



Integrating New Technologies to Foster ODL Implementation at Botswana College of Distance and Open Learning (BOCODOL)

Gosekwang Setibi, University of Botswana, Department of Management
gosekwang.setibi@mopipi.ub.bw

Salini Bafaneli, Independent Researcher.
salinibafaneli@gmail.com

Abstract

The purpose of this study is to explore ways in which technology can be used to improve learner support at BOCODOL, focusing on reducing turnaround time of assignments. Programme Coordinators and Tutors require such feedback so that they can choose appropriate technology to improve the implementation of Open and Distance Learning (ODL) at BOCODOL. The research also reviews the effectiveness of Information Technology (IT) in administration of ODL at BOCODOL. Data were collected through questionnaires administered to 555 respondents comprising 500 ODL learners from and 8 Tutors from Francistown region. Data were analyzed using graphs where by similar responses were grouped. The findings of the study were that the email would enable ODL learners to receive assignment feedback more quickly and be able to incorporate comments made by the tutor in their learning. Questions of access should be taken into consideration when implementing IT. Information Communication Technology (ICT) used should be accessible to all learners not only those who can pay. Participants would like BOCODOL to install WIFI technology in all its regions for ease of access to its learners. Recommendation is that tutors avail assignment feedback to their learners through email and BOCODOL fully implement appropriate technology for e-learning.

Key Words: Information Technology, assignment turnaround time, Learner, Tutor

Introduction

BOCODOL has to recognise the key role that training can play in delivering versatile learners. In order to respond to this challenge, BOCODOL must look at new methods and techniques. There have been some notable examples of success in implementing Open and Distance Learning (ODL) at BOCODOL but there remain some not so effective strategies in implementation of ODL. To overcome this, recent developments in information technology and telecommunications call for a serious reconsideration of the actual meaning of these concepts, especially in light of increased demand for education and the opportunities for increased student motivation and cost effectiveness afforded by new technologies if integrated with educational design (www.gslis.utexas.edu/~ssoy/users/139/dib.htm). The first issue requires us to fashion new

paradigms of teaching and learning, the second requires governments to devise policies which create environments for distance and other forms of guided self-instruction. Finally, there is a need for more emphasis on the educational ends to be served by new technologies and a corresponding commitment to relevant research and development.

Research Problem

The authors intend to solve the problem of turnaround time of assignments and accessing resources by ODL learners at BOCODOL. The aim is to identify ways in which IT can be used to solve the problem of delayed assignment turnaround time and accessing ODL resources by ODL learners. Admission rates by BOCODOL are increasing annually and currently the college is on the verge of becoming a University. New programmes are introduced regularly and this is an indication of growth. The problem however is the minimal use of IT by BOCODOL learners and their facilitators. This is allied to an opinion often expressed by academic staff, in spite of much evidence to the contrary (Russel, 1999), that ODL is second choice in quality compared to an on-campus delivery. Currently assignments are either written by hand or typed and then submitted to regional offices where learners are given a cover page to attach to the assignment. Later on those assignments are posted to the Tutor via quick mail. It usually takes about two days or more for assignments to reach Tutors. Turnaround time for Tutors to mark assignments is one week. The Tutor reposts the assignments to the respective regional office after marking and then the regional offices disseminate marked assignments to individual learners depending on when learners showed up at the regional offices. At the moment it is possible for assignment feedback to be received after three to four weeks which is too long.

Some learners reside in far places than their regional offices, so they rarely get a chance to travel and pick their assignments because of other obligations. In cases such as this, turnaround time of assignments can be more than a month. This is a cause for concern. Educational ends need to be served by new technologies and a corresponding commitment to relevant research and development (www.gslis.utexas.edu/~ssoy/usesusers/139/dib.htm). Increased demand for education and the opportunities for increased student motivation and cost effectiveness afforded by new technologies integrated with educational design have to be reconsidered.

It is hoped that the study would provide information that can be useful for BOCODOL management to evaluate its IT implementation strategies. It intends to help BOCODOL find effective ways of reducing assignments turnaround time. There is therefore no doubt that both the BOCODOL management and staff will be interested in this study and thus support it as it is envisaged to help solve a strategic management problem of long turnaround time for assignments and enhance use of IT (<http://www.partnership-africa.org/>). The research topic is a strategic management issue because if BOCODOL can manage to use IT effectively, they can reduce the assignment turnaround time and keep their learners happy, the institution will gain competitive advantage. It is also hoped that the study will add knowledge to the subject area and may trigger more research around the topic.

Objectives of the study

- To find out the assignment turnaround time at BOCODOL.
- To identify the extent to which Information Technology (IT) enhance turnaround time of assignments at BOCODOL.

Research Questions

- How can IT be used to reduce turnaround time of assignments?
- How can IT be used to effectively distribute resources to ODL learners?

Literature Review

The rapid growth of online distance education worldwide has prompted the need to revise delivery structures and re-think pedagogical practices that were deemed appropriate (Beldarrain, 2006). As new technologies emerge, instructional designers and facilitators have unique opportunities to foster interaction and collaboration among learners, thus creating a true learning community. The existence of distance education relies on the creation of learning communities, as echoed by Palloff and Pratt cited in (Beldarrain, 2006). Through technology, interaction and collaboration are now attainable in either asynchronous or synchronous learning networks.

Tau (2009) conducted a case study of BOCODOL on the ‘Strategies for Sustainable Open and Distance Learning from Policy to Practice’ (www.col.org). This study indicates that BOCODOL is adequately equipped with necessary hardware and software to carry out its daily activities both at headquarters and five regional offices. Two questions are: Is the technology used adequately to improve the implementation of ODL? Does the available technology link ODL learners to their Tutors? According to Tau (2009), the available technology links the regions with head office. Staff members from various regions can communicate with each other instantly via the intranet. This does not improve assignment turnaround time. There seem to be a gap between BOCODOL Tutors and other staff members since tutors are engaged on a part time basis. They do not have access to this intranet. In this case we are talking about the production staff, the primary service providers. It is therefore without doubt that the current technology does not improve assignment turnaround time at BOCODOL. Tau (2009) further stated that BOCODOL is exploring on-line learning and e-learning with the aim of using them to enhance learner support and programme development. Currently this is implemented on a very minimal level except for courses offered by international institutions housed by BOCODOL. The new BOCODOL’s learner support strategy entail a number of needs including tutor marking system which provides quick and effective feedback. This shows the importance of timely assignment feedback to ODL learners as a learning process.

A definition of Distance Education (DE) by Keegan (1996:44) highlights an important characteristic of distance education as the use of technical media, e.g. print, audio, or website to unite tutor and learner. The two way communication between tutor and learner is important to allow the learner to engage in a dialogue with the tutor. This can be afforded by use of ICT since the learner is separated from tutor. Currently BOCODOL does not fully provide the platform which enables learners to dialogue with their tutors frequently. However as postulated by Holmberg (cited in Tichapondwa 2011), guided didactic conversation is harnessed at BOCODOL, whereby the simulated conversation is internalized caused by the study of the text.

Constructivist theory recognizes the importance of language as a means of constructing knowledge as said by Mercer (cited in Tichapondwa 2011). According to this theory, knowledge is socially constructed, meaning that the study of learning as an individual process involves talk as a joint activity (mediated through language) in which the distance education tutor provides support to the learner so that he/she can eventually stand on his/her own (Tichapondwa, 2011: 9). A tutor marked assignment is a tangible form of constructive dialogue that helps students learn from assessment. By providing detailed written feedback, not just a mark or grade, the tutor is promoting learning and learner success. Therefore it is important for ODL learners to receive assignment feedback well in time in order for them to learn effectively.

An evaluation research conducted by

<http://www.jstor.org/page/info/about/policies/terms.jsp> was interrogated to find whether BOCODOL tutors have sufficient access to computers at work and also to check their ability to use computers and internet for various ODL practices. The outcome of the research is that BOCODOL staff has access to computers and internet. They are able to communicate with each other by various Information and Communication Technology (ICT) such as email, telephone, fax and cellphones. ODL material is uploaded on CDs and dispatched to various regions where learners collect them. Each learner need a computer to access the study material. If learners are able to use computers to access study material, the same learners can use computers to upload their assignments on internet if costs are controlled.

A report by Dunlop (2011) indicated that BOCODOL was the third highest participant of VUSSC Bootcamps. These Bootcamps serve as a platform where institutions network, share knowledge and acquire skills from consulting experts. This research helps the researcher to identify IT training and support offered by VUSSC to BOCODOL and other member institutions. BOCODOL has installed ICT equipment in its headquarters and regions, it really need support in installing softwares for online courses and e-learning.

Trends in Tertiary Education in Sub-Saharan Africa have been interrogated by a report produced by <http://www.col.org/pcf/viewpaperdf0c.html?id=232&print=1>. This report helped in identifying quality issues in tertiary institutions. This gave the researcher an idea on effective use of IT in tertiary institutions. Effective use of IT in tertiary education results in adequate support for learners.

The results from a report of Commonwealth of Learning (2009) outlined the attributes of open learning opportunities, quality teaching and use of ICT in teaching, support and administration. Teleconferencing and computers have the following advantages; can be easily made two way interactive, participative for learners and instructors, immediacy, can open access to far removed learners, can use multimedia to address different learning styles, can be very dynamic and often have an exciting gimmick on young learners (Commonwealth of Learning 2009). This research was used as the best practice of ICT which enhance teaching and support, specifically improving assignment turnaround time in ODL institutions.

A report by <http://www.gslis.utexas.edu/~ssoy/usesusers/139/dib.htm> said that a very significant impact of technology on education is the advent of porous transnational borders due to electrification, globalization and commodification of education as marketable good/service in the WTO supported GATS era. This study was used to find how best BOCODOL can use ICT for

capacity building. Frequent training of staff members and tutors on IT is a priority since technology changes frequently.

Hoffman and Dekkers (cited in Tichapondwa 2011) held similar sentiments that virtual classrooms and virtual universities have freed students from obligation of sticking to particular timings and places even within the same campuses. They highlight the importance of communication technologies in distance education as a philosophical point of reference. According to Tichapondwa (2011), the arrival of the email, internet, tele-conferencing, etc. the basic assumption about teaching/learning has been drastically altered. BOCODOL does not offer teleconferencing services to its learners at the moment. To be effective, BOCODOL has to operate as a virtual school. This will allow learners to interact with each other and their tutors irrespective of the distance and time.

BOCODOL uses the paced home-based system which gives priority to the organization's need to have all learners at the same point in their courses, at the same time. According to (<http://creativecommons.org/licenses/by-sa/3.0>), this makes it possible for the organization to send out course materials to everyone at the same time. Deadlines for assignments and assessment dates can be fixed for everyone making it easy to manage the course. This system can be enhanced by having software which learners can log into and access materials and assignments feedback. The cost issue could be a concern for some learners but BOCODOL can partner with some organizations to offer scholarships to learners who are unable to pay for internet services. Tele-education would solve the problem of shortage of resources such as video and audio equipment which will be accessed as electronic copies accessed by all learners at various places.

It is evident that IT play a very crucial role in ODL, it reduces the distance between the learner, course developers and tutors. Learner support can be greatly enhanced by use of IT. On the contrary it is stated that learners suffer from feelings of loneliness and non-ownership and face learning difficulties when no instructor is physically present (<http://www.irrod.org/index.php/irrod/article/viewFile/723/1259>).

It has been observed that in developing countries access to internet is very expensive in case of connection and the hidden cost to end-user in accessing the internet. (<http://www.ubuntunet.net/sites/default/files/nyandaraz.pfd>). On the otherhand it is urged that even though the implementation of the new technology is expensive the quality of education deserves all the effort and the associated cost. (<http://www.softlab.ntua.gr/nike/papers/papaspyrou>). Though expensive to implement, tele-education is a requirement for BOCODOL to implement ODL effectively.

Methods/ Techniques

The research is aimed at finding the reasons for long assignment turnaround time at BOCODOL and the research philosophy used is interpretivism. The philosophy enabled the researcher to explore the subjective meanings motivating actions of the social actors, which in this case are BOCODOL Tutors. To achieve the interpretivist philosophy the researchers adopted an empathetic stance. This helped the researchers to enter the social world of the BOCODOL staff. This was easy since one of the researchers is a BOCOCOL Tutor.

The research approach pursued is the inductive as no hypothesis was tested; the data collected and analyzed lead to the recommendations. This approach is appropriate since it enabled the researcher to get the feel of what is going on in BOCODOL as an ODL institution and get a better understanding of the nature of the problems that are causing poor assignments turnaround time. An inductive research allows reality to tell its own full story. In this case BOCODOL Tutors' and learners' words speak for themselves. According to Saunders et al (2009) the inductive research approach is less concerned with the need to generalize. The findings of this research apply to BOCODOL only. Time horizons are cross sectional as the data was collected once from each participant. This research is undertaken for academic purposes and it is time constrained. The case study is done over a short period of time. The time horizons will not allow sufficient time for longitudinal study.

Data Collection Methods

The study employed both qualitative and quantitative data **collection methods**. The **research strategies** used are survey and case study. The survey allowed the researcher to collect a large amount of data from a sizeable population in an economical way (Saunders et al, 2009). A questionnaire was administered to a sample of BOCODOL learners. Data were standardized allowing easy comparison. Quantitative data were analyzed quantitatively using descriptive and inferential statistics. It is also possible to generate findings that are representative of the whole population at a lower cost than collecting data from the whole population. Data was collected through the use of questionnaires and structured interviews.

The strategy used was a case study as it is confined to BOCODOL. In other words different data collection techniques were used for this study to ensure the researchers collect the intended data. Structured interviews were used to triangulate quantitative data collected through the use of questionnaires. Data was collected from management, staff, and BOCODOL Learners to create checks and balances or for triangulation purposes (Saunders et al, 2009).

The number of objective addressed has been indicated in the first column of the table above. A study of a sample indicated in the above table was used since it was manageable given the time at the researcher's disposal. The findings will be generalized to the whole population of BOCODOL. Stratified random sampling was used as it allows for better representation across strata. In this case male and female respondents and participants from different programmes were used. A hundred percent sample was used for management as they are few in number. According to Page and Meyer (2000:43) best sample designs ensure that sample data represent the research population efficiently and reliably.

Results/Findings

The findings were as follows:

1. 99% of BOCODOL learners chose strongly disagree as a response to whether they use email to submit assignments. None of the respondents submit their assignments using email.

I use email to submit my assignments

	Frequency	Percentage
Strongly agree	0	0
Agree	0	0
Disagree	3	0.6
Strongly disagree	497	99.4
Total	500	100

2. Majority of respondents receive feedback for their assignments late. Only two percent receive their feedback well in time. This shows that most assignment feedback is availed to students late.

I get feedback for my assignments well in time

	Frequency	Percentage
Strongly agree	0	0
Agree	10	2
Disagree	100	20
Strongly disagree	390	78
Total	500	100

3. Majority of BOCODOL learners do not use internet to access study materials. They simply rely on the study packs they receive from BOCODOL.

I use internet to access study materials

	Frequency	Percentage
Strongly agree	0	0
Agree	20	4
Disagree	150	30
Strongly disagree	330	66
Total	500	100

4. More than half of ODL learners agree that email can help reduce turnaround time of their assignments. This means they value the importance of email and they are aware of how it works.

The use of email can help reduce turnaround time of assignments.

	Frequency	Percentage
Strongly agree	120	24
Agree	380	76
Disagree	0	0
Strongly disagree	0	0
Total	500	100

5. Seventy percent of ODL learners strongly agree that internet can be used to effectively distribute study materials to ODL learners.

The internet can be used to effectively distribute study materials to ODL learners

	Frequency	Percentage
Strongly agree	350	70
Agree	147	29.4
Disagree	3	0.6
Strongly disagree	0	0
Total	500	100

6. What benefits and challenges do you think the use of IT can bring to the implementation of ODL at BOCODOL?

Benefits

- Avoid late submission\ of assignments
- E-mail can help us get information easily and on time

- It helps in individual researches, even if someone does not attend tutorials
- setting group chats and communicating via email
- Avoiding going to regional offices to get assistance
- Saves time as most of us are not residents of regional towns
- Increase efficiency
- Effective communication
- Enhanced communication between students and tutors

Challenges

- Connectivity to internet, if BOCODOL could have WIFI service for students it could help a lot
- Internet can be costly to students
- Some students may not have access to IT which will make them to be left behind
- It will be a challenge to those who will be receiving assignments through e-mail to sort them out
- Students who reside in remote areas where there is no internet might suffer a lot

BOCODOL Tutors understood their roles as tutors. They believed nothing can stand in for the contact-based tutorials where learners meet with their tutors or when learners meet by themselves. This can be greatly enhanced by ICT where the parties meet regularly online. Currently BOCODOL does not offer that platform. Only 5% of Tutors currently use email to communicate with their learners and give them additional resources. None of the tutors give assignment feedback through email. All tutors interviewed held the same sentiments that assignment feedback reach BOCODOL learners after a very long time even though tutors mark assignments within stipulated times. The logistics involved delay timely feedback to learners. Students learn from a constructive dialogue provided by tutors on their assignments (<http://creativecommons.org/licenses/by-sa/3.0>). Detailed feedback promotes learning and learner success and therefore should be availed to learners well in time. Daweti (2005) observed that ODL assignment feedback include suggested strategies for improvement and corrections of specific errors of fact. He further argued that for students to be realistically able to use tutor marked assignment feedback the turnaround for marking has to be fairly short, usually ten days and strictly controlled.

Conclusions and Recommendations

Daweti (cited in <http://www.col.org/>) found that in order for students to use tutor marked assignments feedback effectively, tutors should be directly involved in conducting target group analysis and learner satisfaction surveys, as a crucial partner in the institution's continuous tutorial evaluation of process loop. BOCODOL is practicing this at the moment but it is lagging in implementation of some suggestions due to inefficient technology. ICT can be used to provide access to high quality resources (Abrioux and Ferreira, 2009). They further argued that through access to the web: learners can become involved in instruction by communicating with other learners.

‘When we talk about Information and Communication Technologies, we are describing not only machines that distribute messages but also the organisation and the people who make them work. Technologies include the postal system, radio and television broadcasting, telephone, satellite, cable, and computer networks. What is distributed through the technologies are mediated messages, or symbol systems, and these we usually refer to as 'media.' The symbol systems (the media) that carry the messages by means of the distribution systems (the technology) are typically text books and study manuals, sound in audiotapes, pictures in videotapes, or the text, sound or pictures that make up a teleconference’, Moore and Kearsley (cited in Abrioux and

Ferreira (2009). BOCODOL has to quicken its pace in implementing e-learning because it is long overdue. It is the solution to deliver quick tutor marked assignments feedback.

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