

# PROSPECTS AND CHALLENGES OF MOBILE LEARNING IMPLEMENTATION IN NIGERIA: CASE STUDY NATIONAL OPEN UNIVERSITY OF NIGERIA (NOUN).

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## 1.0 Abstract

*The demand for education in Africa has continued to unrelentingly increase. This raises the need to identify more affordable ways of improving access to learning opportunities. Incidentally, similarly being witnessed is an unprecedented explosion in the number of cellular telephones, especially in Nigeria. The technology which is arguably the commonest means of communication, could play a pivotal role in extending the possibilities for teaching, learning, and research in educational institutions. Published studies have suggested prospects and technological challenges of mobile learning in the US, Europe and Asia. This paper discusses the benefits and prospects of implementing mobile learning in Nigeria. It also takes a critical look at the available infrastructure and the level of readiness and familiarity of the open and distance learners (ODL) with mobiles phones. The study finally identified the challenges which will be responsible for the sustenance of mobile learning by ODL educators and students.*

**Keywords:** mobile learning, open and distance learning, educators, study centres, mobile devices.

## 1.0 HISTORICAL BACKGROUND OF MOBILE LEARNING.

Mobile learning has been simply defined as learning that takes place with the help of mobile devices Quinn (2003). Similarly, Traxler (2005) commented that mobile learning can be defined as educational provision where the sole or dominant technologies are handheld or palmtop devices.

Historically, Sharples (2002) singled out Alan Kay's Dynabook conceived in the early 1970s, as the first serious attempt to design a computer-mediated mobile learning platform. Basically, mobile learning deals with the use of mobile or wireless devices for the purpose of learning while in motion.

It is also said that electronic organizers capable of three line text-only display were available in the 1990s. Palm Pilot PDAs, introduced in 1996, were the first multi-purpose, customizable handheld devices suitable for a range of creative learning activities.

The grant of more than 100 palm education pioneers (PEP) awarded in 2001 by SRI International (USA) to US teachers who had a vision of how Palm handhelds could be used to improve teaching and learning was another milestone. Many of the findings of the PEP grants have been confirmed by later “handheld learning” studies. Examples of pertinent findings include the strengths and weaknesses of various models for allocating handheld computers to students, to the degree of success with which various learning activities can be accomplished using handheld devices (Saipunidzam M. et al (2010)).

Ellen Wagner (2005) proclaimed that the mobile revolution had finally arrived:

“Wherever one looks, evidence of mobile penetration is irrefutable: cell phones, PDAs, MP3 players, portable game devices, handhelds, tablets, and laptops abound. No demographic is immune from this phenomenon. From toddlers to seniors, people are increasingly connected and are digitally communicating with each other in ways that would have been impossible only a few years ago”.

Recently, many researchers have focused on m-Learning and its environment, such as users’ acceptance of m-Learning (Phuangthong & Malisawan, 2005; Liu, 2009), setting the environment for m-Learning (Chao & Chen, 2009; Brown et al., 2006; Liu, 2008), and the application of m-Learning in developed countries (Paul, 2008).

Similarly, several researches have been carried out in developing countries as well. In Saudi Arabia, a recent paper reports on the results of the survey conducted at King Saud University as reported by chanchary (2010), the author attempted to determine how the mobile technology can be utilized to improve student’s retention at bachelor degree. The result indicated that the introduction of mobile teaching and learning can enhance the teaching and learning situation in that country.

Although most of the developing countries are still in the first phase or perhaps in the research and development phase in implementing this type of learning environment, Kyun Baek and Uk Cheong as well as Barker, Krull and Mallinson as reported by Saipunidzam Mahamad et al. (2010) had proved that developing countries will soon catch up with this new learning paradigm. This shows that this new learning paradigm will evolve mobile devices with the rapid usage and ownership among the users.

In Nigeria, mobile learning have been experimented by tutors and experts through partnerships between the University of Ibadan and Educational Advancement Centre to guarantee outstanding results in the Joint Admission and Matriculation Board (JAMB UTME) available for secondary school students (SS1, SS2, SS3 and retake students) ([www.mobilelearn.mobi/index.php](http://www.mobilelearn.mobi/index.php))

Little or no research has been carried out to determine the prospects and readiness of open and distance learners/educators in the tertiary institutions in Nigeria.

Consequently, the study of the prospects, readiness and challenges of the implementation of mobile learning from the perspectives of the educators and students in a developing country like Nigeria can

never be underscored. It is the first of its kind in open and distance learning environment. The purpose of this research therefore is to discuss the prospects, benefits and barriers in the implementation of mobile learning in Nigeria.

## 1.1 STATEMENT OF THE PROBLEM

There is an endemic crisis in Sub Saharan Africa's teaching and learning development systems. This can be seen in the shortage in the number of qualified teachers and in the depth of motivated teachers who are capable of delivering quality teaching and learning within a twenty-first-century educational context. The infrastructural deficit associated with the region as well as the level of illiteracy poses great danger to the educational and general development of the continent. It is widely believed that addressing these challenges requires a range of interventions. One such intervention includes the integration and use of information and communications technology (ICT) and open and distance learning (ODL) opportunities (Perraton, 2007; Osang, 2012a).

The use of e-learning strategies as a means of addressing these issues is a step in the right direction especially in ODL environment. But these strategies have not sufficiently broadened access to education especially to the rural dwellers in Nigeria. Access to internet technology, high cost of computer systems, non portability of computer systems etc remain obstacles to e-learning. (Boyinbode et al, 2008; Osang, 2012b)

The global geometrical growth of mobile phone subscriptions in recent years has sparked interest in how mobile phones in particular might enhance ODL opportunities for the professional development of teachers, their support in delivering teaching in their pedagogical practices and administrative duties as well as the delivery of learning to the students. Mobile learning has evolved from testing stage to a new educational trend widely being used by countries such as Japan, Britain, USA, Denmark etc.

In Nigeria, little is being said about mobile learning despite the level of penetration of mobile network to most of the rural areas in the country and the availability of phones. In fact, 58.5 per cent of Nigerians in the rural population now has access to mobile phones (Nigerian Bureau of statistics (2011)).

In addition, there is need for a study that explores the level of readiness of open and distance learners who are spread all over the country and their educators on their views on mobile learning. The perspectives of the Educators remain fundamental in the adoption, implementation, usage and sustenance of any technological innovation as it affects teaching and learning.

The adoption of mobile learning is not the same in all countries due to the level of awareness of the technology, availability of infrastructure, the expertise in the new technology and the willingness of the users to implement and use the technology. Therefore, this research intends to investigate these cases in Nigeria's open and distance learning institution.

## 1.2 PURPOSE OF THE STUDY

It is estimated that at least 63.9 per cent of the Nigerian population now has access to mobile phones. These devices are still being underutilized particularly considering their inherent capabilities for mobile learning. This is due to the level of awareness of the technology, the expertise in the new technology as well as the willingness of the users to accept and use the technology. The purpose of this paper is to present the findings regarding the perceived benefits and barriers to m-learning. It will also look at the availability of the mobile infrastructure, the capabilities of their phones as well as the readiness of both the students and their teachers to adopt and use mobile learning.

It is hoped that with adequate information and awareness about mobile learning and its requirements, academic institutions and their students will realize the vast untapped potentials provided by the

availability of mobile phones in extending teaching and learning methods in open and distance learning in Nigeria.

Similarly, Policy makers will be adequately informed on the parameters which should not be ignored in the formulation or update of either new or existing educational mobile learning policies for the country.

In addition, telecommunication providers could be inspired to partner with academic institutions to deliver added value services such as mobile learning using their infrastructure.

### 1.3 RESEARCH QUESTIONS

This work will attempt to answer the following questions:

- (a) With the infrastructural deficit associated with developing countries like Nigeria, what are the available infrastructures to guarantee mobile learning?
- (b) From the educators' perspective, what are the possible benefits and barriers that may affect the successful implementation of mobile learning in ODL environment?
- (c) What is the level of readiness and familiarity of open and distance learners /educators in Nigeria with mobile learning in their teaching/learning?

### 2.0 BENEFITS, THE NECESSARY INFRASTRUCTURE AND IMPLEMENTAION CHALLENGES OF M-LEARNING

With mobile technology, learning can take place anytime, anywhere including at home, in a car, in hotels. This is invaluable for work-based training especially for open and distance learners. PDAs or tablets holding notes and e-books are lighter and less bulky than bags full of files, papers and textbooks, or even laptops. It's much easier to accommodate several mobile devices in a classroom than several desktop computers. A good example is the online chat where people use blackberry even while on traffic or bedroom. The wasted times can be valuably utilised.

Seppälä and Alamäki (2003) also identified these three elements of mobility and compared to the feedback collected from a study conducted with trainee teachers using mobile devices in their teaching.

Other reasons why mobile telephony was adopted as the major medium of the learning platform include:

- **Interest:** These devices engage learners. Young people who may have lost interest in education prefer to play around with mobile phones, gadgets, games devices etc. Gaming has become a perversion of the upcoming generation but can be used to advantage by the introduction of Learning Games on the Mobile phones.  
Other possibilities available to the National Open University of Nigeria as an Education provider on the use of mobile learning include:
- **Collaboration:** Educators and learners can share assignments and work collaboratively as a group using the infrared function of a PDA or a wireless network such as Bluetooth, short messaging etc.
- **Automated Assessment:** Automation of assessment of learners thereby reducing the workload on the Teachers and leading to more effective learning. Assessment of students is very vital in learning as it is a veritable tool in measuring the understanding of the students but it is usually not being maximise due to other activities and demands it places on time for marking of scripts, recording, analysing and reporting by the Lecturers.

- **Improved Feedback:** Mobile learning platform allows for immediate feedback to the Learner, educators and the parents. This encourages prompt correction of lapses and encourages better performance.

## 2.1 THE NECESSARY INFRASTRUCTURE

**The phones:** With 4,369,740 Facebook users (ITU, 12/2011), Nigeria has more than 90 million active phone compared with about 400,000 lines some ten years ago. This is why the growth of the last ten years has been variously described as a revolution. Many people, including educators and students already have mobile phones. The percentage of Nigerians using different categories of mobile phones is enormous. According to the 2011 Annual Socio-Economic Report: Access to ICT by the Nigerian National Bureau of Statistics (NBS) survey obtained by *Technology Times* newspaper, out of the 167 million Nigerians, 63.9 per cent of the population now have access to mobile phones (see table 1), underscoring its relatively faster growth compared to radio.

**The Network:** The available network suppliers like mtn, globacom, etisalat, zain network etc have not been resting on their hoarse, but have been striving to render a world class standard of network services like moving to the 3G era. The use of Nigeria satellite communication 2 can also be a useful platform to champion this course. Even with the recent level of development, over 70% of Nigeria has been covered with different network services. **The Technology:** Since mobile learning has succeeded in other countries like Japan, Britain, USA, Denmark among others. It is most likely to succeed in Nigeria too since the technology can be acquired and the phones are available.

See

table

1

below:

**Table 1 : Distribution of access to mobile phones (%)**

STATE	Owned	Access Only	Total Access
Anambra	56.0	39.1	95.1
Osun	58.1	33.8	91.9
Kogi	50.0	37.6	87.6
Ogun	47.3	39.9	87.1
Niger	37.3	48.9	86.2
Lagos	76.4	9.2	85.6
Ebonyi	22.8	59.2	82.0
Imo	46.3	35.5	81.9
Oyo	32.2	49.3	81.5
Edo	44.1	34.4	78.5
Kwara	32.2	45.7	78.0
Ekiti	47.7	30.2	77.9
Delta	48.2	28.6	76.8
Rivers	52.1	23.7	75.8
Jigawa	17.1	58.3	75.4
Ondo	35.7	39.3	75.0
Nasarawa	26.4	48.3	74.8
FCT Abuja	47.3	24.5	71.8
Enugu	38.3	32.9	71.2
Abia	45.3	25.3	70.6
Akwa Ibom	37.4	30.6	68.1
Plateau	32.0	35.2	67.2
Kebbi	11.7	53.3	65.0
Bayelsa	30.3	33.6	64.0
Gombe	17.4	44.8	62.3
Benue	26.1	28.9	55.0
Kaduna	19.4	35.4	54.8
Cross River	23.4	30.9	54.3
Borno	11.4	42.7	54.1
Yobe	15.5	36.3	51.8
Adamawa	17.7	28.7	46.5
Bauchi	12.3	30.5	42.8
Katsina	10.4	29.3	39.7
Kano	12.4	23.8	36.2
Zamfara	12.3	23.8	36.1
Sokoto	8.9	24.2	33.1
Taraba	15.1	18.0	33.1
URBAN	52.9	31.2	84.0
RURAL	24.4	34.1	58.5
National	30.4	33.5	63.9

Graphics: [technologytimes.com.ng](http://technologytimes.com.ng)

National Bureau of Statistic, General Household Survey, 2011

Source: [www.nigerianstat.gov.ng/pages/download/35](http://www.nigerianstat.gov.ng/pages/download/35)

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## 2.2 CHALLENGES OF M-LEARNING IMPLEMENTATION

Naismith et al (2005) highlights a number of new challenges when adopting mobile technology in learning and teaching:

- **Mobility** – the ‘anytime, anywhere’ capabilities of mobile devices encourages learning experiences outside of a teacher-managed classroom environment. Learning over time –learners will need effective tools webinars, MP3 etc to record, organise and reflect on their mobile learning experiences. The epileptic and expensive nature of the data connections in Nigeria would be a major barrier. Services such as WebEx and adobe connect for web conferencing on the phone, and face time and Skype for video calls, doing synchronous learning on mobile devices is certainly an option.
- **Insecurity** – In terms of security, the usage of the wireless internet without any supervision might lead to the learners to join negative groups, which might threaten the learners’ safety. The prevalent kidnapping cases as well as the recently publicized death of a Nigerian student caused by the use of social media vividly underscores grave dangers unassuming people are exposed to in the hands of those who abuse the technology.
- **Ownership** - The ownership of the devices is thus a key consideration. According to Perry (2003) as reported by MacCallum et al (2009), both tangible and intangible benefits can accrue through the use of mobile devices. Intangible benefits include a sense of belonging with the device and personal commitment and comfort. In other word, if the phones are provided by the institution, the students may not handle such phones with care as they would do to their personal phones. Similarly, personal ownership does present a challenge even to the conventional institution’s control of the technology.

**Technical Challenges** Includes: Different screen sizes, products etc

**Use of supported Format:** Mobile devices that only supports GIF format will incorrectly display any learning object created using other formats.

**Troubleshooting support services should be always ready**

Other challenges as reported by Barker, Krull and Mallinson include device limitations, issues on instructional, training, safety, security, and maintenance, and the implementation cost.

**Affordability:** Cost of mobile learning can be seen from different perspectives ranging from the cost of the technology (programs used for the development of mobile based system) and the infrastructure (devices used to run the mobile application).

Also smart phones normally come with regular cost like that of the data plan. It is one thing for a student to have a smart phone and another for that student to be able to pay for enough time or unlimited data access.

**Acceptability:** One critical issue that will determine the success of the mobile learning implementation and usage of the technology for teaching and learning is the teachers/learners acceptance and readiness to use the new technology. Most studies revealed that the students are not necessarily ready to fully move into the mobile space for their coursework. They are usually on the net for social networking, listening to music, online chatting and other social networking activities.

**Added complexity:** Educators will not only concentrate on development of course material, facilitation, setting and marking of questions, but their work will now extend to include course website, classroom technology as well as learning the technology. Mobile technology adds an additional layer of complexity and preparation and might also entail repackaging course content to fit the handheld device. Students will regularly expect responses from their lecturers as long as there is network.

## 3.0 METHODOLOGY

In order to collect information from the open and distance learning Academic Staff and Students on the research questions above, 270 questionnaires were sent to the study centre Directors through emails to be distributed to the first and second year students with each zone being given 45 questionnaires. Each of the Study Centre was selected from the six geographical regions based on the students' population and to reflect divergent views. The Center Directors were told to distribute the questionnaires randomly to the returning students as they come for their semester registration.

Students from the six geopolitical zones were selected using the stratified random sampling technique (<http://explorable.com/stratified-sampling.html>). This technique ensures that specific groups are represented in the sample by selecting individual students from strata list with different levels of infrastructural development and background. The level of technological development and awareness in Nigeria tends towards the southern part of the country. Hence in order to have a broad view of the students' perception, all the strata (geopolitical zones) were represented in the sample.

In the same manner, out of the 120 questions sent out to the Academic Staff of the institution who are based at the headquarters 80 questionnaires were received. The Center Directors are also included since they are also members of the faculty by the structure of the University.

### 3.1 ETHICAL ISSUES

**Privacy Issues:** Responses from the students are to be held in absolute confidentiality as personal issues such as the activities of the students on the internet were asked. Other confidential issues such as their willingness to accept mobile learning, their competence in using mobile phones as well as the capabilities and identities are issues that require confidentiality.

**Cultural/Political Issues:** In order to protect the interest of different cultures in the country the researcher decided to use quantitative approach which is objective, detached from the respondents and unbiased. In quantitative research, the investigators maintain a detached, objective view in order to understand the facts (Duffy, 1986). The use of some methods may require no direct contact with subjects at all, as in postal questionnaire surveys. The strength of such a detached approach is avoidance of researcher involvement, guarding against biasing the study and ensuring objectivity.

**Optional Participation:** The Center Directors were encouraged not to force the participation in this research on any student. Only interested students were given the questionnaire. This will eventually bring out their unbiased opinion on the issues raised by this research.

## 4.0 FINDINGS

In order to provide answers to the questions above, the findings of this work are further organized into four sections as shown below.

### 4.1 SECTION A

The first part of this section investigates the availability and types of mobile devices being used by the educators and students. Students use different types of mobile devices even more than Educators except in smart phones and laptops. This is not unconnected with their active social activities.

Less than 8% of the students sampled are yet to have one type of mobile phone or the other.

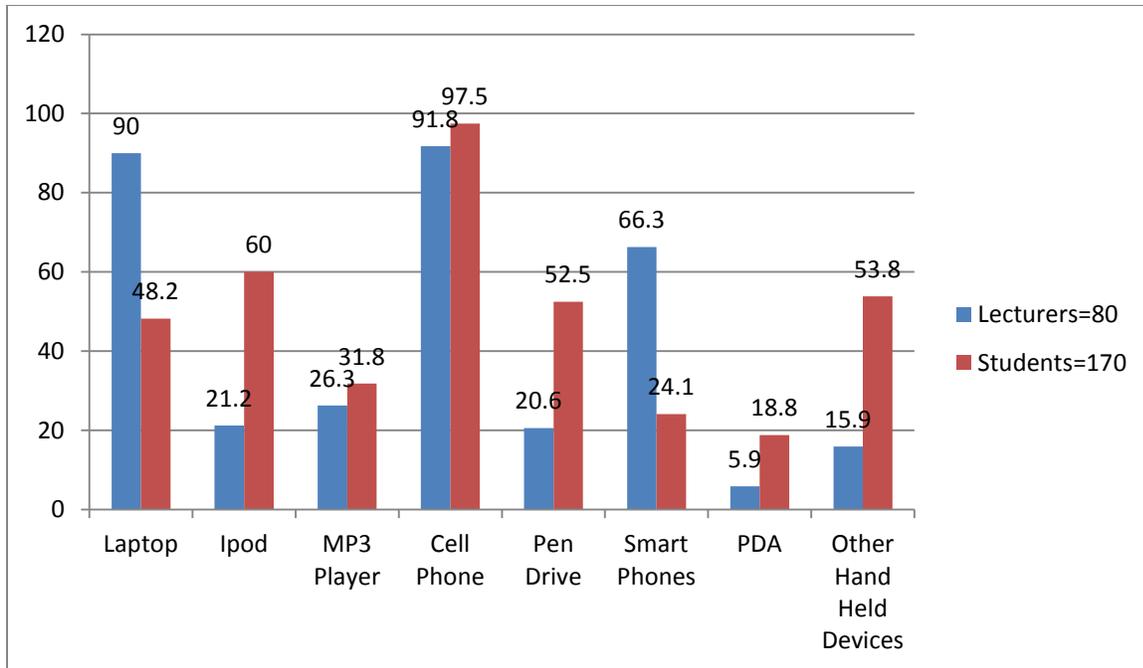
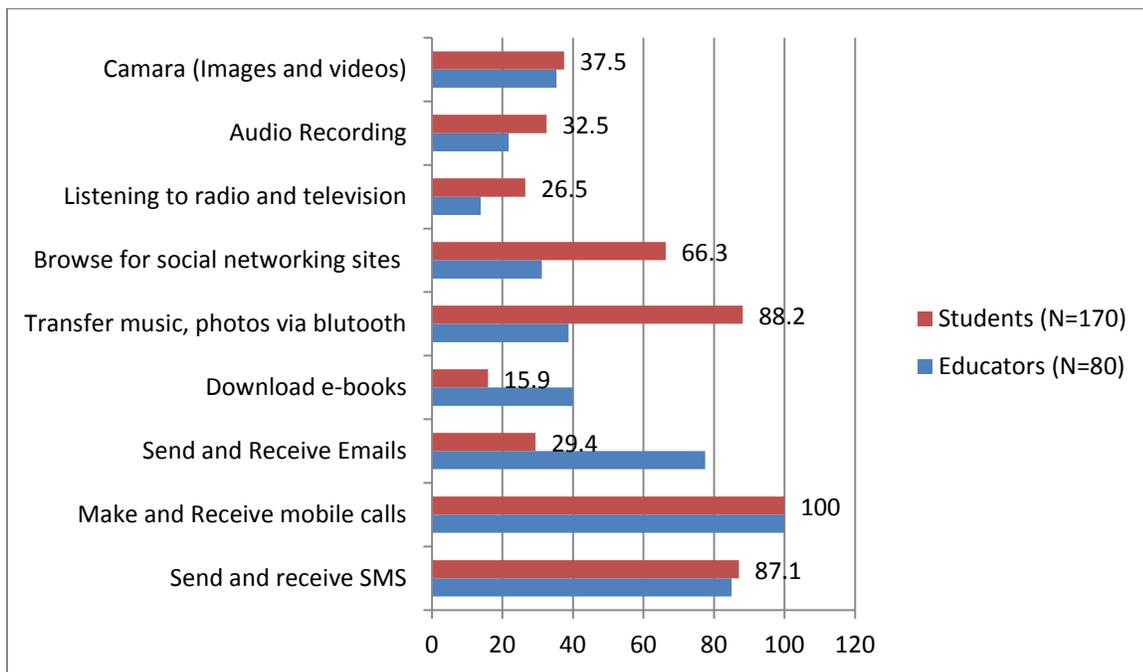


Figure 1. Types of mobile devices owned by the Educators and Students

4.2 SECTION B

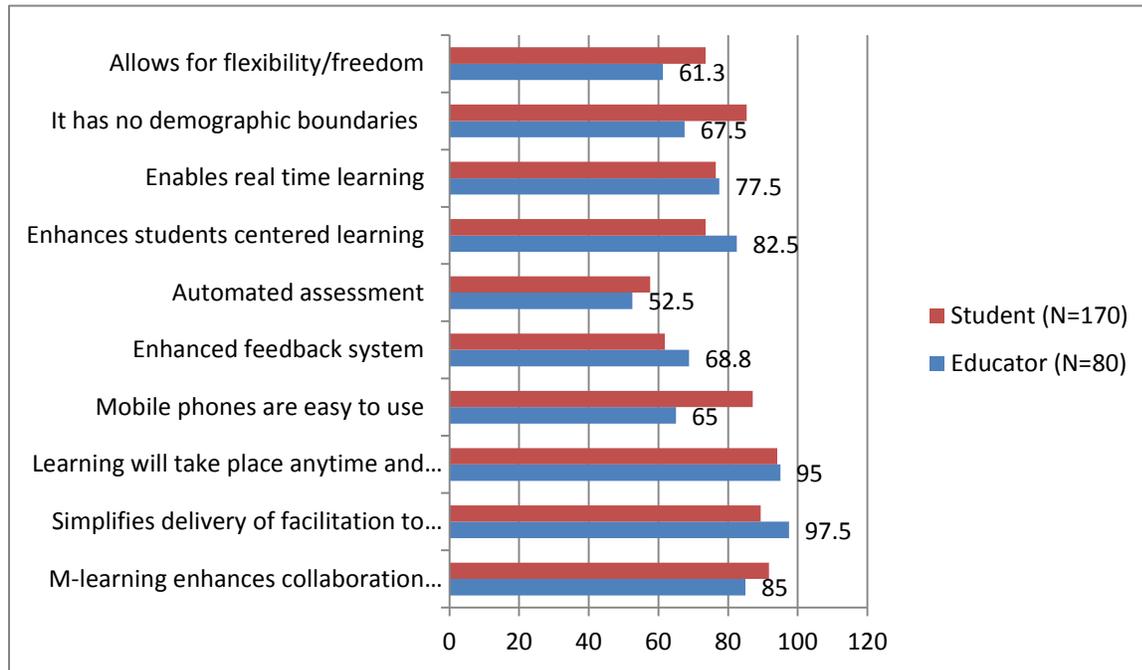
This section captures the types of mobile learning activities which the educators and students are already familiar with. For example, research shows that although the mobile phones were basically used for making audio calls, the additional facilities being included like browsing, text messaging, video applications, music applications etc have made mobile phones more interesting.



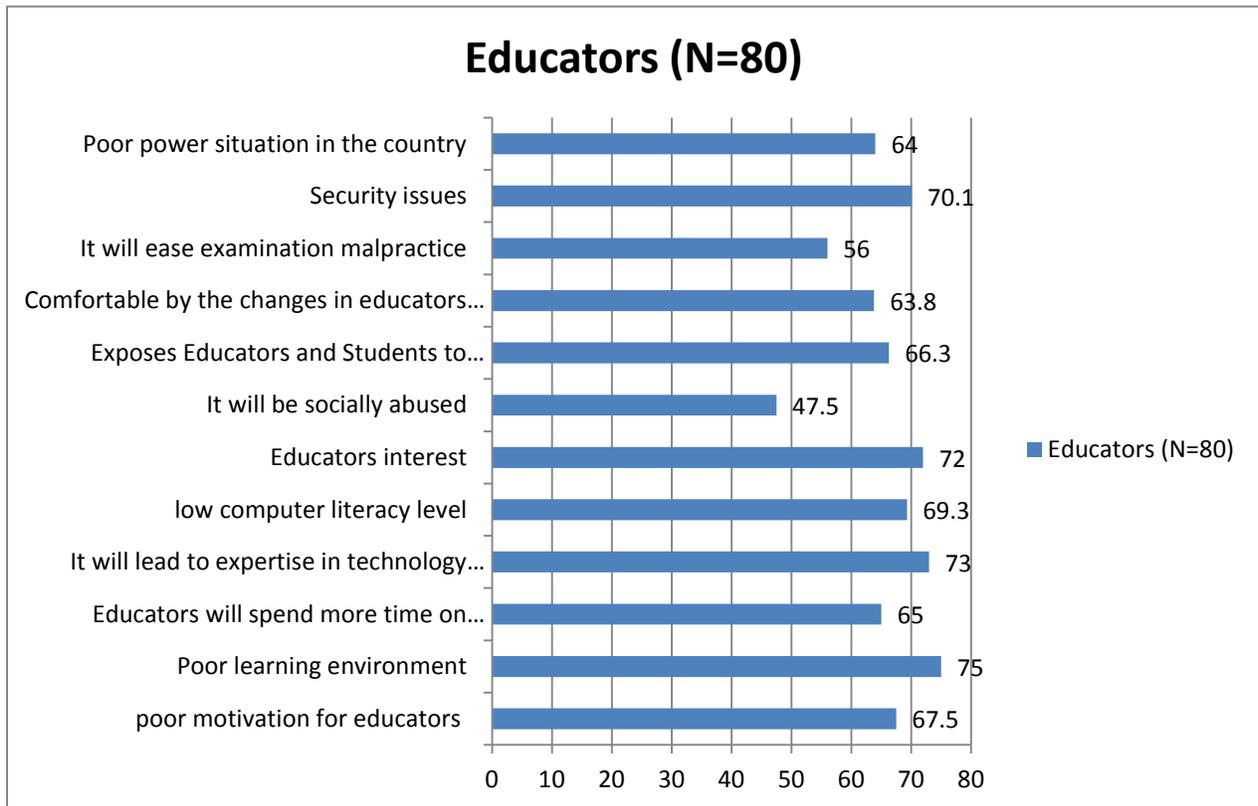
**Figure 2. Educators and Student's Cell Phone Preference.****4.3 SECTION C**

Perceived benefits of mobile learning

From figure 3 below, 97.5% of educators (compared to the students 89.4%) believe that the greatest advantage of mobile learning is the ease with which teaching and learning can be delivered to the remotest part of the country.

**Figure 3. Perceived benefits of mobile learning****4.4 SECTION D. Identified Barriers to the Implementation of mobile learning**

This section focused on the Educators. The perspectives of the Educators remain fundamental in the adoption, implementation, usage and sustenance of any technological innovation as it affects teaching and learning.



**Figure 4. Identified Barriers to mobile learning**

#### 4.5 DISCUSSION

The purpose of this paper was to present the findings regarding the perceived benefits and barriers to m-learning. It will also look at the availability of the mobile infrastructure, mobile learning activities already in use as well as the readiness of both the students and their teachers to adopt and use mobile learning. Figure 1 shows that the students already have the necessary phones capable of supporting mobile learning. This is in line with the statistics made available by the Nigerian Office of statistics as shown in table 1 above. 97.5% of the Educators and 91.8% of the students uses mobile phones. 66.3% of the Educators have smart phones like blackberries while 24.1% of the students also use such devices. 90% of the educators already have laptops while 48.2% Of the students indicated having laptops. The availability and use of smart phones like Blackberries, iphones, android and ipad will certainly enhance the quality of the format of the content.

The implication is that reasonable part of the total cost of the technology has already been purchased. The challenge with the cost will only be in terms of the network and the deployment software. Educational Institutions will have the option of substituting phones for the few students without phones or with obsolete phones.

Another important area covered by the research is the mobile learning activities already being carried out by the educators and students. . It attempts to capture the types of activities which the educators and students regularly use their phones for. For example, research shows that although the mobile phones were basically used for making audio calls, the additional facilities being included like browsing, text messaging, video applications, music applications etc have made mobile phones more interesting.

From Figure 2, phone calls and use of short text messages are the highest activities which both the educators and the students use more than other functions. For example, while the students' percentage is lower in sending and receiving of emails, download of e-books, all the other activities in the chart have higher student's involvement than their educators. While 88.2 of the students are regularly engage in transferring photos, music etc through Bluetooth, only 38.8% of the educators is involved in such activities.

The implication is that both the students and the educators would only need to have client software downloaded through the web and installed into their phones. From the technical operation of the mobile technology, the client system (phone) interacts with the server end of the application through the specified network infrastructure. They are already familiar with the processes of accessing content from their phones.

Figure 3 above presented the benefits as well as the perceived barriers which will likely affect the successful adoption and sustenance of mobile learning.

The greatest benefits to the students are the 94.1% believe in its mobility feature of anytime, anywhere and any device learning capability. More than 50% of both the Educators and Students agree with all the benefits of mobile learning as listed on the figure 3 above.

Mobile learning is also perceived to be the best option to simplify the delivery of course materials to where ever network exist in this country. This is important to make up for the infrastructural deficits currently experienced and the conventional means of moving content by road in trucks to different parts of the country.

From figure 4 below, 75% of the Educators believe that the poor learning environment will greatly affect the teaching and learning activities using mobile phone since it is common knowledge that about 75% of **Nigerians live** in the **rural** areas (Agbodike (2011)).

73% of the Educators are of the opinion that technologies usually create expertise in the technology rather than the actual knowledge it is meant to deliver. Educator's interest in mobile learning is another crucial parameter to be taken into consideration in adopting m-learning. If Educators are interesting in using any technology, they will take ownership of such project and drive it in such a way that the students will key into it. Their interest can be enhanced by through motivation.

Equally important is the security challenge currently facing the country as educators would prefer their identities to remain confidential. As a preventive measure towards falling prey to unsuspecting mischief makers who can assume the any identity to perpetrate their evil acts.

Other parameters include low computer literacy level, distractions for the educators and students etc.

Educators share mixed concern regarding the social abuse by the staff and students through the use of mobile phones.

#### 4.6 PROBLEM OF THE STUDY

**Financial Constraint:** The work covers the entire country, since each of the zones is made up of about six to seven states. It is not possible for the researcher to be everywhere; the use of emails became the available and reliable option. But these questionnaires have to be returned back to Lagos through courier services. The cost of phone calls to the Directors to check their mails as well as printing were a major cost to the researcher.

**Cultural/Religious Issues:** Since the work also involve the northern part of the country where Islamic religion is popular, privacy issues affected the work as some students especially the female folks refuse to be part of the sample.

**Regulatory Issues:** Emphasis was placed on the distribution of questionnaires to the first year returning students and year two. This is because the Nigerian university commission (NUC) directed that only year one and two should be subjected to electronic examinations. Consequently, the researcher restricted his study to only this set of students.

## 5.0 CONCLUSION

Like other countries of the world, mobile learning would expand the possibilities of extending open and distance learning education to all nooks and cranny of the country. The availability of phones with different capabilities, the familiarity of the educators and students with the use of phones applications such as web surfing, video applications, text messaging, high social networking activities are all positive pointers to the readiness of the educators and students to accepting the new trend in education ((Kynäslähti (2003), Bruns, A (2006), Seppälä and Alamäki (2003), (Phuangthong & Malisawan, 2005); (Chao & Chen, 2009; Brown et al., 2006; Liu, 2008), (Paul, 2008)).

Whether or not mobile learning will be sustained by educators and students will greatly depend on how efficient and necessary they consider the services and features. For example, if educators could facilitate their courses while being at home or while travelling, it will make life easier for them. In the same vein, students currently travelling to their state capitals for information about their studies and facilitation will happily accept enjoying such facilitation from the comfort of their homes.

In addition, the level of access to education which will be boosted by the introduction of mobile learning in the country cannot be imagined. Quality and functional access to education will be guaranteed especially to the rural communities which lack basic amenities.

However, parameters which lead to the successful adoption and usage of one technology in one country do not necessarily apply to other countries. This is due to the different environment for the implementation. In Nigeria, parameters such as learning environment, perception of the educators, motivation of the educators, security challenges, and cost of bandwidth to support mobile learning etc are parameters that should be considered greatly. Travers (1986: 204) also posits that it is doubtful if any topic is more important to teachers than that of motivation.

Despite these challenges, educators and students see the adoption of mobile learning as the new trend which will revolutionized education in Africa. The barriers identified barriers should be taken seriously if the desired mobile learning is to be implemented and sustained in Nigerian ODL environment.

Mobile learning will assist the ODL institution to achieve her mission of providing functional, flexible, cost effective learning that adds life- long values for all who yearn for quality education and for those who seek knowledge.

Policy formulators should ensure that these factors among others are considered in the customization of educational policies for open and distance learning environment in the country.

## 6.0 FURTHER RESEARCH

Owing to the findings in figure 4 above (where educators express mixed feeling regarding what is being learned), it is pertinent for one to truly take a critical look at whether mobile learning technology or technology generally actually enhances the process of teaching and learning? What factors contributed to the successful implementation of mobile learning in developed countries that are missing in developing countries? It will focus on a detailed analysis of the current state of mobile technology in the country including the environment, the stakeholders and the strategies put in place towards the adoption and sustenance of the mobile learning strategy targeted at assisting Sub Saharan Africa tackle the worsening crises in the quality and accessibility of education which has aversely place the region in such a disadvantaged position among other regions of the world.

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