Lecturer perception of the effectiveness of blended learning and institutional support mechanisms

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Introduction

The development of the e-learning project at Bergamo University in Northern Italy aims to offer its students a support to their classroom lecturers, with the intention of improving their learning experience to enhance teaching that is more active and collaborative. The project has been in place since 2000 and has steadily been growing throughout the University since then. Previous studies into the University's student population have demonstrated that they tend to live locally and desire some face to face contact with the lecturer. However as times change so do other necessities. More use of ICT, greater student numbers, more demands on time all mean that the staff at the University felt that it was important to offer something different to traditional classroom lectures in order to enhance their student's educational experience. Thus the e-learning project within the University has tended towards the blended e-learning model.

Quality issues are always paramount when delivering University courses and the University felt that it was vital to assess lecturer experience in the e-learning field in order to establish what their particular needs are, especially with a view to quality control and the use of resources. It was decided to undertake a research project into staff perception of the effectiveness of blended learning in order to ascertain exactly how lecturers view this new method of communication and whether they feel that the extra materials provided by them in an online environment influenced the students in any way. In effect how useful is an online environment when the bulk of the course is delivered face to face?

Do lecturers feel that the support mechanisms they need are enough to establish and deliver materials through an online environment?

What are the implications for the resources invested into e-learning for the university?

Background

The e-learning project at Bergamo University began in 2000/01 in the Economics Faculty using the IBM Lotus LearningSpace platform and in the faculty of Arts using didactic technologies experimentally for students of foreign language. In 2001/2002 the e-learning project developed university wide and two specialist centres were created, the Centre for Economics and Engineering and the Centre for Informatics for the Arts. From last year the e-learning project has been brought out across the University and run by the Computer Centre (E-learning and Communication).

Last year the University hosted a total of 132 courses that had an online element. The courses in blended learning mode can be classified according to levels of interactivity:

- Online space used to publish materials
- Courses that offer a discussion room with a generic user
- Courses that also provide online exercises and personal interaction with a tutor
- Courses that take into account any online work and interaction done by students in the final exam.

Methodology

Research has been going on throughout this academic year with teaching staff at the University of Bergamo who offer their modules in Blended Learning mode. Staff are located in all the faculties of the University: Economics and Business Administration, Engineering, Arts, Law and Foreign Languages and Literature. In total 32 interviews have taken place. The purpose of the interviews was twofold. Firstly we wanted to assess staff satisfaction with their blended learning modules, that is how effective they felt the online part of the modules taught was in the context of their overall course and whether they felt that the students truly used and benefited from the materials offered to them online; and secondly whether lecturers felt that the technology and support mechanisms available to them were sufficient. The University offers a team of e-learning specialists who are available to help staff with the didactic content of their online materials and with any technical problems they might experience. It also organises seminars on e-learning related topics. At the start of this academic year a new collaboration platform was introduced, Lotus QuickPlace. This is touted as a far simpler and more intuitive platform than many others offer on the market and the theory behind choosing it was partly that staff who did not feel they had the necessary technical skills to produce

online modules would feel more at ease with this programme and thus would be incentivised to produce blended learning modules.

Interviews were conducted with staff that lasted between 40 minutes and 1 hour and were composed of open ended questions (see Appendix A). The interview questions were broadly divided into three categories: 1) lecturer satisfaction with their role in the online environment, whether they felt that the use of online materials was justified and whether they felt that the students interacted more 2) whether the online materials influenced their classroom teaching and whether they perceived any difference in students attitudes or learning and 3) support mechanisms: whether they felt that they were properly supported both from a technical and didactic point of view. The researcher also had access to courses in order to get a more complete picture of what was offered by the lecturer and how the students participated.
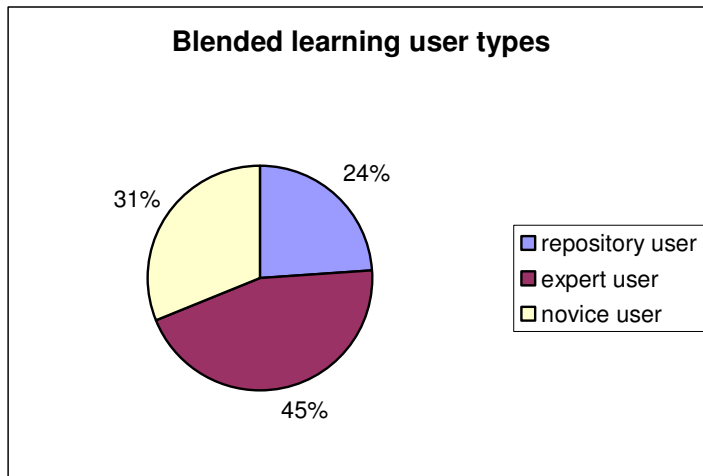
Blended learning user types

24%

31%

- □ repository user
- ■ expert user
- □ novice user

45%

Figure 1: Main types of lecturers as users of Blended Learning

Results

After the interviews were analysed, there appeared to be three broad categories of lecturer- user of the online environment (fig. 1)

Group 1: Blended Learning as a repository – the low end user

About 30% of the lecturers interviewed stated that they used their online space as a repository for materials and offered little else to the students. They did not activate any discussion rooms and consequently these were not used by students. Some posted up exercises with attached answers for the students to check their own progress but did not particularly encourage students to bring these into the classroom. Interestingly, these lecturers had been using e-learning for a differing number of years, varying from 1 or 2 to 6 or 7, so it would appear that any trepidation in using new technology is not necessarily relevant. However their common link is that are all dealing with very large first year classes (approximately 100 plus students) and they felt that it would be impossible to offer more interactivity and then be able to deal with the larger work load that this interactively implied. Most of these lecturers posted up notes, slides and past exam questions for their students but were not inclined to engage in the e-learning process any more than that precisely because they feared that with the large classes the workload would become over burdensome. When questioned on the support services offered by the University, these lecturers felt that the support mechanisms were sufficient and indeed for their needs they are more than ample.

Group 2: The expert user

The second broad type individualised in our study can be categorised as the expert user, that is, lecturers who have been offering an online element to their modules for some years. This formed the largest part of the group interviewed with 15 people forming this category. Lecturers in this category tended to have lower numbers of students (anything from 20 to approximately 50) and have created courses that could be said to enhance their classroom teaching through various mechanisms available in an online environment. The use of group work, written exercise, auto-evaluations, games, synchronous classrooms and tutor-led discussions

all featured prominently in this group. All the lecturers reported satisfaction on their use of the online environment and felt that it gave the student something extra that then fed back into the classroom. Interestingly some of these lectures felt that they had "plateaued" somewhat and were looking for new ways to enhance their online offering. When questioned on how effective e-learning was when combined with traditional classroom activities they all stated positively that in different ways they felt that they offered extra activities to students that went beyond the classroom. Despite relatively small numbers, lecturers commented that the traditional classroom lecture still contained a certain distance between lecturer and student and that by using an online environment to enhance their teaching, the lecturer had become more approachable and the students had begun to interact more with their peers and with the lecturers themselves. This was especially commented on in classes where there were higher number of students workers, who despite being enrolled in a traditional face to face course had difficulty in attending lecturers. Previously (and in fact currently) one solution had been to offer courses in the evening or at the weekend, when worker students would be able to attend. However with the expended use of e-learning, even courses that meet during day time hours in the week were able to be more inclusive of students with other time commitments, The use of the synchronous classroom was especially cited as a successful way to recreate a classroom atmosphere at a different time of day when different students could attend. The lecturer who most used synchronous events stated that an intense communication was established where single interventions are highly valued thanks to the greater attention paid by all participants within the session. Materials are prepared by the lecturer based on students requests and difficulties and used in subsequent synchronous sessions as well in the classroom. Within the synchronous classroom, time is "expanded" as the lecturer was able to concentrate her comments giving a huge amount of focused information and replying to real questions and problems put forward by students. Thus the lecturer was able to really understand where students' difficulties lay. The students were so interested that sessions lasted much longer than scheduled.

Lecturers in this category were also extremely satisfied with the support offered by the University, but it is worth noting that this group asked to see what other colleagues were doing. Lecturers with a certain amount of experience feel that they could learn more by exchanging ideas with their colleagues rather than having support staff offering advice. This group stretched across all faculties and lecturers expressed an interest in talking to colleagues from other faculties, in completely different subjects on how they best used the web. As McLean notes "technology holds great potential for enhancing teaching, but faculty must be willing and prepared to use it." (McLean 2005).

Group 3: The enthusiastic novice
The last broad category of teaching staff interview comprised those who were new to e-learning this academic year or had only limited experience of e-learning. These staff members tended to come mostly from the Faculties of Arts and Foreign Languages and Literature, where uptake on e-learning has been somewhat slower, but is gaining considerable ground. This is partly due to the introduction of micro-seminars where groups of teaching staff who work in the same area or department are given tutorials in how to deliver material on the web as well as how to use the new platform Lotus QuickPlace. In fact this group cited the support staff the most and placed most emphasis on the help they had received to establish their courses. As McLean writes "the perceived lack of technical support and training is one of the primary reasons faculty elect not to engage in technology initiatives" (McLean 2005) and at Bergamo University the advantages on having effective support mechanisms has clearly been felt. The support staff were able to demonstrate to lecturers who otherwise may have thought their subject not "suitable" for an online module, what advantages could be had from providing an online environment to their students. This is especially true for lecturers in foreign languages that make up the majority of this group. Through the use of audio files, written exercises and discussion rooms in a foreign language lecturers have reported that their students are now able to implement a greater range of activities and exercise in order to master a new language. Lecturers of foreign languages commented that the use of discussion rooms helped students overcome their shyness at having to "speak" a different language. Despite that fact (acknowledged!) that students may be using translation tools from the internet before posting messages, lecturers still felt that students were aware of inaccurate translations and rectified any mistranslations before posting. Lecturers also commented that increased confidence lead to increased marks in assignments and exams. This echoes findings by Holmberg (1983) where he argues that students learn by engaging in guided didactic conversations with their tutors. Most of the lecturers and tutors interviewed in this category showed a certain amount of surprise at the success of their blended learning course and consequently spoke enthusiastically about the use of e-learning within their modules. This group were also very enthusiastic about trying out new technology though generally considered themselves to be non expert users of the Internet and ICT technologies generally and

demonstrated surprise that their students should have engaged so readily in the online environment, as they imagined that as Arts students they would not be so interested in dealing with technology. Again the role of support staff is vital with this type of e-learning user in order to relieve doubts and provide practical and pedagogical assistance. The lecturer also offered some credits towards the exam if the students if the students participated actively in the online environment. This is the first year that the Russian module has been offered in blended learning mode and this the first time all the students passed the final exam at their first attempt. The students certainly appreciated the lecturer's efforts and responded by working effectively online to their benefit.

Conclusion

From this preliminary research into lecturer perceptions into their use and effectives in blended learning, some conclusions can be drawn:

Support should be targeted, that is, specific issues such as large group teaching should be addressed, perhaps through workshops.

Large first year classes are certainly the norm now, with Higher Education being more accessible to people than ever before and the sight of over 100 undergraduates and the thought of these students all posting up messages on the web can be daunting to even the most committed lecturer. However as Marsh et al state: "as a capital-intensive strategy, many more students must be served with the same number if fewer instructors. An asynchronous model can be scalable to permit realignment of faculty resources with technology, rather than attempting to expand faculty resources to meet load demands created by the conventional organizational pattern (i.e. instructors x time slots x seats.) (Marsh II et al 2003). The difficulty here is that these lecturers are taking their traditional classroom mentality to the online environment. They see a class full of faces and replicate that on the web. This of course need not be the case. The use of tutors, group work, guided discussions can all decrease workload making the online environment far less onerous than expected. Although initially more labour intensive, the follow-up need not be as time consuming as one might believe when faced with large class numbers.

It is important the lecturers are given sufficient targeted training to be able to translate their work into online courses thus freeing themselves from many of the tasks (both administrative and didactic) that are brought about by large class tuition. It is not enough to merely show them how to use the technology but rather specific activities that focus on the problems inherent in large classes should be provided. This would have the extra advantage of engaging the students in the use on of an online environment from their first year of university study. It must be said that previous research work with students has indicated that they like the use of the online environment as a repository (Cavalli et al 2005). From the students' point of view their first year of university will be their first point of contact with an online teaching environment and therefore it is doubly important that they engage with the tools offered in order to stimulate their interest and carry them through the next years of their degree course so that they do not continue to see blended learning merely as virtual print shop where they can download materials. This is also **a** significant aspect from a resource point of view. The University could create a system where more e-tutors are available for large classes of first years so that lecturers are able to use the online part of their module to their advantage. If the students do not engage with the courses offered in blended learning, it may be unlikely that they will wish to participate in them in subsequent years of their course and blended learning modules offered may suffer as a consequence**.**

The use of e-learning champions in faculties could facilitate access for both the novice and the experienced user.

Experienced users who wish to have more collaboration with their peers could be used as e-learning champions, setting up working groups that run across all the faculties. Champions help disseminate best practise, develop innovative projects in e-learning and to champion the uptake of e-learning throughout the faculties. They serve to create a more cohesive structure that encompasses support and academic staff. Using expert users as champions would allow them to interact more creatively with their fellow academics and could galvanise novice or non users.

Localised support for novice users can be a highly effective tool. Lecturers who are reluctant use an online environment within their modules may prefer to have more specific support from the University in order to allow then to make the first step in approaching the web.

Engaging lecturers within micro groups by subject or interest area has already proved highly effective. It is also vital to maintain a support level from a pedagogical point of view so that lecturers can see that the use of e-learning can advantage their courses.

- Lecturers who do engage in blended learning find it, in the main, a fruitful process that allows them to enrich their classroom teaching.

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Appendix A
Questions for interview with lecturers
How comfortable are you in an online environment?
How effective are you in an online environment?
How satisfying is this role?
Is it making a significant difference to your students?
Was your work appreciated?

Are there any feedback mechanisms?
What was the student's perception of the online part of the course?
Did you have more interaction or less with the students?
Dos the online environment influence your classroom approach?
Do you expect more interaction online or in the classroom?
Was there the development of an online community?

What tools did you use? Why?
How much time did you spend preparing for the online part of the module?
Did you receive any training? Either technological or pedagogical?
Did you get enough support from the institution?
What is your level of technical expertise?
What much of the technology did you use?
What was the virtual class size?