LECTURERS' PERCEIVED EASE OF USE OF MOBILE DEVICES FOR TEACHING UNDERGRADUATES KWARA STATE, NIGERIA

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Abstract
This study examined the perceptions of lecturers on integrating mobile devices for teaching undergraduates. Moderating influence of gender on the ease of use of mobile devices for teaching. Data were collected from 356 university lecturers from four Universities in Kwara State which include Al-hikmah University, Kwara State University, Landmark University and University of Ilorin using a random sampling technique. Data were analysed using mean to answer research questions. No significant difference was found between male and female lecturers in their perception on the usefulness of mobile devices for teaching. The study revealed that lecturers perceived mobile devices easy to use for teaching with Grand Mean of (2.47), there was no significant difference between male and female lecturers' perceived usefulness of mobile devices for teaching with t value of (354) and significant value of 1.07, p > 0.05. The implication is that mobile devices were found easy to use for teaching by lecturers, irrespective of gender. Therefore, lecturers should be encouraged to attend trainings, conferences and capacity building workshops in order to acquire skills on the use of Mobile Devices and other ICT tools for teaching.

Keywords: Perceived Ease of Use, ICT, Mobile devices, Mobile Learning

Introduction

Information and Communication Technology (ICT) is the use of scientific tools and techniques for developing, documenting and communicating information for solving problems or providing needed services in the various areas of human endeavour (Chukwuemeka, 2010). Mumtaz (2000) defined ICT in education as all the contemporary digital tools, such as computers, accessories and Internet that can be used in education it to fulfil its goals. He also opined that with the introduction of ICT, the teaching and learning process will change and new skills for the teacher and the learner would be developed.

Mobile Learning (m-learning) is a form of learning using wireless devices that can be used wherever the learner is with unbroken transmission signals. These include mobile devices like smartphones, tablet computers, laptops and personal digital aids (PDAs). The definition of m-learning contains three key components which are mobility of technology, mobility of learners and mobility of learning processes. Mobility of technology refers to the mobile nature of installed hardware and software that enable constant wireless Internet connection. Mobility of learners is no longer attached to one or several learning site, and they can be mobile and learn at the same as long as the mobile devices are around. Mobility of learning is the result of mobility of both the technology and learners (El-Hussein & Cronje, 2010).

Mobile learning is also defined as the exploitation of ubiquitous hand-held technologies, together with wireless and mobile phone networks, to facilitate, support, enhance and extend the reach of teaching and learning. However, it has been widely recognized that mobile learning is not just about the use of portable devices but also about learning across contexts (Walker, 2006). Pea and Maldonado (2006) used the term wireless interactive learning devices (WILD), an acronym created at SRI International's Centre for Technology in Learning, to define technology that made it possible for learners to work at unique activities in ways that were previously impossible. Mobile learning can occur in the classroom, during an online course or anywhere. The learner does not even have to be at a predetermined location. It is not about the device, but about the connectivity, capabilities and experience. Access through mobile devices should be a choice and a part of the total learning environment (Brown, 2005).

Corbeil and Corbeil (2007) predicted that mobile learning would one day provide learning that was truly independent of time and place, facilitated by portable computer capable of providing rich interactivity, total connectivity and powerful processing. Keegan (2002) anticipated that mobile learning is a harbinger of the future of learning. The applications of mobile learning ranges widely from high school to higher education and corporate learning settings, as well as from formal and informal learning to classroom and distance learning. Instructional designers and teachers need a solid theoretical foundation for mobile learning in the context of distance education and more guidance about how to utilize emerging mobile technologies and integrate them into their teaching.

Goh and Kinshuk (2006) summated that utilizing mobile devices in education is mainly considered as enhanced tools which can be categorized into six as; games and competition in learning, classroom learning, laboratory learning, field trip learning, distance learning and informal learning. Games and competition implies that learning in young people using phone-based games improve their spelling, reading and mathematics skills. Classroom learning enhances the use of mobile devices in the laboratory environment to support individual learning as well as collaborative learning. One example of classroom learning would be using mobile devices like smartphone to brainstorm, take quiz, and vote. Laboratory learning is similar to classroom learning but has data acquisition as extra function. Distance learning uses mobile devices to support synchronous and asynchronous learning. An example is using videophone to deliver home education for students with severe physical impairment. Informal learning is enabled with context aware technologies. The setting of informal learning can include gallery, garden, aquarium, museum, and so on.

The difference between m-learning and traditional classroom learning cannot be over emphasized. M-learning is learner-centric learning as opposed to classroom lecture-form of learning which is teacher-centric. The traditional forms of learning require learners to be present at a fixed location. Conventional e-learning enables learners from a distance with personal computer (PC) and internet connection so that they can learn and interact with others online. However, the size and weight of PCs is a limitation because learning process is tied to computers' location. Mobile devices solve this problem and promote learning anytime and anywhere (El-Hussein & Cronje, 2010). If m-learning could be achieved via the use of mobile devices in university campuses, students would most probably see it as a great advantage. Another advantage of m- learning technologies over conventional e- learning is the ability to incorporate context-awareness. Context-awareness involves having sensors in mobile devices such as smartphones, tablet computers among others that are capable of detecting the student learning behaviours in the real world and then stimulates more adaptive learning activities (Hwang, Wu & Chen, 2007).

Wenger and Snyder (2000) stated that there are two categories of mobile learning, which are also referred to as primary delivery strategies. Mobile learning can be in form of performance support system, which means using mobile devices to deliver performance support (PSS) or as communication that creates knowledge such as teaching through communication. M-learning performance support systems (PSS) are similar to traditional performance support services (PSS). M-Learning solutions integrate mobile devices to help users perform tasks such as providing information, guidance and learning experiences when and where they are needed. When users implore the cell phone to find a phone number, check the date and time or calculate, they experience m-learning as performance support.

On the other hand, when users call using a cell phone while travelling to ask expert's advice or send e-mails via Blackberry smartphones, iPods, tablet computers, among others during a class meeting or asking for definitions or examples, they experience m-learning as communication that creates knowledge. Mobile technologies include any number of the wide range of portable devices that are designed to provide access to information in any location or while on the move. Typical examples of the mobile technologies and devices used for mobile learning include cell phones, smartphones, palmtops and hand-held computers; tablet personal computers, laptops, and personal media players can also fall within this scope (Kukulska-Hulme & Traxler, 2005). Mobile phones connect students with teachers and other students and help them deal with class attendance issues, rearrange meetings, retrieve schedule and assignment data, discuss assignments, coordinate study groups and seek help with academic and life problems (Kazt, 2011).

The potentials of mobile devices cannot be over emphasized. In addition to telephoning, modern mobile devices also support a wide variety of other services such as text messaging,

multimedia system, email, Internet access, short-range wireless communications (infrared, Bluetooth), business applications, gaming and photography. Mobile phones that offer these and more general computing capabilities are referred to as smartphones. Smartphones combine telephone capabilities with a PDA (Personal Digital Assistant), Camera, Video, Mass storage, MP3 player, internet access, and networking features in one compact system (Corbeil & Corbeil 2007). Students can download audio and video lectures and podcasts which include listening to audio recordings of lectures for future use thereby providing supplemental information to enhance traditional lecturers into their mobile devices. They can also play video and flash movies; display and edit text documents, access e-mail and web content; send instant messages and text messages; and use the devices for mass storage. Walker (2006) stated that mobile devices provide opportunities for students to rehearse oral presentations take quizzes, shoot photos for class projects and create podcasts.

Educators across the world are already using mobile devices for learning. Teachers give oral quizzes via devices like cell phone (Kolb, 2008). Mobile devices were tagged by Kolb (2008) as the "Swiss Army knife of education," because they can be used inside or outside the classroom. The usage in classroom allows students to make the connection between learning and everyday life. Walker, (2006) posited that mobile devices like cell phones, smartphones and tablet computers, among others today really are mini-computers. This is because, they have the same amount of power computers had 10 years ago. Goh and Kinshuk, (2006) suggested ten pedagogical guidelines for educators that want make use of the mobile learning technologies, thereby providing a list of dos and don'ts which will afford them the opportunity to learn new things. These include costs, usability, choice of technology, roles, equipment management, support for teachers, administration, collaboration, services and applications and security and privacy.

Mobile technology, with its persuasive acceptance and powerful functionality, is inevitably changing people's behaviours. Young adults are especially dependent on mobile devices today. CourseSmart (2011) revealed that university students cannot do without their mobile devices, including smartphones, laptops and more. It's very common to see university students checking email, Facebook, Twitter, or other social network sites using mobile devices with their constant web connection feature nowadays. Alexander (2011) found that 57% of university students use smartphones, 60% feel addicted to their phones, 75% sleep next to their phones, 88% texted in class before, 97% who have smartphones use them for social networking, and 40% used smartphone to study before test.

Harley, Winn, Pemberton and Wilcox (2007) found that text messaging has the potential to aid high school graduates in making smooth transition from high school to university. The University of Brighton uses a desktop computer application called student messenger which allows professors and administrators to send text messages, such as reminders, due dates, meeting, times, etc., directly to freshmen. The students who used this system gave overall positive feedback because its gives a sense of belonging and also made them felt they would do better academically. Liu and Hwang (2010) found that modern technology-aided learning are in three stages ranging from conventional e-learning to m-learning to context-aware u-learning. Conventional e-learning refers to using computer and the Internet for learning. This is where computer plays a vital role in modern education and pedagogy. M-learning (or mobile-learning) is realized with mobile devices and wireless communication. Context-aware u-learning (or ubiquitous-learning) requires mobile devices equipped with sensor technology and wireless communication.

As mobile learning grows, mobile devices such as cell phones, smartphones and personal tablets computers and one of their prominent features like text messaging, also known as SMS will play a significant role in this new learning phenomenon. Kukulska-Hulme and Traxler, (2005) found that students are most interested in using mobile devices like cell phones because of their flexibility. This is because text messaging as one of their functions has overtaken e-mail and instant messaging as the main form of communication, as 94% of students send and receive text messages. Despite being a new tool in education, institutions, administrations, staff and faculties are experimenting with text messaging in variety of ways. Carvus and Ibrahim (2009) pointed that text messaging was used to help students learn new English words. Using special software on the instructor's computer, a new word was sent out to students every half an hour via text message in order to help students become familiar with new English words. The experiment received favorable marks from participants who expressed their satisfaction and enjoyment of learning away from the classroom.

Ash (2013) reported that the proliferation of tablets, smartphones and other mobile devices has increased the number of games, apps, and software to help students learn and increase their literacy skills. As technology continues to evolve, these tools are becoming more interactive, animated, and sophisticated. In the contemporary world, mobile devices like smartphones have made lives of people much easier and comfortable. Nusca (2009) stated some of the key features of that has been enabling mobile devices there numerous functions such as Operating system, Apps, Web Access, QWERTY keyboard, messaging, camera, etc. Operating System of mobile devices like smartphones are based on operating systems which allow them to run applications. Apple's iPhone runs the iOS, BlackBerry smartphones run the BlackBerry OS. Other devices run Google's Android OS, HP's webOS, and Microsoft's Windows Phone. While almost all cell phones include some sort of software. They also allow users to create and edit Microsoft Office documents or at least view the files, download apps, such as personal and business finance managers, handy personal assistants and even edit photos, get driving directions via GPS, and create a playlist of digital tunes. Also, accessibility to Web at higher speeds, thanks to the growth of 4G and 3G data networks, as well as the addition of Wi-Fi support to many handsets. Users can browse favorite sites at their convenience.

Russell (2013) stated that for sometimes, short messaging services (SMS) is fading away for many on mobile devices (like smartphones such as blackberry phones, iPhone, tablet computers and more). Thus, revealed 22 of the best mobile messaging apps replacing SMS which include BBM, facebook, Line, Messageme, Nimbuzz, Skype, Viber, Wechat and Whatsapp. Although, people still use it, but there are a lot of apps that go way beyond it, offering easy multimedia functions, group chats, video calls, gaming and much more.

Statement of the Problem

With integration of new things, there are advantages and disadvantages. As text message, cell phones, and mobile learning move through their initial stages of pedagogical development, issues need to be addressed. One of the issues with text messaging is dealing with its own lingo for example, "your" "spelled" "UR", problems cut down to "Probs" and students' ability of letter writing has fallen which has negatively affected the standard of education. Labrow (2004) expressed his concern on these issues. But these low standards pervade our everyday lives. As for the use of mobile devices like cell phones in education, Noble (2009), does not object to the use but has some concerns about its negative effects on teaching and learning, stating that there are serious concerns about their misuses which include cheating on exams, cyber bullying or just being disruptive in class. With some of the positives and the negatives of using text messaging in education outlined, there is need to validate its pedagogical and technological integration in education. Labrow (2004) sums up this view when he stated that, mobile learning could be great but the pedagogy needs to be gotten correctly and that educators should not be seduced by the speed and availability.

Banerjee (2013) stated some advantages and disadvantages of mobile devices such as the immediate acquisition and application of new skills or knowledge (training), use of quality media (audio, visual and audio-visual) when appropriate, access to experts (location), build a community of practice, and learning without a predetermined location. Among the disadvantages identified is the difficulty in accessibility of information from the web, small screen sizes, cost of purchase and maintenance, so also the challenges of the security of the device.

Research Questions

The study sought answers to the following research questions:
  i.   What is the perception of lecturers on the ease of use of mobile devices for teaching?
  ii.   Does gender influence lecturers' perception on the ease of use of mobile devices for teaching?

Research Hypothesis

The following hypothesis was tested in the study

Ho_1 There is no significant difference between male and female lecturers in their perception on the ease of use of mobile devices for teaching

Literature Review

Integration and Adoption of mobile devices into Teaching and Learning

Some inventions take the world by storm and others seem to fail, lie dormant for decades, but when their time has come their use grows quickly, even explosively. A broad social psychological/ sociological theory called Diffusion of Innovations (DOI) Theory of Diffusion Theory (DI) purports to describe the patterns of adoption, explain the mechanism and assist in predicting whether and how

a new invention will be successful. Liden (2003) posited that the theory has potential application to information technology ideas and techniques and has been used as the theoretical basis for a number of studies. Diffusion of Innovations Theory is concerned with the manner in which a new technological idea and technique or a new use of an old one, migrates from creation to use. It is concerned with the spread of innovation, ideas and technology through a culture or cultures. The theory states that technological innovation is communicated through particular channels, over time, among the members of a social system. The Diffusion theory states that there are many qualities in people that cause them to accept or resist an innovation. The theory also states five stages to the process of adopting an innovation which are knowledge when an individual becomes aware of an innovation but has no information about it, persuasion is the second stage whereby an individual becomes actively interested in seeking knowledge about the innovation and later decides after weighing the advantages and disadvantages of the innovation and decides whether or not to adopt it. The next is the implementation which entails the individual to actually do adopt and use the innovation. Lastly is the confirmation stage which involves making a final decision about whether or not to continue using it based on his own personal experience with it.

These same stages apply to varying degrees, group of people in addition to individuals. There are many factors of innovations themselves that determine how likely people are to adopt them and how quickly people will adopt them. Generally, if an innovation is better than whatever standard preceded it, it will eventually be adapted. However, if the innovation goes against the moral values of the people, it will be less likely to be adapted. The ability to try the innovation without committing to it right away also influences the likelihood of people adopting the innovation.

Corbeil and Corbeil (2007) reported that the mobile revolution had finally arrived. New generations of young people who have grown up with digital technology have high expectations of anytime, anywhere learning. The educational school of thought believes in tapping every available resource, including mobile technology. The use of mobile devices in teaching and learning is in its infancy and depends entirely on the development and impact as an educational tool. Nigerian Tribune (2007) affirms that it is evident that mobile learning can facilitate learning. The possibility to become educated via mobile learning (i.e. learning through mobile devices) has become a viable option, as the devices are what people of this era have in common. The existing features of the mobile devices like smartphones, tablet computers among others show the possibilities for learning through their usage. The main advantage of mobile devices in learning process is their portability, which enables them to be used for learning outside the classroom.

Chadwick (2010) agreed that mobile devices, such as smartphones, have tremendous potential in the classroom for secondary and post-secondary education. He further opined that educators need to adopt the use of mobile devices into the classroom and it is achievable by properly equipping students with necessary media literacy skills that will promote positive virtual citizenry for them to face the challenges of 21st century. Fulton (1997) stated that the effective integration of mobile devices into classroom is as a result of many factors but most importantly, teachers' competency and ability to shape instructional materials to meet students' behavioural needs. The application of mobile learning range widely, from Elementary to University Education (classroom, distance learning and filed study), corporate learning settings, formal and informal learning (Keegan, 2002).

In Nigeria, lecturers and students at tertiary institutions do not have awareness of how courses could be taught using mobile technologies to support learning and lack the skills in using mobile devices for teaching and learning processes. This is why they are still much reliant on traditional lesson methods. Some of the challenges also include the cost of the devices. They often ask questions such whose responsibility to purchase the devices, is it students, teachers or school authority? However, there is need to adopt mobile learning as an option and when this new instructional teaching strategy is used in the teaching and learning in our Nigerian tertiary institutions, teaching will be enhanced, effective and meaningful result will be obtained. Poor performance of our students in the External Examination will change for better and excellent result will be attained.

Perceptions of lecturers on Integrating of Mobile Devices for Teaching

Lecturers are a critical factor in qualitative education delivery. Improvement in the performance of learners can only be achieved with improvement in lecturers' preparation as "no education system can rise above the quality of its teachers" (FRN, 2009 p 41). Alimi and Balogun (2010) opined that lecturers who are the personnel in-charge of teaching and implementing

educational policies designed to attain educational goals cannot be neglected, if the educational goals and in fact, national development goals are to be attained. The success of the education system depends on teachers as they are in the centre of education enterprise. STAN (1992) opined that: "No matter how good a policy, how innovative a curriculum is, the success of any education venture is in the hands of the teacher, his convention and preparedness" (p.84). A lecturer cannot teach effectively without using his or her initiative and additional professional qualifications. For a dynamic teaching/learning environment, lecturers must be well-informed and resourceful, especially in the present information technology age that has eaten deep into Nigeria and every operation has become electronic (Onocha, 2013).

For many years, educators and researchers have carried out series of study on the variables that influence student performance. Adeyemi and Adu, (2012) opined that lecturers as one of the inputs into the educational process constitute an important aspect in students' learning. This has explained why the National Policy on Education (FRN, 2009) emphasised the need to accord teacher education a prominent place in educational training. The lecturer is the first resource to consider when it comes to effective teaching and learning in the university system because he/she has a direct connection with the students. In modern teaching and learning, emphasis has now shifted from the lecturer (instructor) as the center of learning and teaching, to the student. The current trends are to move away from the dull instructional routine that emphasizes lecturer dominance and excessive content coverage to a teaching and learning style that allows the engaging activities in a well-orchestrated, cohesiveness and in which the teaching and learning environment is stimulating and enriching (Ilukena, 1998). Rice (2003) found five broad categories of lecturers' attributes that appear to contribute to teacher quality. These attributes include experience, preparation programs and degree, type of certification, coursework taken in preparation for the profession and lecturers own test scores.

Wayne and Young, (2003) also targeted the lecturer quality in their analysis of studies that examined the characteristics of the effective lecturers and ratings of lecturers undergraduate institutions such as test scores, degrees and course work and certification status. Hattie and Jaeger (2003) identified five major dimensions of an experienced lecturer which include ability to identify essential representation of their subjects, guide learning through classroom interaction, monitor learning and provide feedback, attend to affective attributes and influence student outcome.

Lecturers have to demonstrate not only professional competencies and skills but also social responsibility as mirrors of the society (Ilukena, 1998). Many occupations recognize employees' years of experience as a relevant factor in human resource policies, including compensation systems, benefits packages and promotion decisions. The idea is that experience gained over time enhances the knowledge, skills and productivity of workers (Rice, 2010). Studies on the effect of teaching experience of lecturers on student learning have found a positive relationship between lecturers' effectiveness and their years of experience, but the relationship observed is not always a significant or an entirely linear one (Murnane & Phillips, 1981). The evidence currently available suggests that while inexperienced lecturers are less effective than experienced lecturers, the benefits of experience level off after a few years (Rivkin, Hanushek, & Kain, 2000). Onanuga (2006) is of the opinion that the more the number of years spent on the job renders most lecturers ill-productive in all aspects and thus they become lazy and uncommitted to the teaching profession. Akubuilo (2005) on the other hand opined that the years of teaching experience play a significant role and is a factor in lecturers' productivity. At this digital age, teaching, learning and various educational activities should revolve around mobile devices. In this vein, a teacher or lecturer as the case may be, can create a Facebook page, which he regularly updates and post assignments, tutorial questions, suggestions for further reading and also receive feedback from the students through the use of mobile devices (Adeyanju, 2012).

However, mobile devices offer plenty of opportunities for learning and interactivity. Osborne (2011) believes the younger generations use such technology in the classroom to remake the educational landscape by distributing model of connection, posting any activity feeds that enables them build an on-going relationship with stakeholders through low stakes participation. Mobile devices resources are often provided for passive use as information sources or teaching resources perhaps, an alert to an upcoming event, a blog post that directs the reader academic literature or a video that demonstrates a key technique or concept. Laurenti, (2011) stated five top uses of mobile devices in education which include enhanced collaboration (creating a better enhanced collaborative

environment beyond individuals capability); enhanced flipping (increasing teacher-student relationship, as some educators are exploring a new way to teach, called "flipping" the classroom. In this strategy, students view recorded lectures or read curricular material outside the classroom with the use of Apps installed on the mobile devices); Real time information (enabling students to communicate with lecturers outside the classroom); collaboration between educators (communication of ideas among educators) and Open Source Social Media (A public social media website like Facebook or Twitter may not be appropriate for a classroom setting, but there are many open source social media services that allow collaboration between individuals).

In conclusion, mobile devices applications provide easy, fast and efficient ways to access a great diversity of information and situated knowledge. They also provide learners with opportunities to develop their competencies in collaboration with other learners, practitioners and stakeholders. Furthermore, they allow individuals to acquire competence in holistic manner (Ala-Mutka, 2010). Perceptions on the ease of use play key roles in human functioning because it affects behaviour not only directly, but by its impact on other determinants such as goals and aspirations, outcome expectations, affective proclivities, and perception of impediments and opportunities in the social environment (Bandura, 1995, 1997). Cazares (2010) opined that users with low level of confidence are less likely to use technology and will typically believe that technology is difficult to use. Therefore, perceptions on the ease of use of technology of these set of people could be low. However, Claggett and Goodhue (2011) believed that the issue of confidence in respect to self-efficacy is quite different from skills and abilities individual have acquired to perform ICT related activities. Self-efficacy is a key determinant to one's perception and any kind of activity individual engages in, effort put in ensuring success in the activity and abilities possessed to face challenges when the need arises (Downey & McMurtrey, 2007). Fear of failure and lack of ICT knowledge formed some of the attitudes that led to the reasons why lecturers lack confidence of adopting and integrating ICT into their teaching (Balanskat, Blamire & Kefala, 2007).

Empirical Review on lecturers Integration of Mobile Devices for Teaching

Mudi (2013) investigated teachers' perceptions towards integrating mobile phones into teaching in public senior secondary schools in Federal Capital Territory, Abuja. 682 teachers were sampled using stratified random sampling techniques to generate information on their perception. The findings revealed that secondary school teachers have perceptions towards integrating mobile phone for teaching; there is no significant difference between male and female teachers on their perception; less, moderate and high experienced teachers have similar perceptions toward integrating mobile phones into Nigerian schools. However, there was significant difference in the perception of teachers with NCE, Bachelor degree and masters' degree holders with bachelor and masters degree teachers have high perception towards integrating mobile phone into school system.

Bamidele and Olayinka (2012) investigate teachers' perception of integrating the use of mobile phones into teaching in public senior secondary schools of Oyo and Lagos state, Nigeria. Four hundred and twenty-one teachers (220 in Oyo state and 201 in Lagos state) teaching in public senior secondary schools of Lagos ad Oyo states were used as population sample. Moderator variables such as age, teaching subject, educational qualification, teaching experience and gender were used to elicit responses from respondents using a questionnaire made up of 36 items Likert scale. The Technology Acceptance Model designed by Davis (1989) was adopted for the study. 421teachers were randomly, clustery and purposively selected to represent sampled schools and population. The data were analyzed using mean, standard deviation, t-test and one-way ANOVA in testing the hypotheses. The findings showed that teachers use mobile phones for personal use but not willing to use for teaching.

Also, teachers do not agree that, they may phobia or anxieties if using mobile phones for teaching, reason being that they are already used to the device. If using mobile phones, performance of teachers could be commented on through feedback mode, also, students will never miss class as they have the lesson modules to download any day, anytime. It was recommended among other things that, Nigerian government should review the existing curriculum in order to include possible instructional supports that could help teachers to teach effectively, one of such prospect is mobile phone. Diverse ways of making teaching learners' centered should be explored by administrators and stakeholders of education so as to get best practice of using technology in teaching. If accepted or not by administrators, barriers identified should be eliminated completely.

Oyinlola (2012) reported that a number of mobile devices were available for use by the students in the selected Universities, these include laptop, cell phone, MP3 and MP4 a lot of others. 94.6% of the students attested to the availability of laptop computers while 100% of the students owned and used a cell phone. 87.8% of the students confirmed that they have internet access through WIFI connection on their mobile phones.

Lecturers' attributes are also factors that contribute to the integration of mobile devices in education. Amongst these attributes is gender, teaching experience and area of specialization. Gender is likely to have major implications for education and ICT in the future and in order to ensure good communication between lecturers and students, it is vital to have an understanding of how different groups may approach the use of ICT. Gender has been identified as one of the factors influencing lecturers' perception. Perceptions on integrating of mobile devices for teaching are issue to gender analysis and when observing communication habits, it is important to be aware of the different ways in which male and females view the mobile devices. Some studies have shown very significant differences in the use of ICT with regard to gender.

Ayinde (2011) investigated the computer self-efficacy among teachers in primary, secondary and tertiary institutions in Niger State, Nigeria. Three 321 teachers were asked to indicate their experience and level of proficiency in the use of computer, 96 teachers from primary schools, 123 teachers from secondary schools and 102 from tertiary institutions. The data were collected through perception of computer self-efficacy scale developed by Bamidele and Olayinka (2012) which has 20-item. The data obtained were analyzed using t-test and ANOVA. The findings showed that, Male and female teachers in secondary school have similar competence in the use of computer. Male primary school teachers were more proficient in the use of computer than their female counterparts. The female lecturers were more proficient in the use of computer than the male lecturers. This is contrary to Chukwuemeka (2010) findings which showed that the female teaches having inadequate proficiency skills in using internet for teaching and learning process.

Gambari, Gbodi and Yaki (2008) investigated lecturers' Internet level of competency in Nigeria Universities (A case study of Federal University of Technology (FUT) Minna, Niger state). One hundred lecturers, (50 male and 50 female) from FUT, Minna, Niger state participated in the study. Data were collected for the study through the administration of 10-item questionnaire. The data were analyzed using mean, standard deviation, t-test ad one-way ANOVA in testing the hypotheses. The findings showed that male lecturers are more competent in using Internet than their female counterparts. Also, less experienced lecturers are more exposed to the use of internet than moderately and highly experienced lecturers. It was recommended among other things, that lecturers should be encouraged to acquire Internet skills; computers and Internet connectivity should be made available to lecturers; and old lecturers should be encouraged to develop and follow the new trends of technology in order to be relevant in this computer age.

Ogunlade (2009) summated that female are underrepresented in school computer courses, computer clubs and in computer science based careers and do not spend as much time at home using computers as male do. Hou, Huang and Lin (2006) also stated that female treated computers as a device to complete a task while male considered computers as recreational devices. Male use technology for fun while female tends to use it as a means of communication. Male generally achieve better in computer and hold more positive attitude towards computer than their female counterparts. Men were more likely to be persuaded to use the mobile phone devices they saw others using it. Women were not influenced. Men are stereotypically expected to possess technological competence and know how, skills and interest (Uden, 2007).

Leung and Wei (2000) revealed that men tend to use mobile devices as an instrument to do business (teaching included) while women tend to make social calls. In addition, Kolb (2008) also discovered that women have more attachment to their mobile devices like cell phones than men, especially to text messaging. Michaud (2009) identified that, there is a gender difference in technology adoption practices, there is also a gender difference in technology preferences. Females have a lower rate of use for audio and video creation and multi-user gaming than males, to the extent that two times as many males as females use video creation and multi-user gaming. However, Oyinlola (2012) revealed that, there is no significant difference in the perceptions of students based on their gender.

Methodology
Research Design
The study is a descriptive research which describes the current situation and survey was conducted to collect the data on lecturers' perceived ease of use of mobile devices.

Sample and Sampling Technique
Lecturers in Universities in Kwara Stated were involved in the study. The distribution of the lecturers according to the Universities shows that 44.1% of them were from the University of Ilorin, 15.27% were from the Al-hikmah University, Ilorin, 23.3% were from Kwara State, University, Melete while 27.2% were from Landmark University, Omu-Aran. The lecturers were randomly selected. Table 1 below shows the sample.

Table 1
Distribution of Respondents (Lecturers) by Universities

Universities	Lecturers	%
Al-hikmah University, Ilorin	54	15.2
Kwara State, University, Melete	83	23.3
Landmark University, Omu-Aran	62	17.4
University of Ilorin, Ilorin	157	44.1
Total	**356**	**100**

Data Analysis
The results of the administered researcher-designed questionnaire was subjected to inferential statistics and was coded and analyzed using Statistical Package for Social Sciences (SPSS) version 20.0 for windows. The statistical tests used were mean for research question1 and inferential analysis involving t-test for gender.

Results
Research Question 1: What is the perception of lecturers on the ease of use of mobile devices for teaching?

Table 2:
Perception of Lecturers on the Ease of Use of Mobile Devices for Teaching

S/N	Items	Mean
1	The flexibility of mobile devices will ensure easy dissemination of knowledge and information to students	2.64
2	It would be easier to remember how to perform teaching tasks using mobile devices	2.27
3	Mobile devices will be easier to use because it is internet enabled	2.64
4	Using mobile devices make learning clearer and understandable	2.56
5	It is easy for me to become skillful at using mobile devices for teaching	2.40
6	It is easy to remember how to perform tasks using mobile devices	2.16
7	Using mobile devices for instruction would requires a lot of skills and effort to ensure learning takes place	2.70
8	Assessment and other modes of evaluation will be made easier with mobile devices	2.75
9	It is easy to customize mobile devices for educational uses	1.92
10	It will demand a lot of training and re-training to become skillful in using mobile devices for teaching	1.96
11	It will not demand a lot of effort to become skillful in using mobile devices for instructional process	2.97
12	It takes a lot of effort to become skillful in using mobile devices for instructional process	2.48
13	The application of mobile devices for teaching is relatively easy for me	2.61
	Grand Mean	**2.47**

Table 8 shows that item 11 which sought to know it will not demand a lot of effort to become skillful in using mobile devices for instructional process has the highest mean score of 2.97. This was

followed by items 8 and 7 which sought to know if assessment and other modes of evaluation will be made easier with mobile devices and that using mobile devices for instruction would requires a lot of skills and effort to ensure learning takes place has mean scores of 2.75 and 2.70 respectively. This was followed closely by items 3 and 1 which south to find out if mobile devices will be easier to use because it is internet enabled and the flexibility of mobile devices will ensure easy dissemination of knowledge and information to students both have a mean score of 2.64.The lowest mean score was item 9 which sought to find out It is easy to customize mobile devices for educational uses has a mean score of 1.92. The grand mean score of the perception of lecturers on the ease of use of mobile devices for teaching was 2.47. This implies that lecturers perceived mobile devices to be easy to use for teaching.

Hypothesis Testing

Ho₁   *There is no significant difference between male and female lecturers in their perception on the ease of use of mobile devices for teaching*

Table 1: Lecturers' Perception on the Ease of Use of Mobile Devices for Teaching based on Gender

Gender	N	$\bar{X}$	SD	df	t	Sig	Remarks
Male	193	31.29	4.83				
				354	1.07	0.44	Accepted
Female	163	31.75	4.61				

From table 1, it can be deduced that there was no significant difference between male and female lecturers' perceived ease of use of mobile devices for teaching. This is reflected in the result: df (354) t= 1.07, p>0.05. Thus, the hypothesis is accepted. This means that the null hypothesis which states that there is no significant difference between male and female lecturers in their perception on the ease of use of mobile devices for teaching is accepted. The implication is that male and female lecturers perceived mobile devices for teaching to be easy to use.

Discussion

The study revealed that lecturers perceived mobile devices easy for teaching. Moreover, resources needed for smooth diffusion and adoption should be made available. This is in line with Mudi (2013) on teachers' perceptions towards integrating mobile phones into teaching in public senior secondary schools in Federal Capital Territory, Abuja. The findings revealed that secondary school teachers have perceptions towards integrating mobile phone for teaching; there is no significant difference between male and female teachers on their perception; less, moderate and high experienced teachers have similar perceptions toward integrating mobile phones into Nigerian schools.

Traxler (2007) also found that some view mobile learning as mobility of learning in terms of learner's experiences of learning with mobile devices which support a wide variety of conceptions of teaching uniquely placed to support learning that is personalized, authentic and situated. Also, Ash (2013) reported that the proliferation of tablets, smartphones and other mobile devices has increased the number of games, apps, and software to help students learn and increase their literacy skills.

However, based on the usage by student, Labrow (2004) expressed concern on the with sending messages through the use of various apps for example "your" spelled as "ur", "problems" cut down to "probs" and students' ability of letter writing has fallen which has negatively affected the standard of education. Noble (2009) also stated that there are serious concerns about their misuses which include cheating on exams, cyber bullying or just being disruptive in class.

Research question 2 examined whether there is a significant difference in the perceptions of lecturers on the ease of use of mobile devices for teaching based on gender. Findings revealed that there was no significant difference between male and female lecturers' perceived ease of use of mobile devices for teaching. The implication is that male and female lecturers perceived mobile devices easy to use for teaching. This is in line with the findings of Yusuf and Balogun (2011) in which no significant difference was established between male and female student-teachers' attitudes and use of ICT. Ayinde (2011) investigated the computer self-efficacy among teachers in primary, secondary and tertiary institutions in Niger State, Nigeria. The findings showed that, male and female teachers in secondary school have similar competence in the use of computer. Also, Bamidele and

Olayinka (2012) found that male and female teachers in secondary school have similar competence in the use of computer. However, male primary school teachers were more proficient in the use of computer than their female counterparts. This is contrary to Chukwuemeka (2010) findings which showed that the female teaches having inadequate proficiency skills in using internet for teaching and learning process. Also, Gambari, Gbodi and Yaki (2008) reported that male lecturers are more competent in using Internet than their female counterparts.

Conclusion

The study concluded that lecturers perceived mobile devices easy for teaching. More so, if wholly integrated into teaching, it would be a welcome idea by lecturers.

Recommendations

1. Resources needed for smooth diffusion and adoption of mobile devices should be made available in tertiary institutions in Nigeria.
2. Necessary efforts should be made on the training and retraining lecturers to become vast and highly proficient in the use of mobiles devices.

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