Design and Evaluation of Student-Focused eLearning

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Abstract: This paper reports on the design and evaluation of a UK University's global eLearning MBA programme. The aims of the research were to investigate the learning experiences of the students on the course and to evaluate the effectiveness of the support system so as to improve the programme. The primary research method was a longitudinal semi-structured questionnaire survey, and data were collected from students taking the course during the years 2008-2010. Three rounds of survey were conducted, resulting in 149 valid responses. The first round showed a fairly high level of student satisfaction with the programme, but also indicated areas that needed further improvement. The impacts of subsequent changes in the programme and the learning support system were investigated in the second and third rounds of the survey. Feedback from these has helped develop additional changes in the learning content and delivery approach of the programme. Overall, the findings helped improve the course's delivery approach, enriched the course's content, enhanced its quality, and improved the satisfaction level of the students. It is hoped that these findings can provide useful insights to course managers and eLearning developers of other courses offered in a global context.

Keywords: eLearning, evaluation, questionnaire survey

1. Introduction

eLearning is still developing rapidly, supported by increasing sophistication of information technology and by better understanding of how to make content and delivery of e-courses more effective. Moreover, various types of eLearning support system have been increasingly introduced to higher education institutions in an effort to meet the student-centred learning paradigms recommended by UNESCO (UNESCO, 1998).

In this context, the creation and implementation of effective quality assurance for such learning process has been identified as one of the most challenging tasks. Jara and Mellar (2010) and Martínez-Argüelles et al. (2010) point out that the collection of student feedback should be a central part of strategies to monitor the quality and standards of teaching and learning in higher education institutions for both conventional learning and eLearning. But Jara & Mellar also note that while research into eLearning abounds, studies that focus on the effectiveness of the provision of eLearning are limited, and that this is a gap to be filled. The research reported below relates to this gap.

The research focuses on the evaluation of a global work-based eLearning programme – the Executive MBA of a UK University. This research has been conducted and is reported here by three members of the MBA team responsible for the programme - two Senior Lecturers and the ELearning Development Manager. The research focuses specifically on the quality and effectiveness of the developments made in the course's delivery approach and its learning content. The aims were to investigate the learning experiences and perceptions of the students, evaluate the effectiveness of the eLearning support system, and identify the gaps between the students' expectations and their actual experiences in taking the programme, with a view to improving the programme. Data were collected by longitudinal semi-structured questionnaire survey of students taking the course over the past three years.

This paper begins with a review of the literature related to eLearning, evaluation, and quality assurance. Then an overview of the MBA eLearning programme is provided. This is followed by a discussion of the research methodology, the findings, and the consequent improvements made to the course. Research limitations are pointed out, and reflections made on the research. Finally, a summary and conclusions are given, followed by research implications.

2. Literature review

The rapid growth of online academic course provision worldwide has changed the learning environment for both students and teachers (Landry et al., 2008; Lapointe & Reisetter, 2008; Williams & Williams, 2010). ELearning has taken many forms, such as fully online, mixed mode or hybrid, blended learning and web-assisted (Buzzetto-More 2008). It is claimed that eLearning overcomes many drawbacks that are inherent to traditional classroom teaching, especially its lack of flexibility in the use of resources (for example, Lam & Bordia 2008; Williams & Williams, 2010). Goold, et al.

(2007) indicate that this type of online learning environment enables a greater number of students of diverse educational and cultural backgrounds, as well as of modes of study, to come together within the one virtual classroom. However, they warn that many of the clues that help enable staff and students to be culturally sensitive in physical classrooms are missing in the online world. For this and other reasons, it has been suggested that students need better preparation for learning in an online environment than in a traditional classroom.

According to Rajasingham (2009) and Guri-Rosenblit (2009), eLearning has evolved from distance education and is still struggling to gain full recognition and accreditation within mainstream education as an approach for high quality provision. While developments in eLearning have been exciting and beneficial, finding ways of enhancing the quality of provision and effectiveness have posed a serious challenge. In response to this concern of legitimacy, value and quality of online programmes, Davies et al. (2011) develop a model that provides a comprehensive conceptual framework which identifies the factors that enhance the quality of fully-online degree programmes. Pillay & Kimber (2011) argue that globalisation, transnational provision of higher education, and the 'use of market mechanisms' have increased the complexity in issues of accountability, authority, and responsibility in quality assurance.

Zygouris-Coe, et al. (2009) note that instituting a well-structured quality assurance process can be expensive and time consuming, but that it can be worth the effort. For example, the study undertaken by Kidney, et al. (2007) supports this. They state that the merit, quality and success of the eLearning programme they investigated were mainly due to the proper application of the quality assurance strategies. Rajasingham (2009) notes that new educational paradigms and models that challenge conventional assumptions and indicators of quality assurance are becoming possible with the help of the increasing sophistication in information technology.

Deepwell (2007) makes a useful distinction between quality assurance and evaluation, and views evaluation as an instrument of quality enhancement rather than quality assurance. Wang (2006) identified learning effectiveness, access, student satisfaction, faculty satisfaction, and cost-effectiveness as the five 'pillars of quality' of online programmes. However, Martínez-Argüelles, et al. (2010) identify the key quality dimensions - from the student's point of view - to be the learning process, administrative processes, teaching materials and resources.

We now turn to evaluation more specifically. Evaluation is defined by Saunders (2003) as the "purposeful gathering, analysis and discussion of evidence from relevant sources about the quality, effectiveness, and impact of provision, development or policy." (Saunders, 2003: 39). While the measurement of student feedback is recognised as an important component of quality assurance, there have been mixed reports as to its effectiveness. For example, according to Gurău and Drillon (2009), analysing users' perceptions regarding an eLearning system can provide valuable data to evaluate and improve its functioning and performance. On the other hand, Jara and Mellar (2010) report from their research findings that student feedback was not always fully adequate to support quality enhancement. So a researcher is cautioned that they will need to make judgements in this area, and maybe conduct further research to validate initial findings.

Finally, Lapointe & Reisetter (2008) suggest that the new reality of online learning demands a reassessment of our understanding of what makes for the most productive student engagement. The findings reported below are intended to help move towards an answer to this question.

3. Overview of the MBA programme

The Executive MBA programme discussed in this paper is primarily designed for those with a suitable management background who wish to become more effective and enterprising managers in the knowledge-based global economy. The MBA programme has been delivered for over seven years to work-based eLearning students in the UK and at a number of overseas countries including: Oman, India, Germany, Poland, South Africa and Switzerland. It is delivered mainly online via the UK University's eLearning learning support system, but also provides periods of face-to-face teaching. Therefore, it is also called a 'blended-learning' programme. The face-to-face teaching can be taken at the overseas counterpart university, or in the UK, or at both. In the cases of the overseas courses, such teaching is delivered by both the 'flying faculty' (lecturers from the Business School of the UK university) and by lecturers of the counterpart local universities in partnership with the UK University's course leaders. Currently there are about 400 students in total taking the course, of which about 40%

are based in Oman, 25% in the UK (full-time and part-time students combined), 15% in Poland, 10% in South Africa, and remaining 10% in India, Germany and Switzerland combined.

Students on the course are required to take and pass ten course modules to complete the programme – eight taught modules and two applied management projects. It normally takes two years (4 semesters) for work-based students to complete the course. The revised course structure of this programme, based in part on the findings from the first and second surveys of this research, consists of five modules in the first year and five in the second, as follows:

Year 1: Leading and Managing People; Accounting for Leaders; Marketing Products and Services in a Dynamic Environment; Mobilising Creativity and Innovation; and a Leadership project.
Year 2: Strategy; Operations and Project Management; Entrepreneurship and Small Business Management; Thriving in a Competitive Global Context, and an Integrated Management project.

Figure 1 shows the main building blocks of the blended-learning system designed for the programme, and demonstrates the range of learning modes that are available to the students.
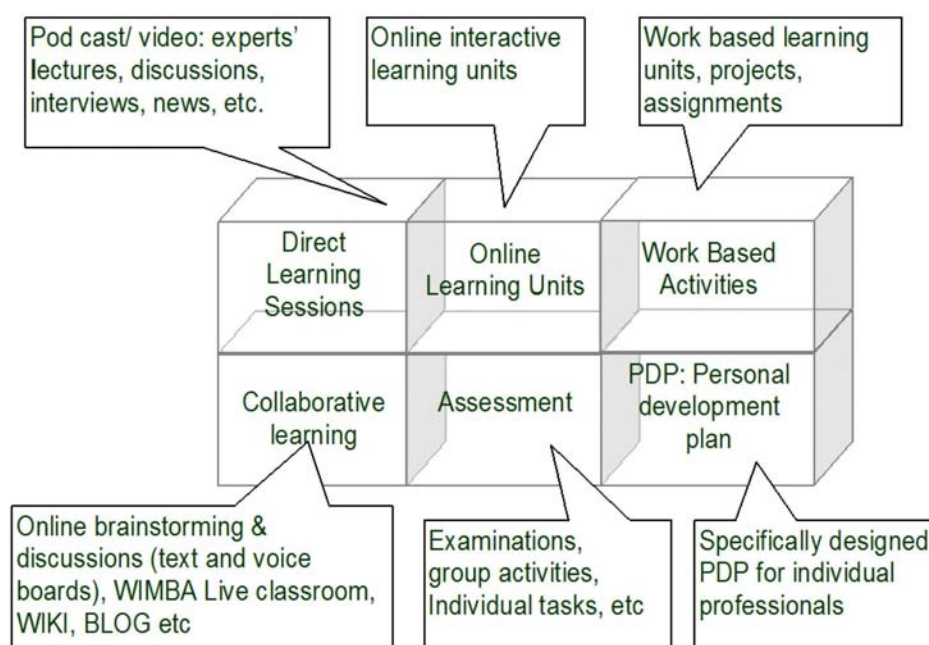
Figure 1: The blended learning structure of the executive MBA programme (Priestman, 2010: 14)

At the start of each semester the 'flying faculty', with the support of the local institution, conduct induction sessions for the students of each cohort at the overseas centres, and this is followed by two full days of face-to-face teaching. The main purpose of this approach is to give the students an overview of each module run in the semester, and a feeling for the level of teaching, and the degree of response expected of them, throughout the course.

The UK lecturers are in charge of preparing and uploading all the online course content, including PowerPoint slides, relevant articles and papers, links to useful websites, audio and video clips, podcasting clips, assignment instructions, marking and feedback, etc. although tutors from the overseas partner institutions can also contribute to online material. The latter institutions, with their supporting lecturers and teaching facilities, provide face-to-face teaching once a month throughout the programme. These institutions also provide the local basic services to meet the requirements of the students. In addition, the UK lecturers deliver regular WIMBA (a voice over the Internet system) sessions for each module. WIMBA is a plug-in WebCT Vista which has 'live classroom' and 'voice tools' components by which the tutor and the students in different locations can hold a virtual class simultaneously, see each other via the webcam, and talk to each other as in a traditional classroom. WIMBA provides a forum, among other things, for UK lecturers to get a good grasp of the progress that the students have made via this blended learning approach, answer their questions related to the subject, and provide additional support for the coursework.

Assignments for all modules are delivered to the students online by the UK lecturers, and the students are required to submit all their assignments to the UK lecturers via the Turnitin system integrated with the eLearning support system BREO. The Turnitin system is an online plagiarism checker for students' course assignments, and is an effective means to check the extent to which assignments submitted for the course are written by the students themselves. Examinations are taken and invigilated at the local institutions, but the scripts are posted to the UK. All assignments and examination scripts are marked by the UK lecturers.

4. Methodology: Semi-structured questionnaire survey

The primary research approach adapted for this study is a longitudinal survey (Dillon et al., 1987), using a semi-structured questionnaire to collect data from respondents over time. This involved three rounds of surveys conducted across selected course sites at different points in time, thus enabling examination of the changes that occurred in the attitudes and satisfaction levels of the students. The first survey round covered four sites – Oman, India, UK, and Poland, and was carried out from April to July 2008. The second round covered two sites - Oman and India, and took place from January to March 2009. The third covered Oman, UK and Germany and was undertaken from June to December 2010. The survey forms were sometimes delivered online, and sometimes handed out in class, depending on what was most convenient. The split of survey respondents by country and by period is given in Table 1. There were 149 valid responses in total, with two thirds of these from the Oman site, which, as mentioned earlier, has had the largest student population on the programme.

Table 1: Summary of survey respondents by country (N=149)

Country	1st Survey (2008)		2nd Survey (2009)		3rd Survey (2010)		Total responses	% of responses by country
	No. of responses	% of responses	No. of responses	% of responses	No. of responses	% of responses		
Oman	30	48%	30	81%	40	82%	100	67%
India	18	29%	7	19%	-	-	25	17%
UK	6	10%	-	-	4	8%	10	7%
Germany	-	-	-	-	5	10%	5	3%
Poland	9	14%	-	-	-	-	9	6%
Total	*63*	*100%*	*37*	*100%*	*49*	*100%*	*149*	*100%*

A number of pragmatic considerations led to the changes in choice of survey sites over the course of the surveys. These included dates and times when the courses were offered; accessibility of the students; and, on occasion, the availability of a researcher being available to deliver and collect survey forms. This impacted, to some extent, the comparability of data between sites and over time periods. However it was felt on balance that there was enough continuity between sites, and student cohorts, for useful comparison to be drawn.

5. Data analysis and discussion of key issues

In higher education, evaluation can cover many aspects, such as programme design, adequacy of resources, performance of students, and of lecturers, effectiveness of policies, etc. For evaluating this blended-learning MBA programme, the evaluation process was designed to measure and improve the quality and effectiveness of technology-enhanced teaching, and the learning experience of the course. The investigation focussed specifically on the areas of course management, learning and teaching, online learning content, assessment, the learning support systems in place, and students' overall experience of taking this course. These areas were seen as key for measuring the quality of the programme as provided to the students. In particular, as the focus was on improvement in course content and provision, the outcomes of such changes themselves needed evaluation. For this reason the second and third survey rounds contained a number of different questions from the first. This was to take into consideration the findings from the first survey, as well as the changes that had been made to the MBA programme as a result of these findings.

5.1 The first survey

For the first survey round, as Table 1 shows, 63 completed questionnaires were received from four MBA centres - Oman, India, UK and Poland. The students in Poland and UK completed the survey online; while those in Oman and India completed it off-line, with the lecturers directly handing the

questionnaire to the students and collecting it on the same day. The latter process contributed to a higher rate of returns from these centres. An overview of the perceptions of the respondents for this first survey round is given in Table 2.

Table 2: Results from the first survey (% response by category)

Q	Survey Items	Excellent	Good	Average	Poor	% (E&G)	% (A&P)
1	Registration process	31	55	11	3	86	14
2	Teaching at Induction	20	60	16	4	80	20
3	Teaching at local institution	18	58	24	0	76	24
4	Module Handbooks	22	47	27	4	69	31
5	Local Tutor support	15	45	33	7	60	40
6	Module information from local institution	9	67	22	2	76	24
7	Local support facilities	9	51	26	14	60	40
8	Textbook availability	18	33	22	27	51	49
9	Usefulness of CD ROMS	20	44	22	14	64	36
10	Quality of CD ROM materials	20	58	20	2	78	22
11	Reading materials on BREO	26	38	27	9	64	36
12	Learning resources/weekly online	22	45	22	11	67	33
13	UK Lecturer support	11	51	33	5	62	38
14	Slides on BREO	25	44	25	6	69	31
15	Audio/video clips	3	45	21	31	48	52
16	Relevant website links	15	43	29	13	58	42
17	Voice Café	11	26	25	38	37	63
18	Course/module response	2	47	42	9	49	51
19	IT training and support	11	35	42	12	46	54
20	Assignment instructions	16	53	27	4	69	31
21	Assignment submission procedures	16	55	13	16	71	29
22	Assignment feedback	15	36	29	20	51	49
23	Referral procedure	13	57	23	7	70	30
24	Failure procedures	18	39	17	26	57	43
25	Academic offence procedures	16	44	16	24	60	40
26	Social networking opportunities	9	38	33	20	47	53
27	Overall experience with the tutors	24	51	23	2	75	25
28	Overall experience of online support	8	49	36	7	57	43
29	Overall experience of undertaking the blended learning MBA	20	46	29	5	66	34
	Average:	*16*	*47*	*25*	*12*	63	37

The results in this table are self-explanatory. Overall, the survey results showed a fairly high level of satisfaction with the MBA programme, with an average of 63% of the respondents perceiving the average of the 29 aspects of the course measured as being either 'excellent' or 'good', versus 25% perceiving this average as 'average', and 12% as 'poor'. In terms of the service quality as perceived by the students, 22 out of the 29 aspects surveyed showed a combined percentage of 'excellent' and 'good' ('% E&G' in Table 2) to be greater than the combined percentage of 'average' and 'poor' (% A&P). Six results had these percentages about the same (questions 8, 15, 18, 19, 22, 26), and one (question 17, on Voice Café) had this percentage significantly reversed (37% versus 63%).

As this was a semi-structured questionnaire survey, the respondents were given the opportunity to offer comments where appropriate in order to provide more detailed information on the topic areas being investigated, and to encourage suggestions for improving the course content, delivery approach, and support systems. Examples of positive comments included:

> *'Voice over the Internet, Blackboard, and the student records system are excellent facilities for remote students like us. I found this course very balanced and suitable for working candidates'.*

> *'I was impressed with the free wireless Internet facility and the ever-helpful nature of the faculty office and administration team'.*
>
> *'It has been really a correct decision for me to enrol onto the MBA programme. The wisdom I derived from [taking this] e-MBA is tremendous'.*
>
> *'It was a pleasure and enjoyable experience taking the MBA with this UK University'.*

Not surprisingly, there was also a range of negative comments, and the ratio of positive to negative comments was about three to two. To put these comments into context it needs to be borne in mind that the students were mostly at middle and senior-level management in full-time employment, and were working on the Executive MBA often on day or week release schemes from their employer, and at weekends. As a result, student expectations of the course were generally high, and the time pressure on the students was often quite onerous.

The following are examples of some of the criticisms from respondents:

- Many respondents asked for more consistent and comprehensive module information and guidance, clearer assignment instructions, and for the formats of examinations. Some mentioned that they had a desire to have all the essential information about the course issued at the induction sessions (rather than having some information fed piecemeal later).

- Some felt that BREO had been under-used, e.g. it was not used to provide effective discussion forums.

- A few respondents expressed a dislike for the different assignment submission systems used on different courses within the MBA, as these were often seen as time-consuming and confusing.

- Some felt very dissatisfied if they failed to receive their assignment feedback within the specified time, but appreciated the cases where more detailed and customised feedback had been given, rather than just a brief and general comment, as they wanted to understand what was wrong in their work. They also had a desire for quicker responses to requests for information and feedback.

- Some felt the need to spend more time with the UK-based tutors, and expressed a wish for an additional round of face-to-face interaction in the middle of a semester from the UK course leaders. Some would have liked to gain the opportunity for the classroom experience at the UK University.

- In addition, it was suggested that the communication and collaboration between the education partners be improved, so that better and more effective on-line support can be provided.

Overall, the above comments could be summarised as indicating a need for more support for the students' independent learning process. As can be seen from Table 2, the average of positive responses ('excellent' plus 'good') on support for eLearning itself (questions 4, 6, 10, 12, 20, 21) was reasonably high. Nevertheless, the perceptions of individual students showed that there was still room in a number of areas for the university to make improvement. Suggestions from the above research, together with additional feedback collected from consultation with both the UK and local staff, were considered in detail, and subsequently, a significant range of changes to the programme were made. Some of these are discussed in the following section.

5.2 The second and third surveys

Subsequent to the changes made after the first survey round carried out early in 2008, a second survey round was conducted in 2009 covering two overseas sites: Oman and India. This survey had 28 questions of which 19 were the same as those in the first survey. Thirty-seven valid responses were received. The primary purpose of this second round was to measure any improvement (or otherwise) resulting from the course changes, and to uncover additional issues. A comparison between all the three rounds of surveys is given in Table 3. (For consistency, question numbers match those of Table 2.)

An examination of the results from the first two survey rounds showed that 14 out of the 19 topic areas investigated in common across the two surveys had improvements in the second survey in the 'positive' response category (i.e., % of 'excellent' plus 'good'), with nine areas showing a gain of 10% or more. Significant improvements included: teaching at induction by the UK 'flying faculty'; the quality of module handbooks; UK tutor support; audio/video clips; ICT training and support; social networking opportunities; overall experience of online support; and the overall experience of

undertaking the MBA (where the latter response rose from 66% to 79% in the 'E&G' category). In addition, the percentages in the 'E&G' category for both Question 10 (the change from providing 'learning materials on CD Rom' in the first survey to providing 'weekly online material' in the second), and Question 17 (the change from using 'Voice Cafe' for Internet conference in the first survey to the adoption of 'WIMBA' in the second), rose from 64% to 73% and from 37% to 85%, respectively, after the changes were made.

Table 3: Comparison of equivalent questions from all three surveys (% response by category)

Q	Areas covered	1st Survey results (2008)						2nd Survey results (2009)						3rd Survey results (2010)					
		Excel	Good	Av.	Poor	E&G	A&P	Excel	Good	Av.	Poor	E&G	A&P	Excel	Good	Av.	Poor	E&G	A&P
1	Registration process/ admin support	31	55	11	3	86	14	22	59	19	0	81	19	27	46	21	6	73	27
2	Teaching at Induction/Asmin support	20	60	16	4	80	20	27	62	11	0	89	11	26	50	24	0	76	24
3	Teaching at local institution	18	58	24	0	76	24	5	62	30	3	67	33	5	42	45	8	47	53
4	Module Handbooks	22	47	27	4	69	31	14	67	19	0	81	19	8	54	16	22	62	38
5	Local Tutor support	15	45	33	7	60	40	30	27	36	7	57	43	22	56	11	11	78	22
10	CD ROM materials/ weekly online material	20	44	22	14	64	36	22	51	16	11	73	27	29	49	19	3	78	22
13	UK tutor support	11	51	33	5	62	38	49	32	16	3	81	19	22	48	30	0	70	30
15	Audio/video clips	3	45	21	31	48	52	25	61	13	1	86	14	-	-	-	-	-	-
17	Voice Café/WIMBA	11	26	25	38	37	63	53	32	14	1	85	15	-	-	-	-	-	-
19	IT training and support/ online guides	11	35	42	12	46	54	14	54	30	2	68	32	10	50	38	2	60	40
20	Assignment instructions	16	53	27	4	69	31	27	57	3	13	84	16	-	-	-	-	-	-
21	Assignment submission procedures	16	55	13	16	71	29	30	48	19	3	78	22	16	76	8	0	92	8
22	Assignment feedback	15	36	29	20	51	49	16	46	19	19	62	38	-	-	-	-	-	-
23	Referral procedure	13	57	23	7	70	30	14	45	31	10	59	41	-	-	-	-	-	-
24	Failure procedures	18	39	17	26	57	43	19	26	40	15	45	55	-	-	-	-	-	-
25	Academic offence procedures	16	44	16	24	60	40	17	44	30	9	61	39	-	-	-	-	-	-
26	Social networking opportunities	9	38	33	20	47	53	78	5	16	0	83	16	-	-	-	-	-	-
28	Overall experience of online support	8	49	36	7	57	43	30	49	5	16	79	22	22	56	16	6	78	22
29	Overall experience of undertaking the MBA	20	46	29	5	66	34	30	49	16	5	79	21	57	24	18	0	81	18
	Average of responses shown:	*16*	*46*	*25*	*13*	*63*	*38*	*27*	*46*	*20*	*6*	**74**	*26*	*22*	*50*	*22*	*5*	*72*	*28*

However, it was surprising to see that in spite of the effort made for improvement after the first survey some areas did worse, including teaching by local institutions, and the referral procedure and the failure procedure. This indicated that further effort was needed to improve the experience of the students, though in part it might be that later students were more demanding, especially for services related to certain university procedures. Overall, the average percentage of respondents who rated the course as 'excellent' and 'good' on the topics included in this comparison improved from 63% in the first survey to 74% in the second. This was seen as a very encouraging finding, and justified the extensive work by all the parties involved to improve the design and provision of the course.

Note that other questions in the second survey were different from those in the first as many changes had been made in various aspects of the course after the first survey, and questions on these changes were incorporated in second survey to examine the impacts on the students' learning experience. For example, more informative and meaningful module handbooks and ICT training guides were introduced, and questions related to these changes were added.

Some of the more significant changes that had been made to the programme following the first survey are discussed below, set against the findings from the two surveys to indicate how the gains mentioned above in student satisfaction were achieved.

The introduction of WIMBA: WIMBA was adopted since August 2008 to replace the Voice café system (voice over the Internet). WIMBA is an audio component to Blackboard courses enabling users to

record voice announcements and audio blogs, send email messages with embedded audio, and conduct live voice chat sessions. One student commenting on this after a WIMBA session said that "it is the best teaching session after the induction". Regarding the WIMBA live classroom, the survey showed that the respondents who responded in the 'excellent' and 'good' categories were over 50%, and 30%, respectively. The students also liked the idea of archiving the WIMBA sessions as an additional eLearning resource, as it allows students (such as those who have missed a class) to see the archived files. BREO tracking statistics showed that for the seven WIMBA archives which were made available for one cohort of students during March 2009, there were 107 hits, which indicated that the students appreciated the effort the university had made to provide this facility. Most respondents considered WIMBA as the better eLearning supporting system, as the second survey showed that the students' perception of WIMBA was significantly more positive than that for Voice Café (85% versus 37%).

Improved course delivery approach: A significant change made in the blended learning support system for the MBA programme was the restructuring of the format and timing of the online learning content. This was changed so that all content was presented online in a standard format, and made available weekly consistent with the learning schedule. This represented a significant change compared to the previous system where the key course material was provided on a CD for each module. In comparing the two elements (provision of CD ROMs versus material online weekly), the percentage of students viewing course provision as being 'excellent' plus 'good' increased from 64% to 73%. The respondents also liked the audio and video clips prepared by the UK tutors on specific topics, and 80% wished to have more such clips for each of the modules.

Improved course and module information: In the first survey, students expressed their wish that each module handbook provide all the information about the module, in particular, including details about the exams and assignments, and examples of good assignments. The format of all the module handbooks were therefore expanded and standardized, and as a result the students reported that they were clearer about requirements for assignments in each module that they took. In terms of response to the questionnaire, the positive response level for this area improved from 69% to 81%.

Provision of online training materials: Subsequent to the first survey, a range of training materials, including an ICT guide and audio/video clips for using the university's digital library were developed and made available online to the students. As a result, in the second survey the students rated the MBA ICT guide, the WIMBA live classroom guidelines, the clips on digital library, and the Harvard referencing guidelines, as the most useful tools, followed by the guide for using Net-mail (the e-mailing system for students). Overall, the survey evaluation of 'excellent' plus 'good' for the training and supporting materials available rose from 46% in the first survey to 68% in the second.

Improved usability of the eLearning tool: As mentioned above, in the first survey one respondent had commented that BREO was "the most under-used tool". However, after the changes were introduced, statistical tracking showed very high hit rate for the weekly online material for all the modules. For example, a total of 182 students from four randomly selected modules in Oman (semester 2 of the academic year 2008/9) showed a total of over 8047 hits within one week. These included the weekly online course content (6566 hits), WIMBA live classroom (657 hits), and ICT training guide (824 hits). This meant an average of 22 hits per student per week, more than doubling the number of hits (9 hits per student per week) before the change was made.

Additional online contact time: For each module, the UK lecturers on the programmes were assigned additional online contact hours to provide better support to the students, including the WIMBA sessions as discussed above. Comparison of the surveys indicated that student positive satisfaction of the online tutor support improved from 62% in the first survey to 81% in the second.

Assessment feedback: In terms of providing students with feedback on their assignments, the first survey showed 51% of the respondents rated this either 'excellent' or 'good'. Subsequently, a great deal of effort was made to improve this area. There was improvement in this rating (to 62%), but this was still a fairly low score for a topic on which so much effort had been made. Some students felt that for some assignments the feedback was too general and not enough to help them improve future assignments. However, many students also acknowledged that some lecturers gave very good feedback. Clearly, given the constraints on lecturers' time in all such courses, fully satisfying student demands in this area will always be a challenge.

Other topics: Other conclusions from the surveys included the fact that respondents were not keen on writing wiki-text and blogs on Blackboard (and neither were the lecturers!). In addition, students really disliked receiving the information on plagiarism and the use of Turnitin for submitting assignments (over 80% said 'no', only 9% said 'yes'). By contrast, they much liked the examples of good and bad assignments for each module (80% said 'very useful' or 'useful'); and while responses on the topics of referral, failure, and academic offence procedures, though positive, were not especially so.

In terms of the students' overall experience of this blended-learning MBA, while the first survey showed that 66% of students graded this as 'excellent' or 'good', in the second this increased to 79% as a result of changes to the programme and its delivery. This was very encouraging, though - interestingly - not quite as good as the course providers had hoped, which indicated that there was more work to do.

5.3 The third survey

In 2010, a third round of surveys was carried out, covering the Oman, Germany and UK sites. Forty-nine valid responses were obtained. A number of questions in the third round were different again from the second, but there were 11 questions which covered the same areas as in the first and second surveys (see Table 3).The MBA programme had been further changed following the second survey, but not radically in most areas, so for many of the questions that were the same it is not surprising that the results were fairly similar. For example, for the key question that asked about the students' overall experience of the MBA, there was a marginal improvement (from 79% to 81%), though this is unlikely to be significant. Some other findings were disappointing. For example, evaluation of the teaching at the local partner universities was again rated lower than previously (down to just under half of responses being in the 'E&G' category), but it is worth noting that over 80% of the responses of the second and the third rounds of the survey was from the same overseas site (see Table 1) which clearly show that the UK university needs to take some action to improve the situation. This fall in rating was partly counterbalanced, however, by a large jump in the rating of quality of local tutor support, reflecting the very significant effort that had been put into improving this area.

The third survey round comprised quite a number of individual surveys. For example, at the Oman site there was a mid-course on-line survey, and also a mid-course 'off-line' (hand-out and return) survey. In addition, students were asked to fill in an online exit survey at the completion of their course. And, as mentioned earlier, the questionnaires were 'semi-structured' in the sense that respondents could add comments to clarify or expand their questionnaire answers. Indeed, respondents were specifically encouraged to make comments (whether positive or negative) where they felt this could improve future course provision. All replies were useful. Most were fairly straightforward; and of course in some cases asked for additional resources (more tutor time, for example, or faster response on assignment marking) that were unlikely to be met without a fundamental change in level of staff provision. Some of the responses were particularly interesting. For example, Figure 1 indicates the response at one overseas site to the question: 'How much do you feel part of the UK University?' The positive reply was seen as very encouraging in terms of students' alignment with the course.
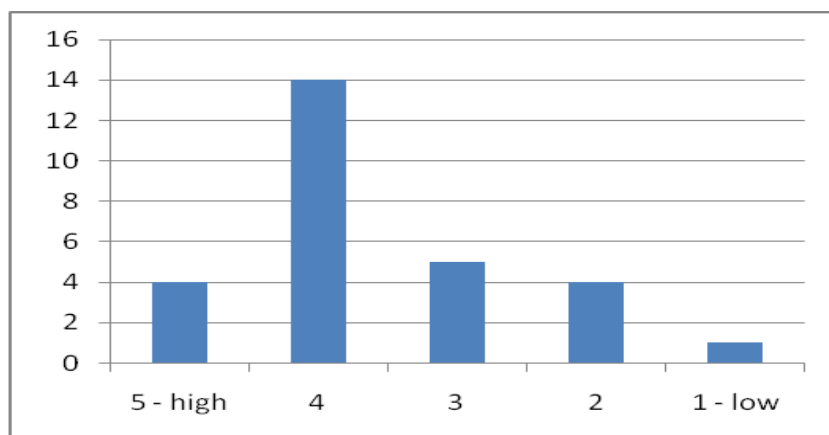
Figure 1: Number of responses by category to the question: 'How much do you feel part of the university?'

To a question about the credibility of prior publicity for the course, the response again was fairly positive, as indicated in Figure 2.
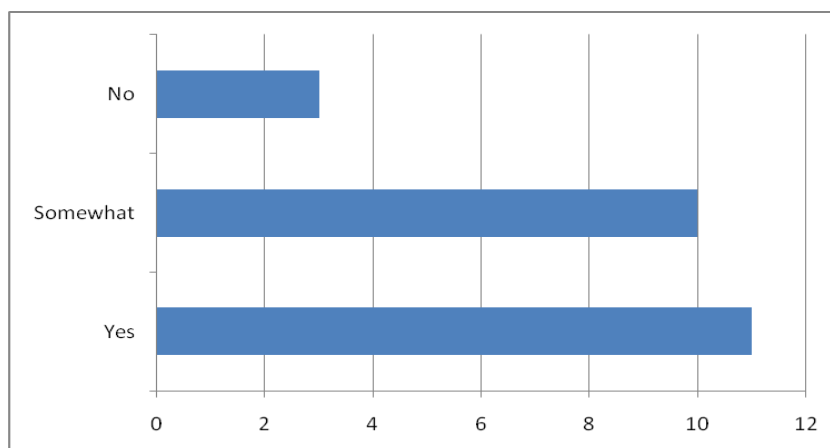
Figure 2: Number of responses by category to the question: 'Is the course as you were led to believe by the publicity you saw prior to enrolment?'

To the general question: 'Do you think there is any missing learning element you think should have been there as a part of MBA?' replies included:

> "A little more on entrepreneurship and a little less on leadership issues".

> "Business School should be twice a month ... with a shorter time, instead of long gruelling hours with marathon lessons once a month. I found it hard to concentrate in the afternoon classes."

> "I would have liked to have more ... focus on HR capabilities as I think this is missing, even though the Leadership module tries to cover some of the aspects."

> "There should be more case studies to be reviewed in class. The Entrepreneurship module was taught well through case studies."

And finally, one of issues raised related to the perennial question of assigning the proportion of group work to Individual work. One respondent put his concern eloquently: "The grave challenge I faced is the group assignments. Success of team work depends on choosing right members for the team. Everybody just formed teams in the first business school weekend where we didn't have any idea about each other. The collectivist mentality of the local culture played a negative role in working with assignments. Free-riders carried on with ease at the expense of my own time and sweat ..."

Nevertheless, overall, the third round of surveys (and the two preceding ones) gave a generally positive picture of how the students felt about the course, with some highly complementary remarks being made when students were asked to summarise their general satisfaction with the course. Additional analyses of the survey findings are on-going which will help further improvements to be made.

6. Limitations and reflections on the research

Like all research, this research has a number of limitations. Perhaps the main one was the change in sites being surveyed at each round. As mentioned earlier, pragmatic considerations had led to these changes in survey sites, including the timings of when courses were offered, and suitable occasions on which student surveys could be carried out without interrupting teaching schedules. For this reason, the comparability of responses between survey rounds needs to be handled with some caution. But set against this, in general the courses were being taught to students of a rather similar level across all sites and with similar expectations, such that it is felt that, on balance, useful conclusions could be drawn.

A second limitation was response rates, though these were fairly good for a survey of this kind. It had been decided at the outset not to make the surveys mandatory in order to ensure responses only where students were motivated to respond. But this opened up the possibility, indeed the likelihood, of 'self-selection', responses coming from more active students and those with especially good or bad experiences to report. At Oman the questionnaires were mainly on a 'hand-out and return' basis and

here the response rate across all three surveys was about 75% for the particular cohort surveyed (totalling typically about 40 students each cohort). But Oman had four such cohorts studying in their different semester of the two year course, so the response rate across all students would fall to just below 20%. There was no reason to think other cohorts would respond to the questions differently, but the fact is that they were not surveyed. At the other sites, the student numbers were smaller (India typically about 30; UK about 13; Germany 9; and Poland 37) such that the response rates were about 60% (first survey) and 25% (second survey) for India, 40% for UK, 60% for Germany, and 25% for Poland.

In terms of continuity of the survey, there were indeed changes in the question sets over time. But this is not thought to be a major impediment to the overall value of the surveys. This was because the questions were largely straightforward, and mostly did not involve a high emotional context, where specific phasing of the question might have affected the answers given. In addition, most of the changes to the question sets were determined by factors such as being no longer relevant (the situation having already changed), or where new questions were designed to measure changes made after the previous survey round.

In summary, common-sense considerations (including directness of the questions, number of students surveyed, and non-mandatory nature of the surveys) indicate that the results are robust, but it has not been possible to quantify this. The surveys will continue, and as more results become available greater effort will be put into ensuring inter-comparability of the survey findings.

7. Conclusions

The paper reports on the design and evaluation of a blended-learning MBA programme provided by a UK university at a number of partner-institution sites around the world. The evaluation was based on a longitudinal study involving a sequence of surveys of students' perceptions of the course. Findings from these surveys, plus other internal review procedures, were used to make changes in both course content and course delivery approach.

The research is contrasted with much of the research into the evaluation of eLearning courses which has relied on data gathered just once, and where cross-sectional designs have been applied. By contrast, the longitudinal approach employed here has enabled the charting of changes over time, thus enriching the process of course design, and monitoring the changing satisfaction of students and other stakeholders.

Overall, the survey findings indicated a high level of satisfaction with the MBA programme, and this satisfaction increased following the changes made to the programme. In particular, the findings supported the many detailed choices made by both the providing university and the partnering institutions in the provision of structure and content of the blended-learning approach adopted.

The findings also give credence to the view that such an approach is particularly suited to postgraduate-level MBA provision for students currently in management employment, because such students are relatively mature, already business-aware, conversant with information technology, and have access to the eLearning facilities and resources required (Priestman 2010). The findings furthermore support the claim of Gurău and Drillon (2009) that student feedback can provide valuable data to evaluate and improve the functioning and performance of an eLearning system.

Rajasingham (2009) concluded that educational paradigms that challenge conventional teaching methods are becoming increasingly possible with the help of the increasing sophistication in information technology. The authors of the current research recognise that student satisfaction reported for this course emanate in no small measure from design and implementation approaches made possible by this improvement in information technology. Moreover, by identifying areas for course improvement, this research has attempted to implement the concept of 'evaluation as an instrument of quality enhancement, rather than just quality assurance', as suggested by Deepwell (2007).

Finally, it is hoped that the outcomes of the evaluation of eLearning in this research have improved not only the quality and effectiveness of this particular programme, but also will provide valuable guideline to help improve the quality and effectiveness of the teaching and learning processes (Phipps, 1999) of global eLearning or blended courses offered by other institutions across the world.

Acknowledgements

References

Buzzetto-More, N. (2008). Student perceptions of various eLearning components. Interdisciplinary Journal of Knowledge and Learning Objects, 4, 113-35.

Deepwell, F. (2007). Embedding quality in eLearning implementation through evaluation. Journal of Educational Technology & Society, 10(2), 34-43.

Dillon, W. R., Madden. T.J. & Firtle, N. H. (1994). Marketing Research in a Marketing Management. 3rd. Edition. Burr Ridge: Richard Irwin Inc.

Goold, A., Craig, A. & Coldwell, J. (2007). Accommodating culture and cultural diversity in online teaching. Australasian Journal of Educational Technology, 23(4), 490-507.

Gurău, C. & Drillon, D. (2009). Evaluating the effectiveness of an international eLearning system: The case of Montpellier Business School. Proceedings of the International Conference on eLearning, 2009, 174-181.

Guri-Rosenblit, S. (2009). Distance education in the digital age: Common misconceptions and challenging tasks. Journal of Distance Education, 23(2), 105-12.

Jara, M., & Mellar, H. (2010). Quality enhancement for eLearning courses: The role of student feedback. Computers and Education, 54(3), 709-714.

Kidney, G., Cummings, L. & Boehm, A. (2007). Toward a quality assurance approach to eLearning courses. International Journal on ELearning, 6(1), 17-30.

Lam, P. & Bordia, S. (2008). Factors affecting student choice of eLearning over traditional learning: Student and teacher perspectives. International Journal of Learning, 14(12), 131-39.

Landry, B. J., Payne, D. & Koger, M. S. (2008). From 'chalk and talk' to online offerings: keeping pace with technology in education. International Journal of Management Education, 2(3), 300-317.

Lapointe, L. & Reisetter, M. (2008). Belonging online: Students' perceptions of the value and efficacy of an online learning community. International Journal on ELearning, 7(4), 641-65.

Martínez-Argüelles, M., Castán, J. & Juan, A. (2010). How do students measure service quality in eLearning? A case study regarding an internet-based university. Electronic Journal of eLearning, 8(2), 151-59.

Phipps, R., & Merisotis, J. (1999). What's the difference: a review of contemporary research on the effectiveness of distance learning in higher education, Institute for Higher Education Policy, Washington DC. USA.

Pillay, H., & Kimber, M. (2009). Quality assurance in higher education: for whom and of what? International Journal of Management Education, 3(3/4), 270-281.

Priestman, T. (2010). MBA Approval Document, University of Bedfordshire, 26 May 2010.

Rajasingham, L. (2009). Breaking boundaries: Quality eLearning for global knowledge society. International Journal of Emerging Technologies in Learning, 4(1), 58-65.

Saunders, M. (2003). Maximising learning in evaluation of eLearning environments. Evaluating eLearning, Galecia Project, Portugal.

UNESCO (1998). World declaration on Higher Education for the twenty-first century: vision and action. Proceedings of the World Conference on Higher Education, Paris, 5-9 October, 1998.

Wang. Q. (2006). Quality assurance - Best practices for assessing online programs. International Journal on ELearning, 5(2), 265-274.

Williams, M., & Williams, J. (2010). Evaluating a model of business school students' acceptance of web-based course management systems. The International Journal of Management Education, 8(3), 59-70.

Zygouris-Coe, V., Swan, B., & Ireland, J. (2009). Online learning and quality assurance. International Journal on ELearning, 8(1), 127-146.