

## **Access and Success in Learning:**

### **Technologies for Scaling up Open and Distance Learning Programme in the Institute of Distance Learning, KNUST, Kumasi, Ghana**

Authors:

Rebecca Essel and William Owusu-Boateng  
Centre for Distance and Continuing Education  
Institute of Distance Learning  
Kwame Nkrumah University of Science and Technology  
Kumasi, Ghana. West Africa.

E-mail: [beckyhays2000@yahoo.com](mailto:beckyhays2000@yahoo.com)  
[wowusuboaeng@yahoo.co.uk](mailto:wowusuboaeng@yahoo.co.uk)

## **INTRODUCTION**

In recent years, in the field of education and training, there is an increasing world-wide interest in students opting to read open and distance learning programmes and also stakeholders expanding their infrastructure and distance learning programmes. The terms open and distance learning (ODL) represent approaches that focus on opening access to education and 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 2002) report on trends, policy and strategy considerations, the term 'distance learning is used as a synonym for the more comprehensive and precise term distance education'. 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. Distance learning would 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 presupposes 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' (UNESCO, 2002). The Cologne Lifelong Learning Charter (1999) recognises the challenges every country faces to become a learning society and to ensure that its citizens are equipped with knowledge,

skills and qualifications they will need in the 21<sup>st</sup> Century. It could be argued that the rapid progress of Information Communication Technology (ICT) such as satellite communications, large capacity optical fiber communications and the internet have greatly expanded distance learning as a tool for lifelong learning and international understanding (G8 Education Ministers' Meeting, 2000). Distance education could be used to reach even learners in remote areas. It could 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 (UNESCO, 2002). Some states and provinces have initiatives to assist schools acquire 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 organised in terms of utilisation 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).

The springing up of new forms of distance learning (DL) based on interactive telecommunication technologies coupled with economic, organisational and pedagogical implications seem to be one of the current ways of organising DL. In fact, some governments, industries and educational institutions are now eager to develop effective applications of new technologies and also meet the needs of learners (UNESCO, 1997). In most developing countries, some of the problems of implementing effective ODL could be attributed to the few technological infrastructures such as the computers, telephones and overhead projectors. One could argue that there is opportunity for current, sophisticated technologies that would have the strength for manipulating/distributing more information, storing or retrieving information and making communication easy for students/staff. The challenge would 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 could 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 distance learning systems and conventional systems (UNESCO, 1997). Hence, one must remember the role played by dedicated and some specialised institutions in developing knowledge. It is expedient to note that the development of new technologies generate new insights of knowledge about learning conditions and processes, and are likely to have effects beyond the realm of education. Passig and Levin (2000) assert 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 twenty-question survey. The original questionnaire was piloted using twenty respondents and revised to enable respondents provide the appropriate answers. The target population in this study was all distant learners of the Institute of Distance learning, KNUST. As it is unusual to deal with the whole population in a survey, Robson (2002), the researchers 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 realised it 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 from participants what current technologies could be introduced to enhance open and distance learning Programmes in IDL, KNUST.

The first four questions were personal and demographic. The rest sought to find out current technologies IDL 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 Statistical Package for the Social Scientist (SPSS) was then used to process the data because it's quick and reliable.

## ANALYSIS AND RESULTS OF FINDINGS

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

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%)	0(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 centres	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 learning management system	170 (85%)	20 (10%)	10 (5%)
10	I would like to have my course material also on interactive web enabled CD ROM	175 (85%)	10 (5%)	20 (10%)
11	I discuss course issues with my friends on the internet (chat 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 would help students participate effectively in face-to-	100 (50%)	40 (20%)	60 (30%)

	face sessions			
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%)

It is worth noting that responses to Items 1-8 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 would be very helpful. Again, the fact that most of the students submit handwritten assignments give the impression that even though they can type or have the assignments typed, they need to be sensitised to type the assignment straight onto the computer. With increase in student intake, more internet facilities could be made available at the centre. It is interesting to note that 85% of the students have access to internet facilities for a fee whilst 85% do not have internet browser on their mobile phones. However, 70% have free internet facility and so those who do not can always get information when they visit any internet café to help them access information for their academic work.

Items 9-11 were information on the use of the Institute of Distance Learning (IDL) Management System (LMS). It is worth noting that 85% use the IDL online LMS and the same number of students commented that they would like to have their course materials also on interactive web-enabled CD ROM. This would 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 they/ 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 Institute of Distance Learning has eight centres. The researchers interviewed a minimum of five facilitators in each centre apart from the Tamale and Cape Coast Centres which are the latest. The centres are Kumasi, Koforidua, Accra, Takoradi, Sunyani and Ho.

Only one facilitator commented that face-face sessions without the use of power point are helpful. 80% of the facilitators said that quizzes and exams are handwritten. 80% said assignments that students submit are not typed. With technology catching up with everyone, perhaps, there is the need for students to be sensitised 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% have internet browser on their mobile phone, none of them use that. 40% access the e-library on KNUST listings. A total of 60% of the facilitators use the online LMS of the institute. The remaining 40% confirmed 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**

- Facilitators are happy to respond to learners calls on phone when they face challenges.
- More than 80% facilitators for the postgraduate programmes use power-point presentation
- Students do not know much about video-conferencing

- Students and facilitators would be happy if the institute could fund programmes on the radio and television concerning their modules.
- Learners can make good use of computers in order to help them search for information to complete their assignments.
- Facilitators should insist that all assignments are typed before submission.
- All learners should be made aware of the learning materials and visit the learning management system of IDL.
- 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 Institute of Distance Learning uses a dual mode-- print material and face-face facilitation. Sherry and Morse (1995) contend that 'media selection is often a question of media assignment'. 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 its yet to be used. It could 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 would recommend the use of audio and video recordings of information facilitators impart to students. Again, even though it is very costly to organise sessions at radio stations, it would 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 would be very beneficial especially to the auditory learners amongst them. Broadcasting in the television could 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 and that is very good. This is because when other learners see their friends, they could 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 would 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 to integrate them into their curriculum. One should be mindful of the fact that when distance learning technologies are introduced, it could lead to re-allocation of other resources in order to avoid increased costs.

Open and Distance learning 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 would therefore be expedient to form partnerships. It could be argued that as organisations '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). 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 could be used to enhance Open and Distance learning programmes at IDL. It has also looked at the facilitators/learners use of some current technology at the Institute. The findings from the study indicate that generally, both facilitators and learners are aware of some current technologies at IDL and they utilise them. There are others which they do not use often such as browsing on their mobile phones. It is worth mentioning that open and distance learning 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 would also enhance the international dimension of educational experience and improve the quality of existing education services (Rumble1989, Ljosa, 1992)

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