# Effective professional development for e-learning: What do the managers think?

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### Abstract

Introducing new methods of teaching and learning requires an institutional approach to professional development in order to cater for the different levels and requirements of staff. The increase in e-learning use has prompted many institutions to adopt a whole organisation approach to professional development for lecturers.

This paper proposes to answer three related questions. How do institutions of vocational education within New Zealand structure their institutional provision of e-learning professional development? What training or other development opportunities are provided by institutions? What do e-learning managers feel are the types of e-learning professional development that work best in terms of lecturer development and support?

A literature review was completed and interviews were held with e-learning managers from 13 institutions. The data collected from the interviews were then analysed using a grounded analysis approach.

The analysis process yielded concepts that were related to different types of professional development training, information and support. The analysis provided a structure of professional development. Furthermore, the efficiency of the types of e-learning professional development was analysed based on e-learning managers' perception and evaluation models. Professional development with opportunities for skill acquisition and collaboration was deemed the most effective.

## Introduction

Professional development has long been perceived as a way to effect change in the educational sector and is used at both the compulsory and post-compulsory stages. There are often centres in tertiary institutions that are charged with all forms of academic and professional development, ranging from short courses to teaching qualifications. In considering an institution's approach to professional development, it is important to determine which forms of professional development are useful in effecting changes to teaching and student outcomes. This paper examines managers' perceptions of professional development approaches with particular focus on e-learning use in the vocational institute sector.

## Review of the literature

Previous studies have focused on the various forms of professional development offered. One such study (Prebble *et al*, 2005) identified that various forms of professional development activities

**Practitioner Notes**

What is already known about this topic

- Academic staff need new skills to teach e-learning.
- There are different levels of professional development, which vary in duration and scope.
- Professional development needs to be relevant for academic staff to benefit.

What this paper adds

- This paper discusses the types of professional development made available at tertiary institutions for staff new to e-learning.
- This paper explains what e-learning managers feel is the most effective professional development format.
- This paper analyses why the e-learning managers feel this format is the most effective.

Implications for practice and/or policy

- Managers will be better informed why particular types of professional development for e-learning work well.
- Academic staff will be better informed about what professional development might best suit them.
- Academic staff will be better informed about what managers feel about effective professional development and be able to have a greater role in the evaluation feedback cycle.

linked more closely to improved student outcomes, even though it was problematic to determine how to quantify this link. The authors identified the fact that professional (or as they referred to it, academic) development had to be seen as offering two separate links. First, there is the link between academic development and teaching practice, and then the link between teaching practice and student outcomes.

The types of professional development identified in the study ranged from short-term training to longer-term courses, in some cases leading to a qualification (Prebble *et al*, 2005). Short courses are recognised as appropriate for providing new skills (Hegarty *et al*, 2005; Prebble *et al*, 2005; Wilson, 2007). However, lecturers felt that the professional development focused more on the technical aspects of e-learning rather than pedagogical issues (Ham & Wenmouth, 2007; Hegarty *et al*, 2005; Prebble *et al*, 2005).

Staff promotion is often linked to completion of a teaching and learning qualification. The compulsory qualification provides a vehicle to incorporate exposure to e-learning concepts to new staff. However, there are often issues including non-completion and poor modelling of online teaching (Hegarty *et al*, 2005; White & Milne, 2005; Wilson, 2004).

Wilson (2007) sees professional development for e-learning as a "change process" (p. 122). It is a whole of organisation's approach to implementing e-learning including strategies for "diffusion of innovation," "peer learning," embedding practice, "project based," "online professional development" and "accredited courses" (pp. 123–135). Wilson also identified offerings ranging in level from novice to expert.

Other studies indicate that although creating models of professional development is useful, the important component is how the professional development fits with staff perception (Desimone,

2009; Knight, Baume, Tait & Yorke, 2007; Stein, Shephard & Harris, 2011). Desimone suggests that it is more appropriate to consider the "characteristics" of a professional development activity rather than the "type" of activity. Her core characteristics or concepts are "content focus," "active learning," "coherence," "duration" and "collective participation" (2009). It is significant that these features or characteristics are what teachers identify as factors in changing classroom practice (Desimone, 2009).

Stein *et al* (2011) describes the perceptions of academic staff as fitting into four categories: professional development as training to acquire new skills, as opening up possibilities to use technology in teaching and learning, collaborative exercises and, finally, that professional development is about "relevance and purpose" (pp. 157–159). The acquisition of skills refers particularly to technical skills related to e-learning.

Figure 1 illustrates the two classifications of characteristics. There is considerable overlap between the perceptions outlined by Desimone (2009) and Stein *et al* (2011). They refer to similar concepts such as "relevance" and "coherence." Desimone (2009) perceives a strong link between the professional development being offered and the knowledge and beliefs of the teachers. For Stein *et al* (2011), the focus is also on how the learning fits in with the context that staff find themselves in. Professional development will be more effective when staff can directly apply it to their own situation.

Desimone's (2009) content focus relates to subject matter content and how it might be taught, and the skill acquisition in the paper of Stein *et al* (2011) relates to gaining a skill to help them teach. However, perhaps the strongest link is between collaboration and collective participation. Both focus on the learning that occurs within groups, either a whole school or as part of a project.

*Measuring the effectiveness of professional development*

The papers of Desimone and Stein *et al* both recognise the importance of identifying characteristics that are significant to staff as a method of measuring the effectiveness of professional development. Kirkpatrick's Four Levels of Evaluation has been used extensively to evaluate training (1998). The tool is intended for use by managers who wish to determine the effectiveness of the training. Kirkpatrick's tool identifies the four levels of evaluation as reaction, learning, behaviour and results. The reaction relates to positive feedback about the training. The learning relates to the increase in staff knowledge or skills. The behaviour relates to the application of that knowledge within the staff member's position. Finally, the results relate to the effect the training has upon the organisation (Kirkpatrick, 1998).

Rossett (as cited in Hardt, 2010) questions the relevance of Kirkpatrick's tool for e-learning professional development. His concern is the fact that most of the evaluation occurs at the first two levels and does not provide a clear indication of the effect of the e-learning training on the
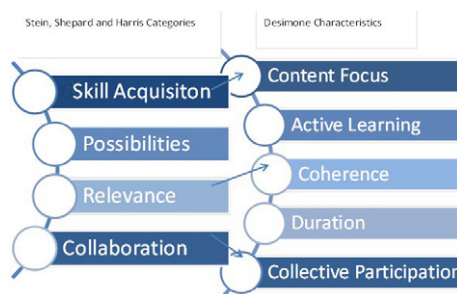


*Figure 1: Comparison of characteristics of professional development*

individual and the organisation. Training that demonstrates a change in behaviour is critical for embedding e-learning in an organisation (Wilson, 2007).

Mentoring was also identified in the literature (Knight *et al*, 2007; Kopcha, 2010). In this context mentoring meant an e-learning specialist providing ongoing assistance to the lecturers who later become e-learning champions. The champions were generally based within schools/faculties. In most cases, such individuals were the early adopters of e-learning (Holtham, 2005).

Research (Hegarty *et al*, 2005) shows that working in project teams may be the best approach to developing online courses as it provided opportunities for staff to learn in the context of their own subject area. In the study (Hegarty *et al*, 2005), lecturers indicated that they enjoyed the team approach because it provided different perspectives and meant individuals could work to their strengths. Social learning is highlighted by another study (Knight *et al*, 2007), which indicates that professional development takes place as interactions between colleagues in a departmental context.

Another study found that the stages of career may determine staff preference for the type of professional learning. More formal professional development was used often by mid-career staff, while informal learning decreased over the duration of a staff member's career, particularly those activities that included collaboration (Richter, Kunter, Klusmann, Lüdtke & Baumert, 2011).

Anecdotal evidence would indicate that it may be a combination of professional development approaches. These approaches may include short courses to introduce specific skills, project-based work to look at instructional design of the overall programme of study and longer-term courses to experience online learning and observe good models of effective online teaching (Hegarty *et al*, 2005; Kopcha, 2010).

## Methodology

The principal focus of the data collection and analysis methods used within this paper was to gain an in-depth view of the institution's approach to professional development and support for lecturers. Therefore an interview format, suitable for providing detailed, qualitative data, was used (Cohen, Manion & Morrison, 2004; McCracken, 1993; Punch, 2005).

*Participants' selection process*
e-Learning managers from 13 New Zealand vocational institutes participated in the study. The institutions these managers represented ranged in size and qualification level. These institutions offer a range of qualifications from certificates, diplomas and degrees; a few of the institutions also offer graduate qualifications. At the time of the interview, their responses were recorded and later transcribed.

*Data analysis*
The e-learning managers' interviews were analysed using a grounded theory approach, with Nvivo software (QSR International Pty Ltd, Doncaster, Victoria, Australia) (Bringer, Johnston & Brackenridge, 2006). The grounded theory approach allowed the researcher to compare and contrast themes and relationships between the topics discussed by the participants (Strauss & Corbin, 1990).

Description of grounded theory process
The process for analysis in a grounded theory approach is for researchers to immerse themselves in the data, identify particular concepts and then analyse additional data with these concepts. This process known as coding allows categorisation of the data into the different concepts (Strauss & Corbin, 1990).

Coding
Open coding is the process of "categorising data" or finding common themes within the data (Strauss & Corbin, 1990). The process was to read through the text to find the term

"professional development" or any related terms, such as "training." Notes were made in the form of "memos" as recommended by Charmez (2006). Axial coding is the next stage and it identifies relationships between the concepts and how they might be categorised (Strauss & Corbin, 1990).

## Professional development concepts

The first phase was to examine the interview questions:

1.  What professional development in e-learning is offered at your institution?
2.  Which of the professional development approaches do you believe has resulted in greater tutor satisfaction, student satisfaction, student success and level of student interaction; please provide some detail.
3.  How do the staff in your institution keep up with new technology and teaching practices?
4.  Does your institution use e-learning mentors or champions? If so, how are they used?

*Terminology used by the e-learning managers*
The responses were related to the type of professional development offering such as "small group," "one to one," "skills training," "just in time (JIT)," "workshops," "school/project based," "building learning communities," "peer support," and "external experts." Many e-learning managers used the term "small group," "department" and "school" somewhat interchangeably. Because of the overlap of these terms, it was sometimes difficult to distinguish between a formal or informal training session.

Structure of the professional development
The e-learning managers responded that their institutions offered different formats of professional development for lecturers wishing to use e-learning. Several outlined "professional development sessions" but did not indicate the content covered. Half of the e-learning managers specifically mentioned some form of technical skills. In reference to skills, one e-learning manger indicated the need to "get this sorted before" moving on to the instructional design phase.

Duration of the training was not always made explicit. It ranged from 1 hour, 2 or 3 days, 1 week or longer. The shorter the session, the more specific the topic tended to be, "training which is linked to what the tutors [lecturers] need to know based on how they're using e-learning." Longer-duration professional development components were generally focused on pedagogy. One interviewee discussed the concept of a community of practice within a department that had ongoing long-term activities, where "participants were building learning communities."

Six of the institutions identified their tertiary teaching qualification as having e-learning components. One e-learning manager identified the fact that lecturers may go on to use e-learning themselves as a result: "There are quite a few opportunities coming out of that for tutors [lecturers] to actually experience e-learning as students and to subsequently use these tools and concepts in their own courses."

e-Learning managers also described external courses/programmes. Self-study was by way of reading, research or higher degree qualifications, "Internet or other study, for example, Masters, etc," while other lecturers were involved with external study in e-learning specific courses or attended conferences.

Mentoring and champions
The area of mentoring support was made up of two aspects, mentoring and the concept of champions. Of the 13 e-learning managers, only four indicated that there was a formal structure to the champions' role and in one case some champions had received workload or time release, "At various times, there were individuals in schools who had a workload allocation to support staff."

Seven e-learning managers indicated that there were champions, but as one indicated "there is no formal structure." The remaining two interviewees reported that there was no champion/mentoring structure. It was noteworthy that the size of the institution did not have a bearing on whether there was a formal structure in place. There was an equal spread of informal and formal structures with one of the larger institutions having no structure in place.

There was concern expressed by at least one e-learning manager about "champion burnout" where the mentoring "put a lot of undue pressure on these people and distracted them from their teaching." This was particularly so as they often did their mentoring on top of their own role.

Other types of support
Other types of support included technical support, where assistance was provided to both staff and students through a help desk and online guides. Five e-learning managers indicated that their institutions used e-forums and two used newsletters to promote e-learning.

*The overall picture*
Once all of the concepts were identified, they were grouped into categories as part of the axial coding process.

Having established the formats, how do they fit together? Figure 2 is a proposed structure for professional development by grouping the formats into categories. The groupings appear in a stepped format of professional development offerings in the participating institutions. On the bottom level is more short-term skill-based training. On the next level are workshops, external speakers and conferences. On the next level up are courses of any duration whether internally provided or externally recommended. On the top level of the diagram are the occurrences of longer-term project-based approaches, department level development and mentors.

Can it be assumed that there is an automatic stair casing of training? Wilson (2007) indicates that professional development can range in levels of expertise. This structure does provide a progression from basic skills to higher level application of skills. However, it is not simply a change in skills or knowledge in the individuals involved that is important, but more a change to the way an organisation operates by changing the way groups within departments work together. Therefore, the structure may be more closely aligned to staff perceptions of e-learning professional development and characteristics linked to change in classroom practice (Desimone, 2009; Stein *et al*, 2011).

**What professional development works best**
The final component of the analysis was to determine what formats are most effective. In this context, effectiveness is from the e-learning managers' perspectives. As the data did not include academic staff perception of effective professional development, the managers' perspectives will be contrasted with findings from the literature.

The responses from the e-learning managers are shown in Figure 3. Although there was an implied understanding that organisations used a systematic approach to offering professional development, the distribution of responses is not equal across the four categories. There was only
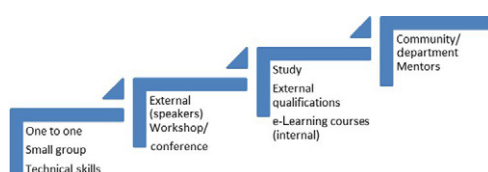


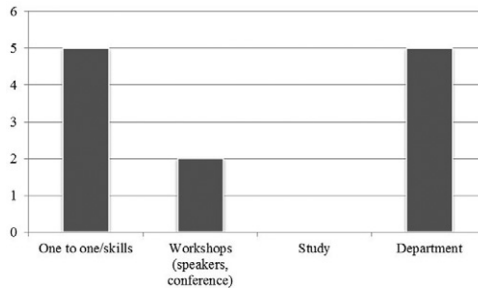*Figure 2: Structure of professional development*

*Figure 3: Distribution of responses—What works best?*

one e-learning manager who indicated that all the approaches worked equally well. There appeared to be no correlation between the e-learning managers' response and the size of their organisations or to the number of individuals supporting e-learning at the organisations. Smaller institutions with fewer support staff were just as likely to indicate that department-based development was as effective as skill-based development.

What criteria did the e-learning managers use to determine the most effective formats? None of those interviewed mentioned specific criteria or evaluation tools; apart from project outcomes and student evaluations, there was no way to evaluate the professional development directly. However, there was a great deal of consensus about how success could be measured, particularly in terms of staff being able to directly apply the skills they have gained through the training and to gain from an ongoing relationship within a department group. The perceptions of many of the e-learning managers were typified by the following comment, "Really it's been the hands-on session that have been the most useful." The skills gain for lecturers may also have a positive effect on student outcomes (Chen, 2011), completing the second level of change outlined by Prebble *et al* (2005). One e-learning manager indicated, "As tutors gain in confidence they think more about how to use the technology to make it interesting for the students."

The ongoing relationship in department groups was described by one e-learning manager as "The approach that has the most impact is the professional development at department level. It is really about creating a community of practice within the groups where staff can support each other."

The following statement is from the e-learning manager who felt that all formats were effectively used these types of statements to describe the success of the formats:

Each approach has different benefits; project based is great for developing individuals who can go on and help others or inspire others. Department work is good for communities of practice, JIT helps solve problems and two hour training sessions help introduce new features or technology.

Although there has been recent criticism of Kirkpatrick's (1998) Four Levels for evaluating training, it is still a widely accepted framework to use (Hardt, 2010). In this previous statement, the e-learning manager identifies new skills that are at the Kirkpatrick Learning Level. JIT training allows knowledge to be applied, so it would be at the Behaviour Level, and the communities of practice are having an effect on the organisation, so they would sit at the Results Level, the highest levels of the evaluation scale.

Another form of evaluation might be to look at the e-learning managers' responses in terms of the characteristics of the professional development. One format that scored well was based on learning skills, sitting within the skill acquisition and content areas of the characteristics and category classifications described in the literature (Desimone, 2009; Stein *et al*, 2011). The other format was working as a department, which sits within the collaboration and collective participation in the same classifications (Desimone, 2009; Knight *et al*, 2007; Stein *et al*, 2011). Analysing the results

in terms of these classifications gives credence to why these two formats, learning skills and working in departments, work well. Yet, why did the "study" format not score well? Surely, the teaching qualification would provide opportunities to engage with others in collective participation? The issue here may relate more to the relevance and purpose described by Stein *et al* (2011). If the qualification is compulsory, academic staff may not have agreed on the relevance of the programme objectives to their own teaching situation and long-term goals (Cooper, 2004; Duncan-Howell, 2010; Knight *et al*, 2007).

## Conclusions

This paper proposed to answer three related questions. How do institutions of vocational education within New Zealand structure their institutional provision of e-learning professional development? What training or other development opportunities are provided by institutions? What do e-learning managers feel are the types of e-learning professional development that work best in terms of lecturer development and support?

The study determined that institutions had a number of different types and levels of professional development, which fit broadly into a four-tiered structure progressing from more basic technical skills to immersive collaboration where learning communities were created.

The e-learning managers indicated that the type of professional development that works best is different depending on the need for this training. There was an agreement that skill sessions helped individual lecturers overcome problems, areas that allowed for collaboration like project work helped develop champions and department-based professional development promoted peer support and communities of practice (Desimone, 2009; Kopcha, 2010; Stein *et al*, 2011; Wilson, 2007). Compulsory qualifications that contained e-learning components did not appear as successful, possibly due to the lack of consensus of shared objectives (Cooper, 2004; Duncan-Howell, 2010).

What is the relevance of this study for e-learning managers? This study provides an insight into the perceptions of those charged with developing staff on the use of learning technology and enabling them to teach online. It outlines the types of professional development that e-learning managers feel work well. What is the relevance of this discussion to academic staff, those who are teaching or expected to teach using e-learning? This study identifies the effectiveness of training and professional development from the e-learning managers' perspectives, not the academic staff perspectives. However, knowing more about the managers' perspective will assist staff in knowing what professional development formats may work best for them. Knowing what works well enables staff to become catalysts in the evaluation feedback loop, ensuring a better match with the perceptions and expectations of both groups.

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