# Assessment of the effectiveness of the CAD eLearning Certificate at the University of Botswana

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#### ABSTRACT

The introduction of eLearning in higher education has brought a challenge for higher education institutions to train their faculty to equip them with the necessary skills needed to embark on eLearning activities. The University of Botswana (UB) is no exception. The UB first introduced eLearning in 2002 to enhance instruction and students' learning. eLearning at the University of Botswana has been defined as the 'appropriate organisation of Information and Communication Technologies (ICTs) for advancing student-oriented, active, open, collaborative and life-long teaching-learning processes' (Educational Technology Unit, n.d.a)

The Centre for Academic Development (CAD) eLearning Certificate, introduced in 2003, a workshop series on eLearning related topics, has been designed to cater for the needs of academic staff embarking on eLearning at UB.

The purpose of this study was to evaluate the effectiveness of the Centre for Academic Development (CAD) eLearning Certificate and its individual workshops. The study employed both qualitative and quantitative data collection strategies.

By August 2006 more than 800 academics and support staff had attended one or more workshops, which were in general very well received. Main reasons for attending the workshops were the acquisition of technical skills, the use of eLearning and the wish to obtain the Certificate. Preferred workshops were a very general workshop on course design, an introduction to PowerPoint and, only in third place, an introduction to eLearning. The majority (74%) of respondents claimed to have applied skills and knowledge acquired in the workshops, mainly technical skills, such as the use of PowerPoint, online information skills and information management techniques. A minority of 17 % of the participants had developed online courses. Alarmingly, about a quarter of the respondents (23%) claimed not to have applied any of the skills and knowledge covered in the trainings. Furthermore, only 16% of respondents managed to complete the Certificate. Respondents indicated that non-application of skills and non-completion of the Certificate was mainly due to time constraints lecturers are facing when balancing demands of teaching, research and administration.

The study provides recommendations on ways to improve the CAD eLearning Certificate. The combination of skill-based workshops with online learning seems to be the preferred option in international literature for eLearning staff development, to expose participants to the world of online learning. The participants indicated that parallel development of an online course could facilitate the immediate application of knowledge and skills acquired. A more structured programme approach would help in developing a community of practice between staff active in eLearning at UB. Issues of recognition and reward for lecturers embarking on eLearning also need to be addressed.

#### INTRODUCTION

Following the international trend to introduce more technology into teaching and learning, the University of Botswana (UB) launched its eLearning initiative in 2002. To support lecturers in this endeavour the Centre for Academic Development (CAD) has offered the CAD eLearning Certificate since 2003. The Certificate has been highly welcomed by both academic and support staff and by August 2006 more than 800 staff have participated in these workshops. After a first review in July 2004 it became evident, however, that although a great number of lecturers were attending the workshops, comparatively few were using eLearning in their teaching and learning. This paper explores the effectiveness of the Certificate and its individual workshops in relation to the objective, to promote more learner-centred, active, collaborative and lifelong teaching and learning based on international research in this field. The results of an in-depth evaluation of the Certificate carried out in 2005 are included in this paper.

The authors will first introduce some concepts and examples of innovative staff development for eLearning with a focus on the Southern African region, then give an overview of eLearning at the University of Botswana and the eLearning Certificate and present the main findings of the study carried out. This paper concludes with some recommendations for the future of the Certificate and staff development at the University.

## **eLEARNING STAFF DEVELOPMENT**

While their value is still heavily debated (see Saunders & Klemming, 2003; Shephard, 2004), the use of Information and Communication Technologies (ICTs) for teaching and learning in higher education (HE) has become a reality both in the developed and the developing world. In Australia and the UK, eLearning has become an increasingly significant part of the student learning experience, with substantial growth of around 60% since 2001 (averaged across all faculties). This pattern of ICT adoption in teaching and learning is similar to patterns described elsewhere in other countries and universities (Applebee, Ellis & Sheely, 2004).

The use of eLearning draws from two distinctive areas of expertise: technical skills and a pedagogical understanding of how to use technology to support teaching and learning. Academic staff must not only learn how to operate within a learning management system (LMS) but also develop an informed critical perspective of their use of the LMS in their teaching (Weaver, 2003). They need an understanding of how eLearning can be meaningfully integrated in teaching and learning to fully exploit its potential to enhance a student's learning experience (Kent, 2003). ICTs have only a positive effect on learning, when used in an 'appropriate way and in the right circumstances' (Saunders & Klemmings, 2003: 75). The current underlying assumptions in the literature of 'meaningful' or 'appropriate' are based on the concepts of learner-centredness, Vygotsky's and Jonassen's social constructivism, Wenger's community of practice (COP) and the importance of collaboration, self-directed learning and a focus on Knowles' adult learning principles (see Kent, 2003; Carr et al., 2005; Sharples, 2000; Klopfenstein, 2003).

As with any other innovations, eLearning innovators and early adopters are driven by intrinsic instinct and seldom need external motivation or support to gather first experiences with the technology (Zemsky & Massy, 2004). But how can we support the roll-out of eLearning in an institution, especially an institution of higher learning, whose members, academics, are, as Salmon (2005: 205) points out, 'naturally reluctant to change their methods of teaching and learning ... without a deep understanding of why and how and what the impact will be in terms of quality and resultant benefits'? What kind of staff development and staff support initiatives are needed to reach the late majority or non-transferers (Shephard, 2004)?

In this context the hybrid role of learning technologists, also called educational technologists, eLearning advisors or instructional designers (Shephard, 2004; Carr et al. 2005) has become crucial in supporting academics in the pedagogically meaningful uptake of technology to 'encourage innovation and change in teaching and learning' (Gosling, cited in Shephard, 2004: 74). A learning technologist advises the academic in a close dialogue on the best use of technology in his/her individual context (Ellaway et al., 2006). Learning technologists most often also provide the professional development needed for academic staff (Shephard, 2004), ideally in cooperation with a wider pool of experts, such as from teaching and learning Units, multimedia production teams or the library (Carr et al., 2005).

Ownership, buy-in and engagement seem to be keywords in the debate on staff development. Collis and Moonen point to the 'important level of commitment and buy-in involved' (cited in Carr et al., 2005) and Salmon (2005) argues that to engage larger numbers of academics, it is important to transfer ownership to the involved staff, but also provide the supportive mechanisms that underpin the continued developments. Supportive mechanisms should include elements of reward and recognition; accreditation of professional staff development programmes and the opportunity for academic research on the use of new technology in teaching and learning (Shephard, 2004).

Conventional training activities most often take the form of once-off workshops, focusing on the transfer of technical skills, and fall short in providing the pedagogical linkages needed in eLearning. This results in a didactic, teacher-centred use of technology (Littlejohn & Sclater, 1999). This 'new way of doing something familiar' (Salmon, 2005: 201) does not challenge underlying assumptions about learning and knowledge sharing. This type of training also does not support the transfer of new practices into the lecturers' day-to-day work, which is, in most cases, not conducive to educational innovation (Carr et al., 2005).

The literature reveals a number of examples of how to offer innovative staff development on eLearning.

At the most basic level, Monash University offers a training programme on its LMS WebCT combining workshops and online resources, and a set of accessible, easy to read manuals (Weaver, 2003).

The University of Birmingham developed a 10-week e-Learning in Higher Education module including online discussion and conferences, collaborative learning, open learning materials and learning journals for reflective practices. Assessment is done by portfolio. This module gives staff a unique opportunity to develop online skills while participating in an eLearning environment and helps participants understand and sympathise fully with the students' potential online environment. Participants receive credits towards a degree in Higher Education Development (Kent, 2003).

As an African example, the Centre for Higher Education Development at the Durban Institute of Technology (DIT), most recently the Durban University of Technology (DUT), offers staff development on eLearning, based on the principles of skills, pedagogy, research and community. This intensive one-year training programme for a small group of educators combines workshops with online activities and individual consultancy sessions with instructional designers. In the process of collaboration, a communal resource base (comprising journals, papers, online classrooms, discussions) is built. The outcomes of one year participation are for a member to participate in an online class as a learner; design an online course; manage a class online; facilitate online learning for students; conduct action research into online learning; and interact with other online practitioners in a community of practice. This programme will be linked to a degree in Higher Education Development through Recognition of Prior Learning (Pete & Fregona, 2004).

The University of Cape Town Centre for Educational Technology is following a multi-faceted staff development approach to integrating technology into University courses. Their focus is very much like DIT's on the development of a Community of Practice (COP), promoting the importance of mentorship, reflection, self-directed online learning in combination with workshops, regular seminars, bi-annual show and tell sessions and teaching and research partnerships (Cox & Carr, 2006).

Through the Partners@Work Programme at Tshwane University of Technology, lecturers are seconded for one semester to Telematic Education to develop an online course and conduct research in the field of eLearning. The Partners@Work programme proposes to focus on the development and consequent implementation of well-rounded technology-enhanced courses that address specific challenges such as low pass rates, geographically dispersed learners and large groups. This extensive capacity-building strategy involves block face-to-face session, weekly contact sessions, and a variety of online training courses. (Tshwane University, n.d.)

Looking at these examples the authors identified key elements of successful implementation of staff development in eLearning: the provision of a structured training programme, with a clear time frame/duration as opposed to once-off workshops; the combination of skill workshops with online learning; the promotion of collaboration to develop a community of practice; the importance of peer support and mentoring; the opportunity for research as an incentive to staff investing their time in eLearning; and the possibility of accreditation of the staff development programme and recognition of prior learning.

## *ELEARNING AT THE UNIVERSITY OF BOTSWANA*

The University of Botswana (UB) realizes the need and urgency to empower their academic staff with the information, communication and technological skills that contribute to quality education. Based on UB's vision of 'developing a student-centred, intellectually stimulating and technologically-advanced teaching, learning and research environment' (University of Botswana, n.d.b), the Educational Technology Unit (EduTech) in the Centre for Academic Development (CAD) has been mandated to infuse ICTs into teaching and learning. Hence, eLearning at the UB has been defined as the 'appropriate organisation of ICTs for advancing student-oriented, active, open, collaborative and life-long teaching-learning processes' (Educational Technology Unit, n.d.a). After a slow start in 2002, the university has seen a rapid increase in the development of eLearning courses.

The focus of eLearning at UB is on a blended approach in which various modes, methods and media – traditional and innovative - are integrated and organised for appropriate learning. Lecturers embarking on eLearning are guided by the eLearning support team offering services in Instructional Design, Online Media Development and Graphic Design. To overcome resistance to technology by academic staff an extensive amount of support and coaching is required. This is especially crucial during the early stages of venturing into the unknown eLearning environment.

To make sure that teaching staff have opportunities to build and develop necessary pedagogical and technological skills to implement eLearning, the Education Technology Unit (EduTech) at UB has offered a wide range of training, from novice to advanced skills levels since 2002.

# The CAD eLearning Certificate

The CAD eLearning Certificate, introduced in 2003, has been designed to cater for the needs of academic staff embarking on eLearning at UB. The contents of the workshops have been carefully selected to guide, support and prepare for planning, development and implementing eLearning.

Workshops offered in the CAD eLearning Certificate cover four areas: eLearning, Information and Computer Skills, Multimedia Production and WebCT training. When the Certificate was introduced, little additional training was available for lecturers at UB. Therefore, EduTech offered some topics that would normally belong to the IT department or the Teaching and Learning Unit, such as MS PowerPoint or training in Course Design and Innovative Teaching and Learning Methods.

The Certificate is based on attendance and application and is awarded when eight out of the currently offered 17 workshops have been completed and the participant can provide adequate evidence of the application of eLearning in his/her work. Adequate evidence refers to the use of eLearning in the context of the UB eLearning definition (see above). For a detailed description of the workshops see Appendix 1, CAD eLearning Certificate brochure.

The following table (Table 1) shows the number of workshops and attendances from 2002 -August 2006. As of August 2006, approximately 800 lecturers and support staff from UB and affiliated institutions attended 312 workshops. By December 2006, 107 participants had completed the Certificate (13.4%).

Table 1: Workshops and Attendance 2003-2006 (August)

Total number of workshops	312
Number of years workshops have been offered (2002-2006)	5
Average workshops/year	62
Total number of workshop attendances	4074
Total number of participants	802
Average participant/workshop	13
Average workshops/participant	5
Number of participants with completed certificates (by December 2006)	107

(Source: EduTech's internal statistics)

All the workshops of the CAD eLearning Certificate are held in one of the eLearning SMART classrooms, collaborative computer labs, to provide the possibility for hands-on work. Facilitators try to balance theoretical input and activities, with an emphasis on practical work. Ample time for discussion and group activities is given. Part of the completion requirement, the evidence of application of eLearning, ensures that participants practice what they learn during the workshop. Most of the workshops are half-day, offered both during the semester and during the long semester break (May-July).

#### **PURPOSE OF THE STUDY**

The purpose of this study was to evaluate the effectiveness of the CAD eLearning Certificate in relation to its objective, which was to transform teaching and learning at UB using ICTs for more learner-centred teaching and learning. The Certificate was reviewed for the first time in July 2004. At that time 23 participants had completed the eLearning Certificate, but only 7 (30%) of those were running online courses.

It became evident that although many lecturers were attending the workshops, only a few lecturers were using eLearning in their teaching and learning. Therefore, the completion requirements for the Certificate were changed in 2005 to include evidence of application of technology in teaching and learning; for example, the presence of an online course or a PowerPoint presentation used in class. Nevertheless, it was felt that a more detailed study had to be carried out to investigate the usefulness and effectiveness of individual workshops and also the usefulness of the CAD eLearning Certificate as a whole for preparing lecturers to integrate eLearning in their teaching and learning.

The following research questions guided this study:

Why do staff members attend the eLearning Certificate workshops? How well do participants apply knowledge and skills from the eLearning Certificate workshops? To what extent is the way the Certificate is currently offered conducive to changing lecturers' way of teaching and learning to reach EduTech's goal – to make teaching and learning more learner-centred, collaborative, active and lifelong?

## **METHODOLOGY**

## Instruments

This study was quantitative and qualitative in nature and was carried out between May and July 2005. It was funded by the Office for Research and Development at UB. To assess the individual workshops of the CAD eLearning Certificate, questionnaires handed out to participants after every workshop were evaluated. This instrument is a short questionnaire containing 11 closed-ended statements using a five point Likert-type scale and two open-ended questions. Participants were asked to indicate whether they agree or disagree with the 11 closed-ended statements using the scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, 5= strongly agree. The evaluation instruments were handed out to participants at the end of each workshop. The participants were requested to complete the questionnaire and leave it with the workshop facilitator(s). (See questionnaire in Appendix 2).

To assess the CAD eLearning Certificate an electronic eLearning Certificate Modules Effectiveness Questionnaire was developed by the research team and was sent out to approximately 500 UB academic and support staff by e-mail (including academic staff at the affiliated institutions who participated in eLearning Certificate workshops). Staff members were asked to fill in the questionnaire and send it electronically to one of the research team members. The questionnaire contained a total of 12 questions, divided into three sections: Section A – demographic data, Section B – respondents' reaction to statements and Section C - respondents' comments. The questionnaire sought to obtain information on the demographic profile of the participants, their participation in and opinions on the effectiveness of the programme, as well as their suggestions for improvements (See questionnaire in Appendix 3).

## Data analysis procedure

A total of 82 (16.4%) eLearning Certificate Modules Effectiveness Questionnaires and 771 eLearning Certificate Module Evaluation Questionnaires were used for data analysis. Quantitative data were coded and entered into SPSS v 12.0 for Windows. The data were analysed using appropriate statistical procedures like frequency counts and percentages for applicable categorical and nominal variables. Statements from open-ended responses were grouped following content analysis to determine specific categories. These categories were used to confirm and/or explain findings from the quantitative data.

#### **FINDINGS**

## eLearning Effectiveness Questionnaire

In this section, specific findings from the eLearning Certificate Modules Effectiveness Questionnaire are presented. A total of 82 eLearning Certificate Modules Effectiveness Questionnaires were returned and used for data analysis. The response rate of 16.4% is quite low and limits generalisation of the findings.

The respondents included 48 (58.5%) males and 33 (40.2%) females (one respondent [1.3%] did not respond to this question). The survey notes a high number of young staff with the majority of the respondents (79%) aged between 31-55 years, with one-third of these being in the age group of 36-40 years. Analysis of respondents according to faculty revealed that the Faculty of Science had the highest numbers of respondents (18.2%; n = 16), followed by the Faculty of Education with 15.9% (n = 14). The others faculties included: Social Science 12.5% (n = 11), Engineering and Technology 11.4% (n = 10) and Humanities 10.2% (n = 9), while Business had the lowest participation rate with only 4.5% (n = 4) of the respondents coming from this faculty.

The support staff comprised 18.2% (n = 16) of the participants while 9% (n = 8) were from the 15 affiliated institutions. Lecturers and senior lecturers formed the bulk of the participants accounting for 58.5% (n = 48) of the respondents. Over 40% (n = 33) of the participants had been employed by UB for four years or less. Only five respondents (6%) had been employed by UB for more than 15 years with two of these having worked at UB for more than 25 years.

The majority (63.4%, n = 52) of the participants had no training in eLearning prior to attending the eLearning Certificate workshops, while 36.6% (n = 30) had some sort of training. Asked to indicate the number of modules they participated in, the following responses were given: Over 40 percent (42.7%; n = 35) participated in four or less modules. Twenty eight percent (n = 23) had participated in five to eight modules while 19.5% (n = 16) had participated in nine or more modules (Table 2). However, only 13 (15.9%) of the total participants had completed the eLearning Certificate requirements. This corresponds with the general figure of around 13% of participating lecturers completing the Certificate.

**Table 2**: Number of modules participated in by respondents (n = 74)

	n	%
1-4	35	42.7
5-8	23	28.0
9-12	12	14.6
13-above	4	4.9

Participants were asked to indicate their reason for attending the eLearning Certificate modules. The predominant reason for attending was to 'acquire technological skills' with 95.1% (n = 78) of the participants making this selection. However, 81.7% (n = 67) of the respondents indicated 'the use of eLearning for teaching' as the reason why they participated in the workshops while 63.4% (n = 52) indicated that they wished 'to obtain the Certificate' and 59.8% (n = 49) said it was just 'general interest'. The other reasons advanced for participating in the modules were personal development and advancement; to be up to date with technological innovations; innovative teaching and technology-driven job descriptions.

An instrument with a list of the 17 workshops that were offered by CAD was provided and participants were asked to select the three workshops they considered most useful by ranking them from 1 to 3. The analysis of ranking per module was done to give an overall total score (Table 3). Workshop 01 - Principles of Course Design, emerged as the highest ranked module with 59 points in total, while workshop 11 - Power Point Presentations ranked second with 58 points in total. Third ranked was workshop 2 - Introduction to eLearning (50 points). Fourth ranked was workshop 6 - Management Information Techniques (49 points), closely followed by workshop 7 - Online Information Gathering (46 points). The least popular module was workshop 15 - WebCT Training getting a total of only two points, followed by workshop 03 - eModeration, receiving only four points in total. (eModeration has since been offered in a modified way, while the WebCT Training is still being offered but under review).

Table 3: Ranking of eLearning Workshops

Position	Code	Title	Points
#1	WS1	Course Design	59
#2	WS11a	PowerPoint (beginners)	58
#3	WS2	Introduction to eLearning	50
#4	WS6	Management Information Techniques	49
#5	WS7	Online Information Gathering	46
#6	WS4	Teaching in SMART classroom	33
#7	WS13	Initial WebCT Training (replaced by WS15)	32
#8	WS11b	PowerPoint (beginners)	32
#9	WS9a	Web Design (Beginners)	25
#10	WS12	Initial WebCT Training (replaced by WS15)	14
#11	WS9b	Web Design (Advanced)	11
#12	WS8	Copyright and the Internet	10
#13	WS14	Initial WebCT Training (replaced by WS15)	8
#14	WS10	Scanning	8
#15	WS5	Video Conferencing	8
#16	WS3	eModeration	4
#17	WS15	WebCT Trainings	2

The participants were asked to indicate whether the module(s) they had attended had met their needs; 53.7% (n = 44) indicated 'yes, very much', 34.1% (n = 28) said 'yes' and only 4.9% (n = 4) said 'no'. These responses indicated that over 88% (n = 72) of the respondents felt that the eLearning Certificate Modules met their needs. Some of the benefits cited by those who felt their

needs were met included personal and professional development, such as better computer skills. proficiency in presentations and in online information gathering, improved effectiveness in teaching and learning and improved management of large classes (by using online communication and course management tools, such as electronic submission of assignments).

In addition, 74.4% (n = 61) of the respondents indicated that they had put into practice at least some of the training they received from the eLearning Certificate Modules. Of these, 46.4% (n = 32) had used PowerPoint presentations in class, conferences and elsewhere, while 18.8% (n = 13) had used various search engines to gather information from the Web. Information management was also mentioned by 13.0% (n = 9) of the respondents while at least 12 respondents (17.4%) had already put courses online, (i.e., using WebCT for teaching).

Other ways in which the training has been put into practice that were mentioned are: designing a website for a course, scanning, use of the smart classroom, instructional design and passing on knowledge about copyright use. However, it is notable that 23.2% (n = 19) of the respondents indicated that they had not put into practice any training they had received from the workshops. The main reason given for not practicing these skills was time constraints (over 90%). Other reasons were a personal reference of traditional teaching/learning method, limited facilities at faculty level and limited accessibility to Internet for students.

As mentioned before, only 13 (15.9%) of the total participants had completed the eLearning Certificate requirements. For those who had not completed the CAD eLearning attendance Certificate, 37.9% (n = 22) had not been able to attend the minimum number of workshops required to obtain the Certificate. Of these, 36.2% (n = 21) cited time constraints as the reason for not completing. The comments raised were that the timing/scheduling of the workshops clashed with other assignments and commitments, or their official workload was too heavy to make time to attend the workshops. Only one person (1.7%) complained that the workshops are always fully booked and one respondent (1.7%) felt the eLearning Certificate was not necessary.

## Individual eLearning Certificate Module evaluation

Analysis of the individual eLearning module evaluation responses revealed that participants were generally happy with the structure and format of the workshops. A general analysis of the statements across all the workshops, facilitators and workshop groups yielded highly similar results. The majority of the participants (over 85%; n = 656) agreed that the topics of the workshops were relevant to them and that they had interest in the topics prior to attending the workshops. These respondents also agreed that the pace of the workshops was good for them. that the facilitators did a good job in the presentation and that they would recommend these workshops to others. In addition, the majority of respondents felt that the workshops were well done and valuable and that they felt confident about using the technology and techniques on their own. Most participants thought they would use whatever they learnt from the workshops in their own classes/work. More than 87% (n = 671) on average thought that the material covered during the workshops was not difficult for them, though they had not been familiar with the topics before attending the workshops.

Participants were asked to suggest ways to improve the eLearning Certificate modules. Though a majority of the participants felt that the workshops/modules were satisfactory, some very useful suggestions were made.

These suggestions focused on the workshop organisation (not during semester, the importance of time for practical activities during workshops, a demand for more support during workshops by increasing the number of facilitators/demonstrators or by pairing experts and novices); the target group for these workshops (such as running workshops for departments and for students); the importance of additional online resources for preparation, follow-up and self-study; and technical issues, such as upgrading the workshop labs.

Additionally, the participants suggested other types of training that they felt would be useful to their careers. Some of the modules they suggested have already been implemented such as SPSS and MS Excel. Others modules suggested were Access, Office Planner, production of teaching aids, GIS, desktop publishing, and document formatting.

Generally, there was an overwhelming consensus that the modules were very effective and beneficial to the participants. The participants felt that these workshops have helped improve their general technological skill and hence, have developed confidence in technology (dispelled their techno-phobia). The majority of respondents agreed that these workshops have helped them to become more innovative and improved the quality of their teaching which will improve the standards of the university as a whole. The participants also commended the facilitators for being very resourceful, helpful, organised and consistent. Almost all the participants (99.9%) felt that the workshops were/ are 'a job worth doing and well done'.

## **DISCUSSION AND CONCLUSION**

This research indicates that after the first three years of providing the CAD eLearning Certificate, the workshops have been highly successful, and the number of lecturers putting their courses online is growing rapidly. Most of the academic staff members have found these workshops rewarding and have reported they are now able to integrate some form of eLearning to enhance their teaching and their students' learning experience.

One of the main reasons this study was carried out was to analyse the gap between lecturers participating in the workshops and lecturers using eLearning. UB's eLearning definition is wide, encompassing all use of ICTs, such as the use of a MS PowerPoint presentation during a lecture. Therefore, it is not surprising that many lecturers participating in the eLearning Certificate might not engage strictly in online learning, but are using some of the skills acquired in the workshops, such as finding information on the Internet, using PowerPoint in teaching and at conferences or managing their information better.

These skills are also reflected in the most preferred workshops by participants, showing an equally preference for pedagogical and technical issues: course design, a very general introduction into how to design a course effectively, and the use of PowerPoint. Introduction to eLearning only ranks in position number three, followed by Management Information Techniques (a workshop on how to create files and folders) and Online Information Gathering (a workshop on how to use search engines effectively). These findings show that there is a high demand for pedagogical and ICT related workshops, but not necessarily eLearning specific ones. Since this is the reality on the ground, we need to cater for this demand. It is speculated that once the basic training needs have been covered, participants will be ready for advanced eLearning training, including new online communication and collaboration tools, like blogging or wikis.

Nearly a quarter (23.2%; n = 19) of participants deny that they have put anything learnt through the workshops into practice. Even if lecturers blame time constraints and limited access to the Internet by students as main stumbling blocks to using technology, the content and delivery of the workshops need to be re-evaluated in this light.

As an immediate action, workshops high in demand will be offered on a more frequent basis and new workshops have already been added, such as SPSS and MS Excel, in collaboration with

colleagues from the IT Department. Furthermore, WS3 eModeration has been slightly changed to an Advanced eLearning workshop, for lecturers who are already engaged in eLearning, to share experiences and good practices. Still, individual workshops need to be looked at very carefully to make sure they are hands-on and content is immediately applicable to participants' context.

What is surprising is the lack of interest in the WebCT Refresher training. These training modules are offered as a week-long training course twice or three times a year, just before the start of a new semester. The poor rating of these modules could be explained by the nature of the skills acquired in the course. If participants do not apply these skills immediately, they will soon be lost. This is in line with international research, which states that conventional one-off workshops are not ideal for this sort of training (Littlejohn & Sclater, 1999, Carr et al., 2005). We often see lecturers coming back to us when actually preparing an online course, with very little recall of these workshops, and therefore needing intensive individual WebCT refresher sessions.

One recommendation to address this problem is to link the attendance in face-to-face workshops to the participation in an online course. This will allow lecturers to gather first-hand experience as online learners. This follows the trend in international research to offer eLearning training as a combination of hands-on skill-based workshops and online learning (see Weaver 2003; Kent, 2003; Littlejohn & Sclater, 1999; Carr et al. 2005). This initiative is also reflected in some of the recommendations of participants, who call for more independent practice material and additional resources on the Web for preparation and follow-up. This strategy will also expose lecturers to good practices and examples of blended learning and might increase their appreciation of these methods. Ideally, participants should also in parallel develop their own online course, to immediately apply what they learn in the workshop to their work. This strategy might take care of 63.4% of participants, who stated the wish to obtain the Certificate as reason why they participated in the workshops and encourage them to re-think their position.

Lecturers at UB are not unique in their complaints about time constraints as the main reason for not completing the Certificate and not using innovative techniques. Carr et al. (2005), report that without proper incentives already overworked staff members who are negotiating 'complex balances between teaching, administration and research activities', tend to attend few workshops or even drop out of workshops for which they have registered. Through the provision of a more structured workshop programme other potential participants might be convinced to participate in more workshops (the majority of respondents had participated in 1-4 workshops only). This strategy could also lead to the development of a community of practice of lecturers with a shared interest and a common goal – promoting eLearning at UB.

Another incentive for lectures to invest their time in eLearning could be the offering the workshops at the departmental level, inviting the Head of Department to ensure managerial support. By raising awareness of the work involved in eLearning, management might ease the work load of lecturers embarking on eLearning and/or offer other kinds of rewards.

Clearly, there is much work ahead if the University is to fulfil its vision of developing a studentcentred, intellectually stimulating and technologically-advanced teaching, learning and research environment (UB website, n.d.b). But with the continuous, collaborative efforts of all stakeholders involved, spearheaded by the Educational Technology Unit, this goal could certainly be achieved. The need for staff development is clearly seen through constantly increasing participant numbers. Now it is up to EduTech and other involved parties to ensure that the content and the format of the training is delivered in order to facilitate the UB to achieve its vision.

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## **APPENDIX 1: DESCRIPTION OF WORKSHOPS**

#### **WS01 Instructional Design Principles**

Provide basic educational theories, skills and attitudes to design instruction. Objectives include: Understand the relationship between curriculum and instruction, distinguish between instructor-centred and learner-centred learning, write clear, learner-centred learning objectives, select and implement appropriate strategies for instruction and evaluate instruction.

## **WS2** Introduction to eLearning

Provide guidance in planning, developing and implementing eLearning at UB. Objectives include: Define eLearning in UB context, know benefits and challenges of eLearning, understand important eLearning terms, list examples of integrating eLearning in course delivery and understand the process of eLearning course development.

## WS3 Advanced eLearning (former eModeration)

This workshop aims to develop and share best practice models in eLearning at UB. What is best practice in eLearning at UB? How can students' participation in courses be improved using online communication tools like e-mail, discussion forums, chat, group presentations and student homepages? What challenges are encountered in eLearning and how could we overcome these challenges?

## WS4 Teaching in the SMART Classroom

Provide participants with knowledge and skills required to teach in UBs SMART classrooms. Tools used include PowerPoint and data projector, computer with Internet access and special software, e-mail, www, WebCT, Mimio and MS Netmeeting, audio, VCR, TV, digital still camera, digital video camera, video conferencing, document camera.

#### **WS5 Video Conferencing**

Provide participants with the knowledge and skills required to conduct a lesson using video conferencing.

#### WS6 Information Management Techniques

Provide participants with skills necessary to manage increased information flow. Objectives include: Manage information overflow by organizing files and folders, searching for files and folders, cutting and pasting between applications, managing your mailbox and using filters.

## WS7 Online Information Gathering

Provide participants with the knowledge and skills required to conduct academic research using online resources like search engines, information gateways, directory portals, databases. Objectives include: Understand more about the World Wide Web as an environment for finding information, explore strengths and weaknesses of different search tools, learn to use tools properly and evaluate information found.

## WS8 Copyright and the World Wide Web

Provide participants with the knowledge required to use resources from the World Wide Web for teaching and learning in a legal, ethical and moral fashion. Objectives include: Have an understanding & appreciation of Copyright and its application to the World Wide Web; relate the Copyright law to the academic environment.

## WS9 Creating a Website (I and II)

Provide participants with knowledge and skills required to create a basic instructional website using MS FrontPage. Objectives include: To distinguish website terminologies, to design a web

page using MS FrontPage, to add graphics and other multimedia material, to link web pages and to publish a website on the Internet.

## WS10 Scanning (Digital Imaging)

Provide participants with knowledge and skills required to create and formatting digital images and editable text.

## WS11 PowerPoint Presentation (I and II)

Provide participants with knowledge and skills required to develop a multimedia presentation. (WS11a: animating text, objects and adding transitions, WS11b: adding sound and video clips, creating a self-run kiosk presentation and converting a presentation into a web page).

## WS15 WebCT Trainings (a - e)

Provide participants with skills required to publish online course information, use online communication tools, upload online content, create self-tests and quizzes and manage online courses using UB's eLearning platform WebCT.

# WS16 SPSS Basics (NEW)

Provide participants/researchers with the knowledge and skills required to code variables, enter and analyze data and how to import data from WebCT to SPSS.

## WS17 MS Excel (NEW)

Provide participants with the knowledge and skills to use a spreadsheet to perform simple calculations and analysis of data. Particularly the participants will learn how to enter data on the spreadsheet, perform calculations, format data, create charts and print information.

## **APPENDIX 2: WORKSHOP EVALUATION**

Topic: WS 15c: Self Tests and Quizzes	Topic:	WS 15c:	Self Tests	and C	Quizzes
---------------------------------------	--------	---------	------------	-------	---------

Presenter:
Date:
Name:

Please indicate your ranking for each statement below. Circle the number corresponding to the following scale to indicate your opinion. (1 strongly disagree – 5 strongly agree)

	Statement	Scale
1.	I was interested in this topic prior to attending the workshop.	1 2 3 45
2.	I was familiar with this topic before attending the workshop.	1 2 3 45
3.	The topic of this workshop was relevant to me.	1 2 3 45
4.	The pace of the workshop was good for me.	1 2 3 45
5.	The material covered in the workshop was too difficult for	1 2 3 45
	me	
6.	The workshop facilitator did a good job	1 2 3 45
7.	I will use something from this workshop in my own	1 2 3 45
	classes/work.	
8.	I feel confident I could use the technology or techniques	1 2 3 45
	covered in this workshop on my own	
9.	I still need more help and pratice to be able to use the	1 2 3 45
	technology or techniques covered.	
10.	Overall, this workshop was well done.	1 2 3 45
11.	Overall, this workshop was valuable to me.	1 2 3 45
12	I would recommend this workshop to others.	1 2 3 45

One aspect that I would like to try in my teaching / work is

Please take a moment to suggest how we might improve this workshop or offer any additional comments or concerns you might have.

# **APPENDIX 3: eLEARNING CERTIFICATE QUESTIONNAIRE**

# **Evaluation of the CAD eLearning Attendance Certificate**

**SECTION A: Biographical Data** 

Male:  Female:	
Age: click here	
Department: APRU (A-L)	Other (M-Z) Specify
Faculty/Centre	
Job Title:	
SECTION B: Statements	
1. How long have you worked at	the University of Botswana?
2. Have you had any training on Certificate? YES: ☐ NO: ☐	eLearning before attending the CAD eLearning Attendance
3. In how many modules of the CUB? click here	AD eLearning Attendance Certificate have you participated at
4. What are your reasons for atterate as many as are applicable) Acquire technological skills: Use eLearning in teaching: Wish to obtain the Certificate: General Interest: Other, please specify:	ending the CAD eLearning Attendance Certificate modules? (Tick
5. Among the 17 workshops liste you consider most useful, and ra	d on the dropdown menus below, select the three workshops nk them in the following way:
Place 1 (most useful) click here Place 2 (very useful) click here Place 3 (useful) click here	ere
6. Have you completed the CAD Yes: ☐ No: ☐.	eLearning Attendance Certificate?
7. If your answer to question 4 is	s NO, please state the reason(s)
8. Have you put any of the trainir	ng from the CAD eLearning Attendance Certificate modules into

9. Flease, explain question # 6. If 1 E5, which modules and explain now. If NO give (a) rea	15011(5)
10. Have the eLearning modules that you have attended met your needs?	
click here	
Please explain your response to question 10:	

O. Diagon, explain question # 9: If VES, which modules and explain how. If NO give (a) respon(a)

- 11. Suggest way(s) of improving the effectiveness of the CAD eLearning Attendance Certificate modules at UB:
- 12. Which other types of training in Educational Technology Unit would you find helpful?

## **SECTION C: FEW PARAGRAPHS**

Instruction: In the space provided below, briefly tell us how effective you found the CAD eLearning Attendance Certificate modules at UB.

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