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INFLUENCE OF MOBILE PHONE ON ENHANCING LEARNER SUPPORT SERVICES FOR DISTANCE EDUCATION PROGRAMMES.

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ABSTRACT

Purpose: Mobile technologies provide an affordable and easily accessible technology that lecturers can use effectively to assist students with their studies. The general objective of the study was to evaluate influence of mobile phone on enhancing learner support services for distance education programmes.

Methodology: The paper used a desk study review methodology where relevant empirical literature was reviewed to identify main themes and to extract knowledge gaps.

Findings: From the study findings, it was concluded that most students have a smartphone and have installed applications that enable them to access the internet, but they ended up using their phones for social network and not learning purposes. Despite the fact that the phones are able to check and send emails, majority of those interviewed preferred using the computer over the phone. Most students and lecturers did not communicate over the phone in case of clarity on a certain subject even the sending of results, missing marks and such. Most administrators sent SMS regarding important dates and venues to DE students but rarely and did not send results through SMS, do not send SMS on tutorial schedules and never sent SMS giving reminders about deadlines for submitting assignments to DE students

Recommendations: The study recommended that there was a need for the universities and colleges not utilizing mobile phones should develop common email center that does not compromise privacy of the users. The service should be of high speed and able to support large data exchange. The universities should establish common social media network by registering on leading social network such as facebook or google+. The common social platform center should be administratively controlled to monitor the exchange of information for purposes of learning and support. The knowledge and scientific understanding accruing from this study should be considered by policy makers when laying down guidelines for learner support systems in distance education programmes.

Keywords: *Influence, mobile phone, enhancing learner support, services, distance education, programmes*

1.0 INTRODUCTION

1.1 Background of the Study

The use of mobile phones to support distance education has two clear rationales. First, distance learners are in diverse geographical locations, and may be learning in isolation, so affordable technology is an appropriate means to help them communicate with the institution and with other learners. The mobile phone can be used to provide academic and administrative support for such learners, and therefore to reduce what Cavus, Bicen and Akçil (2008) refers to as transactional distance, one of the major constraints faced by distance education learners. Second, learners can conveniently carry their mobile device with them, meaning that they can learn wherever they are. Current global developments have opened up mobile based learning in spite of its shortcomings in terms of small screen size, short battery life and uneven network access (Keegan, 2010).

Learning delivered or supported solely or mainly by handheld and mobile technologies such as personal digital assistants (PDAs) and smart phones (Traxler 2010, Okunbor and Guy, 2012) has been picking up very quickly due to the access at 'any time, any place'. The mobile phone is being used for short messages alerts catering to various learner support activities like, registration, assignment submission, fee submission, examination dates and etcetera. In Europe, mobile learning is beginning to develop. Students are using mobile phones for work, education and amusement. In India, the use of mobile technology services in supporting distance education was launched in 1995. At first, the adoption of mobile phones in India remained very slow, primarily due to poor infrastructure and high costs involved in purchasing and using 'mobile phones.' Favourable government policies and reduction in mobile tariffs, however, have led to explosive growth of mobile phone services in India. The widening penetration of mobile services overtaking landline connections, increasing levels of band width, flooding of enriched handsets, decreasing user charges, and a growing tech-savvy learner population have a pushing effect on educational institutions to exploit the potential of the mobile technology for teaching-learning purposes besides being used as an effective communication means.

Mobile based learning has been constantly evolving with added features, in spite of its shortcomings in terms of small screen size, short battery life and uneven network access. Learning delivered or supported mainly by handheld and mobile technologies such as personal digital assistants (PDAs) and smart phones (Traxler 2007, Okunbor and Guy, 2007) has been picking up very quickly due to the access at 'any time, any place'. Mobile learning uses a collection of tools such as text messaging, learning from audio (iPods, MP3 player, Podcasting), Java-based quizzes, collection of pictures and video (using camera phone) which could be used by the tutors and instructional designers. Mobile phone penetration in Africa is high and mobile devices such as phones and personal digital assistants (PDAs) like palmtop computers (ipads, Tablets) are available at much lower prices than desktop computers and therefore offer a less expensive means of communication. In Africa, the mobile technology has evolved as a boon for distance education institutions (DEI) with learners placed far off from the parent institutions struggling for and expecting every type of academic and administrative support and guidance in other personal matters (Dharankar, 2008). In Nigeria, pervasive evidence of mobile penetration and adoption as

a learner support service in distance education (DE) is irrefutable. Cell phones, PDAs, MP3 players, portable game devices and laptops all abound, and from toddlers to senior citizens, people are increasingly communicating in ways that would have been impossible to imagine only a few years ago. In addition, many claims have been made about the potential and benefits of mobile learning (M-learning) to make learning possible anywhere, anytime, in any way and by any means (Omotunde and Adelere, 2010). Improving our understanding of the ways mobile phones can be used to support education is therefore crucial. A growing body of evidence (Hooper, Fitzpatrick and Weal, 2009) demonstrates that currently available hardware such as PDAs and mobile phones can indeed help to increase communication and interaction and enhance the quality of learning, particularly in distance education. Hooper et al. (2009) argue that mobile technologies are increasingly being used to create innovative mobile learning experiences for learners, with a key benefit being learners' ability to collaborate through the use of the PDAs and mobile phones. However, use of mobile phones in education by developing countries is still a challenge for the obvious reasons of cost of the high end devices and access to internet services.

1.2 Statement of the Problem

In developing countries, Distance Education relies heavily on print media to disseminate information to the learner. Learners in distance education programmes have expressed concerns regarding untimely dispatch of print materials, late assignment evaluation, non-declaration of results, and lack of information regarding vital schedules. Keeping this in mind, a facilitating step has been taken by the university to encourage the use of mobile phones as and when required. Despite majority of students in possession of phones that support many applications, mobile phones have not been integrated in the Distance Education System. As the learners are widely spread in Kenya, mobile phone network coverage has not been used as strength to roll out comprehensive learner support in distance education through the mobile phones. This has limitation for learners to access timely learning content and other information related to their learning. It is amply clear that learner support services are the channels in the delivery of a distance education programme; opportunities that have not been identified. In this context, it was felt necessary to check the utilization of mobile phones on the program delivery in the context of distance education.

1.3 Objectives of the Study

The general objective of the study was to evaluate influence of mobile phone on enhancing learner support services for distance education programmes.

1.4 Justification and Significance of the Study

The findings would help personnel handling distance education in making informed decisions regarding the design, development, and dissemination of effective student support services. The findings of this study may guide institutions running distance learning programmes to initiate and carry out reforms and make appropriate changes in the education system to enhance effective delivery of programmes by developing and using quality learner-support systems. Furthermore this study would benefit and motivate other researchers by encouraging further research in other areas of distance education to improve the delivery of distance learning programmes. Finally, the

study might contribute to the knowledge and scientific understanding of the learner support needs of the distance learner

2.0 LITERATURE REVIEW

2.1 Theoretical review

Two theories were found to be relevant in evaluating influence of mobile phone on enhancing learner support services for distance education programmes. The theories that were found to best inform the research constructs are Holmberg's theory, (2000) and Technology Acceptance Model Theory (Vankatesh, 2008).

2.1.1 Holmberg Didactic Theory

The study is grounded on Holmberg's theory of guided didactic conversation. According to Saba (2003), leading theorists of distance learning such as Borje Holmberg, Charles A. Wedemeyer and Michael G. Moore put the learner and his or her interaction with the others at the centre of education process. The centrality of the learner is one of the distinguishing features of distance education. According to Holmberg, the only important thing in education is learning by individual students. Holmberg's guided didactic theory is based on humanist philosophy that highly values students' independence and autonomy. It sees learning as a two way communication between the medium of instruction and the learner. The theory implies that distance education instruction materials should be constructed in such a way that they resemble guided conversation. The theory is suitable to this study because mobile phones used in the delivery of distance learning are meant to be a two-way communication tool. They should be designed in such a way that there is active interaction between the print and the learner. Its effectiveness would enhance learner participation by actively engaging the learner in the study. The instructiveness would enhance independence of the learner in Holmberg's theory hence the choice.

2.1.2 Technology Acceptance Model Theory

This study adopted the Technology Acceptance Model Theory (TAM) of Vankatesh & Bala (2008) which is greatly referred to as Information System Theory (IST). This theory shows how the users take time to accept and use any new technology disposed to them. Vankatesh and Balla (2008) emphasize that technologies which are new like personal computers or any other, are complicated from the beginning and there exist an element of uncertainty in the minds of the may-be makers of decisions with respect to adopting them successfully. In this situation people form intentions and attitudes towards making effort in learning how to use the technology that is new before initiation of efforts which are directed at using. Attitudes towards using and the intentions to use can be poorly-formed or lack conviction or else can only occur only after preliminary striving in learning how to use the new technology that evolves. This means that the real usage may not have immediate or direct consequence of such intentions and attitudes. The Technology Acceptance Model Theory continues to state that subject norms, perceived behavioral control and attitudes shape every individual intention it takes in engagement in a specific time and place. Behavioral intentions are influenced by the attitudes of individuals basing on pre-expected outcomes in terms of risks and benefits not yet seen or experienced. Behaviour depends on both

motivation (intension) and (behavioral control). The six constructs influencing a person's behavior are namely; attitude to evaluate, strength of intension, degree of approval (are many people benefiting?), social norms-(what is the trend?) Power of impediments (can I get over or not?), perceptions- (easy or difficult?). This theory in this study will be applied to the prediction of learners' acceptance of using mobile phone applications such as SMS, email, voice call and social media as a learner in distance education.

2.2 Empirical Review

Muchanji (2017), conducted a study to determine how infrastructure related factors, instructor characteristics, learning environment and service support affected delivery of open and distance education programmes at Nairobi University. Target population was all the 36 teaching and non-teaching staff as well as 52 Masters of Distance Education (MDE) students. The study sample size was 62 respondents (32 teaching staff, 4 non-teaching staff and 26 MDE students). Secondary and primary data was. Data from secondary sources was generated from university records and annual reports. Semi-structured questionnaires generated primary data. Before collection of data, a pilot study was done for testing how reliable and valid the research instrument was. Qualitative and quantitative data was generated by the questionnaires. Analysis of qualitative data done by the use of thematic content analysis and a prose form presentation was done. Analysis of Quantitative data was by use of inferential and descriptive statistics. Tables and graphs were used for data presentation. Correlation analysis was useful in the determination of the association between the study variables. The results indicated that infrastructure related factors have a positive and significant impact on delivery of ODL programs. Further, instructor's characteristics had a positive and significant effect on delivery of ODL programs. Further, learning environment had a positive and significant impact on delivery of ODL programs. Also, service support had a positive and significant impact on delivery of open and distance learning programs. The study concludes that infrastructure related factors had the most significant influence on ODL programs delivery, followed by instructor characteristics, learning environment and service support. The study recommends that the University of Nairobi should ensure that there are enough computers in the University for Use by the teaching staff, students and non-teaching staff. More so, the University of Nairobi ought to develop more platforms to enhance service support to the students through tutor assistance and communication between tutors and students.

Laichena (2017), conducted a study set out to ascertain the types of learner support services offered to open, distance and e-learning students as well as identify learner support services that the students and the administrators felt were essential for effective learning. The study also intended to establish the attitudes of the users of open, distance and e-learning programmes on the learner support services offered and identify the factors that influence learner support services offered in open, distance and e-learning programmes in selected public universities in Kenya. The study limited itself to fourth year students undertaking a bachelor's degree programme only. This study was guided by the systems approach model whereby the types of learner support services offered by an institution enhances the success of open, distance and e-learning programmes through provision of adequate learner support services. Literature reviewed on the categories of services such as teaching and learning needs, access of information and personal and social needs

(independent variables) showed that they determine the overall satisfaction of learner support services (dependent variable) offered. The study adopted a descriptive survey design. Purposive sampling was used to select three public universities offering open, distance and e-learning programmes, namely Egerton University, Kenyatta University and the University of Nairobi. Further, purposive sampling method was also used to select three study regions where each of the three universities had a study centre. A sample size of 329 fourth year students in the selected universities was arrived at using tables instituted by Morgan and Krejcie (1970). Stratified sampling technique was used to get a representation of students from each university while convenience sampling was used to select the students at each study centre from each university. All the administrators (directors and coordinators) were used in the study. The study instruments (interview schedules and questionnaires) were constructed to help in data collection. The data collected was coded, analysed and tabulated using the SPSS version 20 programme. Results were presented in form of frequency distribution tables and graphs. The study established that students rated majority of learner support services offered by their institutions across the three universities as poor while the administrators indicated that the services offered were good. However, the students and the administrators were of the opinion that there were essential learner support services that were very necessary to open, distance and e-learning students. Further, there was a consensus by the students and the administrators that the services offered were necessary though they needed to be improved. Lastly, the study found out that the administrators were aware of the essential learner support services but were limited by other factors that were beyond their control. The study recommends that; institutions offering open, distance and e-learning programmes should constantly assess the value of learner support services offered by constantly seeking the students' opinion and offer few but essential learner support services that are of high quality, adequate, of good quality and satisfactory to the students.

Nkamani (2013), conducted a study to investigate institutional factors influencing enrolment on Distance learning programmes in the UON with reference to Bachelor of education (Arts) in the Meru Region, Kenya. The study was guided by the following objectives: To examine the relationship between management practices and enrolment in distance education. To establish relationship between marketing strategies and enrollment in D. E. To establish the extent in which LSS relates to enrolment in distance education. To determine the influence of use of technology to enrollment in D.E. The conceptual framework shows that above variables are interrelated and are all key to distance learning programmes. The study adopted a descriptive survey design. The questionnaire consisted open and structured questions targeting Bachelor of Education (Arts) students in the University of Nairobi in Meru Region. A sample study comprised 80 respondents out of 303 that formed the target population. The researcher administered questionnaire to B.Ed (Arts) studying by distance. The findings were used to make recommendations on factors influencing enrollment in D.E programmes in the U.O.N., a case of B.Ed (Arts) in the Meru Region. Chapter four focused on the response rate, presentation of the data, interpretation and discussion of the research findings. The data was analyzed and presented in form of percentages and mean based on the objectives of the study. Chapter five outlined the summary of the findings, conclusions and recommendations. The findings of the research was that pertinent issues of management practices, marketing, LSS and technology influences enrolment in D.E learning

programmes. Recommendations were floated; these included the need for UON to have a blue print strategic plan of marketing D.E in the Meru region and the need to integrate ICT in the mainstream teaching among others. Further research on provision of LSS and generally on the factors influencing offering of D.E programmes across the board in all Kenyan universities were suggested

Nderitu (2013), carried a study to find out the effect of time management of academic performance a study was carried out. A total number of 650 students were selected using stratified random sampling technique. This sample was taken from 4,500 University of Nairobi students who were registered for B.Ed degree in different levels of study in the school of continuing and distance Education. A mixed mode method approach was used in data collection. Correlational research design was employed in data analysis. Pearson correlations were used to establish if there was a relationship between time management and academic performance. The analysis indicated a strong relationship between time management and academic [r= 0.569]. The value of $r^2 = 0.324$, indicated that time management accounts for about 32.4% of the variation in average performance.

Mwiti(2012), conducted a study to investigate the factors that affect learning of learners with visual impairments learning through distance education; a case of Kenya Institute of Special Education. The study was guided by three research objectives; such as to investigate the effect of teaching and learning strategies in promotion of learning of learners with visual impairments learning through distance education; a case of Kenya institute of special education, to investigate the effect of the environmental modification and adaptation in learning of learners with visual impairments learning through distance education; a case of Kenya institute of special education, and to establish the extent to which learner support services available influence learning of learners with visual impairments learning through distance education; a case of Kenya institute of special education. The target population was drawn from the face to face tutorial centers, where the learners with visual impairments attend their tutorial sessions. The learners in these centers represented all other learners in the country in other institutions of higher learning offering studies through distance education mode. A survey research design was used for this study. The factors that affect learning of learners with visual impairments learning through distance education were studied based on the three research objectives. The data was processed using statistical package for social science. The results of the findings in the study revealed that Kenya institute of special education had tried in providing accessible education to learners with visual impairments learning through distance education mode. However, there are various aspects that require improvements such as provision of all learning materials in braille and large print, audio cassettes, recorded lectures, and closed circuit televisions to enhance learning of students with visual impairments, studying through distance education. The study also found out that there is need to improve on environmental modification and adaptation and also need to improve on learner support services at the face to face tutorial centres. The researcher recommends that KISE should provide appropriate and adequate teaching and learning materials, ensure that students are provided with appropriate and conducive learning environments and that they are provided with adequate learner support services by professional counselors who understands and knows how to handle students with visual impairments

Kitua (2012), conducted a study aimed at identifying the factors that influence the use of the internet in learning at the Meru extra mural center. The study strived to determine the use of the internet as a channel of communication used in learning as well as the social, student and university related factors affecting the use of this channel of communication. The researcher employed descriptive survey design, gathering information from distance education students and the staff at the Meru extra mural centre using questionnaires. Quantitative data was analyzed according to the objectives using descriptive statistics to show a comparison between factors while inferential statistics specifically the independent sample t-test was used to determine the relationships between the dependent and the independent variables. Data was then presented in form of tables and charts for interpretation. The social factors identified were found not to have significant effect on frequency of use of internet by distance learners while the university and learner factors had significant effects on use of internet by distance learners. The researcher recommends that the university should offer computer training for all students and allow free access to university computers and internet.

Kubai (2011), conducted a study on factors influencing health workers satisfaction with training through distance learning mode of study. The objectives of the study were to determine how accessibility to technology, Learner education background, delivery modes, efficacy with technology and gender influences on learner satisfaction with distance learning. This study employs the case study research design to be able to gather particular data on the health workers satisfaction with training through distance learning mode of study. The sample consisted of 10% of the total population, that is eighty seven students (n=87). Systematic random sampling procedure was used to arrive at the sample of students. To facilitate fast and convenient collection of data, questionnaires were used. The collected data was recorded and analyzed using both qualitative and quantitative methods. SPSS (Statistical Package for Social Science) was used to aid the process of data analysis. The findings indicated that both slow internet connectivity and lack of internet connectivity influenced the accessibility to technology and therefore influenced on learner satisfaction with distance learning. From the study results it was clear that learners' educational background was a key factor that contributed to learner's level of satisfaction in distance learning. Pertaining gender it was revealed that in AMREF Training center female students had higher representation in distance learning compared to male students. Based on these study findings, recommendations drawn include: Distance learning institutions should provide learner support services in form of physical facilities, such as libraries, ICT, provide access to course resources as mechanisms important to student learning and development.

2.5 Research gaps

Geographical gap is a knowledge gap that considers, the untapped potential or missing/limited research literature, in the geographical area that has not yet been explored or is under-explored. For instance, Mwiti (2012) ,conducted a study to investigate the factors that affect learning of learners with visual impairments learning through distance education; a case of Kenya Institute of Special Education. A survey research design was used for this study. The results of the findings in the study revealed that Kenya institute of special education had tried in providing accessible education to learners with visual impairments learning through distance education

mode. The study presented a geographical gap as it was done in Kenya while our current study sought to evaluate influence of mobile phone on enhancing learner support services for distance education programmes.

Methodological gap is the gap that is presented as a result in limitations in the methods and techniques used in the research (explains the situation as it is, avoids bias, positivism, etc. Laichena (2017), conducted a study set out to ascertain the types of learner support services offered to open, distance and e-learning students as well as identify learner support services that the students and the administrators felt were essential for effective learning. The study adopted a descriptive survey design. Purposive sampling was used to select three public universities offering open, distance and e-learning programmes, namely Egerton University, Kenyatta University and the University of Nairobi. The the study found out that the administrators were aware of the essential learner support services but were limited by other factors that were beyond their control. The study recommends that; institutions offering open, distance and e-learning programmes should constantly assess the value of learner support services offered by constantly seeking the students' opinion and offer few but essential learner support services that are of high quality, adequate, of good quality and satisfactory to the students. The study presented a methodological gap as it was subjected to descriptive research design while our current study adopted a desktop literature review method.

Conceptual gap arises because of some difference between the user's mental model of the application and how the application actually works. Nderitu, (2013), carried a study to find out the effect of time management of academic performance a study was carried out. A total number of 650 students were selected using stratified random sampling technique. Correlational research design was employed in data analysis. Pearson correlations were used to establish if there was a relationship between time management and academic performance. The analysis indicated a strong relationship between time management and academic [r= 0.569]. The value of $r^2 = 0.324$, indicated that time management accounts for about 32.4% of the variation in average performance. The study presented a conceptual gap as it sought to evaluate influence of technology type on development of instructional materials for distance education, while the current study will evaluate influence of mobile phone on enhancing learner support services for distance education programmes

METHODOLOGY

The study adopted a desktop literature review method (desk study). This involved an in-depth review of studies related to influence of mobile phone on enhancing learner support services for distance education programmes. Three sorting stages were implemented on the subject under study in order to determine the viability of the subject for research. This is the first stage that comprised the initial identification of all articles that were based on influence of mobile phone on enhancing learner support services for distance education programmes from various data bases. The search was done generally by searching the articles in the article title, abstract, keywords. A second search involved fully available publications on the subject on influence of mobile phone on enhancing learner support services for distance education programmes. The third step involved the selection of fully accessible publications. Reduction of the literature to only fully accessible publications

yielded specificity and allowed the researcher to focus on influence of mobile phone on enhancing learner support services for distance education programmes which was split into top key words. After an in-depth search into the top key words (influence, mobile phone, enhancing learner support, services, distance education, programmes), the researcher arrived at 7 articles that were suitable for analysis. The 7 articles were findings from Laichena, (2017) who conducted a study set out to ascertain the types of learner support services offered to open, distance and e-learning students as well as identify learner support services that the students and the administrators felt were essential for effective learning. The study adopted a descriptive survey design. Purposive sampling was used to select three public universities offering open, distance and e-learning programmes, namely Egerton University, Kenyatta University and the University of Nairobi. The study established that students rated majority of learner support services offered by their institutions across the three universities as poor while the administrators indicated that the services offered were good.

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4.0 SUMMARY, CONCLUSION AND POLICY IMPLICATION FOR FURTHER STUDY

4.1 Summary

The popularity of SMS (short message service) messaging among students provides opportunities to exploit the possibilities of using SMS for teaching and learning SMS communication creates a one-to-one teaching/learning interaction as students can study the learning material for many hours and then pick a phone and send text messages to their tutors; and the tutors can then respond to the various queries raised by students. One tutor commented that; SMS can be used to give students reminders about assignment questions and deadlines. SMS therefore facilitates interaction among tutors, between tutors and administrators, between administrators and students, and among both students and administrators.

4.2 Conclusion

From the study findings, it is concluded that most students have a smartphone and have installed applications that enable them to access the internet, but they ended up using their phones for social network and not learning purposes. Despite the fact that the phones are able to check and send emails, majority of those interviewed preferred using the computer over the phone. Most students

and lecturers did not communicate over the phone in case of clarity on a certain subject even the sending of results, missing marks and such. Most administrators sent SMS regarding important dates and venues to DE students but rarely and did not send results through SMS, do not send SMS on tutorial schedules and never sent SMS giving reminders about deadlines for submitting assignments to DE students. Most lecturers disagreed that Mobile phone has enabled them to send course outlines and module notes from lecturers promptly through SMS. The most frequent activity on the phone was making phone calls and sending SMSes, the other part mostly was on social networking. Most students agreed that mobile phone has made it possible to share ideas through social media with course mates and lecturers in distance education and have used the social media through the mobile phone to connect with other distance learners to share ideas. There was a strong disagreement that the prompt receiving of SMS on important dates via mobile phone had been ineffective due to network problem in an area.

4.3 Recommendations

The study recommended that there was a need for the universities and colleges not utilizing mobile phones should develop common email center that does not compromise privacy of the users. The service should be of high speed and able to support large data exchange. The universities should establish common social media network by registering on leading social network such as facebook or google+. The common social platform center should be administratively controlled to monitor the exchange of information for purposes of learning and support. The knowledge and scientific understanding accruing from this study should be considered by policy makers when laying down guidelines for learner support systems in distance education programmes

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