

Learning in Namibia: an opportune solution or an impediment to learning? – The case at the University of Namibia

Tulimevava Kaunapawa Mufeti
Computing Department
University of Namibia

Abstract

Access to education is among the many challenges that African countries face. According to a Report of the International Commission on Education for the Twenty First Century to UNESCO, many African countries are unable to provide access to primary education for all, let alone secondary and tertiary education. Many promote technology-facilitated learning, also known as eLearning, as an antidote to the access problem. This paper describes the author's personal experience and analysis of eLearning in a Computer Literacy distance education course at the University of Namibia. Specifically, the paper attempts to establish whether the use of eLearning improved or hindered access to education. The paper concludes that, while eLearning clearly has a potential to eradicate problems associated with access to education, it is at the moment, not an appropriate solution in the Namibian context, as eLearning in itself generated more exclusion problems that made education beyond reach. Although the results found are based on observations that were made for a single course at the University of Namibia, they can help us understand some of the factors that can hinder the success of eLearning in other courses and higher education institutions in similar settings.

Key terms:

eLearning in Africa, opportune solution, impediment to learning, access to education

Introduction

Access to education is among the many challenges that African countries face. Many African countries have realized the role of education and have redoubled their efforts to eradicate illiteracy in the twenty-first century. One such effort is evident in primary education, where almost all African countries are attempting to make primary education free and accessible to all. This is in line with the second Millennium Development Goal (MDG), which calls on the world to ensure that all boys and girls will be able to enroll and complete their primary school by 2015. Today, however, the African continent is still struggling to provide primary education, let alone secondary and tertiary education, to all deserving students.

A primary problem associated with access to education is distance. In the Namibian context, for example, the country has a population of just under two (2) million, and an area of more than 824 000 km². Although not all the land in Namibia is productive mainly due the desert, the country is still sparsely populated and homesteads are located far from each other. As a result, building a school in one community is not always sufficient to serve the needs of all community members. It is therefore not uncommon to find school children that walk more than 15km everyday, just to be able to attend school. Traditional methods of education have failed to effectively address this issue.

Several authors advocate eLearning, which describes learning experiences facilitated through the use of information and communication technologies, as a solution to improve access to education. This is because eLearning has proved effective in enhancing teaching and learning experiences, especially in developed countries. Velsmid (cited Newlin and Wang, 2002) reported by 1997 that more than 400

colleges in the USA already supplemented their traditional forms of learning with web-based instruction. Like many other technological innovations, however, eLearning did not originate in Africa, and it is a relatively new development that has only begun to take shape in the African milieu. Nevertheless, almost all African universities are slowly integrating technology into their program offerings in an attempt to keep up with the global world.

Notwithstanding the benefits and potential that eLearning can provide, there are two simple questions that remain unanswered:

- Is eLearning is a universal remedy to improved access to education for all citizen of the world?
- Will eLearning improve access to information and education and thus bridge the digital divide for Africa?

Where African institutions have already adopted eLearning, there is very little or no empirical study devoted to the role that eLearning plays in distance education, and how and whether it is meeting the needs of its intended users. As articulated in the report to UNESCO however, “*reaching those who are still out of reach does not mean merely expanding existing education systems*”. Rather, it requires “*designing and developing new models and delivery systems tailored to specific groups, in a concerted effort to ensure relevant*” education (UNESCO Commission, 1996, pg 118). As such, eLearning must not only be implemented for the sake of bridging technology disparities in the global world, but its adoption should be guided by the needs of the people for whom it is intended. Towards Education for All (1993) stressed that the benefits and opportunities offered by the learning systems cannot be guaranteed if the outputs of the learning systems are not carefully examined.

To improve access to education that is meaningful to the continent therefore, the focus should not only be on expanding the methods of learning, but on the real opportunities and benefits that these methods offer to the intended users. eLearning may have proved to offer many benefits in some countries, but if it cannot do the same in Africa, it will only waste the already scare resources and consequently, lead to frustrations. According to JISC (2004), effective learning is likely to occur when opportunities to learn involve the right resources, the right mode of delivery, the right contexts and the right learners with the right level of support. There is therefore a need to carefully conduct studies on the impact of eLearning in the African context.

The Definition and Benefits of eLearning

In a nutshell, eLearning describes the learning experiences that are facilitated by information and communications technology. Jackson (2001 cited in Parker 2003) further differentiated between technology-delivered and technology-enhanced eLearning where technology-delivered eLearning is achieved when the learner and the teacher are physically separated by distance, but may use both synchronous and asynchronous modes of delivery for learning, while technology-enhanced learning is when the technology is used as a supplement to traditional teaching and learning.

Roberts and Jones (2000) separated eLearning into four models, which are the naïve model, the standard model, the revolutionary model and the radical model. The naïve model simply deposits the lecture notes in the web, making it cheap to implement as it requires less time and skills, but it is limited because it provides no communication between the lecturer and students, and students to students. The standard model provides limited communication between the users of the system, mainly in the form of mailing lists and newsgroup. In addition, it also contains lecture notes, reading materials, assessment guides, etc. The evolutionary model uses recorded lectures and animations to

explain difficult concepts, and provides online assessment and feedback. This allows the lecturer to monitor the progress of the subject. Compared to the other three models, the radical model offers the highest form of interactions amongst students. Students are expected to learn from an existing amount of web-based resources and lecturers only provide guidance when it is required.

There are many benefits associated with eLearning. Among other things, eLearning promises to provide anytime, anywhere access to education at the learner's own pace and convenience. This promise means eLearning can be used to eliminate the problem caused by distance, since it does not require the student to be at the same location with the teacher, thereby improving access to education. It also means that learner can choose a convenient time when they can learn, and they can choose the rate at which to go through the content depending on their previous experience.

Another benefit associated with eLearning is with regard to the flexibility it provides both in teaching and learning. Collis (cited in Bennedsen, 2004) described five categories where flexibility may be realized in eLearning:

- Flexibility related to time
- Flexibility related to content
- Flexibility related to entry requirements
- Flexibility related to course delivery and logistics
- Flexibility related to instructional approach and resources

eLearning also has the potential to improve both lecturer-to-student and students-to-students communication thereby providing additional means of support in learning. This is a great advantage to distance learning, which is usually characterized by limited communication between students and lecturers. It also provides the possibility of keeping track of the progress of the course, which a lecturer in a traditional distance-learning course usually has little means of tracking.

Prerequisites for eLearning

eLearning presupposes some conditions and prerequisites for effective implementation. Uys (et. Al) identified some of these socio-economic and technological conditions and prerequisites, and pointed out that these conditions are often taken for granted during technological transformations of developing countries. These include inadequate telecommunication infrastructure, lack of reliable power supply, limited resources in the education sector, provision of basic education infrastructure and reduction of the student teacher ratio. This section briefly describes four (4) essential technological requirements of eLearning.

- **Power Supply:** Most technological infrastructure cannot work without some form of power supply. This is not often present in all corners of the country in the African continent. Alternative means of power supply such as solar generators that require a once off installation fee have been introduced, but these are often still unaffordable by the inhabitants of these areas.
- **Computers:** eLearning, especially technology-delivered eLearning as described by Jackson(2001 cited in Parker 2003) often necessitates the use of a computer. Computers are also unaffordable especially in Africa, as they are often imported from developed countries. Some distance-learning courses make use of pre-

recorded content in videocassettes and CD-ROMs, but the use of CD-ROMs still requires the use of computers.

- Telecommunications: For transmission of data to take place, some form of telecommunications is required. Even when the user does not have a big network of computers, a telephone line may still be necessary to connect a computer via a modem to an ISP to be able to reach the server with the course contents. This becomes quite a challenge especially in rural areas, where the connection to the telephone service providers is usually not available. Alternatives forms of telecommunications include satellite, but these are often too expensive for individuals to purchase and utilize.
- Other Peripherals: Using a computer for eLearning often requires extra peripherals. These may include a printer, speakers, a microphone, etc.

The required technologies are often not present in all situations, and where they are present, reliability cannot be ensured. This makes eLearning challenging in these settings.

eLearning at the University of Namibia : the case for on-campus courses

The University of Namibia (UNAM) formulated its strategy on how to use Information and Communication Technologies (ICT) to enhance effective learning and teaching in 2003 (ICT Strategy Steering Committee, 2003). Prior to this strategy, individual lecturers in the departments determined how and when to use ICT in learning. Since some departments were more equipped with ICT resources than others, it was necessary for university to identify a way of sharing resources and appropriate infrastructure equally among departments. In 2004, an eLearning committee was appointed to oversee the implementation of the ICT strategy in the University. Among other things, the committee was tasked with identifying a Learning Management System (LMS) that will be used to facilitate effective teaching and learning. The committee recommended the Knowledge Environment for Web-based Learning (KEWL) platform to be used for eLearning at UNAM.

By January 2005, the KEWL platform was fully implemented and functional at UNAM. Five pilot courses were successfully run in the first semester (February to June) using the blended learning approach, which follows the technology-enhanced learning methodology described by Jackson (2001 cited in Parker 2003). Mufeti (2005) described a case study of successful blended learning implementation in an Introduction to Programming course at the University of Namibia. Among the benefits realized with the implementation were an open learning environment, improved communication, multiple learning activities and flexibility with regard with regard to time, content and course delivery. The challenges include limited access to the system, lack of technical resources, lack of resources for content development and the time requirements from both the instructor and the students. These challenges hindered the students from participating in all the learning activities and taking advantage of the eLearning environment.

Although most students and lecturers at the UNAM do not have access to computers and thus Internet, at home the implementation of blended learning at the University has been described as success, as it met most of the objectives for which it was intended. Students who do not have access to Internet at home did not miss any content as long as they attended face-to-face lectures. In addition to face-to-face lectures, students with access to Internet at home could go through the lectures at at their own time. Other students could also access the eLearning system when on campus using computers in the library. Although this method provided more opportunities for already advantaged learners (i.e.

learners who can already afford a computer and access to Internet at home), it did not exclude already disadvantaged learners from learning.

The case study of a Computer Literacy Course for Distance Education

Computer Literacy is a compulsory course offered to all first year students at the University of Namibia. The course is a hands-on course that requires students to have access to a computer to complete their learning activities and assignments. To full time students on campus, the course has a contact time of 28 weeks, with two forty-five minute lectures per week. The course may be completed either in the first or second semester (February to June or July to October). It is assessed using continuous assessment mode, which only takes into consideration the tests and assignments submitted by the student and does not require students to take examinations. The content covers introduction to computers, operating systems, word processing, presentation software, databases, emailing, spreadsheets and other common software.

Distance education students are also required to take the compulsory Computer Literacy course. Distance education caters for students from all corners of the country, and sometimes, even outside Namibia. Before eLearning, printed manuals for the course were prepared and students had to use these manuals to go through a series of steps that will guide them through the course material at their own pace. It was however found that students did not learn much from the course and interactive content was provided to improve both student motivation and learning experience.

With the emergence of eLearning at the University, technology-delivered learning provided a possibility for students to learn over the Internet. Technology-delivered learning however, proved not to be feasible for all students because not all students have access to Internet, and those who have access experience slow connections due to bandwidth, and it is also expensive to connecting to the Internet. Web-based learning was therefore supplemented with computer-based training, where students were given Compact Disks that they can use at their own pace from home.

Due to the fact that most students do not have computers at home, the University also distributed the compact disks among its 9 centers of learning, which are spread throughout the country and were created specifically to cater for distance learning. Students registered for Computer Literacy are then encouraged to come to the center to use the Compact Disks to access the course content. There are 6 disks in total, each about an hour. This means that a student needs at least 6 hours to cover all the required course content.

In addition, students are required to complete two assignments for continuous assessment, with each assignment demanding about 3 hours to complete. The students travel long distances to come to the centers to use the computers, but the center only allows every user to use the computer for two hours a day because there are limited computers. As a result, students do not have adequate access to computers, and thus, are indirectly excluded from accessing the content.

There are however, some students with access to computers at home. These students can be divided into subcategories described by Bradley (1996 cited in Reid 1997): the emergent user, the progressive user, the high end user and the dependent user. Bradley defined these categories depending on the range of software that the user has access to, frequency of use and reliance on use. Although users in these categories have different capabilities and levels of computer literacy, they are all already privileged because they probably already use word processors, emails and other application programs. Users who do not have access to computers therefore have a disadvantage that is almost impossible to

overcome: they cannot access the course content and if they do not already know how to use computers, they will not be able to submit their assignments for continuous assessment, and consequently will not be able to pass the course.

Limitations of this research

This results upon which this research is based used a single case study of a technology-enabled and technology-delivered Computer Literacy course at the University of Namibia. It did not make any comparison to other distance learning courses offered in other universities.

Although the Computer Literacy course offered had about 140 students enrolled, only 47% of the students submitted their assignments and kept regular contact with the tutor. The study used an observation method, and cannot conclude for sure that all 53% that did not submit their assignments was because they do not have access to a computer at home. Of the 53%, it is only 70% who communicated to the tutor that they will not be able to complete their assignments because they do not have access to computers.

The paper reported only on the interesting observations made during the delivery of the course. It will be interesting to see further case studies using different methodologies to explore student's experiences with eLearning.

Conclusion

This article used Namibian context case studies to determine whether eLearning is a panacea to improved access to education. The article started with a description of what and how eLearning is understood and the technical requirements that must be met to ensure its success. Although many advocate eLearning as the antidote to problems associated with access to education, the case studies described in this paper illustrated that introducing eLearning paradoxically, aggravated rather than improved access to education in distance education, especially to people who are already disadvantaged with regard to access to computers. If eLearning is to play a meaningful role in learning, the learning environment needs to be considered so that the technology is introduced to appropriate people at appropriate times. It is recommended that universities already offering eLearning in similar developing settings should conduct research to determine how eLearning is being used and to find out their student's experiences with eLearning.

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