

# Professional development for online teaching practices

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This study found that early adopters perceive professional development activities, which promote the sharing of experiences and examples of practice, as the most useful ways of developing knowledge about online teaching practices. Early adopters see the development of practical skills, in particular technical and pedagogical, as key in developing online teaching practices.

The professional development activities that early adopters identified as the most useful in developing these practical skills were discussion between peers, face-to-face workshops, one-on-one consultation and mentoring. In contrast, the findings suggest that early adopters found it less useful to attend conferences, read journal articles or books, gain online qualifications or visit websites to learn about online teaching practices.

This paper recommends that more research be undertaken to determine how the less useful professional development activities identified in this study, in particular conferences and websites, could better meet lecturers' needs.

Keywords: early adopters, professional development, online teaching practice

## Introduction

This paper reports on two aspects of a larger research project which investigated how early adopter lecturers adapted and developed their classroom-based teaching practice for the online environment. The purpose of the research was to inform the design of a professional development programme for flexible learning in a New Zealand university. The aspects addressed in this paper are the types of professional development early adopters had engaged in to learn about online teaching practices and the skills they had learned as a result of teaching online. These aspects are located within the literature review which reflects the larger research project.

The project used an exploratory approach, based on a mainly qualitative research design, within a case study method. The participants were selected from lecturers in the early adopter category, in a medium-sized, New Zealand university. A mail-in survey and semi-structured individual interviews were used to gather data concerning: the professional development activities early adopters have undertaken to learn about online teaching practices, further activities they would like to undertake, the new skills they had learned as a result of teaching online, and new skills they would like to learn.

While a limitation of the study is the small size of the sample, the findings have assisted the design of a professional development programme, as well as highlighting the need for further research on the types of professional development activities and skills lecturers require to develop online teaching practices.

## Literature review

### The adoption of technology

The Diffusion of Innovations model (Rogers, 1995), is a theory of the adoption of technology, often used in tertiary education to demonstrate how new technologies are implemented by lecturers over a period of time (Wilson & Stacey, 2004). Rogers' (1995) model is frequently cited in technology based studies, however research by Wilson & Stacey (2004) suggests that recently there has been a tendency in the literature to condense the model into just two categories of lecturers called *early adopters*, and the *mainstream majority*. A description of the characteristics of lecturers who belong within these two categories follows:

*Early Adopters:* The early adopters (Rogers' innovators and early adopters) are described as visionaries and experimenters; they see technology as fun and challenging; are technology focused; project-oriented; self-sufficient; willing to take risks for 'break through' achievements; and they tend to network horizontally, across interdisciplinary and cross-functional groups (Bailey, 2002; Wilson & Stacey, 2004). Lecturers who fall within the early adopters' category are the focus of this study.

*Mainstream Majority:* The mainstream majority (Roger's early majority, late majority and laggards) are described as pragmatic; conservative; risk averse; process oriented; tend to network vertically, within a single discipline area; expect proven applications for the use of technology in teaching; and require more support, as they are less likely to be technology-focused, confident computer users (Bailey, 2002; Wilson & Stacey, 2004).

### **Experiences of early adopters**

Differences in the attitudes and abilities of lecturers described within the 'adopter categories' may impact on the content of professional development programmes (Wilson & Stacey, 2004). Recent studies describe a gap between the abilities of the early adopters and mainstream majority as widening, making the transition from classroom to online teaching critical, especially for the latter group (Bailey, 2002; Waldron, Dawson, & Burnett, 2005; Wilson & Stacey, 2004). Research by Wilson & Stacey (2004) suggests that early adopters tend to make the adoption of technology look fairly easy, disguising the knowledge and skills other lecturers need in order to do the same. They suggest that professional development strategies for early adopters are not necessarily suitable for the mainstream majority, and that this gap should be studied further.

Furthermore, Bailey (2002) proposes research to examine whether there are differences between pedagogical approaches used by early adopters and the mainstream majority. Milne & White (2005) reported on a study which suggested that lecturers felt they had enough information related to technology, but not enough information about effective online teaching practice. Major concerns of lecturers in a study by Torrisi-Steele & Davis (2000) were their perceived lack of knowledge about 'how it works' and 'what is possible' in an online environment, specifically asking for access to others' experiences in developing online teaching and learning resources. Lecturers can benefit from collegial support which encourages the sharing of experiences and ideas, as well as assistance with technology and pedagogical issues (Ellis & Phelps, 2000; Mitchell, Clayton, Gower, Barr, & Bright, 2005).

Laurillard (2002) suggests lecturers should acquire a knowledge of pedagogy as applied to technologies such as multimedia, software and hardware, as the design of learning resources cannot simply be inferred from the capabilities of technology. The development of technology resources is a significant component of online learning and their design should revolve around the students' use of them (Torrisi-Steele & Davis, 2000). A study of online professional development by Ellis & Phelps (2000) described how lecturers learned to produce video, audio and HTML files to create their own technology resources, thereby 'owning' the products they created. Ellis & Phelps (2000) suggest that much online development has occurred by early adopters keen to experiment with technology and who have the technical skills to develop online courses. However, while early adopters are deemed to have positive attitudes towards technology and teaching practice, many tertiary lecturers are subject specialists rather than trained teachers, and they may be lacking technological and educational knowledge, to design courses which develop deep approaches to student learning.

Ramsden (2003) suggests that teachers who apply practical teaching strategies without an understanding of how they fit within a teaching approach, are less likely to help their students learn; therefore teachers who integrate theory and practice are more likely to understand how their teaching practices will affect the quality of their students' learning.

### **Method**

The research project was carried out using a mainly qualitative approach bound by a case study method, to investigate the experiences of early adopters adapting and developing their classroom-based teaching practices for the online environment. A combination of a mail-in survey, semi-structured, individual

interviews and online course observation was used to gather data. The course observation is not reported on in this paper.

### **Selection of participants**

It was necessary to identify early adopter lecturers for the survey, and early adopter lecturers who had redeveloped their online courses over a period of three or more semesters for the interview and course observation. The University began using a learning management system (LMS) in 2003. When this project was carried out in 2005, the proportion of university staff enrolled in the LMS was 22% of all staff. Rogers' (1995) model, suggests that 16% of lecturers in an institution may be identified as innovators and early adopters. Taking into account the limitations of identifying lecturers who used the LMS for teaching, these figures suggested that the University was just passing through the early adopter stage at the time this study took place. Therefore it was reasonable to suggest that most of the participants in the study would be from Wilson and Stacey's (2004) early adopter category.

### **Limitations**

The surveys were sent to all staff (n = 225) enrolled in the LMS, and 14% (n = 31) were returned fully completed. The way in which user statistics are reported on the University's LMS database, made it difficult to distinguish between staff who used the LMS for teaching and those who used it for other purposes. For example, staff using the LMS for professional development courses or online meetings showed up in the statistics. As the survey was sent to all staff listed in the LMS address book, the number of lecturers who used it for teaching was not able to be identified and this skewed the reporting response rates. Data relating to the Faculties in which the interviewees belonged was collected. Although the sample size is small and limited demographic information was collected, the purpose of the research was to benefit the university in which it was carried out.

### **Data**

The survey questions were designed to gather specific information which may not arise from the interviews. The survey consisted of eight questions, and responses associated with four of the questions are presented and discussed in this paper:

- 1 Tick any of the following professional development activities you have engaged in to develop your knowledge about online learning.
- 2 Circle the three professional development activities that were most useful to you. Other activities?
- 3 Comment on any new skills you have learned as a result of using the online LMS.
- 4 What new skills would you like to learn regarding online teaching practices?

For questions 1 and 2, respondents were asked to select from a list of professional development activities, with 'other' providing the opportunity to state any activities not on the list. The activities were selected from information provided in the University's yearly professional development booklet. Questions 3 and 4 were open questions and have been analysed according to the professional development workshop categories devised by Ellis & Phelps (2000): *administrative, pedagogical, and technical*. Analysis revealed that an additional category called *research* was necessary for this study.

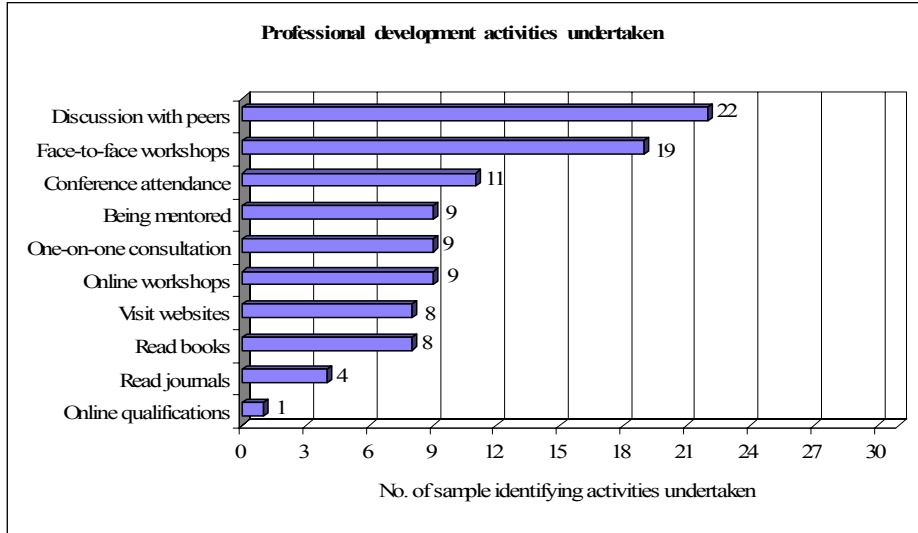
Semi-structured, individual interviews were undertaken to gain an in-depth understanding of early adopters' experiences in adapting and developing teaching practices for the online environment. The interview questions were based on Ramsden's (2003) framework for *evaluating and recognising effective teaching*. The framework provides a series of questions which focus on pedagogy, teaching strategies, feedback, assessment, quality of learning, self-evaluation, communication and scholarship of teaching. This paper presents and discusses the 8 interview responses related to the final category of Ramsden's (2003) framework – *Communication and Scholarship*, as it relates to the professional development aspects which are the focus of this paper.

- 5 Communication and scholarship related to online learning:
  - a. What have you done to learn from other lecturers and to share your insights with other lecturers?

- b. What steps have you taken to apply the best available evidence to improve your practice?

## Findings

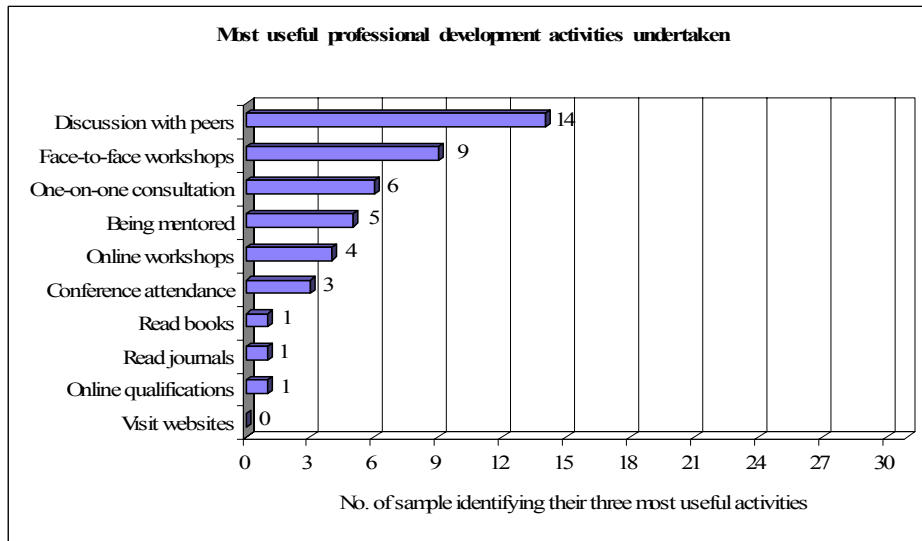
*Question 1:* Tick any of the following professional development activities you have engaged in to develop your knowledge about online learning.



**Figure 1: Professional development activities undertaken**

The most common activities undertaken were discussion with peers, face-to-face workshops and conferences. In this study, one-on-one consultation refers to an academic developer visiting with a lecturer to help them with pedagogical and technological aspects of online learning. Reading journal articles and studying for qualifications in online learning were the activities least frequently carried out. The category of research grants was not included, however, how to write funding grants was identified as a new skill learned, and this would be a useful activity to include in future research.

*Question 2:* Circle the three professional development activities that were most useful to you. Other activities (Please list).

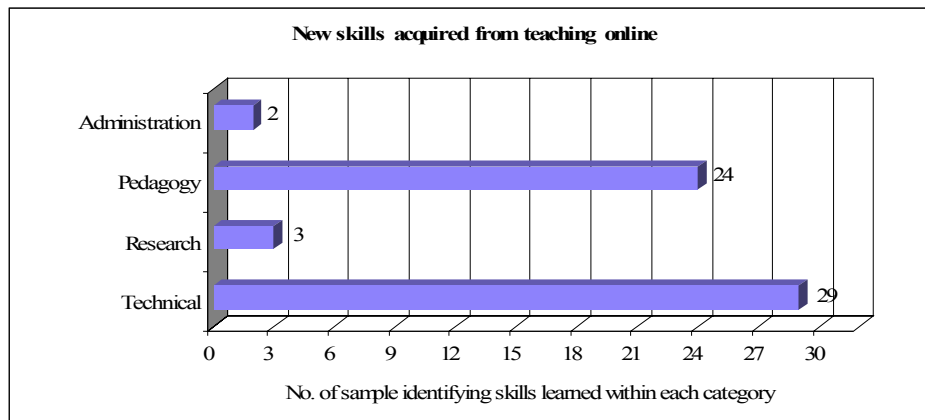


**Figure 2: Most useful professional development activities undertaken**

The most useful activities were discussion between peers, face-to-face workshops and one-on-one consultation, followed by mentors, online workshops, conferences, journals, books and study for online

qualifications. Although websites were the seventh ranked activity undertaken, it was not selected by any of the respondents as a useful activity.

*Question 3:* Comment on any new skills you have learned as a result of using the online LMS.



**Figure 3: New skills acquired from teaching online**

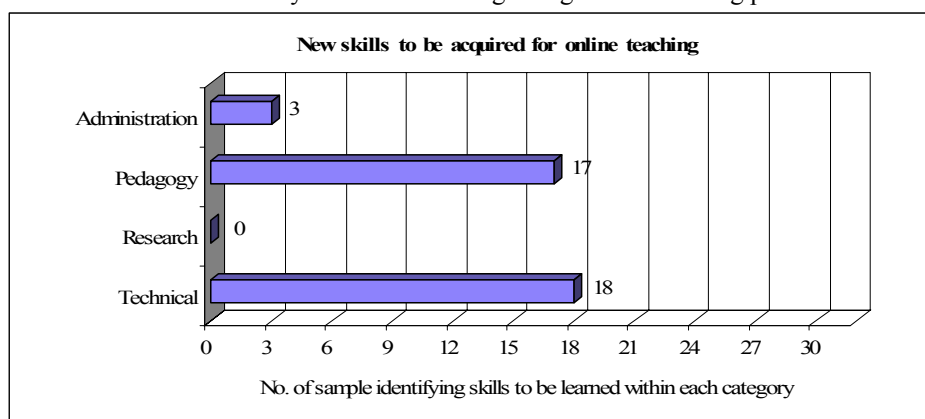
*Administrative:* Time management and organisation skills improved for a few respondents. Increased responsiveness to students’ needs, and planning the course ahead of time was also stated.

*Pedagogical:* Most commonly mentioned were facilitation of discussion forums, development of self-directed and interactive learning activities. Some respondents explained that they tried to understand about the construction of learning, by carrying out a detailed analysis of tasks, in order to determine the steps involved in the design of an online learning activity.

*Technical:* A majority of respondents stated they had learned about LMS functionality. Some respondents had learned about HTML, digital images, file manipulation, Internet skills and improved their basic computer skills.

*Research:* Teaching in the online environment provided research opportunities for some respondents. Drawing from recent online experiences, they had learned new skills regarding public speaking for conferences, design of poster presentations and how to write funding grants.

*Question 4:* What new skills would you like to learn regarding online teaching practices?



**Figure 4: Skills lecturers would like to learn**

*Administrative:* A few respondents wished to learn more about reducing their workload.

*Pedagogical:* A majority of respondents wanted to learn how to develop online assessments which required students to demonstrate analytical skills and understanding of theories, rather than answer

multiple choice questions. Some wanted to develop advanced skills in effective discussion forum facilitation and group management. Others wanted to develop skills in course design for interactive online learning. Finally, some respondents wanted the opportunity to see and discuss examples of online teaching practices with their peers.

*Technical:* The largest response from respondents was to learn more about the online LMS functionality and more advanced computing skills. Some respondents wanted to learn about audio, image and animation files, online portfolios, digital narrative and e-library skills.

*Question 5:* Communication and scholarship related to online learning:

- a. What have you done to learn from other lecturers and to share your insights with other lecturers?
- b. What steps have you taken to apply the best available evidence to improve your practice?

*Learning from others:* A few participants said they gleaned examples of teaching practice from their colleagues. One participant saw a colleague using a video trigger in an online LMS and it made her think about creating a video narrative which could be used many times in her own courses. One participant stated the University website did not have enough 'best practice' examples.

*Sharing with others:* Half of the participants thought that talking informally with colleagues was a way of sharing teaching practices. One participant said she would like the opportunity to talk regularly with colleagues as they were the best source of ideas. A few participants published papers, gave conference presentations and participated in online forums.

*Improving teaching practice:* Little information was given about improving teaching practice, however self-critique, feedback from students, and trial and error were mentioned.

## Discussion

### Professional development undertaken

Discussion between peers, face-to-face workshops, one-on-one consultation and mentoring were the most useful professional development activities undertaken by lecturers. Each of these professional development activities may be carried out in an informal manner and provide the opportunity for spontaneous exploration, discussion and sharing between participants. In contrast, reading journal articles and books, and gaining qualifications in online learning were the least popular activities undertaken and considered the least useful. The academic rigor of these activities is demonstrated through the process of peer reviews for publication. Similarly, university qualifications undergo academic auditing procedures. While the University expects teaching to be informed by research, the top four professional development activities cited in this study do not have to undergo the same rigorous review process. Ramsden (2003) proposes that effective teaching is dependent on teachers connecting their teaching strategies to research however, these findings suggest lecturers do not perceive research activities as the most useful way of developing knowledge about online teaching practices.

Attending conferences, which rated highly as a professional development activity, rated lower for usefulness, however some lecturers said they published papers and gave conference presentations as a way of sharing online knowledge with others. Do lecturers make distinctions between the roles and benefits of presenting at a conference and attending a conference? Similarly, while lecturers used websites to access examples of online learning, they indicated that the websites were not at all useful, with one lecturer stating there were not enough examples of best practice on the university website. These findings suggest that the missing ingredient from these activities may be practical information and examples lecturers need to implement online teaching (Milne & White, 2005).

A strong finding was the request by lecturers for more opportunities to hold informal discussions and view examples of online teaching practices. This finding agrees with a study by Torrisi-Steele & Davis (2000) which found that lecturers asked for examples of online teaching practices. One of the lecturers saw a video trigger in a sharing of practice which gave her an idea for a video narrative her own online course. Lecturers who have a visual learning style might find that reading about a video trigger does not

prompt the same response as seeing it working in action. Or perhaps lecturers find it difficult to conceptualise how the technology works, until it is demonstrated.

In summary, these findings concur with other studies which indicate that lecturers can benefit from collegial support, sharing experiences, ideas and examples (Ellis & Phelps, 2000; Mitchell et al., 2005; Torrisi-Steele & Davis, 2000). However in this study, lecturers have indicated that professional development activities which provide access to discussion between colleagues and examples of online teaching practice, are more than beneficial, they are seen as the most useful ways of developing knowledge about online teaching practice.

### **Skill development**

*Pedagogical:* Many lecturers initially designed their online courses with a focus for involving students in self-directed and collaborative activities. Findings show they would like to develop further skills in designing interactive courses and learning activities, suggesting their online courses might not be as interactive as they would like. Although lecturers had learned how to create multiple choice questions in the LMS, they wanted to learn how to develop assessments requiring the demonstration of analytical skills and understanding of theory. This type of assessment is recommended by Phillips & Lowe (2003) who suggest online courses should include summative assessments which examine deep approaches to learning.

Through online teaching, lecturers had learned basic facilitation skills, however they wanted to facilitate student learning more effectively, i.e., advanced skills in effective discussion and group management. This suggests lecturers need more skills than they initially acquired to develop an online course and that facilitation of discussion forums and groups need to be more effective than they are presently. Once again, lecturers asked for opportunities to discuss and view examples of colleagues teaching practices.

*Technical:* The largest response was from lecturers who had learned basic LMS functions to build their courses and wanted to learn more about LMS functionality - presumably to make more use of the LMS environment which could increase the variety of online learning strategies. The second largest response was from lecturers who said they had increased their knowledge of basic computing skills through online teaching and wanted to learn advanced computing skills. While the term computing skill was not defined by lecturers, the university's professional development booklet describes computing skills as file management and Microsoft Office.

Other technical skills developed by lecturers were the manipulation of files, digital images, HTML and Internet skills, giving them the basics for designing and teaching in a LMS environment. Learning about and teaching with these basic skills, can give lecturers the confidence to experiment further - an early adopter trait (Wilson & Stacey, 2004). Accordingly, lecturers wanted to develop further skills in images, audio, animation, e-library skills, online portfolios and digital narratives. Online portfolios and digital narratives demonstrate that lecturers are keen to adopt technologies which provide alternatives to traditional learning strategies. This concurs with Ellis & Phelps (2000), who describe a professional development study where lecturers chose to learn about a variety of file types in order to create their own technology resources.

*Research:* While teaching in the online environment provided some lecturers the opportunity to develop research skills in making conference presentations, poster presentations and writing funding grants, none of the lecturers indicated a desire to develop these or any other skills further. This may be because the institution is a relatively new university yet to develop a strong research focus, or it may be a result of workload which was alluded to in the administration category.

*Administration:* Some lecturers had learned about course planning and providing timely responses to students, as well as improving time management and organisational skills. A few lecturers wanted to learn how to reduce their workloads. The development of an institutional policy for minimising online workloads is suggested as a useful professional development activity for lecturers to undertake (Ellis & Phelps, 2000; Mitchell et al., 2005).

## Conclusions and recommendations

In this study, it would appear that early adopters perceive the development of *knowledge* about online teaching practices as the acquiring of practical skills, mainly in the technical and pedagogical areas. The professional development activities that early adopters identified as the most useful in developing these practical skills were discussion between peers, face-to-face workshops, one-on-one consultation and mentoring. These collaborative types of activities correspond with a common finding of this study, where early adopters asked for more informal opportunities to talk with colleagues and view examples of practice. This suggests that early adopters perceive professional development activities which promote the sharing of experiences and examples of practice, as the most useful ways of developing knowledge about online teaching practices.

In contrast, the findings suggest that early adopters found it less useful to read a journal article or book, or engage in a conference presentation about online teaching practices. This does not mean that these types of professional development activities are not engaged in or are ineffectual. However, these findings suggest that early adopters see the development of practical skills, in particular technical and pedagogical, as key in developing online teaching practices. The practical development of these new skills are best supported in collaborative environments, where examples can be demonstrated, strategies discussed and new ideas or technological products peer reviewed.

This paper recommends that more research be undertaken to determine how the less useful professional development activities identified in this study, in particular conferences and websites, could better meet lecturers' needs.

Another recommendation is that the acquisition of technical skills required for online teaching should not be limited to LMS functions, but should encompass a wide variety of hardware and software skills, i.e., computing skills such as file management, university supported standard software, Internet and multimedia along with relevant input and output devices. This combination builds technological knowledge, which provides lecturers with the capabilities to create and facilitate products which will ultimately be used by students to demonstrate deep approaches to learning, e.g., e-portfolios and digital story telling.

This study found that while early adopters were interested in designing interactive courses and assessment methods which promote deep approaches to learning, like many untrained teachers, they were only able to achieve this to a limited pedagogical level. Accordingly, early adopters indicated the desire to develop advanced pedagogical skills in order to design a more effective and interactive learning environment, as well as alternatives to traditional online assessment types. It is recommended that professional developers take advantage of early adopters being open to alternative strategies by promoting student-centred learning and authentic assessment approaches. For this University, the New Zealand E-Learning Guidelines would assist the nurturing of these approaches and aid the identification of best practice examples.

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