INTEGRATING MOBILE LEARNING INTO BASIC EDUCATION SYSTEM: THE VIEWS OF EDUCATIONAL POLICY MAKERS

Adedoja Gloria
Department of Teacher Education
E-mail: sadedoja@yahoo.com
234-8033449803

Fakuade Olubusayo V.

Abstract

The popularity of mobile technology, predominantly the mobile phone, is changing the way in which individuals communicate, access information, teach, learn and foster interactions. It is now made known that mobile technology is important in the development of quality teaching and learning in educational systems around the world, as well as a means for fundamental transformation into the existing school principles and practices for the preparation of students in meeting the innovations in the global arena. Educational stakeholders that are directly working on basic education system in the country were selected. Random sampling technique was used to select 240 participants for the study. The study revealed that, educational stakeholders were aware of the uses of mobile learning. Also, agree on the benefits of mobile learning technology in instructional evaluation and administrative enhancement if integrated into basic education system. Based on the findings, some recommendations were made.

Key words: Basic Education, Educational stake-holder, Policy makers, mobile technology, mobile learning integration.

Introduction

Education is a right, like the right to proper food and shelter over one's head. Article 26 of the 1948 on Universal Declaration of Human Right states that; "everyone has the right to education". Education is not only a right but a gateway to human development; it opens doors, expands opportunities and ensures freedom. It contributes to peace, democracy and economic growth as well as improving health and reducing poverty.

The importance of education to the development of an individual and a nation cannot be overemphasised. It is the best legacy a nation can bequeath its citizenry. NPE, 2004, observed that, as important as education to the development of a nation, many students are denied access to quality education in our society despite government effort to bring it to the door step of everybody this is done by introducing some programmes which are still unaffordable by Nigerian children.

Basic Education means the type of education, in quality and content, that is given in the first level of education. This construct changes from country to country. In Nigeria, basic education was equated with six years of primary schooling in the past. Currently basic education is extended to include the three years of Junior Secondary School. Universal Basic Education (UBE) is conceived to embrace formal education up to age 15, as well as adult and non-formal education including education of the marginalized groups within the Nigerian society. It is a policy reform measure of the Federal Government of Nigeria that is in line with the state objectives of the 1999 constitution which states in section 18 that Government shall eradicate illiteracy; to this end, government shall as and when practicable provide a free and compulsory. Universal Primary Education, free secondary education and free adult literacy programmes".

With the relevance of basic education to human development, it is still beyond the reach of many Nigerian children. These children are deprived of their right to education because their families cannot afford the cost or because their communities are not enlightened on how germane education is to the development of the communities. It may also be that they value cultural careers such as local farming, trading and transporting. Children of indigenous population or ethnic minorities often face discrimination and are excluded from education, most especially, those physically challenged. For educational goal to be met, actions need to be taken, human and materials need to be provided, if buildings, books, teachers could not be adequately provided, integration of affordable phones for learning and the organic requirements of getting all children to have access to education via mobile learning and ensuring they have a quality life, strong governments support, stakeholders and communities are vital mechanisms to the implementation for basic education programmes in Nigeria.

Similarly, technology integration is the use of technology resources; computers, mobile devices like smartphones and tablets, digital cameras, social media platforms and networks, software applications and the Internet. (Hertz', 2007) In daily classroom practices and in the management of a school, successful technology integration is achieved when the use of technology is accessible and readily available for the task at hand, also supporting curricular goals and helping students to effectively reach the height of educational goals. Out of all the technology devices, mobile phone is the most affordable technology.

In the same way, UNESCO working paper series on mobile learning indicated that, the widespread use of mobile technologies around the world represents a significant opportunity in education. While mobile learning or learning with mobile technologies and devices is still in the early stages of development, many teachers and students are beginning to realize its potential for enhancing teaching and learning. Mobile learning involves more than merely incorporating new technology into current pedagogical strategies; it requires an instructional paradigm shift that promises to fundamentally change the way students learn. The move toward mobile learning is driven by increasingly high demands for student achievement and an understanding of the digital skills students need to compete in the twenty-first century global economy (UNESCO 2013).

Stressing the importance of mobile earning, which is one of the consequences of integrating technology into basic education, Mobile technology in particular has been the most powerful catalyst of change, redefining the educational approach and even the underlying concept of literacy. As we become a more globalized and technologically based society, the historical and simplistic definitions of "the ability to read, write, and have basic numeracy skills" can no longer avail (Adams, 2012). The Center for Literacy of Quebec (CLQ) states that, "Literacy in a technological society is expanding to include media and electronic text in addition to alphabets and numbers. Individuals must be given lifelong learning opportunities to move along a continuum that includes reading, writing, critical understanding and the decision-making abilities they need in their communities".

Further, the mobile learning modules provide customised, learner-centred learning that allows students take more responsibility

and participation in the learning process. Mobile learning also provides instant feedback by way of SMS assessment. (Adams, 2012). UNESCO, 2013, Technology is not only affecting educational offerings in remote areas, but also advancing well-established educational practices in fully developed countries. So many online learning modalities exist and a shift towards accessing these resources on mobile devices is occurring. UNESCO estimated that within the next five years, more people will be accessing the internet on mobile devices than through desktop computers. The trend towards individual educational empowerment is being reinforced by Open Educational Resources (OER) that aims to make education free, public and accessible using technology. Thus, Education is the frontier for social justice and the wheels of social mobility and redistribution of societal wealth. It is one of the most important things in life and technology has strong impact on many aspects of everyday life. According to Henry Steele Commager, "Change does not necessarily assure progress, but progress implacably requires change." Education is essential to change, for it creates new wants and the ability to satisfy them. (Robinson, 2007).

However, Policies are guides that usually provide the latitude of operations for managers or administrators. It makes managers understand the extent to which they can go in the process of decision-making. (NPE 2004), It is pertinent from the above definition that policy is a framework which guides the planning and administration of an activity; therefore, educational policy is the framework within which education is administered in a given place and over a period of time. The time dimension to the definition of educational policy indicates that the educational policy of a country is not static, it evolve from one state to another.(Haddad, 1999).

The influence of (Policy makers) stakeholders on education is very important. According to Watson and Regolith (2011), education is undergoing a systemic perceptual change, as a result of society's dissatisfaction with individual learner's achievement in the education arena. In education, most systemic transformation efforts involve policy makers critical to achieving the desired changes. Governments as policy maker on education are to expand education to reach more people for equity in rural and urban settlement, pre-primary level to higher education system. Today, mobile technologies are often common even in areas where schools, books and computers are scarce. As the price of

mobile phone ownership continues to decline, more and more people, including those in extremely impoverished areas, are likely to own and know how to use a mobile device.

In view of this, there is the need to conduct investigation on perceptions and beliefs of policy makers on integration of mobile learning into basic education. However, before such investigation are carried out, it is important that baseline data and information be gathered from Policy makers who are Educational stakeholders to give the direction of their views towards integration of mobile technology.

This paper is guided by the following research questions, in other to proffer answers to the views of policy makers on integration of mobile learning into basic education system.

   i.   What is the perception of policy makers about mobile learning integration into basic education?
   ii. What is the perception of policy makers about the use of mobile learning integration for instructional delivery?
   iii. What is the perception of policy makers about mobile learning integration into basic education to facilitate learning?

Methodology

Design

Descriptive survey design was adopted for this study. This is because the researcher did not manipulate any variable in the study. Careful observation of the data was done to investigate the perceptions of educational stakeholders of basic education on integrating mobile learning to this level of education.

Population of Study

The target population for this study are all workers in the ministries and agencies working on or relating with basic education system at federal and state levels.

Sampling Technique

A total number of 320 educational policy makers were selected through Random Sampling technique in which 40 respondents from each of the 8 educational agencies were selected. A total of 320 copies of the

questionnaire were distributed but only 240 were properly completed and returned.

The agencies selected are:

1. National Mathematical Centre, (NMC) Sheda Abuja.
2. Nigeria Educational Research and Development Council (NERDEC) Sheda, Abuja.
3. National Commission of Colleges of Education (NCCE). Zone 4, Abuja
4. National commission for Mass Literacy and Adult and Non-formal Education (NCME). Garki Abuja.
5. Universal Basic Education Commission (UBEC) Wuse Zone 4, Abuja.
6. Universal Basic Education Board (UBEB) Garki zone 2, Abuja.
7. State ministry of Education (SME). Agodi, Oyo state.
8. Teachers Service Commission (TESCOM), Agodi Oyo State.

Method of Data Analysis

The data collected were analysed using descriptive survey tool of distribution table, mean statistic and standard deviation (SD) to answer the research questions that test the perception and the level at which the policy makers agree on the use of mobile learning technology if integrated in to basic education in Nigeria.

Data Analysis

Distribution of policy makers based on organisation

Organization	Frequency	Percent (%)
NERDC	40	16.7
FCT UBEB	36	15.0
MINISTRY OF EDUCATION	13	5.4
NATIONAL MATHEMATICS CENTRE	35	14.6
NCCE	35	14.6
NCME	31	12.9
UBEC	32	13.3
TESCOM	18	7.5
TOTAL	240	100.0

Answers to the Research Questions

Research Question 1 What is the perception of policy makers about mobile learning integration into basic education?

S/N	Item	SA	A	D	SD	Mean	SD
1	I perceive that using mobile technology makes it easier for learners to do their class activities.	83(34.6%)	138(57.5%)	9(3.8%)	10(4.2%)	3.22	.71
2	If mobile technology is integrated into basic education, it will provide learners with ready access to information.	82(34.2%)	140(58.3%)	12(5.0%)	6(2.5%)	3.24	.66
3	If mobile technology is integrated into basic education , it will be an effective teaching tool	55(22.9%)	165(68.8%)	14(5.8%)	6(2.5%)	3.12	.61
4	Distance learning classes and activities can be	41(17.1%)	174(72.5%)	16(6.7%)	9(3.8%)	3.03	.62

augmented through the use of mobile technology if integrated into basic education						
Weighted average	3.15					

Perception of Policy Makers about Mobile Learning Integration into basic education

The table reveals the policy makers agree with the following; using mobile technology makes it easier for learners to do their class activities. (mean = 3.22); that if mobile technology is integrated into basic education will provide learners with ready access to information (mean = 3.24); that if mobile learning is integrated into basic education, it will be an effective teaching tool (mean = 3.12); that distance learning classes and activities can be augmented through the use of mobile technology if integrated into basic education (mean= 3.03).The weighted average of the table is 3.15, shows that using mobile phones in basic education will make it easier to reach instructional resource and that if mobile learning is integrated into basic education, it will be an effective teaching tool.

Research Question 2: What is the perception of policy makers about the use of mobile learning integration for instructional delivery?

Use of mobile learning integration for instructional delivery

S/N	Items	SA	A	D	SD	Mean	SD
1	I am aware that integrating mobile learning to basic education makes learning	74(30.8%)	137(57.1%)	19(7.9%)	10(4.2%)	3.15	.73

	effective						
2	If mobile learning is integrated , it will foster basic education system	67(27.9%)	149(62.1%)	16(6.7%)	8(3.3%)	3.15	.68
3	I belief that if mobile learning is implemented into basic education, it will enhance problem solving skills in learners	66(27.5%)	146(60.8%)	21(8.8%)	7(2.9%)	3.13	.68
4	If mobile learning is integrated into basic education, educational productivity will be increased.	54(22.5%)	160(66.7%)	16(6.7%)	10(4.2%)	3.07	6.7
5	If mobile learning is integrated into basic education it will enhance basic educational performanc	55(22.9%)	166(69.2%)	12(5.0%)	7(2.9%)	3.12	.62

	e.						
6	Service-learning classes and activities can be augmented through the use of mobile phones if integrated into basic education.	41(17.1%)	174(72.5%)	16(6.7%)	9(3.8%)	3.03	.62
7	I think mobile phones can make effective use of class time.	33(13.8%)	137(57.1%)	61(25.4%)	9(3.8%)	2.81	.71
Weighted average	3.065						

The table shows the policy makers agree with the integration of mobile learning for instructional delivery, their agreed perceptions are: that integrating mobile learning to basic education makes learning effective (mean=3.15); If mobile learning is integrated, it will foster basic education system (mean= 3.15); if mobile learning is incorporated into basic education, it will enhance problem solving skills in learners(mean=3.13); If mobile learning is integrated into basic education, educational productivity will increase (mean = 3.07); if mobile learning is integrated into basic education, it will enhance basic educational performance (mean= 3.12); service-learning classes and activities can be augmented through the use of mobile phones if integrated into basic education.(mean=3.03) and use of mobile phones to make effective use of class time(mean=2.81). The weighted average is 3.065, this indicate that, the policy makers' are in agreement with the integration of mobile learning for instructional delivery also aware that

integration of mobile technology will foster basic education performance and enhance problem solving skill in learners.

Research Question 3 What is the perception of policy makers about mobile learning integration into basic education to facilitate learning?

Mobile learning integration to facilitate learning

S/N	Items	SA	A	D	SD	Mean	SD
1	I am well informed that mobile learning helps in instructional development.	95(39.6%)	137(57.1%)	3(1.3%)	5(2.1%)	3.34	.61
2	I am informed that the use of mobile learning for instruction will increase the interest of learners towards their learning activities.	86(35.8%)	130(54.2%)	15(6.3%)	9(3.8%)	3.22	.72
3	If mobile learning is integrated into basic education, it will provide learners ready access to	82(34.2%)	140(58.3%)	12(5.0%)	6(2.5%)	3.24	.66

	information .						
4	I know usage of mobile learning makes dissemination of information easy.	83(34.6%)	138(57.5%)	13(5.4%)	6(2.5%)	3.24	.67
5	If mobile learning is integrated into basic education, it will be an effective teaching tool.	55(22.9%)	165(68.8%)	14(5.8%)	6(2.5%)	3.12	.61
Weighted average	3.232						

Table shows that; mobile learning helps in instructional development (mean =3.34); that the use of mobile learning for instruction will increase the interest of learners towards their learning activities. (Mean=3.22); that if mobile learning is integrated into basic education, it will provide learners ready access to information (mean=3.24);that usage of mobile learning makes it easier to disseminate information (mean= 3.24) and If mobile learning is integrated into basic education, it will be an effective teaching tool (mean=3.12). The weighted average is 3.232, an indicator that mobile learning helps in instructional development if integrated into basic education system.

Discussion of Findings
The study reveals that educational policy makers (stakeholders) are aware of the uses of mobile learning. They also, agree on the benefits of integrating mobile learning technology in instructional evaluation and administrative enhancement if integrated into basic education system. The table reveals weighted average was 3.15 which indicated that perception of policy maker about mobile learning integration in

instructional resources is very good. In other words, mobile learning integration is an instructional tool that could develop basic educational system in Nigeria. This is in line with Windschitl, (2002), who found that educational technologies, specifically mobile learning technologies, have inevitably is a powerful tool in enhancing teaching and learning processes. The finding further support Theng (2009) who found that mobile self-efficacy played an important role in perceived usefulness especially in the form of a user's prior experience of using mobile devices. He found that a student with prior experience of using mobile devices perceived mobile learning as easy.

Akour (2009), congruent this finding in his study, on mobile experience as influence of individual perceived mobile learning integration, he found that mobile learning integration enhances learning across all levels of education. This is to say that, the proliferation of mobile technologies such as mobile phones as a potent tool to complement formal and informal learning. In other words, mobile phones have been accompanied by a growing interest in the educational benefits and applications they offer. Mobile devices can now be used to support learning anywhere and anytime, to support social learning and knowledge sharing, and also to visualise augmented reality applications for learning purposes. The development of these applications is difficult for researchers because it requires understanding many different protocols; dealing with distributed schemes such as processes, platforms and services; learning new programming languages; as well as interacting with different hardware sensors and drivers.

Nevertheless, the agreement of policy maker on the use of mobile learning integration for instructional delivery at the weighted average of 3.065, rated 84% in other words, mobile learning could enhance instructional delivery if integrated in to basic education system. This finding agree with Bottentuit (2008), who found that 39% had heard the term m-learning; 25% reported using a mobile device for some sort of learning; vast majority believed educational of mobile devices and would potential like to use them in the classroom; students stated that they saw mobile learning in the future and access to information at any time/place was good.

Cavus and Ibrahim (2009) also support this finding, they found that School administrators believed that the mobile learning brought

greater flexibility to their learning; interest of students to use mobile phones has helped them to learn new words; students wanted the system to be used in other classes. It was observed that the use of mobile learning is becoming more embedded, ubiquitous and networked, with enhanced capabilities for rich social interactions, context awareness and internet connectivity. Such technologies can have a great impact on learning. Also, learning will move outside the classroom into the learner's environments, real and virtual, thus becoming more situated, personal, collaborative and lifelong. (UNESCO 2012).

However, mobile learning integration as facilitators of learning isvery good; for example, some technologies do not allow for graphs, ta bles or diagram. This corroborate the study of Cavus and Ibrahim (2009) who found that that using mobile devices was convenient and enabled learning to be flexible and portable because of the portability and perceived convenience associated with mobile applications and tools. In addition, Wang, Shen, Novak, and Pan (2009) found that students reported having a strong, positive reaction to integrating m-learning into the classroom.

Conclusion

It is not disputable that mobile technology is important in the development of quality teaching and learning in educational systems around the world as well as a means for fundamental transformation into the existing school principles and practices for the preparation of students in meeting the innovations in the global arena. Achievements in the technology integration in education and usage in Nigeria basic education programmes are dependent on the recognition of this importance, avoidance of bad policies and disjointed efforts at technology application to education.

It is important teachers in the training institutions are imbued with the skills and abilities of ICT literacy and sensibilities so that the knowledge and attitude acquired will cascade onto the learners that they come in contact with in the classrooms when they begin to practice.

Finally, mobile learning has been found to be very relevant in certain educational contexts. Nigeria's pastoralists and nomads are equally aware of the importance of this integration as portrayed in the

Mobile Telecommunication Nigeria advertisement (Federal Ministry of Education 2000). Procuring mobile phones for basic learners will not only motivate them and instill positive attitudes to learning; it will also help to sustain their interest in gaining literacy skills, especially through the distance learning approach. It is high time Nigeria join the League of Nations in promoting mobile learning as a pedagogical approach to increase access to education.

Recommendations

Based on this research finding, the following recommendations are made, effort should be made by educational policy makers and stakeholders to initiate mobile educative project such that mobile learning technology could serve as a medium for extending educational opportunities to learners who may not have access to basic quality schooling.

Second, government should make available inexpensive mobile devices to learners, most especially those in remote areas. Also, curriculum developers should ensure that mobile learning is integrated into the curriculum and enforce its implementation. There should be different forms of training programmes for curriculum implemental such as seminars, workshops in which adequate knowledge on utilisation and integration of mobile learning into instructional delivery could be acquired. This will assist stakeholders and the users on proper ways of effective usage of mobile device.

Finally, teachers, students, government, educational policy makers and members of community should develop positive attitude to the use of mobile learning technology.

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