Business Education Students' Perceptions of the Extent of Utilization of M-Learning in Teaching and Learning of Business Education in Edo State

Kennedy Ediagbonya

Department of Vocational and Technical Education, Faculty of Education, Ambrose Alli University, Ekpoma Edo State

Abstract
The study investigated business education students' perceptions of the extent of utilization of M-learning in the teaching and learning of business education in Edo State. Two research questions were raised to guide the study with one corresponding hypothesis formulated and tested at 0.05 level of significance. The descriptive survey research design was adopted in the study. A sample of one hundred and eleven (111) business education students was randomly selected from the population of three hundred and seventy (370) final year (400 level) students in University of Benin and Ambrose Alli University, Edo State. The structured questionnaire titled: Utilization of M-learning in Business Education Questionnaire (UMIBEQ) was developed by the researcher and was structured in a 4-point likert scale, showing Very High Extent (4), High Extent (3), Low Extent (2) and Very Low Extent (1).The instrument was validated by experts in the field and the crombach alpha was used in obtaining a reliability coefficient of 0.74. The data that was collated was subjected to further statistical analysis using Mean, Standard Deviation and the Independent Sample t-test. The Statistical Packages for Social Sciences (SPSS) version 16.0 was used for this purpose. The findings revealed that business education students' utilization of M-learning is high. It also revealed that UTME and DIRECT entry business education students do not significantly differ in their perceptions of M-learning utilization. One of the recommendations advanced was that business education students should be encouraged to utilise their mobile devices in productive ways.
Keywords: M-learning, business education, utilization and entry mode

Introduction
Business education is one of the integral components of Technical and Vocational Education (TVE), and it is taught at the tertiary level of the nation's educational system. Business education has been described in different ways by authors based on their orientations. According to Imeokparia and Ediagbonya (2014), business education is an education programme that geared towards equipping the learners (students) with business and education competencies (that is, skills, knowledge and attitude) needed to effectively function in the world of work either as an employee or an employer (job/wealth creator). From the above, it becomes obvious that business education has a major role to play in the nation's development. For the graduates of this programme to be able to function effectively outside the school, there must be conscious efforts to expose them to various technological devices that can

promote teaching and learning. This is the reason why mobile educational devices are emphasized in the teaching and learning process. The concept of mobile educational device was established in the late 1960s by Alan Kay (Najmi & Lee, 2009). Kay envisioned Dynabook, a portable device for students that would display text and graphics similar to a book. In fact, Kay's (1972) research paper, 'A personal computer for children of All Ages, 'describes a device that very closely resembles today's tablet PCs (e.g. Apple's ipad). In the decades that followed Kay's vision, computers became more personal and cost efficient. In the 1990s, advances in technology led to the creation of wireless devices like PDAs (that is, a hand-held computer, used mainly for storing and accessing personal information such as addresses, telephone numbers, and memos. PDA is an abbreviation for 'Personal Digital Assistant' and phones that could support mobile mobility (Pollara, 2011). With the rapid spread of mobile devices such as smart phones and tablets that take mobile learning potential even further than laptops have ever done, it becomes necessary to take a closer look at how M-learning can support further education in enterprise. The ideas of M-learning as such are not actually a new concept but it focuses on the future. Various apps, e.g. in the gaming sector, already include fundamental aspects of learning. As such, m-learning has already found its way into mainstream applications and is widely used, especially by younger generations.

Several researchers have described m-learning in different ways. Most of them refer to learning possibilities in different places and/or at different times. According to Sharples (2005), M-learning is a process of getting to know, by which students in collaboration with their peers and teachers construct transiently stable interpretations of their world. Ally (2009) defines M-learning as the process of using mobile device to access and study learning materials and to communicate with fellow students, instructors or institutions. Wexler, Schlenker, Brown, Metcalf, Quinn, Thor, Van Barneveld and Wagner (2007) describes M-learning as any activity that allows individuals to be more fruitful when consuming, interacting with, or generating information, mediated via a compact digital portable device that the individual carries on an ordered basis, has reliable connectivity, and fits in a pocket or purse. Caudill (2007) defines M-learning as any e-learning application distributed on-demand through mobile digital device. In this paper, M-learning is defined as the utilization of mobile technologies in promoting effectiveness and efficiency in the teaching and learning process.

The growing popularity of portable devices (e.g., ipads, ipod and Touch) has provided an opportunity to exploit these technologies for educational purposes, for example, delivering lectures in both audio and video format directly to students (e.g., iTunes U). This trend has also resulted to a number of mobile technology-related education projects (Abt & Tim, 2007). The new generation of smart phones offers mobility of learning contents and has prompted the development of education applications that exploit the ubiquitous connectivity and high levels of portability (Cochrane & Bateman, 2010; Hall & Anderson, 2009). Advancements in the technology of laptops and tablets and the associated decrease in costs have resulted in these devices becoming increasingly available to most university students and offering a wide range of opportunities for mobile learning innovations in higher education. For example, the U.S government is seeking to reduce costs by encouraging transition from paper based to digital textbooks in schools within next five years (Hefling, 2012).

Mobile applications (e.g., apps) can be used as learning aids that students can access virtually from anywhere and communicate with peers and teachers. Additionally, universities have been shifting their strategies toward focusing on the students and the students' needs due to

increasing global competition. In a globally competitive educational system, innovative universities need to promote a culture of change and be willing to adopt new technologies for enhancing the students' learning experiences so as to stand a better chance of staying relevant and thriving in the new knowledge age (Barone, 2005). Business education students in this context, differs according to their mode of admission entry. There are two basic mode of entry identified in Nigeria and they are: Unified Tertiary Matriculations Examination (UTME) and Direct Entry (DE). For the UTME, the students wishing to study business education must write and pass the examination conducted by the Joint Admissions and Matriculation Board (JAMB) before being subjected to further screening by the institution. The other mode of entry is the Direct Entry (DE). This mode of entry is only opened to those that have done Advanced Level (A/L) programmes or other similar programmes; and they are admitted into 200 level unlike UTME where the students are admitted into 100 level. These two categories of students are eventually exposed to the same course contents regardless of age or status; and they both utilize mobile devices from time to time. This is the reason why the researcher is interested in this study.

Statement of the Problem
The increasing demand on mobile devices by undergraduates, especially business education students in recent times have further emphasized the importance of technologies in today's educational landscape. In our campuses, it has been observed that most of the students go with different sophisticated mobile devices. Scholars have emphasized the potentials of these mobile devices in promoting learning at anytime and anywhere. Are students really aware of the potentials of these mobile devices they carry here and there? From observations, students spend quality time using the mobile devices in accessing facebook, watsapp and others. In some cases, the mobile devices are used in taking snap shots and taking videos in occasion. This scenario seems not to be peculiar with students that gain admission through UTME alone; even the Direct Entry (DE) students seem not to be too different in this regard. The researcher is worried by this development. Are students utilizing mobile devices in promoting learning? Are they using mobile devices in accessing materials? Are they really utilizing these mobile devices the way it ought to be as students? Do UTME and DE business education students differ in utilization of mobile devices? It is upon this premise that the researcher empirically investigated business education students' perceptions of the extent of utilization of M-learning in the teaching and learning of business education in Edo State.

Purpose of the Study
The main purpose of the study was to ascertain business education students' perceptions of the extent of utilization of M-learning in the teaching and learning of business education in Edo State; while the specific purposes were to determine:
  i.   the extent to which M-learning is utilized in the teaching and learning of business education in universities in Edo State; and
  ii.   if there is a significant difference between the perceptions UTME and DIRECT ENTRY (DE) business education students on the utilization of M-learning.

Research Questions
This study was guided by the following questions and analysed using appropriate statistics:
  i.   To what extent is M-learning being utilized in the teaching and learning of business education in universities in Edo State?

ii. Is there any significant difference between the perceptions of UTME and DIRECT ENTRY (DE) business education students on the utilization of M-learning?

Hypothesis
Research question (ii) was hypothesized and the null hypothesis formulated was tested at 0.05 level of significance:
i. There is no significant difference between the perceptions of UTME and DIRECT ENTRY business education students on the utilization of M-learning.

Scope of the Study
This study was on business education students' perceptions on the extent of utilization of M-learning in the teaching and learning of business education in Edo State. The study covered the public universities offering business education in Edo State and they include: University of Benin, Benin City and Ambrose Alli University, Ekpoma. The content variables covered the following: M-learning, business education and sex.

Theoretical Framework
The theoretical framework is based on Activity theory. Activity theory was first espoused by Vygotsky (1978). The focus of this theory was on understanding human activity and work practices. Theory integrates the concepts of intentionality, mediation, history, collaboration and development (Nardi, 1996). According to Uden (2007), its major focus is on the activity being executed. Information systems, communities of practice and education are among the many fields where activity theory has been employed to analyse activities therein. Vytotsky (1978) asserted that an activity consists of a subject and an object, mediated by a tool. A subject can be an individual or a community involved in an activity. Using tools, a subject executes an activity to get an object (objective), thus effectively transforming it into an outcome (Kuutti, 1996). Tools can be intangible (like language) or tangible (like mobile devices). This theory has great relevance in the achievement of the objectives of business education programme. And it emphasis the roles mobile devices can play in the realization of the objective of business education programme. In this context, the business educator is seen as the subject, the objective of the course to be achieved is described as the object; and for the objective of the course to be achieved in this era of technological advancement, the use of mobile devices as tools become very important in facilitating teaching and learning. With this development, the barriers in the traditional classroom are minimized because the subject (that is, business educator) can always achieve the set objectives with the aid of mobile devices anytime and anywhere.

Methodology
This section entails the methods the researchers used conducting and investigating the problem. This study utilized the descriptive survey design since it is basically an enquiry into business education students' perceptions of the extent of utilization of M-learning in the teaching and learning of business education in Edo State. The population of this study consists of all final year students of business education that are in the two public universities offering business education in Edo State. The total population is 370. The simple random sampling technique was used in selecting one hundred and eleven (111) business education students for the study. This represents 30% of the total population of the population. The instrument used for this study is a structured questionnaire. The questionnaire was used in eliciting information from the respondent and it is titled: Utilization of M-learning in Business Education Questionnaire

(UMIBEQ). It is divided into two parts – A and B. Part A consists of the demographic variables of the respondent such as sex and institution; while Part B consists of two twelve (12) opinion statements designed in a 4-Point Rating Scale showing Very High Extent (VHE), High Extent (HE), Low Extent (LE) and Very Low Extent (VLE) weighted 4, 3, 2, 1 respectively. The instrument was subjected to content and face validity. It was given to experts in Business Education in the Faculty of Education in AAU and UNIBEN and their inputs to the draft instrument were incorporated into the final questionnaire. The Crombach Alpha was used in ascertaining the reliability of the instrument and it yielded a coefficient of 0.74. The researchers utilized the face to face method of data collection. The researchers personally administered the questionnaires to the concerned respondents in the two universities under investigation and it was equally collected by the researchers. The Statistical Packages for Social Sciences (SPSS) version 16.0 was used for this purpose. The descriptive and inferential statistical tools were used in analyzing the data. The descriptive statistics used include mean and standard deviation and they were used in answering research question 1, while t-test was used to analyze the hypothesis at 0.05 level of significance. Any mean value of 2.50 and above was considered as high extent while below 2.50 was considered as low extent.

Data Presentation, Analysis and Discussion
This section dealt with the presentation and analysis of data collected and the discussion of findings. The results of the analyses are presented according to the order of the research question and hypotheses: The Data collected to answer the research questions were analyzed using mean and standard deviation and the results are shown below.

Research Question One: To what extent is M-learning being utilized in the teaching and learning of business education in universities in Edo State?

Questionnaire items 1 – 15 were designed to address the research question. The summary of responses is as given in table 1.

Table 1: Mean and Standard on Business Education Students' responses on M-learning Utilization

S/N	Items	Mean	SD	Remarks
1.	I utilize smart phone in doing my assignments.	3.44	0.87	High
2.	I utilize mobile phone in updating my lecture notes.	2.68	1.01	High
3.	I make use of mobile technology in searching for researchable topics.	3.51	0.77	High
4.	I make use of mobile phone in accessing course materials from my friends in other institutions.	2.37	1.03	Low
5.	I use smart phone to connect with my lecturer during lectures.	1.83	1.03	Low
6.	I utilize smart phone in easily accessing references.	2.96	0.91	High
7.	I am able to use my smart phone to receive			

yutube lectures.	2.46	1.22	Low
8. I am able to use my smart phone to access assignments online.	3.43	0.94	High
9. I utilize my smart phone in accessing latest information from my class using Watsapp.	3.58	0.87	High
10. My smart phone facilities quick revision of my course materials.	2.74	0.94	High
11. I use my smart phone in accessing recent research reports online.	3.23	0.90	High
12. I utilize my smart phone in taking memorable snap shots during excursion/field trip.	3.37	0.98	High
13. I utilize my smart phone in processing my documents online.	3.05	0.84	High
14. I utilize my smart phone in accessing scholarship openings and applying for same.	3.02	1.10	High
15. I utilize my smart phone in transferring and receiving course materials from course mates.	2.79	1.14	High
Aggregate	**2.96**	**0.97**	**High**

Significant Score > 2.50   **Source: Computed from Field Work (2016)**

In response to research question one, Table 1 shows that the respondents rated all items as high except items 4, 5 and 7. The aggregate mean and standard deviation are 2.96 and 0.97 respectively. The implication of this therefore is that business education students' utilization of M-learning is high.

Hypothesis One: There is no significant difference between the perceptions of UTME and DIRECT ENTRY business education students on the utilization of M-learning.

Table 2: t-test Analysis on UTME and DIRECT ENTRY business education students' perception on M-learning Utilization

Entry Mode	N	Mean	SD	Df	t-val	p-val	Decision
UTME	96	44.76	6.07	109	.224	.823	Not Significant
DIRECT ENTRY	15	44.40	3.29				

Source: Field Survey, 2016

The result of table 2 shows that the degree of freedom of 109 has a t-value of .224 and a p-value of .823. Since the p-value of .823 is greater than the alpha value of .05, the null hypothesis is retained. This means that there is no significant difference between the perceptions of UTME and DIRECT ENTRY business education students on the utilization of M-learning.

Discussion of findings
The analysis of the research questions raised in the study and the hypotheses revealed some interesting findings that are worth discussing based on some relevant literature either to corroborate or contradict the findings. They are discussed in the following paragraphs. The findings from research question one revealed that business education students' level of utilization of M-learning is high. The findings of this study also corroborate the findings of

Al-Fahad (2009), Cavus and Ibrahim (2009), Clarke, Keing, Lam and McNaught (2008) where the authors expressed that student had positive attitude towards the utilization of M-learning. The findings also revealed that business education students have low utilization of M-learning in the areas of accessing course materials from friends in other institutions, connecting with lecturers during lectures and receiving yutube lectures. This development may be due to the low battery life of most mobile devices and the epileptic power supper being witnessed in the state. The low utilization may equally be traced to the low technology skills possessed by the users of mobile devices. The analysis of hypothesis 1 clearly shows that there is no significant difference between the perceptions of UTME and DIRECT ENTRY business education students as regards the utilization of M-learning in Edo State. The finding may be as a result of the students' exposure to the same course contents and social group.

Conclusion

This study has revealed the perceptions of business education students on the extent of utilization of M-learning in the teaching and learning of business education in Edo State. It can therefore be concluded that the extent of utilization of M-learning in the teaching and learning of business education is high. It can also be concluded that UTME and DIRECT ENTRY business education students from both UNIBEN and AAU do not significantly differ in their perceptions regarding M-learning utilization.

Recommendations

Based on the findings of the study, the following recommendations are considered imperative:

I. Business education students should be given orientation from time to time on how best to utilize mobile devices in promoting their academics;

II. They should be encouraged to network with students from other institutions with a view to promoting learning with their mobile devices;

III. They should be encouraged to utilise their mobile devices in productive ways;

IV. They should be encouraged to utilize different educational apps to promote learning

V. Lecturers should be encouraged to give their students assignments that will motivate them to utilize their mobile devices;

VI. Lecturers should be encouraged to sometime deliver their lectures through yutube; and

VII. Lecturers and instructors should be exposed to new technologies in their field.

References

Abt, G. & Tim, B. (2007). The quantitative effect of students using podcsts in a first year undergraduate exercise physiology module. *Bioscience Education*, 10.

Al-Fahad, F.N. (2009). Students' attitude and perceptions towards the effectiveness of M-learning in King Saud University, Saudi Arabia. Online submission.

Ally, M. (2009). Mobile learning: transforming the delivery of education and training. Athabasca University: AU Press.

Barone, C. (2005). The new academy. In D.G. Oblinger and J.L. Oblinger (Eds). Educating thene generation, chapter 14. EDUCAUSE eBook, available at http://net.educause.edu/ir/library/odf/pub7101.pdf.

Caudill, J.G. (2007). The growth of m-learning and the growth of mobile computing: parallel developments. International Review of Research in Open and Distance Learning, 8(2).

Cavus, N. & Ibrahim, D. (2009). M-learning: An experiment in using SMS to support learning new English Language words. *British Journal of Educational Technology,* 40(1), 78-91.

Clarke, P., Keing, C. Lam, P. & McNaught, C. (2008). *Using SMSs to engage students in language learning*. In proceeding of World Conference on Educational Multimedia, Hypermedia and Telecommunications 2008 (Pp. 6132-6141). Chesapeake, VA: AACE.

Cochrane, T. & Bateman, R. (2010). Smartphones give you wings: Pedagogical affordances of mobile web 2.0. *Australasian Journal of Educational Technology*, 26(1):1-14.

Hall, S. & Anderson, E. (2009). Operating systems for mobile computing. *Journal of Computing Sciences in College*, 25(2), 64-71.

Hefling, K. (2012). *Obama administration's challenge to schools: embrace digital textbooks within 5 years.* Retrieved Dec. 4th, 2012. Form http: www.hufingtonpost.com/2012/02/01challenge -to- schools-embr_n_1248196.html.

Imeokparia, P.O. & Ediagbonya, K. (2014). Assessment of Business Education Students' Enrolment Trend in Ambrose Alli University. *European Journal of Educational Studies*, 6(3), 87-98.

Kay, A.C. (1972). *A personal computer for children of all ages*. In proceedings of the ACM National Conference.

Kuutti, K. (1996). Activity theory as a potential framework for human–computer interaction research. In B.A.Nardi (Ed.), *Context and consciousness: Activity Theory and Human–Computer Interaction* (pp.17–44).Cambridge: MIT press.

Najimi, A. & Lee, J. (2009). *Why and how mobile learning can make a difference in the K-16 classroom*? In I. Gibson et al. (eds.), Proceedings of society for Information Technology & Teacher Education International Conference 2009 (Pp. 2903 – 2910). Chesapeake, VA: AACE.

Nardi, B.A. (1996). Activity theory and human computer interaction. In B.A. Nardi (Ed), *Context and Consciousness: Activity Theory and Human–Computer Interaction* (pp.7–16)*. Cambridge: MIT Press.

Pollara, P. (2011). *Mobile learning in higher education: a glimpse and a comparison of student and faculty readiness, attitudes and perceptions*. Unpublished Ph.D Dissertation submitted to the graduate faculty of the Louisiana State University and Agricultural and Mechanical College.

Sharples, L. (2005). A holistic approach of technology in teaching. New York: McGraw-Hill Book.

Uden, L. (2007). Activity theory for designing mobile learning. *International Journal of Mobile Learning and Organization, 1*(1), 81-102.

Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes*, Cambridge: Harvard University Press.

Wexler, S., Schlenker, B., Brown, J., Metcalf, D., Quinn, C., Thor, E., Van Barneveld, A., & Wagner, E. (2007). *360° Research Report on Mobile Learning: What it is, why it matters, and how to incorporate it into your learning strategy*. Santa Rosa, CA: eLearning Guild.