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STUDENTS' E-LEARNING/M-LEARNING EXPERIENCES AND IMPACT ON MOTIVATION IN NIGERIA

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Abstract

The use of blackberries, laptops, PDAs, blogs, CBT, Blackboard, emailing, online discussion forums, SMS, virtual classrooms, social media, Web 2.0 applications and virtual games, etc have continued to grow rapidly in Nigeria. From observation, use of these ICT tools have transformed learning and impacted on learners and staff in developed countries and continue to do so. The investigations from extant literature have shown that e-learning and m-learning support a variety of instructional delivery: sharing of resources, collaborative learning, problem-based and inquiry-based learning, and reflective learning. It is also rife in literature that students gain transferable skills of team working, negotiation, communication and managing digital identities, etc but how generalizable are these in the context of students in Nigeria? Key research questions will be: What e-learning/m-learning resources are the students making use of? What are the patterns of use? What do students identify as affecting their motivation? Can these be attributed to use of e-learning and m-learning? What are the activities of students' e-learning/m-learning usage?

This study investigated users' (students) acceptance and understanding of e-learning and m-learning resources and how these can affect motivation by gathering evidence on a broad range of learners' experiences.

A quantitative method using survey approach was adopted to carry out the study at a tertiary institution (University of Ilorin). Questionnaire was used for data collection.

The findings from the study provide opportunity possibly to rethink traditional roles and responsibilities of staff, faculty and students. Students were motivated by e-learning. In addition, the study showed that students' technical skills and e-learning/m-learning infrastructure they have access to are not adequate to meet e-learning/m-learning requirements. Students should be trained and equipped to use e-learning/m-learning resources to complement traditional face to face teaching.

The study recommends amongst others, provision of access to e-learning and m-learning tools, application of the tools to motivate students in their learning.

Keywords: m-Learning and e-Learning, Online learning, Motivation, University of Ilorin, Nigeria.

Introduction

Recently, Nigerian government policy and that of its regulatory body in tertiary education, the National Universities Commission (NUC) have placed a renewed emphasis on education in the country by addressing challenges of that tier of education and by improving the way institutions are funded. This has resulted in increased importance being placed on this aspect in administration, use of ICT and teaching of the courses. According to retention formula and studies on Web-based learning (Seidman, 1996; Shih and Gamon, 2001; Culver, 2011) for student motivation and success, early and regular tutor contact make a significant difference in keeping students motivated and bringing them to the classroom. Nowadays communication technology by itself may not be a guarantee of a successful learning experience. It is the way we use this technology, the timing of interactions and an optimal mixture of online tools that makes an impact on student persistence and retention. A study described the convergence of the Internet and learning, or Internet-enabled learning as e-learning (Olaniyi, 2006). In this paper experiences of students in their use of e-learning and m-learning at the University of Ilorin, Nigeria are explored to see how effective those approaches are.

The research findings on use of ICT and its effectiveness in teaching/learning in schools from Pune city, India (Sidhaye, 1995) showed that few teachers were confident in using a wide range of ICT resources, and limited confidence affected the way their lessons were conducted. Many teachers still fear using ICT, and thus are reluctant to use them in their teaching. There is the need therefore to explore further if students and learners also fear using ICT. Research indicates that regular use of ICT increases motivation, especially if used regularly and in several subject areas for students.

The University of Ilorin is a pioneering institution in Nigeria in the use of computer-based tests, CBT and open courseware development for all undergraduate and online distance learning, ODL at the post-doctoral diploma in education, PDDE. All undergraduate students have to write tests and examinations that are computer based. The new departments in the recently established faculty of communication and information sciences, FCIS, namely departments of library & information science, LIS, information and communication science, ICS, telecommunication science, TCS and the department of food science in the faculty of Agriculture were the initial testing grounds for the open courseware development. This being must have jostled

faculty interest in those departments to drive adoption of e-learning/m-learning resources in the two faculties of CIS and Agriculture. The use of open courseware for all faculty based-courses in these aforementioned departments were accompanied by use of e-learning tools such as wikis, online discussion forums and other online communities in the teaching and learning by both lecturers and students. Besides, it is mandatory for all students in the FCIS to own a laptop hence the survey respondents were drawn from FCIS.

Problem Statement

Different researchers from different parts of the world have explored the attitudes toward e-learning. In researching this field, the researcher found out that there was little empirical research in the context of Nigeria. This can be related to the late introduction of the e-learning system in Nigeria. By studying the experiences of students towards e-learning in a federal institution in Nigeria, this study wants to fill this research gap. Significant researches have been conducted on e-learning/m-learning in many western countries. However, research concerning the evaluation, support and use of e-learning and m-learning have focused on staff rather than students/learners.

Objectives

The study drew out the experiences and attitudes of students on e-learning and m-learning in the University of Ilorin, Nigeria. Students' attitudes, benefits, and usage of e-learning and m-learning tools were also considered. Furthermore, the study established the impact of use on motivation and tested the validity of existing e-learning scale in a non-Western context. And lastly, barriers to use of e-learning/m-learning tools were identified.

Research Questions

1. What are the experiences, attitudes and expectations of students toward e-learning and m-learning in Nigeria?
2. What is the impact of students' use of e-learning and m-learning tools on motivation?
3. What e-learning and m-learning tools do students use?
4. What are the barriers to use of e-learning and m-learning?

Literature Review studies

The final report of the virtual models of universities by the EU Commission reported that the majority of universities offer some e-learning courses at the level of basic academic training and supplementary training. However, in the majority of subject areas, e-learning does not seem to be a preferred delivery mode in either basic academic training or supplementary education. The study indicated that a large increase in the number of courses offered in e-learning format could be anticipated, since 65% of universities state that this will be one of their key priorities over the next two years. The study also indicated that in the universities' view, e-learning is most suitable

for graduate and post-graduate students and needs to be carefully tailored to the particular target group (EU Commission Report, 2004)

Several studies uncovered a shortage of high quality ICT-based teaching material (Laurillard, 1993; Creanor, Trinder, Gowan and Howells, 2006; Hainey, Connolly, Stansfield and Boyle, 2011). This is a natural consequence of the generally still-immature stage of development. But since both management and academic staff require inspiration in order to begin developing their own material, this is an important obstacle to start doing so. It concluded that there was need for further studies on students'/learners' perceptions of e-learning.

E-Learning/M-Learning in Nigeria

The statistics from the mobile sector are mindboggling, with just 10,000 lines in 1991, was upgraded to about 20,000 in 1994. With 14 Telex exchanges with total installed capacity of 12,800 and 20 voice frequency telegraph terminals installed. With GSM services, the number of phone lines jumped to a whooping figure of 4.2 million lines in 2004. The number of ISPs moved from 11 in 2000 to almost 30 in 2004. Meanwhile internet users moved from 100,000 to more than 500,000 in 2004 (Ajadi, Salawu and Adeoye, 2008).

Olaniyi (2006) identified obstacles to e-learning in Nigeria to include: high cost of hardware in Africa, high import tariffs and less price competition, transmission cost is equally high in Africa, Internet access in Africa is through a foreign gateway, shortage of skilled manpower, companies and institutions are reluctant to invest in training of staff due to the likelihood that trained staff will be poached by other institutions and companies, Africa has the lowest number of telephone lines per capital in the world, existing telecommunication infrastructure is in very poor condition, computer technology illiteracy among the students from the primary school level, cost of acquiring installing the gadget required for e-learning, incessant power supply and lack of affordable dedicated/specialized e-learning centres to name but a few.

Motivation

Maehr (1990) has turned his attention to the relationship between motivation and the organizational culture of schools. His work centers on what he terms the psychological environment of the school. School administrators, he asserts, are in the best position to shape a school's psychological environment. As Maehr (1990) points out, "different incentives are likely to be associated with different tasks, and the manner in which these incentives are designed, presented, or made available is important" (p. 33).

Much of the recent research on educational motivation has centered on the classroom, where the majority of learning takes place and where students are most likely to acquire a strong motivation to gain

new knowledge (Ames, 1987; Brophy, 1987, Wlodkowski and Jaynes, 1990). But achieving the goal of making the classroom a place that naturally motivates students to learn is much easier if both teachers and students function in a school culture where academic success and the motivation to learn is expected, respected, and rewarded. Cravener (1999) found that while distributed education increases access to education, one can easily find reluctance of students to use the e-tools in developing countries as a result of a number of factors such as problems of adapting to technology, difficulties with online course management, and other related matters. These issues need further examination in a study such as this.

Methodology

A pure quantitative method using survey design approach was adopted for the study. This approach was chosen to allow the researcher draw on large sample which is representative of the total population. Moreover, survey approach was chosen because it is the most prominent approach used in previous related studies (Lim and Kim, 2003; Amoroso and Hunsinger, 2009; Yang, Tsai, Kim, Cho, and Laffey, 2006; Duggan-Walsh, 2010). A questionnaire was used to solicit responses from participants and for scoring motivation and how e-learning/m-learning influenced the degree of motivation students had towards their learning. The study was carried out in September-October 2011. All data were stored in a computerized database and processed using the Statistical Package for the Social Sciences (SPSS version 14.0). Data were sorted into the same areas as asked for in the questionnaire. The statistical calculations included frequency counts, percentages and mean.

Population and Sample

A census of students was taken to include total number of students of three departments of the Faculty of Communication and Information Sciences of the University of Ilorin, Nigeria. These departments use e-learning tools as part of curriculum. N=238. There were 122 males (51.3% and 116 females (48.7%). None of the students invited to participate in the study declined. All the undergraduate students in the departments irrespective of level of study participated.

Findings and discussion

E-learning/m-learning resources used by undergraduate students

The majority of respondents in this study, 98.4% have access to a personal laptop at school and among them 89.7% have access to the Internet via personal modems or through their mobile tools – phones, blackberry, etc. Daily use of e-learning/m-learning tools was found to be as follows: 63.7% uses a laptop for less than one hour, 20.1% uses a laptop for between 1 and 3 hours, 3.8% uses a computer for between 3-5 hours and 2.6% uses a laptop for more than five hours a day. Over fifty-four percent of the participants rated their skills as

average or high and 45% of respondents are novice/beginner users of e-learning/m-learning resources.

Research Question 1: What are Students' perceptions of E-learning/M-learning usage?

Students believe that use of e-learning/m-learning will bring to them advantages. The results show that 52% of the respondents were motivated to work on their own by use of e-learning tools such as yahoogroups, wikis and online communities. 78% is motivated to think a lot for themselves on the courses with use of e-learning/m-learning resources. Interestingly, stakeholders underestimate e-learning/m-learning's time consumption as the results show 73% spends so much study time using the resources. 101 female students and 105 male students agreed that online discussions were a good way to learn in their courses. 16 female students and 23 male students disagreed that e-learning made them independent in their studies.

Research Question 2: What is the impact of students' use of e-learning and m-learning tools on motivation?

93% is interested in use of e-learning because it is motivational and useful in learning. 54% of respondents only participated in compulsory online participation in select courses so as to get good grades with 33% harbouring fears that they may not do well in online participation in their online courses. 71% uses the e-learning/m-learning tools to study and work individually. The mean motivation score was 6.7 (ranked between 0 and 10) with positive experiences of use of e-learning. Most of those with negative experiences did not pick the option of e-learning based courses due to lack of access to e-learning tools. Two students indicated that despite the fact that e-learning motivated their studying, they failed those particular courses. Only 30 female and 39 male students disagreed that they may not do well in online participation in their courses, showing a thin line between the sexes in their perceptions.

Research Question 3: What e-learning and m-learning tools do students use?

The most used tools are: Laptops (88%), groupware (88%), web-enabled handsets (82%), E-library/facebook/web 2.0 tools (65%). The least used are: hypermedia (4%) and blackberry (9%). Respondents indicate the hardware tools are provided by individual students. 0 female and 66 male students disagreed with use of the desktop computer for their e-learning. 11 female and 10 male students use blackberries in their e-learning/m-learning.

Research Question 4: What barriers do students face during e-learning/m-learning usage?

50% of the respondents listed lack of motivation and education/training in use of e-learning and m-learning for students by the institution as barriers. Many others listed lack of award of grades

for their use of e-learning and m-learning tools in all the courses offered university-wide as only a few courses awarded grades for their e-learning/m-learning efforts at the moment. Many respondents say use of e-learning/m-learning resources is time consuming. The other commonly listed barrier was lack of adequate access to e-learning tools/m-learning tools for most of their courses such as virtual learning environments, VLEs, lack of hypermedia/multimedia delivered e-learning tools and lack of customized software applications for e-learning/m-learning in the institution.

Implications

Students considered e-learning/m-learning resources' usage helpful in individualizing their academic work and ultimately as viable educational tools that have the potential to bring about different improvements to their institution and classrooms. A high percentage of students want e-learning resources to be applied to teaching of all courses offered in the university. All the results reported draw a conclusion which is also stated in the literature by many researchers: the goal of the integration of e-learning and m-learning resources into students' learning, like in all other areas, has yet to be reached (Sansone, Fraughton, Zachary, Butner, Heiner, 2011; Armstrong and Franklin, 2008; Phillips, Bain, McNaught, Rice and Tripp, 2011; Garrett and Verbik, 2004).

Conclusion

Some limitations such as students' lack of e-learning/m-learning usage skills and insufficient infrastructure supporting such as e-learning classroom, etc impede their usage. There is plenty of evidence to show that students are strongly supportive of use of e-learning technologies as found in this study and others studies (Laurillard, 2004; Richardson & A. Turner, 2000; Razak, Connolly and Hainey, 2012) on virtual learning environments. This study found that students did not want e-learning/m-learning resources' usage to replace face to face teaching, this is similar to the study by Richardson & Turner (2000). This study underscores the need to understand the students'/learners' e-learning/m-learning experiences and their need for support and timely feedback.

Recommendations

The study recommends the following:

1. Students must possess technical skills to use e-learning/m-learning resources.
2. Holding workshops for students and possibly, teachers in the area could be conducted to promote cooperative projects and sharing of experiences and expertise.

3. The institution must provide adequate, reliable and single e-learning platform or software and tools to interconnect all students' and lecturers' e-learning requirements.
4. There should be established an e-learning/m-learning support centre to assist students' IT needs.

References

- Ajadi, T. M., Salawu, I. O. & Adeoye, F. A. (2008). E-Learning and Distance Education in Nigeria. *The Turkish Online Journal of Educational Technology – TOJET* ISSN: 1303-6521 7 (4), 22-29.
- Ames, C. (1987). The Enhancement of Student Motivation. In *Advances in Motivation and Achievement, Vol 5: Enhancing Motivation*, Maehr, M. L. & Kleiber, D. A. (Ed.) 123-48. Greenwich, Connecticut: Academic Press (pp.321-335).
- Amoroso, D. L. & Hunsinger, D. S. (2009). Measuring the Acceptance of Internet Technology by Consumers, *Journal of Information Systems Applied Research*, 2 (1), 121-129.
- Armstrong, J. & Franklin, T. (2008). A Review of Current and Developing International Practice in the use of Social Networking (Web 2.0) in Higher Education. Association Annual Conference, Chicago, Illinois.
- Brophy, J. (1987). Socializing Students to Learn. In *Advances in Motivation and Achievement, (5:9) Enhancing Motivation*, Martin L. Maehr, M. L. & Douglas A. Kleiber, D. A. (Ed.) 181-210. Greenwich, Connecticut: Academic Press (pp.112-130).
- Cravener, P. A. (1999). Faculty experiences with providing online courses. *Computers and Nursing* 17 (1), 42- 47.
- Creanor, L. K., Trinder, Gowan, D. & Howells, C. (2006). LEX: The Learner Experience of e-Learning – Final Project Report, JISC. Retrieved 23/11/2011 from <http://www.ejel.org/issue/download.html?idIssue=18>
- Culver, T. (2011, January). [The 2 formulas to increase your retention and completion rates: P + P = R P + P + R = C](http://blog.noellewitz.com/2011/01/19/formulas-increase-student-retention-completion-rates/). Message posted to blog, archived at <http://blog.noellewitz.com/2011/01/19/formulas-increase-student-retention-completion-rates/>
- Duggan-Walsh, L. M. (2010). An analytical review of the literature on Motivation in Online Learning. Message posted and archived at <https://sites.google.com/site/motivationinonlinelearning/home/analysis-paper---motivation-in-online-learning>.
- EU Commission Report (2004). Studies in the Context of the E-learning Initiative: Virtual Models of European Universities (Lot 1) Draft Final Report to the EU Commission, DG Education & Culture.
- Garrett, R. & Jokivirta, L. (2004). Online Learning in Commonwealth Universities: Selected Data from the 2004 Observatory Survey, Part 1, Observatory on Borderless Higher Education.
- Garrett, R. & L. Verbik, L. (2004). Online Learning in Commonwealth Universities: Selected Data from the 2004 Observatory Survey, Part 2, Observatory on Borderless Higher Education.

- Hailey, T., Connolly, T. M., Stansfield, M.H., & Boyle, E.A. (2011). Evaluation of a Games to Teach Requirements Collection and Analysis in Software Engineering at Tertiary Education Level, *Computers and Education*, 56 (1), 21-35.
- Laurillard, D. (1993). *Rethinking University Teaching*. Routledge, London. Pp. 12-16.
- Laurillard, D. (1994). How Can Learning Technologies Improve Learning? *Law Technology Journal* 3 (2), 67-81. Retrieved 6/06/2011 from <http://www.warwick.ac.uk/ltj/3-2j.html>
- Lim, D. H., & Kim, H. (2003). Motivation and learner characteristics affecting online learning and learning application. *Journal of Educational Technology Systems*, 31(4), 423-439.
- Maehr, M. L. (1990). Changing the Schools: A Word to School Leaders about Enhancing Student Investment in Learning. Paper presented at the American Educational Research.
- Olaniyi, S. S. (2006). E-Learning Technology: The Nigerian Experience. TS 84 – e-Learning Shape the Congress on Change, XXIII FIG held in Munich Germany, October 8-13, 2006.
- Phillips, R., Bain, J., McNaught, C., Rice, M. & Tripp, D. (2011). *Handbook for learner-centered evaluation of computer facilitated learning projects in higher education*. Murdoch University, Australia. Retrieved on 1/6/2011 from <http://www.tlc1.murdoch.edu.au/projects/cutsd99/>
- Razak, A. A., Connolly, T., & Hailey, T. (2012). Teachers' Views on the Approach of Digital Games-Based Learning within the Curriculum for Excellence. *International Journal of Game-Based Learning (IJGBL)*, 2(1), 33-51. doi:10.4018/ijgbl.2012010103
- Richardson, J. A. & A. Turner, A. (2000). A large scale 'local' evaluation of student' learning experiences using virtual learning environments. *Educational Technology & Society* 3 (4), 108-125.
- Sansone, C., Fraughton, T., Zachary, J., Butner, J., & Heiner, C. (2011). Self-regulation of motivation when learning online: the importance of who, why and how. *Educational Technology Research and Development*, 59(2), 199-212. doi: 10.1007/s11423-011-9193-6
- Seidman, A. (1996). *Retention Revisited: RET = E Id + (E + I + C)/v*. College and University, 71(4), 18-20.
- Shih, C. & Gamon, J. (2001). *Journal of Agricultural Education* 42 (4), 12-20.
- Sidhaye, N. (1995). Analysis of Research Findings of Use of ICT and its Effectiveness in Teaching/Learning in Schools from Pune City Retrieved 21/01/2011 from <http://www.articlebase.com>
- Wlodkowski, R. J. & Jaynes, J. H. (1990). *Eager to Learn: Helping Children Become Motivated and Love Learning*. San Francisco: Jossey-Bass, pp.147.
- Yang, C., Tsai, I., Kim, B., Cho, M., & Laffey, J. M. (2006). Exploring the relationships between students' academic motivation and social ability in online learning environments. *Internet & Higher Education*, 9(4), 277-286. doi:10.1016/j.iheduc.2006.08.002.