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Abstract

The adequate and proper utilization of mobile devices proffer solutions to students' difficulties in instructional skills acquisition and knowledge at any citadel of learning. This study assessed students' usage of mobile devices in some Colleges of Education in Kwara state. Three research questions and two hypotheses were answered and tested respectively. The study was a descriptive research of survey type. The Sample comprised of 150 students randomly selected from three Colleges of Education. Questionnaire was the instrument for data collection. Frequency counts, percentages and mean were used to answer the research questions', while chi-square was used for testing the hypothesis at 0.05. The findings showed that in some colleges of education in Kwara State 3.3% of students had at least a smart phone as a mobile device and 75% of students made use of their smart phone. It also revealed that students had positive attitude towards the usage of mobile devices. However, there was no significant difference between male and female students in utilizing mobile devices; and no significance difference exists in utilization of mobile devices based on the location of schools. It was recommended that students' should be guided to use mobile devices for educational pursuits

Keywords: Colleges of Education, Learning, Mobile Devices, Utilization

Introduction

Mobile devices have been recognized and adopted as the latest technology for instructional delivery and learning tools across the World. (Rikala, 2013 & Adedoja, and sundry to use them in a diverse institutions and environment for instance, in a classroom setting restaurants, café, and in a museum among others (Jacob &Issac, 2008; &Mahon, 2014).The Mobile devices concepts have been examined extensively with respect to diverse professional fields and applications. Educationally, El-Hussein and Cronje (2010) defined Mobile devices as the integration and application of portable technology devices and wireless technology toward instructional services. Planet Retail (2012) emphasised that the integration of both hardware and software technologies step-up the attainment and usability of educational instruction among students. Mobile devices offer a number of advantages for acquisition and delivery of instructional objectives at any place and time. Santiago and Touron (2014) observed that Mobile Devices stimulate students towards learning and facilitate their home assignment. Wentzel et al. (2005) and Mueller et al. (2011) confirmed that they accelerate students' comprehension of the subject matter, improve their academic performance within and outside the school environment, and enhance students'

educational experiences. The adoption of modern technology devices in this generation up-grade their life style and also helps in professional training of Teachers.

Professional training of teachers duly take place in accredited higher institutions worldwide. In Nigeria educational system, according to Eme-Uche (2006) Colleges of Education are part of the tertiary institutions responsible for the training of qualified teachers for the lower basic schools. Oyebade (2008) noted that successful teachers training programme at Colleges of Education entail three years academic session for full time students and four years academic sessions for part time. Students' gender differences determine their experiences in utilising Mobile devices for learning. Economides and Grousopoulou (2008) testified that male students prefer to make and receive calls only with mobile devices and access the internet with their computers; while female students mostly use mobile devices for taking pictures, text- messaging, interacting with friends, watching movies and making more phone calls than male students.

Statement of the Problem

Colleges of education students nowadays belong to the digital age. Mobile computing has been feasible throughout these students' educational careers. Majority of colleges of education students currently have access to various types of mobile devices in their immediate environment. Most students currently underutilize installed mobile devices facilities and applications. Students purchase expensive mobile devices for the purpose of calling, text messaging, social networking, listing to music and watching video among others. Some students who have potentials towards utilisation of mobile devices for learning were discouraged by instability of mobile services, the internet facilities at the learning institutions were stolen by societal miscreants. These study therefore assessed students' utilization of mobile devices for learning in Kwara State Colleges of Education.

Purpose of the study

The purpose of the study was to assess the students' utilization of mobile devices for learning in some colleges of education, Kwara State.

Research Questions

The following research questions were answered:

1. Which types of mobile devices are available for learning by the student in some colleges of education in Kwara State?
2. What are the attitudes of students toward the use of mobile devices for learning in some colleges of education in Kwara State?
3. No significant difference exist in attitude of male and female students towards utilization of mobile devices.

Literature Review

Mobile devices are essential in facilitating mobile learning which refers to students' acquisition of essential skills and knowledge with devices while on transit (UNESCO, 2013 & West, 2013). Olson et. al. (2011) opined that mobile learning enable learners to learn anytime and anywhere without restriction to the four walls of classroom. Mobile learning unfolds variety of ways learners learn with mobile devices to access e-libraries, e-conferences and other trustworthy educational resources. Mobile devices for learning according to Mehdipour and Zerehkafi (2013); Marwan, Madar and Fuad (2013); and Transformyx (2017) are e-book; handheld audio and multimedia guides; handheld game console; Personal Digital Assistant (PDA); Tablet devices, laptop and notebook computer; and Phones. Science and Technology innovations aid educators to transmit instructional messages in adaptable frequency via mobile devices. Able and physical challenged students learn better with iPhones, mobile computers and android instructors. (Kim et al. 2013). Mobile devices work effectively as expressed by Jeng et al. (2010) whenever the devices have wireless network connection, in-built camera, in-built GPS receiver and RFID reader.

Mobile devices for effective instructional use are powered by the mobile applications (mobile apps) and technical/delivery support. Rashedul Islam et al. (2010) claimed that mobile applications encompass aspects such as communication, games, multimedia, productivity, travel, and utilities possess great and vast advantages for various professional. Flora et al. (2014) stated that Third Generation Partnership (3GP), General Packet Radio Service (GPRS) mobile data service, GPS module, WiBro/mobile WiMAX, Wi-Fi, Bluetooth, cloud computing are technical and delivery support for Mobile Devices. Feigin (2017) opined that Java ME, Symbian (UIQ & S60), Android, BlackBerry, OVI, Window Mobile, iPhone, LiMo, Angstrom distribution, Adobe Flash Light, BREW, OpenMoko, Palm OS (Garnet OS & Cobalt OS) and Palm webOS (Mojo) proffer development solutions to all type of Mobile Devices. Mobile devices are inventing new technology which facilitates students' acquisition of skills and knowledge at all teachers training institutions. (Mehdipour & Zerehkafi (2013); and UNESCO, 2015).Chattopadhyay (2017) opined that mobile devices are essentials for students' better training for better future competency. The use of mobile devices increases students' access to job opportunities and proffer solutions to job challenges. Students' academic performance at higher institutions are strictly based on their attitude toward learning, gender status, parents' social economic status and institutional factors .Adeyemi and Adeyemi, (2014) discovered that students' performance at Colleges of Education are based on institutional factors, while Halder, Halder and Guha (2015) and Al-Emran, Elsherif and Shaalan (2016) emphasised that students' positive attitude towards mobile devices ultimately enhance their excellent academic performance.

Methodology

Research Design

The descriptive research of the survey type concentrated on the assessment of students' usage of Mobile Devices in three Colleges of Education in Kwara State. Relevant information is sought from target population with a researcher designed questionnaire.

Sample and Sampling Technique

An aggregate of One hundred and fifty (150) students were used as sample for this study. Fifty seven (57) students were selected from Kwara State College of Education, Ilorin; fifty (50) from Kwara State College of Education, Oro; and forty three (43) from Muyideen College of Education, Sango respectively with random sampling technique.

Research Instrument

A researcher-designed questionnaire was used to collect information from the respondents. The questionnaire was a four-point Likert scale consists of three sections. Section A sought for respondents' personal information; section B sought for types of mobile devices available for respondents learning and section C was a four-point likert scale that consists of 15 items which sought to know respondents' attitude toward the use of mobile devices for learning in some colleges of education in Kwara State. The instrument for this study was face validated and it is coefficient in reliability using Cronbach Alpha technique which was 0.74

Data Analysis Techniques

The data collected for this study were analysed statistically. The Statistical Packages for the Social Sciences (SPSS) software was used to analyse data using frequency count, percentages, mean, standard deviation and t-test for this study.

Results

Table 1:
Distribution of Respondent by name of Institution

Name of Institution	Frequency (N)	Percentage (%)
Kwara State College of Education, Ilorin	57	38.00
Kwara State College of Education, Oro	50	33.33
Muyideen College of Education, Ilorin	43	28.67
Total	150	100.0

Table 1 shows that 38.0% of the questionnaires were administered at Kwara State College of Education, Ilorin; 33.3% at Kwara State College of Education, Oro; and 28.67% at Muyideen College of Education, Ilorin respectively.

Table 2:
Distribution of Respondents by Gender

Gender	Frequency (N)	Percentage (%)
Male	58	38.7
Female	92	61.3
Total	150	100.0

Table 2 shows that 58(38.7%) of the respondents were males, while 92(61.3%) were females. This shows that there were more female respondents than males respondents.

Research Question One
Which types of mobile devices are available for learning in some colleges of education in Kwara State?

Table 3:
Types of mobile devices available for learning

What types of mobile devices do you have?	Frequency (N)	Percentage (%)
Smart Phone	110	73.3
Basic Phone	016	10.7
MP3 Player	004	02.7
Digital Camera	004	02.7
Tablet (ipad, Galaxy, etc.)	006	04.0
Others	010	06.7
Total	150	100.0

Table 3 shows that 110(73.3%) of the respondents have Smartphone, 16(10.7%) of them have Basic Phone, 4(2.7%) have mp3 player, 4(2.7%) have digital camera 6(4.0%) have tablet (ipad, Galaxy etc.), and 10(6.7%) have other gadgets.

Table 4:
Types of mobile devices available for learning

If you have a smartphone, can you do without it?	Frequency (N)	Percentage (%)
Yes	75	50.0
No	75	50.0
Total	150	100.0

Table 4 shows that 75(50%) of the respondents can do without their smartphone and 75(50%) cannot.

Research Question Two

What are the attitudes of students toward the use of mobile devices for learning in some colleges of education in Kwara State?

Table 5:
Attitudes of students toward the use of mobile devices for learning

S/N	Items	Mean	SD
1.	Learning with mobile devices is boring to me	2.76	0.99
2.	Mobile devices are only useful for research	2.85	0.93
3.	Using mobile devices is often frustrating	2.69	0.88
4.	I would like to learn more about mobile devices	1.77	0.62
5.	Mobile devices are not really useful to my discipline	2.84	0.92
6.	Working with Mobile devices makes me tense and uncomfortable	2.63	0.98
7.	Some mobile devices will be of no use to me in Nigeria because of its limited availability	2.69	0.90
8.	Using mobile devices could provide me with information that lead to better research decision	1.59	0.63
9.	I enjoyed working with mobile devices	1.67	0.60
10.	Using mobile devices give me greater control over course of study	1.82	0.76
11.	I feel at ease when I am working with mobile devices	1.93	0.75
12.	Using mobile devices requires mental effort	2.21	0.85
13.	Exposure to mobile devices will help me learn effectively	1.82	0.63
14.	I do not like any of the mobile devices	3.03	0.96
15.	I find learning interesting whenever I am using mobile devices	1.65	0.71
	Grand	2.26	0.81

Table 5 shows the respondent responses on attitudes of students toward the use of mobile devices for learning. The findings from this table revealed that respondents “find learning with mobile devices boring” (2.76, 0.99); “mobile devices are only useful for research” (2.85, 0.93); “using mobile devices is often frustrating” (2.69, 0.88); “would like to learn more about Mobile Devices”

(1.77, 0.62); "mobile devices are not really useful to their discipline" (2.84, 0.92); "working with mobile devices makes them tense and uncomfortable" (2.63, 0.98); "some mobile devices will be of no use to them in Nigeria because of its limited availability" (2.69, 0.90); "using mobile devices could provide them with information that lead to better research decision" (1.59, 0.63); "they enjoyed working with mobile devices" (1.67, 0.60); "using mobile devices give them greater control over course of study" (1.82, 0.76); "they feel at ease when they are working with mobile devices" (1.93, 0.75); "using mobile devices requires mental effort" (2.21, 0.85); "exposure to mobile devices will help them learn effectively" (1.82, 0.63); "they do not like any of the mobile devices" (3.03, 0.96); and "they find it interesting whenever they are using mobile devices" (1.65, 0.71).

Hypothesis Testing

No significant difference exist in attitude of male and female students towards utilization of mobile devices.

Table 6:
Difference between male and female students' attitudes towards utilization of mobile devices

Gender	N	Mean	SD	df	T	Sig. (2-tailed)	Remarks
Male	58	3.946	9.6782				
				148	-6.425	.008	Accepted
Female	92	2.986	11.6333				

Table 8 revealed that degree of freedom (df) is 148, t is -6.425, p is 0.008. The hypothesis was accepted because the significant Sig value of 0.008 was less than 0.05 alpha level. Therefore, there is significant difference between male and female students' attitudes toward utilization of mobile devices.

Discussion of Findings

The findings for this study revealed that majority of students in some colleges of education in Kwara State have smartphones as communication and research devices. This result is in accordance with Kim et al. (2013); Mehdipour and Zerehkafi (2013); Marwan, Madar and Fuad (2013); and Transformyx (2017) who postulated that mobile devices manufactured with numerous ad-on and solution applications are good for acquisition of instructional skills and knowledge.

Also, findings revealed students' attitudes toward use of mobile devices for learning in some colleges of education in Kwara State. The results show that some students did not like any of the mobile devices for learning; and are uncomfortable and tense working with mobile devices. This finding contradicts Al-Emran, Elsherif and Shaalan (2016) who stressed that student's attitude

towards mobile devices ultimately enhance their excellence academic performance. More so, there is significant difference between male and female students' attitudes towards utilization of mobile devices for learning. Economides and Grousopoulou (2008) confirmed that there is significant difference between male and female students' attitudes toward learning with mobile devices.

Conclusion

Utilization of mobile devices by students in higher institutions serve as a catalyst that facilitates the acquisition of instructional skills and knowledge at any time and place. In conclusion, the findings reveal that student have negative attitude toward the utilization of mobile devices for learning; majority of students have smartphones as communication and research devices; and there is significant difference between male and female students' attitudes toward utilization of mobile devices for learning.

Recommendation

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

1. Students should be encouraged and conditioned to use mobile devices for research and learning purposes rather than using it to chat, playing games, taking photographs, listening to music and watching video
2. Students should maintain the positive attitude by updating their knowledge on the use of mobile devices for learning.
3. Partnership with a mobile network that will reduce the cost of the device and data Plan for students.

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