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Access and Success in Learning: Technologies for Scaling Up Open and Distance Learning Programme in the Institute of Distance Learning, KNUST, Kumasi, Ghana

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ODL (Open and Distance Learning) has come to stay. In recent years, there has been some extra-ordinary increasing international interest in it and Ghana is no exception. Currently, new ways of providing education are inevitable and ODL provides an effective alternate way. It represents approaches that focus on opening access to education and learning, freeing learners from the constraints of time and place and offering flexible learning opportunities to individuals/group. To the distant learner, ODL means increased access and flexibility and the combination of work and education. Many countries are trying to use ODL as a strategy for opening access to education. Inadequate infrastructure and professional competence in ODL serve as barriers. The study was designed to examine how learners can gain access to and success in learning. Again, it sought to ascertain some technologies which could be used to improve existing conditions at the IDL (Institute of Distance Learning), KNUST. The questionnaire was administered to 200 students and 20 facilitators. Stratified sampling was employed. The facilitators were interviewed. Lessons learnt include the fact that ODL will be an important element of future education and training. The emergent picture was that even though students use some computers, it could be extended to embrace other technologies, such as video conferencing, phone counseling and writing examinations on line so as to curtail any cultural and social barriers. It is worth noting that information could support the quality/variety of existing educational structures which enhance and consolidate capacity. Hopefully, usage of electronic information technologies in ODL would enhance retrieval/storage and distribution of information. It would also increase facilitation/communication among learners, facilitators and stakeholders in providing lifelong education.

Keywords: access, success, technologies, open distance learning, flexibility, learner-centred, teaching/learning strategies

Introduction

In recent years, in the field of education and training, there has been an increasing world-wide interest in students opting to read ODL (open and distance learning) programmes and stakeholders expanding their infrastructure and DL (distance learning) programmes. The terms ODL represent approaches that focus on

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opening access to education, freeing learners from the constraints of time and place and offering flexible learning opportunities to individuals/groups of learners (UNESCO, 1997). The distant learner sees ODL as a way of increasing access, flexibility and combination to work and education or a more learner-centered approach with new ways of interaction. According to UNESCO's (2002) report on trends, policy and strategy considerations, the term "DL is used as a synonym for the more comprehensive and precise term distance education" (p. 22). The main aim of distance education is to create wide opportunities for learners to study, regardless of their geographic, socio-economic conditions or other constraints. DL will usually have the learners become responsible for what and how they learn and who to ask for help.

Literature Review

Naturally, knowledge societies need to offer relevant learning opportunities for its members. This pre-supposes that one must learn to know, do and be able to live together. When this is done, useful opportunities for individuals are enhanced. These opportunities are "essential for full citizenship in society" (p.1), as stated by the chairman in his report of the G8 Education Ministers' meeting. The Cologne Lifelong Learning Charter (1999) recognized that the challenges every country faces are to become a learning society and to ensure that its citizens are equipped with knowledge, skills and qualifications they will need in the 21st century. It can be argued that the rapid progresses of ICT (Information Communication Technology), such as satellite communications, large capacity optical fiber communications and the internet, have greatly expanded DL as a tool for lifelong learning and international understanding (G8 Education Ministers' Meeting, 2000). Distance education can be used to reach learners even in remote areas. It can also be used to support school education and provide higher and continuing education. For example, in some developed countries like Canada and the United States of America, education is under the responsibility of individual states or provinces, as stated in the United Nations Educational, Scientific and Cultural Organization's document (UNESCO, 2002). Some states and provinces have initiatives to assist schools in acquiring video conferencing systems and provide internet access in the classroom.

Print has supported the use of technology in most developed/developing countries. Hence, no matter how well materials are organized in terms of utilization of modern technology equipment, learners still make good use of printed information. We should remember that, "Changes in technology have affected printing cost, distribution of printed material and assignments: the main effect has been to increase the flexibility of the medium" (Perraton, 1995, pp. 12-56).

The springing up of new forms of DL, based on interactive telecommunication technologies coupled with economic, organizational and pedagogical implications, seems to be one of the current ways of organizing DL. In fact, some governments, industries and educational institutions are now eager to develop effective applications of new technologies, which also meet the needs of learners (UNESCO, 1997). In most developing countries, some of the problems of implementing effective ODL can be attributed to the few technological infrastructures, such as the computers, telephones and overhead projectors. One can argue that there is an opportunity for current and sophisticated technologies that will have the strength for manipulating/distributing more information, storing or retrieving information and making communication easy for students/staff. The challenge will be how to achieve this in an integrated way and decrease cost. One way of going about it is, for the institutions concerned, to have clear educational and instructional techniques and the ability to integrate the traditional and intellectual developments mainly caused by the new technologies.

Most distance education institutions use print as the major learning material. Other forms that can be used to support are radio schools, educational television, telephone teaching, audio and video teleconferences and computer-mediated communication. It is vital to note that the potential of DL to increase new ways of learning and creativity in conventional education depends on the level of interaction between DL systems and conventional systems (UNESCO, 1997). Hence, one must remember the role played by dedicated and some specialized institutions in developing knowledge. It is expedient to note that the development of new technologies generates new insights of knowledge about learning conditions and processes and is likely to have effects beyond the realm of education. Passig and Levin (2000) asserted that when using multimedia approaches, the learner studies the subject matter and learns how to deal with the environment. It is not surprising that even with current technology, some ODL institutions rely on print and think of traditional methods of reaching their learners and facilitators. It has been documented that Trenamen (1967) carried out some comparative studies on the effectiveness of teaching the same material through various media. The result was that differences between programmes and occupation of learners are important, and not much difference exists between one medium and another. To this end, Clarke (1983) commented that media do not influence learning under any conditions and that any learning gains come as a result of improved teaching methods.

Methodology

The questionnaire and structured interview were found to be the most appropriate and suitable to solicit answers to the research questions. As such, the data for the study was collected with a 20-question survey. The original questionnaire was piloted using 20 respondents and revised to enable respondents provide the appropriate answers. The target population in this study was all distant learners of the IDL, KNUST. As it was unusual to deal with the whole population in a survey, Robson (2002), the researcher, selected a sample of 200 distance learners in IDL, KNUST. Structured interviews were used to solicit information from 30 of the facilitators of IDL. The random sampling strategy was adopted as the researchers realized it that would be more convenient and faster.

The instrument was administered face-to-face to the learners during the first week of May, 2010. The interviews were conducted in June and July, 2010. The researchers sought the informed consent of the participants. Participants were not coerced into taking part. Their confidentiality was assured. The instrument was designed to elicit that from participants what current technologies could be introduced to enhance ODL programmes in IDL, KNUST.

The first four questions were personal and demographic. The rest sought to find out current technologies IDL which could employ to increase and enhance learning and facilitation. A Likert scale was used, so that learners could tick only one of the answers provided. The SPSS (Statistical Package for the Social Scientist) was then used to process the data because it was quick and reliable.

Analysis and Results of Findings

Ethics regarding research were considered and the selected facilitators were interviewed. The analysis of the questionnaire revealed that all the respondents gained direct access to the institute.

It is worth noting that responses to Items 1 to 8 which were designed to help ascertain the views of learners on their face-face sessions, assessment and the use of power point presentation by facilitators, which

would be very helpful. Again, the fact that most of the students submit handwritten assignments gives the impression that even though they can type or have the assignments typed, they need to be sensitized to type the assignment straight onto the computer. With increase in students' intake, more internet facilities can be made available at the centre. It is interesting to note that 85% of the students have an access to internet facilities for a fee, whilst 85% do not have internet browser on their mobile phones. However, 70% of the students have free internet facility, and so does those who can not always get information when they visit any internet café to help them access to information for their academic work.

Table 1

Results of the Survey

SN	Issue	Agree	Disagree	Undecided
1	Face-to-face sessions are helpful without the use of powerpoint	80 (40%)	100 (50%)	20 (10%)
2	Quizzes and exams are handwritten	180 (90%)	20 (10%)	—
3	Assignments submitted are always typed	60 (30%)	120(60%)	20 (10%)
4	Internet facility is available at the learning centers	80 (40%)	100 (50%)	20 (10%)
5	I have access to internet facilities for a fee outside the learning centre	170 (85%)	—	30 (15%)
6	I have an internet browser on my mobile phone which I can use regularly	10 (5%)	170(85%)	20 (10%)
7	I have access to free internet facility	140 (70%)	20(10%)	40 (20%)
8	I access the e-library on KNUST listings	100 (50%)	80 (40%)	20 (10%)
9	I use IDL online LMS	170 (85%)	20 (10%)	10 (5%)
10	I would like to have my course material also on interactive web enabled CD ROM(Compact Disc Read-Only Memory)	175 (85%)	10 (5%)	20 (10%)
11	I discuss course issues with my friends on the internet (chart room, email)	70 (35%)	130 (65%)	—
12	I use my mobile phone for enquiries concerning my programme from the institute	140 (70%)	60 (30%)	—
13	My facilitators give me feedback through my mail box	130 (65%)	30 (15%)	40 (20%)
14	Video conferencing will help students participate effectively in face-to-face sessions	100 (50%)	40 (20%)	60 (30%)
15	My facilitators respond to my calls on the phone when I have problems concerning the programme I am reading	160 (80%)	20 (10%)	20 (10%)

Items 9 to 11 were information on the use of the IDL LMS (Learning Management System). It is worth noting that 85% use the IDL online LMS and the same number of students has commented that they would like to have their course materials also on interactive Web-enabled CD ROM. This will certainly enable them to use their break time to read instead of always having to carry their course books whenever they need to revise their lessons.

There were some other statements (Items 12, 13, 15) which were designed to find out whether the facilitators use their mobile phones, mail boxes for enquiries and feedback concerning the programmes they are reading. These revealed that more than 60% of the students use them. With Item 14, 50% of the learners said that video conferencing would help them participate effectively in face to face sessions.

Interviews for Facilitators

The IDL has eight centers. The researchers interviewed a minimum of five facilitators in each centre apart from the Tamale and Cape Coast Centres which are the latest. The centers are Kumasi, Koforidua, Accra, Takoradi, Sunyani and Ho.

Table 2

Facilitator's Interviewed in The Various Centers of The Institute

Centres	Kumasi	Koforidua	Accra	Takoradi	Sunyani	Ho
Facilitator's interviewed	05	05	05	05	05	05

Only one facilitator commented that face-face sessions without the use of power point are helpful. Eighty percent of the facilitators said that quizzes and exams were handwritten. Eighty percent of the facilitator said assignments that students submit were not typed. With technology catching up with everyone, perhaps, there is the need for students to be sensitized and encouraged to type all their assignments before they finally submit. Only 60% of the interviewees mentioned that they have free access to internet, whilst the remaining 40% commented that they pay for internet services. Even though 60% of the interviewees have internet browser on their mobile phone, none of them use that. Forty percent of the facilitators access the e-library on KNUST listings. A total of 60% of the facilitators use the online LMS of the institute. The remaining 40% confirms that they are aware of the LMS of IDL though they do not use it.

Generally, the facilitators suggested that some of the services they would like to receive from the Institute are free access to the internet, e-mails and more course materials.

Discussion of Findings

Findings are as follow:

(1) Facilitators are happy to respond to learners' calls on phone when they face challenges;

(2) More than 80% facilitators for the postgraduate programmes use power point presentation;

(3) Students do not know much about video-conferencing;

(4) Students and facilitators would be happy if the institute could fund programmes on the radio and television concerning their modules;

(5) Learners can make good use of computers in order to help them search for information to complete their assignments;

(6) Facilitators should insist that all assignments are typed before submission;

(7) All learners should be made aware of the learning materials and visit the LMS of IDL;

(8) Learners could continue to use their mobile phones as a means of receiving information from their colleagues and facilitators.

Recommendations and Suggestions

Technologies for Scaling up Programmes

The IDL uses a dual mode—print material and face-face facilitation. Sherry and Morse (1995) contended that "Media selection is often a question of media assignment" (p. 5). For this reason, teachers and facilitators will, therefore, need training in those technologies which they are expected to use. Although the institute has a multi-purpose laboratory well-furnished with new computers and some video-conferencing equipment, the new computers are in use and the video-conferencing equipment has been installed and it is yet to be used. It can be argued that when video-conferencing is used, it could serve as a way of reaching majority of our students and helping them to have a feel of a new learning culture.

The researchers will recommend the use of audio and video recordings of information facilitators impart to

students. Again, even though it is very costly to organize sessions at radio stations, it will be in the right direction for the institute to buy a little bit of air time and make students aware of it, so that they can listen to the information. When this is done, it will be very beneficial especially to the auditory learners amongst them. Broadcasting in the television can also be made available so that learners can listen to the information relayed at the right time. Some facilitators and learners use the LMS for discussions which is very good. This is because when other learners see their friends, they can be challenged to visit the IDL website and also contribute to the discussions.

It is worth mentioning that progressive teachers who adopt technology can become change agents for their peers (Pacific Maintain Network, 1994). They can support other teachers by planning ahead and using the equipment before using them in the classroom. Facilitators will need extra time and resources as suggested by Apple Computer (Apple Classrooms of Tomorrow, 1992) that it takes up to two years for instructors to adjust to and work with the tools to implement them successfully and integrate them into their curriculum. One should be mindful of the fact that when DL technologies are introduced, it could lead to re-allocation of other resources in order to avoid increased costs.

ODL has the potential to generate new patterns of teaching and learning. Current development and communication technologies call for new methods of gaining access to knowledge (UNESCO, 1997).

In future, if there should be any development, there should be networking between national stakeholders. There should be a much better integration between education, training systems and the productive sector. It will, therefore, be expedient to form partnerships. It can be argued that as organizations "become more aware of the potential of ODL, it is essential for their educational planning that the opportunities offered by new technologies be realistically examined within the framework of national development plans in general and educational policies in particular" (UNESCO, 2002, pp. 3-34). As these technologies are expected to widen peoples' access to learning, it is a matter of national, regional and international importance to make use of them to ensure lifelong learning.

Conclusion

This paper has looked at some of the technologies that can be used to enhance ODL programmes at IDL. It has also looked at the facilitators/learners use of some current technology at the Institute. The findings from the study indicated that, generally, both facilitators and learners utilize and are aware of some current technologies at IDL. There are others which they do not use often, such as browsing on their mobile phones. It is worth mentioning that ODL has the potential to generate new patterns of teaching and learning. It is no wonder, therefore, that current development and technologies call for new methods of gaining access to knowledge (UNESCO, 1997).

In future, if there should be any development, there should be networking between national stakeholders. Facilitators and learners should make use of technology in a way that would ensure lifelong learning for development. When this is done, people will develop multiple competencies through continuing education. It will also enhance the international dimension of educational experience and improve the quality of existing education services (Rumble, 1989; Ljosa, 1992).

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