

## Taking ownership of technology: Lecturers as LMS learners

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Our paper presents the findings from a study of personalised support in the use of the Learning Management System (LMS) to lecturers at the Faculty of Medical and Health Sciences, University of Auckland. Our study indicates that personalised support is an effective means of supporting some lecturers as they learn about the use of technology for teaching. We conclude our paper by considering the value of this research for the Faculty.

Keywords: technology, learning management system, training, pedagogy

### Ownership and learning

When we consider the question “Whose technology?” we are essentially asking about ownership and with respect to the use of a LMS within a university ownership is a matter of “buy in” on the part of the lecturers who are expected to use the LMS. One way to encourage “buy in” is to demonstrate the usefulness of technology for education (Ahmed, 2003). For example, a LMS might be used to structure learning in terms of well established learning theories (Katz, 2003). The realisation of this ideal is, however, contingent on the ability of lecturers to use the LMS effectively. For many lecturers effective use will require technology use education.

### Traditional staff development with technology

As part of an institutional strategy for the effective deployment and management of a LMS, the issue of educating staff in the use of technology is one amongst a host of issues (Ellsworth, 1997; Harrsch, 2000; Meehan, Obler, Schiorring, & Serban, 2002; Minshul, 2004; Roberts, Lawson, Newble, & Self, 2002). However, appropriate training remains vitally important to the successful adoption of technology (Meehan et al., 2002, p. 6). Traditional staff development in a tertiary education setting is often provided to lecturers in groups in a class-like setting following a predetermined format. This has been referred to as the “blunderbuss approach” (Minshul, 2004, p.12). Group education could be carried out more effectively if delivered around the principles of constructivist learning (Leh, 2005, pp. 36 & 38). As an alternative to constructivist group based teaching, our Faculty sought to provide individual assistance to lecturers to provide a flexible technology use education strategy for busy lecturers.

### LMS at the University of Auckland

The Faculty central to this study is located on a separate campus. Staff development courses for the University LMS were provided at a location closer to the main University campus. As the lecturers in the Faculty have teaching, research and clinical responsibilities they are busy and the fact that the training sessions were provided only on the main campus was a barrier to participation. An attempt to offer lecturers development sessions on the Faculty campus was made but attendance was variable. There are two possible reasons for this: the lecturers with clinical and teaching responsibilities may not have been able to attend on the particular dates in question; the technology training was not targeted to meet the specific lecturers' needs. To support the lecturers' use of the University LMS a Learning Technology Assistant (LTA) was sought. Personalised help provided for a more flexible approach deemed likely to meet the needs of academic health professionals. Providing personalised technology use education is commensurate with the notion that “multiple opportunities for training and consulting” is an “enabling factor in the deployment and implementation of instructional technology” (Meehan et al., 2002, p. 6). A

review of the irregular LTA service provided in 2005 resolved that for 2006 Faculty LTA support would be available every Thursday from 9AM and 3PM commencing three weeks before the start of semester. Lecturers could book LTA time and the LTA would go to their office. After the first semester the effectiveness of a Faculty LTA was questioned and this study was undertaken to audit the use of and effectiveness of the LTA service.

## Method

Both quantitative and qualitative data from the LTA and lecturers from the School of Nursing were sought from the first semester 2006. The LTA provided data on the service including the number of lecturers seen and the average time of each visit. This was supplemented by a semi-structured interview which explored the LTA's experience and perception of the nature of the role and the response to the service. Themes were derived from the interview data.

Lecturers who utilised LTA assistance were asked to complete a questionnaire consisting of both open and closed questions. Lecturers were asked about their prior LMS training, others sources of LMS assistance and skill level with both computers in general, and the LMS. Self-rating questions asked lecturers to rate their overall computer and LMS skill on a five point scale using Benner's terms of Novice, Advanced Beginner, Competent, Proficient and Expert (Benner, 1984, pp.13–34).

To investigate the perceptions of the helpfulness of LTA assistance, lecturers were provided with statements and asked to rate these on a four point Likert scale: not helpful; sometimes helpful; helpful; and most helpful (Not applicable was also an option). Space was available for comments. A small number of lecturers who had not used the LTA completed an amended version of the questionnaire with an added question inquiring why they had not sought LTA assistance.

## Findings

The LTA reported 33 individual appointments with 24 different lecturers over 13 available days. February, the month before semester started was the busiest, and thereafter it was progressively quieter. Two sets of data are presented: from lecturers who used the LTA service and data from an interview with the LTA. Data from a smaller sample of non-users is not presented in this paper. A total of eight out of a possible 20 (40%) questionnaires were returned from users of the LTA service (four lecturers were on conference leave and the end of term is a busy time for lecturers with exam marking taking precedence).

### Lecturers who used the LTA service

Lecturers who used the LTA service were asked their reasons for seeking assistance. Novices were seeking an orientation or introduction to the LMS to get them started ( $n=3$ ), while those with more experience sought assistance with specific advanced functions ( $n=5$ ). Of the eight lecturers who returned completed questionnaires two had attended LMS training of less than two hours duration prior to using the LTA service. The LMS training was considered "not helpful" by one educator and "helpful" by the other educator, with the additional comment of "I need to be able to apply learning to practice" and "I prefer doing ... rather than watching". Lecturers were also asked to rate their overall computer and LMS skills and in general they rated their computer skills more highly than their skills with the LMS (Table 1).

**Table 1: Users self-rated overall computer and LMS skills**

<i>n</i> =8	Computer	LMS
Novice	0	2
Advanced beginner	3	5
Competent	3	1
Proficient	1	0
Expert	1	0

Prior to having LTA assistance, LMS help was obtained from the Phone Help ( $n=3$ ), On-line Help ( $n=1$ ), and six lecturers indicated that they asked their peers ( $n=6$ ) for assistance. The help accessed was considered either “helpful” ( $n=1$ ) or “most helpful” ( $n=3$ ).

LTA assistance had been used mostly once or twice ( $n=6$ ); and one lecturer used the service three or four times; another lecturer used the service more than four times. The time spent with the LTA was mostly 30 minutes ( $n=4$ ), with some needing longer sessions of an hour ( $n=2$ ), or longer 1½–2 hours ( $n=1$ ). Lecturers were asked to rate the LTA help received, and while one lecturer found it “unhelpful”, more found it “helpful” ( $n=3$ ) or “most helpful” ( $n=4$ ). Comments included “I could never have got the assessments on [the LMS] without one-to-one assistance”. When asked if they would recommend LTA help to others most answered yes ( $n=6$ ).

Additional comments from lecturers were varied. One new staff member with experience of another LMS found the University LMS “primitive” and complained “It’s putting me back about 10 years!” A novice LMS user stated, “At this stage I’m not required to do much, but I will need further assistance later”, and “The LMS is complicated. There’s a lot to know and learn”. This was reiterated by another novice LMS user who described the LMS as “not user friendly”. However a competent user who had used an earlier version of the LMS reported, “I have bonded with the new version of the LMS and feeling very happy with myself and this new found relationship – thanks!”

### **LTA perspective**

The analysis of the interview with the LTA revealed four key themes: LMS issues and the impact on teaching; lecturers’ responses towards individualised assistance; peripheral learning and increasing IT skills; challenges of being a LTA. We provide a limited number of the LTA responses within the four themes.

#### *LMS issues and the impact on teaching*

Computer and LMS skill and teaching experience impacted on the LTA’s approach; “I explain the LMS differently to old or new lecturers (those new to the university)”. For novices the LTA was “a salesperson”, while for proficient or expert users the LTA was “just an instructor”, as these lecturers asked for specific assistance. Novice and advanced beginners were felt to be “more interested in course design aspects”. A new iteration of the LMS resulted in the LTA “getting more questions about course creation and design and less technical questions with the new LMS version” from less experienced users.

#### *Lecturers’ response towards individualised assistance*

Individual LMS education was effective for some, but not all lecturers. “Some lecturers are negative, some positive. Some of that difference could be a personality thing”. The negative reactions were considered to relate to the LMS not meeting the lecturers’ expectations. Another explanation for lecturers’ resistance was, “Some resistance comes from lecturers who are technophobes, they hate computers, and they probably hate the LMS and feeling they have to, or are required to use it. Resistance might be related to not knowing or their inability with general IT skills, not necessarily just with the LMS”. However, when the experience was positive the LTA described the lecturers as having “a huge sense of achievement”.

#### *Peripheral learning and increasing IT skills*

The LTA explained how LMS help often involved peripheral IT skills; “Some lecturers can’t find their files, don’t know where they filed them, and some don’t recognise file types, .pdf for example. Another issue is document versions and getting the wrong version, and even little hints, like using cut and paste speed keys. I think I give lecturers lots of tips about using their computer better”. The LTA recognised that these lecturers did not “recognise the difference between other IT skills and LMS use”.

#### *Challenges of being a LTA*

Success related to a number of factors coming together effectively; “The LMS, the Internet and the lecturers’ computer and files all have to be ready. Repeat visits relate directly to that success rate and the interaction. If the session has been less than 100% but really positive I am asked back again, but if anything didn’t work well, no matter how positive, then I never hear from them again”. The final

comment from the LTA relates to pedagogy when she stated, “Really we need a bridge between course design and LMS use”.

## Conclusions

Our work has been beneficial in a number of ways. Through submitting a report to the University LMS team and through discussing the provision of the LTA service, we raised awareness concerning the fact that there are lecturers who benefit from personalised and flexible training opportunities and we will request for the service to be continued. Our own work is commensurate with the University policy to provide increased technology use education for teaching staff and through being proactive we have contributed to this initiative. The literature review and the data from the research has provided the basis for the Faculty’s Learning Technology Unit to assess its strategy for providing technology use education to lecturers in order to develop a sustainable approach to the adoption and use of technology within the Faculty. In particular, the Learning Technology Unit will be considering lecturers in terms of: their preparedness for working with technology; their levels of computer literacy; and their course design with respect to use of the LMS. Finally, our research has provided the basis for more sustained research within the Faculty on technology use education, particularly in terms of enabling lecturers to develop and manage their own e-learning solutions.

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