Professional development for e-learning: A framework for the New Zealand tertiary education sector

Tertiary e-learning research funded by the Ministry of Education

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Executive Summary

Introduction and approaches

1. New Zealand is one of many developed nations that is exploring the role that e-learning may have in strengthening its education system and tertiary education's contribution to national development. Since the early 2000s New Zealand’s tertiary education sector’s e-learning capabilities have been the subject of considerable discussion, research and promotion. Several studies and reports have highlighted professional development (PD) for e-learning as a priority so that teachers may best support and encourage their students’ learning.

2. The broad aim of the research reported here was to devise a strategic framework to support professional development for e-learning within New Zealand’s tertiary education sector. The research was supported by grants from the Ministry of Education New Zealand for two projects; Professional development for e-learning in the tertiary sector (the Otago University team) and Professional Development for e-learning: Adoption, Implementation and Improvement (a consortium team based around Massey University). The topics arose from stakeholder feedback to the Ministry on previous e-learning projects.

3. The Otago project started with a review of research in the UK, Australia and NZ with a focus on PD for e-learning in order to establish a structural basis for a PD framework and a preliminary outline of the framework. The Otago team proposed that the adoption and success of any PD framework would depend on how individuals related to the framework and its mode of operation. In this context, their conceptions of e-learning and of PD for e-learning would likely influence the application of the framework to them and to their professional development. The Otago team then set out to explore variation in the conceptions held by teachers, and by those who support teachers, of e-learning and of professional development for e-learning so as to better understand the likely application of the framework.

4. The Massey-led project focussed on the factors that influence the uptake and delivery of current professional development opportunities in institutional contexts and involved an on-line survey and semi-structured interviews to examine the beliefs, experiences and practices of individual staff. These methods were used to explore staff and institutional capabilities and to consider the implementation and embedding requirements for the adoption of, and continuous improvement in, e-learning. The research drew on experiences of staff to help identify priorities for e-learning PD and to identify strategies and/or materials which could be used by NZ tertiary education organisations (TEOs) to inform current and future need, priorities and practices associated with e-learning PD.

5. The two projects worked collaboratively for much of 2007, using a wide range of research approaches, and came together to develop a framework and associated
resources to support the ongoing PD for e-learning of teachers, and of those who support them, in the tertiary sector.

Results leading to the development of a PD for e-learning framework

6. Despite the impressive range of research on this and related topics and the breathtaking extent to which governments, representative bodies and institutions have developed and implemented strategies to achieve certain outcomes, the range of approaches to promote professional development for e-learning, described by the Otago team from the international literature, may be simply categorised. Whether the perspective is that of an individual teacher, a particular academic department, an institution or a segment of the tertiary education sector, those who seek to influence can do so by providing direction (leading the way), by persuasion (by providing incentives; reward and recognition) or by coercion (with obligations and penalties).

7. The online survey conducted by the Massey-led project demonstrated that the top five ranked approaches for PD for e-learning are: sharing knowledge with colleagues; spontaneous learning arising from work or personal activities; learning through informal discussions in the workplace; regular reading of journals and books relevant to a profession; and acquiring knowledge through browsing websites or ‘surfing the net’. These can all be classified as informal activities, defined for the purposes of the survey as “activities undertaken that increase your knowledge in a particular area but which are not formally acknowledged”. There was also a high level of awareness of more formal e-learning PD courses available across institutions (71 %), and a much lower percentage of respondents (53 %) having engaged in some form of either formal or informal professional development for e-learning.

8. Phenomenographic research conducted by the Otago group resulted in a description of the domain space of e-learning (5 categories) and of PD for e-learning (4 categories). The categories describe substantial variation in the ways that teachers, and those who support teachers, conceptualise these phenomena.

9. Massey’s interviews to record, contextualise and review the experiences of staff demonstrated different and varied trajectories in their e-learning journeys, and staff had different expressed PD needs, capabilities and self efficacy. Moreover, the interviews demonstrated the importance and impact of institutionally specific factors related to policy and practice influencing uptake and continued engagement in e-learning, and e-learning professional development. For example, infrastructural, policy and social connections were often poorly linked, causing both confusion and frustration for staff. Staff sometimes struggled to negotiate institutional structures, particularly where support was dispersed across different organisational units. Managerial support was seen to be important by staff, but was not always forthcoming. Staff expressed a desire for recognition and
allowance for the time commitment needed for building e-learning capability through PD, with recognition in workloads.

10. The two research groups developed a PD framework (see diagram below) that variously combined practitioner participation, leading the way, and incentivisation (via reward and recognition), conceptualised within a development spiral. Working at all levels the framework suggests an iterative sequence of analysis and activity. This always starts with an analysis of development needs, of incentives for development and of opportunities for development. This is continued through active engagement in learning or research and is followed by an evaluative exploration of progress. This professional development framework reflects the five principles underlying the interim Tertiary e-learning Framework; outlines levels of analysis and activities concerning the development of teachers engaged in e-learning and those who support them at all levels in the tertiary sector; and is intended to be used by Government, TEOs, tertiary teachers and their academic units, professional development groups, and other relevant stakeholders.

Discussion and application of the framework

11. It is clear from both the Otago and the Massey research that there is a wide diversity of belief, opinion and practice amongst staff, and that these are informed and shaped with and through an equally diverse range of institutional contexts. In addition, e-learning and professional development are not static concepts but are subject to continual forces of change and innovation. Consequently, it is not possible to identify a particular policy or strategy, a mode of implementation, or prescriptive action, which will be entirely appropriate for any given individual or institution.

12. The Otago research highlights a range of conceptions about e-learning and e-learning PD held by tertiary teaching staff and teaching support staff, including insights into what they would like to have in the way of professional
development, and in what form. The Massey team’s research emphasises the ways in which conceptions, experiences and practices are shaped in institutional settings, and the factors which both constrain and enable uptake, engagement and implementation of e-learning PD. E-learning PD within institutions is influenced by conceptions of e-learning as highlighted by the Otago research. The way in which e-learning is used, experienced and shaped at the institutional level, and the broader macro level of the tertiary sector is highlighted in the Massey research. The sum result is a rich account of how e-learning and e-learning PD is shaped by the conceptions, experiences, beliefs and preferences of a wide range of teachers, managers and support staff in TEOs. Acknowledging and understanding the voices of TEO staff and recognising the influence of diverse institutional contexts is critical if the framework outlined above is to be usefully applied. Although informed by different philosophical perspectives and orientated towards different aspects of e-learning and professional development, the Otago and Massey studies are complementary. Together they create a coherent foundation for e-learning and PD practice in New Zealand’s TEOs and for the implementation of the framework.

13. The two projects also worked together to identify two substantial approaches to promote application of the agreed framework. The Otago team approached the application of the framework through the generation of vignettes. To make explicit links between the conceptions discovered in the Otago study and the PD framework, vignettes of fictional individuals who represent combinations of the conceptions were developed. The Massey team approached the application of the framework through the generation of key principles that could be examined by institutions to help them develop their e-learning and PD strategies in line with the framework.

14. Evaluation is irrevocably built into this framework and will be accomplished as individuals, institutions and governance bodies at all levels engage with this development spiral.
Part A Introduction to the Final Report

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Table of Contents

PART A INTRODUCTION TO THE FINAL REPORT .................................................. 2

THE AIMS OF THE RESEARCH PROJECTS ........................................................................ 3
OUTLINE STRUCTURE OF THE FINAL REPORT ............................................................ 3
ACKNOWLEDGEMENTS ........................................................................................................ 4
Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part A  Introduction to the final report

Since 2003 the Ministry of Education has supported a number of related projects to inform the strategic development of e-learning for tertiary education organisations in New Zealand.

This is the joint final report for two 2006/2007 Tertiary e-learning research projects funded by the Ministry of Education, New Zealand. The two projects are;

**Otago University**  
**Professional development for e-learning in the tertiary sector**  
Project team; Professor Kerry Shephard, Dr Sarah Stein and Irene Harris.

and

**Massey University**  
**Professional Development for e-learning: Adoption, Implementation and Improvement**  
Project team: Dr Juliana Mansvelt, Duncan O’Hara and Gordon Suddaby  
In association with  
Sue Dark and Cheryl Brown (Open Polytechnic); Bronwyn Hegarty (Otago Polytechnic); Teri McClelland, (Southern Institute of Technology); Alison Holmes and Derek Chirnside (University of Canterbury) and Dr Amanda Gilbert (Massey University).

This final report is presented by both project teams.

Each of these projects submitted a separate, successful bid in response to the Ministry of Education’s invitation for proposals for tertiary e-learning research in 2006. As each project had a different but complementary focus on aspects of professional development for e-learning the Ministry was keen for the projects to collaborate. This collaboration has led to the production of a framework for professional development for the New Zealand tertiary education sector – this is included as Part F of this final report.
The Aims of the Research Projects

The Otago project started with a review of practices in the United Kingdom, Australia and New Zealand and then focussed on conceptions of e-learning and professional development for e-learning. The research study set out to highlight the range of conceptions of e-learning and professional development for e-learning held by teachers and support staff within a range of New Zealand tertiary institutions.

The Massey-led project focussed on the factors that influence the uptake and delivery of professional development (PD) in institutional contexts and involved an on-line survey and interviews to examine the beliefs, experiences and practices of individual staff. It was intended to explore base-line capabilities for the adoption of e-learning by New Zealand Tertiary Education Organisations (TEOs) and their teaching staff, and to consider the implementation and embedding requirements for adoption of and continuous improvement in PD for e-learning. The research was also intended to draw on experiences of staff to help identify priorities for e-learning PD to support teaching staff. A further aim was to identify strategies and any tools/material which could be used by New Zealand TEOs to inform current and future need, priorities and practices associated with e-learning PD.

It was the intention of the researchers that these aspects be brought together in the form of a framework which could be applied to TEOs, produced jointly by both teams.

Outline Structure of the Final Report

In accordance with their projects plans each research team produced a number of separate reports. These are included as part of this final report – Parts B-E.

In addition, the teams jointly produced the framework for professional development and the Ministry arranged a workshop for the teams, to assist this process – Part F. Following the joint production of the framework the teams decided to produce a single final report to cover both projects which would include the individual projects reports, the framework and a jointly produced discussion and recommendations. This report comprises:

Title page and executive summary
Part A: Introduction to final report
Part B: Otago literature review. An international environment scan of e-learning professional development initiatives
Part C: Massey literature review. Professional development for e-learning: adoption, implementation and improvement
Part D: Otago research report. Phenomenographic research and analysis
It is important to note that Parts B-E of this final report have been written as separate and stand alone outputs from the two projects. As such, readers may find that there is some overlap in these reports. However the outcomes from the project are complementary and the collaboration across two different approaches has proved to be valuable in informing the framework for professional development and the direction of future work in this area. For most readers we expect that the executive summary and the framework (Part F) and the discussion and recommendations (Part G) will prove to be of most interest with reference to the supporting detail in Parts B-E as required.

Acknowledgements

Both project teams appreciate the funding made available by the Ministry of Education for tertiary e-learning research and the advice and support of Danny Wolters and Peter Guiney during the projects.

The Massey-led research team wishes to acknowledge;

- The time, effort and contribution of the survey and interview participants, without whom the research would not have been possible.
- We are hugely grateful for the input of colleagues in our partner institutions: Sue Dark and Cheryl Brown (Open Polytechnic); Bronwyn Hegarty (Otago Polytechnic); Teri McClelland, (Southern Institute of Technology); Alison Holmes and Derek Chirmside (University of Canterbury). Their assistance in developing and administering the survey, soliciting interview participants and in providing feedback and advice on the research was invaluable.
- We wish to acknowledge and appreciate the assistance of Dr Amanda Gilbert (Massey University) who produced the first draft of the Massey literature review contained in this report. Thanks also to Dr Alistair Noble and Maris Isidro of Massey University for their help in analysing the online survey.

The Otago research team would like to thank all participants for their time and contribution to the survey and the interviews for the phenomenographic research. In the early stages of the research a number of colleagues at Otago helped in the development and trialling of the on-line survey and their assistance was very much appreciated.
Part B  Otago Review - An international environmental scan of e-learning professional development initiatives

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Table of Contents

1.  OVERVIEW OF THE TERTIARY E-LEARNING RESEARCH PROJECT AND ENVIRONMENTAL SCAN ................................................................. 3
  1.1 INTRODUCTION .......................................................................................................................... 3
  1.2 BROADER CONTEXT ......................................................................................................................... 3
  1.3 STRUCTURE OF THIS REVIEW .................................................................................................. 4

2  SUMMARIES OF THE TOOLS, POLICIES, AND PRACTICES FOR E-LEARNING DEVELOPMENT AND RELATED PROFESSIONAL DEVELOPMENT IN AUSTRALIA, THE UNITED KINGDOM AND NEW ZEALAND ............................................ 5
  2.1 AUSTRALIA .................................................................................................................................. 5
      2.1.1 National level directions for all educational sectors .......................................................... 5
      2.1.2 Directions for the Vocational Education and Training (VET) sector ............................... 6
      2.1.3 Directions for the higher education sector ......................................................................... 7
      2.1.4 Direction by professional bodies ..................................................................................... 9
      2.1.5 Summary .......................................................................................................................... 10
  2.2 UNITED KINGDOM .................................................................................................................. 11
      2.2.1 National level directions for all educational sectors ......................................................... 11
      2.2.2 Directions for vocational and further education.............................................................. 12
      2.2.3 Directions for the higher education sector ...................................................................... 14
      2.2.4 Directions from professional bodies ................................................................................ 17
      2.2.5 Summary .......................................................................................................................... 18
  2.3 NEW ZEALAND ......................................................................................................................... 18
      2.3.1 National level directions for all educational sectors ....................................................... 18
      2.3.2 Directions for the tertiary sector ..................................................................................... 19
      2.3.3 Summary .......................................................................................................................... 22

3  REVIEW OF RELATED INITIATIVES IN AUSTRALIA AND THE UNITED KINGDOM

  3.1 AUSTRALIA ................................................................................................................................. 24
      3.1.1 ACODE Benchmarks ........................................................................................................ 24
Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part B: Otago literature review. An International environmental scan of e-learning professional development initiatives

3.1.2 Australian Flexible Learning Framework .................................................................27
3.1.3 ICT and Their Role in Flexible Learning - AUTC project .......................................31
3.1.4 Developing Capacity to Integrate IT into Higher Education Teaching and Learning...34
3.2 UNITED KINGDOM ........................................................................................................39
   3.2.1 HEFCE’s eLearning Strategy and subsequent direct developments ....................39
   3.2.2 Professional Development Framework for E-Learning in Further Education ........42
   3.2.3 EFFECTS and related projects ........................................................................45
   3.2.4 UK Professional Standards Framework – for Higher Education .........................50

4 SUMMARY, ANALYSIS AND AN OUTLINE FOR A FRAMEWORK ..............................53
   4.1 SUMMARY - KEY THEMES WHICH EMERGE .......................................................53
   4.2 TOWARDS AN OUTLINE PROFESSIONAL DEVELOPMENT FRAMEWORK FOR E-LEARNING ..........................54

5 REFERENCES ..................................................................................................................57
1. Overview of the Tertiary E-learning Research Project and Environmental Scan

1.1 Introduction

This international environmental scan of e-learning professional development initiatives has been prepared as an interim report for a tertiary e-learning research project, ‘Professional development for e-learning in the tertiary sector’, funded by the New Zealand Ministry of Education and conducted by the University of Otago. The project team are Professor Kerry Shephard, Dr Sarah Stein and Irene Harris.

Since 2003 a number of related projects have been supported in order to inform the strategic development of e-learning for tertiary education organisations in New Zealand. In this project we aim to build upon earlier work and also work in collaboration with a current tertiary e-learning research project led by Massey University on ‘Professional Development for E-Learning: Adoption, Implementation and Improvement’. As part of this collaboration we have used the literature review from the Massey project to inform our work and we wish to acknowledge their contribution.

The overall focus of this international environmental scan of e-learning professional development initiatives is to examine approaches to e-learning development and professional development programmes which are building e-learning capabilities in the tertiary sector. A number of tools, policies and practices that have been, and are being used, particularly in Australia, the UK and New Zealand are examined, to try to assess which factors have worked, in order to inform the preparation of an outline draft framework for professional development.

This outline professional development framework will form the basis for empirical research in later parts of the project and contribute to the specific project objectives of:

- Identifying processes of professional development in e-learning that have succeeded internationally;
- Informing the articulation of the nature of e-learning competencies;
- Identifying future e-learning professional development requirements for New Zealand tertiary institutions and their teaching staff.

1.2 Broader context

It is difficult to identify when in recent educational history the concept of e-learning entered the mainstream of educational thinking. Leaving aside the issue of how we define e-learning, it was not that long ago that many academics, departments and institutions did not allow students to submit assignments that were generated using a word processor. Many issues were at stake including that of equal opportunities and unfair advantages given to those who had access to new technologies and who had developed these new communication skills. How different it is today where many students submit assignments via their computers, and indeed where most use computers and the Internet to help prepare their assignments. In just about all institutions and most subject areas, the use of computers to support learning is normal practice. Going further than that, the skills so shunned by academic staff in the past...
are now considered to be essential elements of the skills-base needed by students to learn and by staff engaged in teaching and supporting learning. E-learning is considered by many to be central to the mission of tertiary education whether as a contribution to distance learning, to open and flexible learning or indeed to conventional learning in a ‘blended’ format. It is also an area where a wide range of support staff is commonly involved in learner support, working alongside conventional tertiary academics/teaching staff.

New Zealand is one of many developed nations that are exploring how e-learning will benefit education and tertiary education's contribution to national development. It is widely recognised that these benefits are significantly dependent on how teaching staff and teaching-support staff are motivated, supported and rewarded to develop the skills and inclination to use e-learning. Staff development is rightly seen as a critical and limiting factor. It is vital that New Zealand learns what it can from experiences overseas, paying proper attention, of course, to the applicability of these experiences here. Many research and development projects around the world have demonstrated what limits uptake of e-learning and many projects are underway or have been completed to overcome these limitations. The following sections of the review consider a number of different approaches to assisting teaching and teaching-support staff to adopt e-learning in their teaching and to draw lessons from them in terms of their appropriateness for the New Zealand context.

1.3 Structure of this review

Section 1 Provides an overview of the project and the international environmental scan of e-learning professional development initiatives.

Section 2 Seeks to summarise the tools, policies and practices for e-learning development and related professional development in Australia, the United Kingdom and New Zealand.

Section 3 Reviews a number of particular initiatives and interventions in Australia and the United Kingdom to identify and illustrate trends, issues, strategies and success factors and to consider their relevance for the New Zealand tertiary sector and the development of a professional development framework.

Section 4 Analyses findings and identifies factors which determined or influenced success within the e-learning developments and related professional development tools, policies and practices. These factors will be used in the empirical part of the project.
2 Summaries of the Tools, Policies, and Practices for E-learning Development and Related Professional Development in Australia, the United Kingdom and New Zealand

In this section we consider the main approaches to e-learning across the education sector in each country. Against this broad context we consider the key policies and approaches adopted for the tertiary education sector especially with regard to professional development. For Australia and the UK we have looked separately at the Vocational or Further Education Sectors and at Higher Education as that is how they are organised in the main. For New Zealand we present the review for the Tertiary Sector overall as this fits best the policies and approach adopted.

2.1 Australia

2.1.1 National level directions for all educational sectors

In 2000, the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) issued a joint statement on behalf of all the sectors, namely, schools, vocational education and training (VET) and universities or higher education (HE) (DETYA, 2000). This statement outlined areas for cooperation between the three sectors and the Commonwealth.

The agreed priorities for 2000-2003 included the promotion of collaboration across the sectors and the development and enhancement of practice in teaching and learning using information and communication technologies (ICTs). Five areas of high priority action were listed in the accompanying Action Plan, Learning for the Knowledge Society: An Education and Training Action Plan for the Information Economy (DETYA, 2000). The five areas were: a) people; b) infrastructure; c) online content, applications and services; d) policy and organisational framework; and e) regulatory framework. While the five areas were interrelated and interdependent to some extent, it was within the first of those priority areas, people, that the need for professional development was made explicit: “providing professional development for teachers, trainers, researchers and all workers in the education and training industry to assist the whole population in the changes required” (p. 16).

Within the same Action Plan there is a statement from each of the sectors, each one addressing the five areas of high priority action in terms of strategies to suit its own particular context and vision for the future. Thus each sector outlined goals specifically addressing professional development for e-learning. In addition, there was an overarching statement from the Department of Education Training and Youth Affairs (DETYA) stating how it intended to promote, facilitate and co-ordinate the information economy policy development and implementation across all sectors (DETYA, 2000), p. 38).

technology (ICT)” (MCEETYA, 2005, p. 1). The statement offers renewed support for the five areas for action identified in the 2000 statement. Thus, professional development of people is again highlighted. Through AICTEC, the Australian ICT in Education Committee, made up of representatives from each of the sectors, Ministers release action plans and issues papers that provide direction and advice on large scale projects. The most recent business plan for 2006-2007 developed by AICTEC identifies 6 key actions and outputs, one of which is developing educators in the use of ICT (AICTEC, 2006).

2.1.2 Directions for the Vocational Education and Training (VET) sector

In 2000, *Flexible Learning for the Information Economy. A Framework for National Collaboration in Vocational Education and Training 2000-2004* (ANTA, 2000), was produced and included as part of the MCEETYA joint statement document. The statement acknowledges the variety of different types of training organisations within the VET sector; the current and future environment in which workers and workforce skills of flexibility and change predominate and where innovation and creativity together with ability to capitalise on opportunities can play a large part in ensuring that Australia’s economy benefits within a global economic environment. Thus, where education and training is concerned, there is a need to recognise the nature of the learners whether in the workforce or preparing for work, and to provide a structure whereby all can participate as learners, whether in a classroom or on the job, experienced or novice, and whether near to a community or in a remote location.

Where people and professional development were concerned, embedding a range of flexible learning models and approaches within the VET system,

- generating national collaborative activities and national and international virtual learning communities;
- recognising the role of employers as well as individual staff members; and
- stimulating learning from research into pedagogical, technical and managerial aspects of flexible learning,

were all strategies which were outlined as ways to achieve the goals of the statement.

The subsequent development of a Flexible Learning Framework has been a major project through which many of the goals identified for professional development articulated in the 2000 statement were, and continue to be, enacted (ANTA 2000). It was “a nationally agreed set of goals, principles and actions to help Australian people and industries make a rapid and successful transition to the information economy” ([http://www.flexiblelearning.net.au/flx/go/home](http://www.flexiblelearning.net.au/flx/go/home)). Through the development and maintenance of networks, learning toolboxes, a scheme for individuals and groups to apply for funding to support their own professional development projects, the development of e-standards to ensure national access, exchange and distribution of e-learning resources and examples of e-learning in business and industry, this framework provides a structure and a guide as well as a stimulus and incentive for explicit engagement in e-learning professional development across the VET sector. Details of implementation projects associated with this broad framework are included in Section 4 of this environmental scan.
The 2004-2010 national strategy for vocational education and training, *Shaping the Future* (ANTA, 2004), encompasses the goals of the earlier statement on flexible learning for the economy, but, as it acknowledges, this time the vision is longer (spanning seven years), broader (it applies to education and training, but also to employment, regional development, environmental sustainability, innovation and social inclusion), more clearly focussed on clients, and it is inclusive (taking account of the variety of barriers facing people including e.g., personal circumstance, physical ability or cultural differences) (ANTA, 2004, p. 4). The four objectives of this statement all point to the need for professional development and ongoing learning. They also outline responsibility, location and content of professional development. Learning and work are much more integrated within this statement than in the earlier one, possibly reflecting the successful foundations which were the result of action after the 2000 statement and a clearer and more unified vision for the future.

The *Australian Flexible Learning Framework* described in the current *E-learning in Action* brochure (DEST, 2007) continues to offer a means through which many of the ideas stated in 2000 and reiterated through the broader *Shaping our Future* document are being implemented, both at national and state levels.

### 2.1.3 Directions for the higher education sector

Alongside the MCEETYA statement in 2000, the Australian Vice Chancellors Committee also issued a statement, *The Way Forward. Higher Education Action Plan for the Information Economy* (AVCC, 1999). In alignment with the core MCEETYA statement, the priorities of people, infrastructure, content, applications delivery and services, organisational and policy framework and regulatory framework were highlighted, and intentions around each of these priorities were outlined. Under the people priority, there was acknowledgement that the incorporation of ICTs within teaching and learning had “not penetrated at more than a superficial level” (p. 4) to date and therefore action needed to be taken to improve the situation. The need to help students to develop lifelong learning and information literacy skills was noted, as was the need to develop graduates who could themselves design and develop systems and technologies. Flexible learning and teaching resources were also seen as important to be developed and the need to look beyond the campus for the location of learning was acknowledged. Finally, to enable all of the above, professional development programmes for staff were also stated as important.

The introduction of the reform package, *Our Universities: Backing Australia’s Future* in 2003 by the federal government has been the impetus for the implementation of a number of reforms including a demonstration of learning and teaching outcomes and the provision of flexible learning opportunities for students (DEST, 2003). The package contained plans to offer rewards and incentives for universities that demonstrate reform criteria. One such incentive scheme is the Learning and Teaching Performance Fund (LTPF) which calls for universities to demonstrate predetermined attributes related to teaching and learning through their policies, processes, practices and through student experiences. The reward is a share of the funds set aside to promote and enhance teaching and learning. The place of e-learning is implied within the criteria of the LTPF; it is not explicit.

Working in tandem with the LTPF, in some respects, is the Australian Universities Quality Agency (AUQA). This body was registered in 2000 and “is an independent, professional development for e-learning: A framework for the New Zealand tertiary education sector B7

*Part B: Otago literature review. An International environmental scan of e-learning professional development initiatives*
not-for-profit national agency that will promote, audit, and report on quality assurance in Australian higher education’” (http://www.auqa.edu.au/aboutauqa/auqainfo/index.shtml).

A key role of AUQA, as stated in its objectives, is to

‘Arrange and manage a system of periodic audits of the quality assurance processes, procedures, and outcomes of State, Territory and Commonwealth higher education accreditation authorities including their impact on the quality of higher education programs; and monitor, review, analyse and report on the outcomes of those audits’ (AUQA, 2007, p. 3).

Thus AUQA’s role has been to oversee audits of universities, and, in essence, audit the match between what universities say they do and their actual practice and effectiveness.

Although the LTPF has only been in operation since 2005-2006, together with AUQA audits, there has been clear pressure on universities to demonstrate development and progress in a variety of areas including teaching, learning and professional development. To help facilitate this where teaching, learning and professional development progress are concerned, the government also established the Carrick Institute for Learning and Teaching in Higher Education in 2005. This body was a new initiative but was also a continuation of previous government supported groups/funds/committees with the role of investigating, promoting and sharing good educational practices and research in higher education teaching and learning. Earlier groups carrying out some of these roles included: CAUT (Committee for Australian University Teaching – 1994-1995); CUTSD (Committee for University Teaching and Staff Development – 1996-1999); and AUTC (Australian Universities Teaching Committee – 2000–2004).

The Carrick Institute is currently commissioning a large number of projects investigating teaching and learning in a variety of discipline and generic areas. In addition, the Institute coordinates the excellence in teaching award scheme. Allied to this is a large project on identifying teaching quality indicators. This project is responding to “the need for an agreed approach to recognising and rewarding quality teaching and teachers in higher education” (http://www.carrickinstitute.edu.au/). While addressing broad teaching and learning qualities and not directly about e-learning, at least at this point, it seems reasonable to expect that there will be implications for integrating e-learning in teaching.

Other funded projects are around discipline-based and generic topics. In the 2006 round of Carrick project funding, a variety of projects is underway investigating the incorporation of e-learning technologies into curricula, most being from joint partnerships, across institutions, relatively focussed and discipline-based. The majority of these projects are due to be completed during 2008.

In addition, a large project called Resource Identification and Networking is also underway. This project aims “to develop effective mechanisms for the identification, dissemination and embedding of good individual practice and institutional practice into the higher education sector and to support networking and the formation of effective communities of practice” (http://www.carrickinstitute.edu.au/). In this way, it addresses the identified need to explore possibilities for collaborative interactions across the sector to improve and support individual and institutional resource access, information and ideas.
Thus, the imperatives of the MCEETYA statements of 2000 and 2005 (in terms of professional development, research into pedagogy, investigations into improving and enhancing structures to facilitate collaboration and general interaction) are being recognised through the work that the Carrick Institute is undertaking. The activities also support, in direct terms, the reforms in teaching and learning outlined in the Backing Australia’s Future reform package, (DEST, 2003).

Past projects under the banner of CUTSD and AUTC have included a number of projects on e-learning and professional development. These project reports are available in the archive section of the Carrick Institute website (http://www.carrickinstitute.edu.au/carrick/go/home). Two projects to come out of the earlier AUTC and CUTSD funds are outlined in more detail in section 3 of this environmental scan. One of those projects funded through the AUTC in 2000 is called Information and Communication Technologies and Their Role in Flexible Learning (http://www.learningdesigns.uow.edu.au/index.html), the outcome of which is a set of resources to assist teachers in higher education settings to develop learning materials and resources to “support the development of flexibly delivered high quality learning experiences for students”. The second project was funded through CUTSD in 1997 and is an example of awareness-raising activity at one institution with the intention of Developing Capacity to Integrate IT into Higher Education Teaching and Learning (Marshall & Litchfield, 1997).

2.1.4 Direction by professional bodies

One professional body, the Australasian Council on Open, Distance and E-Learning, (ACODE), whilst not confined to Australia, is an important professional body providing direction and guidance to institutions and individuals about integration of ICTs into teaching and learning. ACODE commissions, develops and encourages research-based recommendations and guidelines for e-learning (and broader) teaching and learning in open and distance situations in tertiary contexts. ACODE also aims to influence policy and practice at institutional, national and international levels in open, distance, flexible and e-learning in higher education. In its 2006 action plan ACODE outlined the following strategies:

- disseminating and sharing knowledge and experience;
- supporting professional development;
- investigating, developing and evaluating new approaches; and
- promoting best practice. (ACODE 2006a)

Thus ACODE is involved in initiating a variety of activities to support both e-learning and professional development for e-learning, including the production of a set of Benchmarks for the Use of Technology in Learning and Teaching in Universities, (ACODE, 2006b). The benchmarks are a series of statements accompanied by good practice examples against which an institution can self-assess and thus plan for future development and enhancement of their policies, processes and structures. Professional development for e-learning is firmly embedded within the overlapping and integrated statements. More detail about the benchmarks is included in section 4 of this environmental scan.
Another professional body, not confined to a particular sector of tertiary education, ASCILITE (the Australasian Society for Computers in Learning in Tertiary Education), is a “society for those involved in tertiary computer-based education and training, including educational interactive multimedia. It provides a forum to stimulate discussion of relevant issues in the educational use of technology, as well as promoting research and evaluation” (http://www.ascilite.org.au/index.php/About). A principal activity of the society is the annual conference during which participants are able to learn from others, present findings from research and discuss issues. ASCILITE is thus an avenue through which changes and developments in e-learning can be facilitated. Activities such as the annual conference can be seen as professional development experiences for those involved in e-learning.

2.1.5 Summary

The above mentioned developments in the form of policies and guiding principles at national and sectoral levels are supported by direction from professional bodies. It may be fair to say that professional bodies, being made up of members of institutions and groups affected by the changes at the government level may respond in the way they do because of the position in which they find themselves. Therefore, instead of breaking new ground, as it were, responses are with a view to making the most educational and practical sense of high level demands and directions and seeking evidence to support the reasons why the high level demands are legitimate and worthwhile. As a consequence, professional bodies have tended to simply strengthen any rationale for change in line with broader directions; seemingly just following government demands/directions without question. This may be one view, but on the other hand, in devising directional statements, consultation with sectors and with professional bodies has been part of the processes of the development of government policies, so from that perspective the criticism is unfounded.

What the above outline does not reflect is the work done at individual institution level to implement the national directions. Within the policies and direction provided by sector bodies, individual institutions are free to implement e-learning and e-learning professional development in whatever ways suit their own contexts and needs. Thus some institutions seem to have done much while others much less. Institutions which rely heavily on their distance education programmes are often the ones to have investigated issues of accessibility, interoperability and use of technologies to support and enhance teaching and learning. However, that does not mean that institutions which support a predominantly on-campus student body have not also explored the place and value of technologies for teaching and learning. Much can be learned from institutional level activity that is not readily available to audiences beyond individual institutions. However, co-ordinated funding projects such as those supported through the Carrick Institute and through the Australian Flexible Learning Framework, have provided some avenue through which outcomes of local level endeavours have been made more widely accessible.

What is obvious across the HE and VET sectors in Australia is that the focus of attention is upon performance outcomes and demonstrating effectiveness in terms of the various imperatives within the relevant policy and reform packages. Government funding, and therefore institutional survival and growth, are linked to performance, and for institutions in both sectors, this is a key determinant of how they behave. Thus
a strong incentive to take action to develop teaching and learning has occurred through institutions having to meet expectations that are articulated via funding and accreditation/auditing criteria. While this form of incentive may be looked upon as coercive, it does serve to stimulate institutional attention on what has been agreed upon within national visions for the future. At the same time, the nature of the accreditation/audit regime is such that there is freedom for institutions to choose their own pathways to implementing change and demonstrating identified criteria. It can be argued that at least “on paper” there seems to be a balance of structured and loose elements within the Australian tertiary system: the structured elements providing clear direction and the loose elements allowing institutions to decide how they work towards achieving those ends.

2.2 United Kingdom

2.2.1 National level directions for all educational sectors

There has been huge investment into e-learning in the UK in recent years. Naturally much of this has been to provide the necessary equipment and infrastructure but significant research and development has also occurred to explore how computers can best be used to support learning at all levels. This section seeks to describe the different ways that institutions and government bodies have sought to support and encourage the use of technology to support learning.

A number of policies have been of an overarching nature and seek to address learners of all ages. For example the Department for Education and Skills e-Strategy White Paper ‘Harnessing Technology: Transforming Learning and Children’s Services’, (DfES 2005), indicated 6 priority actions to provide:

- an integrated online information service;
- integrated online personal support for all children and learners;
- a collaborative approach to personal learning and related activities;
- good quality ICT and support packages for practitioners at all levels;
- leadership development packages to raise organisational capability for ICT; and
- a common digital infrastructure.

The overall aim, by using a more strategic approach, is to build the common ground that brings all education and children's services to the critical baseline of being able to use the technology effectively.

In line with the emphasis in the 2005 White Paper the strategic plans of the Department for Education and Skills detail these broad priorities and emphasise the need for an integrated response across all sectors. For example, the Department set out its 5 year Strategy for Children and Learners from 2004 (DfES 2004). This encompassed a wide range of very ambitious plans for all levels of education and the need for an integrated approach to the development and use of ICT in learning. Two years on the Department reviewed its progress against the strategy and reported on a number of achievements across the sectors. At the same time, the Department
reiterated the importance of partnerships and collaboration across all areas of learning, including in the use of ICT to support learning (DfES 2006a).

In summary, the importance of making the most of ICT to raise learning performance has been the subject of policy attention for many years at all levels of education. These policies have all included provision for professional development for teachers and others involved in supporting learning. In recent years, DfES has also increased emphasis on professional development targeted at those with leadership responsibilities for ICT and learning.

It should be pointed out that there are many initiatives in the UK concerned with e-learning development where the areas of responsibility overlap, leading to a perceived lack of clarity. There are also variations in the application of initiatives and policies in terms of geographical jurisdiction. For example some are for the UK overall and others for England, Scotland, Wales and Northern Ireland separately which adds to the difficulty of reviewing the processes. The 2005 e-Strategy White Paper highlighted some of the problems of the past in setting out the aim for a more co-ordinated strategic approach - “…developments reflect government investment and local innovation. But their growth has also been haphazard: systems are often incompatible with each other” (DfES, 2005 p4).

### 2.2.2 Directions for vocational and further education

It is important to note that over the years the scope of the further, adult, continuing and vocational post-compulsory education and training sector in the UK has become wider. Until the mid 1960s provision in this sector was mainly for young people entering the workforce, for adults retraining and for the unemployed. Now it includes further education, adult, community and specialist institutions and work based learning. Any review of the FE/VET sector since the 1960s will show there have been very many changes to policies, funding, structures and support for this sector. For our purposes it is not necessary to examine in great details these changes over a long period of time. However, it is important to emphasise that these changes have resulted in:

- a wide range of interventions;
- an emphasis on a broader age group and increasingly on ‘lifelong learning’;
- an increasing emphasis on the involvement of schools, further education, higher education and partnerships;
- an emphasis on alternative means of delivery and related structural staff and learner development; and
- different ways of funding.

One of the major changes for this sector came in 1999 with the White Paper ‘Learning to Succeed’ which initiated a new framework for post-16 learning (DfEE, 1999). The argument was for a more co-ordinated system for funding post-16. The foreword to the White Paper set the scene for the changes:

*The skill needs of the future will be different from those of today....The challenge is urgent....the means by which our economy can make a successful*
transition from the industries and services of the past, to the knowledge and information economy of the future.

This proposed major changes to structures from 2001. A new national body was established with a view to better co-ordination and control in the sector. This body was the Learning and Skills Council (LSC), responsible for funding and planning education and training for over 16 year olds in England (except Higher Education). It is interesting to note that at the time, and subsequently, there was considerable debate about whether the funding and direction of Higher Education should also have been included in the remit of the Learning and Skills Council in order to achieve greater cohesion in line with the Government’s overarching ambitions for the development of learning at all levels.

As might be expected, there are many examples of staff development initiatives in the sector at institutional and sector level and these have received support from the funding agencies. In more recent years however, there have been concerns and research indications that despite earlier efforts the levels of e-learning expertise were insufficient to support more widespread use of e-learning. The Learning and Skills Network (LSN) has been established by the Learning and Skill Council as a not-for-profit organisation offering services to policy-makers, practitioners and organisations funding, managing and providing education. As part of their work they have commissioned a number of research projects into e-learning development. In summary, the resulting evidence indicates that more needs to be done to share good practice; there needs to be more training in e-learning; and there needs to be more recognition for those with e-learning expertise and opportunities for accreditation.

Similar themes can be seen in ‘Harnessing Technology: Transforming Learning and Children’s Services’ (DfES, 2005). This White Paper also highlighted priorities and actions for different parts of the education sector. Two priorities for the post-16 sector relate specifically to professional development. These were: Priority 4 - Provide good quality ICT training and support package for practitioners and Priority 5 - Provide a leadership and development package for organisational capability in ICT. Specific actions related to these priorities include:

- enhance practitioner pedagogical skills in e-learning;
- ensure ICT access for every practitioner and provide an online service for e-learning;
- ensure leaders are equipped to lead the adoption and effective use of ICT; and
- support leadership collaboration on the strategic role of e-learning.

A number of important developments have followed the overarching 2005 White Paper, which are specific to the vocational/further education sector, and have led to current major initiatives in professional development for e-learning for the sector.

The 2006 White Paper, ‘Further Education; Raising Skills, Improving Life Chances’, introduced a requirement for continuing professional development for teaching and teaching support staff (DfES 2006b). The White Paper has also led to the establishment of a new Quality Improvement Agency (QIA) for teaching and learning in FE. The QIA works across the learning and skills sector to improve performance, (http://www.qia.org.uk/). The LSN and related bodies, including the QIA have developed a Framework for Professional Development for e-Learning which will be sector wide and launched in mid 2007. (See Section 3 of this environmental scan for more details...
and related links). This development programme supports learning and skills providers in the sector through raising the quality of professional practice in the teaching and training of e-learning.

The framework aims to overcome the barriers to e-learning development identified by research. It sets out a more structured approach to e-learning and Continuing Professional Development (CPD). The ePD framework outlines the competences for a professional development framework, describes leadership in e-learning and looks at e-learning roles in post-16 education. There is no qualification attached to the framework. However, the aim is to support individual staff and staff developers to plan, deliver and evaluate e-learning developments. Linked to this major project there are many associated initiatives dealing with different aspects of professional development, including support materials and opportunities for on-line learning.

One of the barriers to e-learning development mentioned earlier related to professional recognition for staff. In the same timeframe as the development of the ePD framework there have been recent developments in this area too. The Institute for Learning (IfL) (http://www.ifl.ac.uk/) has been set up as a membership professional body for teachers and trainers and student teachers in the learning and skills sector. The aim of the Institute is to support the professional needs of members across the sector. The IfL is working with the Learning and Skill Network in the implementation of the ePD framework along with many other organisations involved in this sector. It is early days yet for the ePD framework and related developments, and the future evaluation will be interesting. It is important to emphasise the wide range of related research and development projects which are connected with the ePD framework development. Also there are similar themes and trends in the developments in the school sector and in Higher Education in the UK.

2.2.3 Directions for the higher education sector

Developments in e-learning in UK higher education have their roots in the enthusiasm of early adopters of technology, but from a professional development perspective, it is easiest to conceptualise these early stages as part of the quality enhancement (QE) process that stemmed from the quality assurance (QA) movement developed in the 1990s. Staff teaching-skills and related learner-support skills, and mechanisms devised to promote and to quality-assure them, occupy a pole position in many of these developments. Much of what follows in this section draws substantially on Shephard (2004).

Many of these developments link closely to the Teaching Quality Enhancement Fund (TQEF), the central part of the learning and teaching strategy of the Higher Education Funding Council for England (HEFCE) (HEFCE, 1998). TQEF supported the Learning and Teaching Support Network, (LTSN) and its various subject centres, the Fund for the Development of Learning and Teaching (FDTL) and the National Teaching Fellowship Scheme, designed to develop and disseminate good teaching practice in higher education.

Running in parallel for some time with FDTL, the Teaching and Learning Technology Programme (TLTP) has supported a significant range of projects. These include the Effective Framework for Embedding C&IT Using Targeted Support project, (EFFECTS), established to develop and pilot programmes to support staff development for e-learning and described in more detail in section 3 of this report.

Professional development for e-learning: A framework for the New Zealand tertiary education sector - B14

Part B: Otago literature review. An International environmental scan of e-learning professional development initiatives
The UK’s Joint Information Systems Committee (JISC) has for many years supported the development of e-learning in the UK through research funding and programme coordination (JISC, 2007). In many cases the precursors to LTSN subject centres were CTI (Computers in Teaching Initiative) centres, supported by HEFCE. These programmes and centres have had, and continue to have, crucial roles in supporting and encouraging use of e-learning, as have the information specialists working within them. The Department for Education and Skills developed a ‘unifying’ e-learning strategy in 2003 (DfES, 2003b). More recently, the HEFCE has developed its own e-Learning Strategy: “Although there has been rapid development in HE, our evidence base and responses to our consultation suggest that institutions are still struggling to ‘normalise’ e-learning as part of higher education processes” (HEFCE, 2005, paragraph 14). A significant element of this strategy will be to oversee the development of benchmarked standards for the exploration and adoption of learning technologies.

These developments need to be considered within the context of more general changes in learning and teaching in HE and in relation to those professionals within HE charged with task of guiding and supporting such change. In some respects, none of this is new to the profession of educational development (or Academic Staff Development). It is reasonable to state that most teaching staff in most higher education institutions in the UK have traditionally benefited from an introductory course on supporting learners, itself supported by an ongoing and often extensive programme of continuing professional development (CPD) opportunities. In many organisations these opportunities are also available to the wider range of professionals who support learners in higher education. Educational developers usefully reviewed aspects of traditional professional development in higher education in 1981 (Harding, Kaewsonthi, Roe & Stevens, 1981). This source provides an insight into the values, operation and concerns of educational developers in higher education. It is noteworthy that many issues relevant to that time remain important to staff development today. These include: the role and operation of reward systems for teaching staff engaging in professional development; personal as opposed to institutional goals for changing professional practice; the implications of voluntary as opposed to compulsory professional development; separation of professional development from appraisal and evaluation of staff performance; criteria used for the recognition of professional competence; competing demands on scarce resources; and the organisation and underlying models of staff-development effort. Nevertheless, the advent of e-learning has brought many of these questions once again to central stage.

There are significant differences between institutions in relation to reward and recognition for high standards of teaching. A guide to good practice produced by the HEFCE in 2001 suggests, “Two-thirds of institutions have built into their strategy mechanisms to recognise and reward excellent teachers. In many cases this is an aspiration rather than a developed plan, and many details of promotion and reward schemes are yet to be worked out” (HEFCE, 2001; paragraph 74). There is also no common acceptance of the nature or scope of professional development needed. In relation to the need to develop new skills to use new learning technologies, Daniel establishes a strategic expectation in stating, “A clear focus on professional development is key to the successful deployment of new technology in teaching” (Daniel, 1996, p. 157) and goes on to suggest that half of the time that full time academic staff are expected to spend on professional development should be spent on aspects of information technology. The lack of any accepted standard like this creates
a challenge for HEFCE and others involved in trying to systematise continuing professional development for teaching with technology.

The HEFCE undertook to raise the esteem in which teaching is held within the higher education sector and included the recognition and reward of excellent teaching practice within its strategies (HEFCE, 2002). The Government White Paper, “The Future of Higher Education” (DfES, 2003a) proposed that a set of national professional standards should be agreed by 2004-05 and that all new teaching staff work towards a qualification that meets these standards from 2006. Substantive additional funding was provided to institutions by HEFCE for this purpose including an extension of the TQEF. Many institutions used this additional support to explore the concept of professional teaching standards in their own particular circumstances. There was considerable synergy between HE institutions, the HEFCE and other funding councils, representative bodies for vice chancellors and principals and the Institute for Learning and Teaching in Higher Education (ILTHE), and later the Higher Education Academy (HEA), during this period. The ILTHE piloted a CPD framework in 2004. The HEA went on to develop a professional standards framework in consultation with the broad HE sector, drawing from the ILTHE pilot.

The current HE professional standards framework includes distinct levels through which HE professionals pass through teaching-related promotion, incremental progression or specific award. The challenge has been to produce a framework of evidence-based standards that is consistent and sector-wide. The resulting framework is “sector-designed and sector-owned” (HEA, 2007) but seeks to accredit institutional frameworks for continuing professional development. Further details on the framework are included in Section 3. The underlying rationale for many of these developments can be traced to the work of the National Committee of Inquiry into Higher Education (NCIHE), and its recommendation to establish higher education teaching as a profession in its own right (NCIHE, 1997).

Alongside these developments and factors it is clear to many that e-learning is developing in UK higher education and that it is supported and promoted by many national and institutional strategies that address learning and teaching, and indeed that address other HE outputs such as research. For many, e-learning is not distinct from other forms of learning or indeed from other HE activities. For many, the same e-tools are used for teaching, research and administration and the underlying technologies are ubiquitous. To emphasise this developing awareness, the new Centres of Excellence in Teaching and Learning (http://www.hefce.ac.uk/learning/tinits/cetl/final) generally incorporate e-learning initiatives alongside other aspects of teaching. Institutional professional development strategies for learning and teaching may develop specific objectives for e-learning, but often do not, and many anticipate that teachers will use their professional acumen to stay up-to-date with new approaches to teach, with or without technologies, and to identify particular roles for particular professionals (Shephard, 2004). In the same vein, it does appear that the new Professional Standards Framework is based on the premise that institutions will develop their own criteria in the application of the standards to their professional development programmes. The use of appropriate learning technologies is just one of several areas of core knowledge that all practitioners will be expected to engage with in demonstrating the attainment of the standards. Even the HEFCE e-Learning Strategy has as its key point “We are committed to working with partners to fully embed e-learning in a sustainable way within the next 10 years.” (HEFCE, 2005). That is not to say that
learning and teaching professionals will not continue to need particular support for their endeavours to embrace e-learning, but those who offer support, or develop policies, strategies and incentives in UK higher education appear to be emphasising the continued need to embed this support within generic learning and teaching enhancement where possible.

2.2.4 Directions from professional bodies

In higher education, whatever opportunities existed for continuing professional development for university teachers prior to 1997, it was clearly considered by many to be inadequate to assure the provision of quality learner support. The National Committee of Inquiry into Higher Education (NCIHE) suggested that a major role of the planned Institute for Learning and Teaching (ILT) should be to accredit programmes of training for higher education teachers (NCIHE, 1997, paragraph 34). It is notable that one such accreditation scheme already existed at that time. The Staff and Educational Development Association (SEDA) launched the first teacher accreditation scheme in 1993 and many programmes that were eventually to be accredited by the ILT (later the ILTHE, Institute for Learning and Teaching in Higher Education) started life with SEDA. SEDA recognised institutional programmes that were based on its published framework of objectives and values. This work was subsequently taken forward by ILTHE working collaboratively with SEDA as the ILTHE national accreditation framework in 1999. The process has been undoubtedly very successful in accrediting training programmes that now exist in nearly all UK higher education institutions. There is every indication that completion of an accredited programme will become a requirement for new lecturers in many institutions, perhaps in all. Some programmes are optional for staff but many are compulsory for staff on probationary contracts. The situation is set to develop further as more institutions establish accredited professional development programmes that specifically address ICT skills to support learning; some continuing the tradition of being accredited by SEDA (SEDA, 2007).

Accredited programmes are open to a wide range of professional staff in HE with a learner-support role. There are also mechanisms to support and recognise the professional development of these wider roles within the Professional Development Framework accredited by the Staff and Educational Development Association (SEDA, 2007). Continuing professional development of the broad range of professionals who support learning in higher education, and its recognition, is now a core activity for the UK’s Higher Education Academy (HEA; the ILTHE was incorporated into the HEA in May 2004).

In Further Education there have also been developments towards a professional membership body with the establishment of the Institute for Learning, as discussed earlier (www.iif.ac.uk). The Institute was established in 2001 and there are similarities in emphasis to the complementary professional body developments in the schools sector and in higher education. Here again the emphasis is on initial qualifications, continuing professional development and on reward and recognition for good teaching.

There are a number of other bodies which are involved in professional development for e-learning in the UK which should be noted here. These include the Association for Learning Technologies (ALT). ALT organises a programme of workshops and...
conferences which are open to ALT members and non-members alike. Workshop topics are selected to be of wide interest, focusing on generic issues, in order that participants can readily apply the outcomes of each workshop to their own situation. Topics covered range from institutional implementation of learning technologies, courseware development and electronic lectures, as well as those covering specific software such as assessment tools and learning environments. In addition Lifelong Learning UK (LLUK) is responsible for the professional development of all those working in the field of lifelong learning. It will support learning providers in meeting the challenges of the current skills and education agendas. The Heads of e-Learning Forum (HeLF) has a particular focus on the collective implementation of e-learning strategy in the HE sector but provides a potentially far reaching voice on national e-learning developments.

2.2.5 Summary

UK governments have for many years and in various measures sought to encourage, direct and require educators to harness technologies to support learning. In line with developments throughout the world, the rationale for this may have been more focussed on the needs of the knowledge society than the particular needs of learners to learn, but some would argue that either case provides a rationale for action. Either way, the skills of teachers throughout the system have been, alongside the provision of infrastructure, central to planned progress. Staff development is a key concept in e-learning development.

It is possible to look back on developments in the UK and perceive stages leading towards the current situation. In the eighties the focus was often on the creation of computer-assisted learning devices and this emphasis on products has persisted into the 21st Century for some educational practitioners. The nineties were dominated by the creation of tools and toolkits with a gradual acceptance of the need to evaluate their impact. In all cases early adopters of technology have been highly instrumental and effective in promoting, and achieving, change. Arguably, the focus in the past few years has been in ensuring, as far as is possible, that early adopters are joined by the late majority in their use of e-learning technologies. Current activities seem set to explore precisely what is possible and how appropriate it might be to apply that notion to all.

2.3 New Zealand

2.3.1 National level directions for all educational sectors

The three sectors which make up the New Zealand education system include:

- early childhood
- schooling
- tertiary

There is no distinction made in the New Zealand tertiary sector as there is in the UK and in Australia between the higher education sector and the vocational or further educational sector.
The broad goal articulated within the *Education Priorities for New Zealand*, (Ministry of Education 2003), for the whole of New Zealand education is the achievement of outcomes around:

- effective teaching for all learners;
- family and community engagement in education; and
- development of quality providers and support mechanisms.

For each of the sectors, strategies and frameworks articulate the aspirations for the relevant sector around the three outcomes.

### 2.3.2 Directions for the tertiary sector

The tertiary sector expresses its most recent aspirations through the *Tertiary Education Strategy (2007-2012)*. This document acknowledges that education is broader than that which is funded or regulated by government within institutions, and includes families, community and adult education and the workplace (Ministry of Education, 2006, p. 4).

The strategy is about more than the teaching and learning aspects of the tertiary sector, of course, but within the broad statements of vision there are direct implications for teachers, learners and professional development. For example, a broad description of quality tertiary learning environments is provided with the importance of teachers’ continual updating of subject matter and educational knowledge being highlighted.

*The government expects tertiary education organisations to have in place the necessary systems and structures to ensure that:*

- individuals are motivated to learn, engaged and have the skills and information needed to be effective students
- educators continually update their knowledge of their subject and of effective teaching and learning; are responsive to a diverse range of students and teach a rich set of competencies in the content of a course
- they foster professional learning communities, and offer the resources and support needed for teaching and learning (Ministry of Education, 2006, p. 18).

In addition, in describing the new tertiary education system, the government outlines the shifts each of the tertiary groups make in order to achieve the broader goals for education and for New Zealand and these shifts include references to quality of learning and learning environments, relevance of learning experiences and participation within communities, within New Zealand and internationally.

Where monitoring of the tertiary sector’s progress toward achieving the developments is concerned, the government articulates its expectation that institutions and groups will provide thorough annual monitoring reports, to include

- commentary on the contribution of the tertiary education system to the government’s goals, based on latest available data and research
• indicators of progress towards the key outcomes, concentrating on the areas of focus and the shifts required within the tertiary education system to achieve these outcomes. (Ministry of Education, 2006, p. 40)

The processes for this monitoring are still under development, but will use agreed outcome-focused performance indicators related to the Tertiary Education Strategy (http://www.tec.govt.nz/templates/standard.aspx?id=1839).

Where e-learning and the use of ICT in education is concerned the core framework, ICT Strategic Framework for Education, provides the structure for investing and implementing ICTs in a co-ordinated and cross-sectoral way (Ministry of Education, 2005). This framework was contributed to by all sectors of the New Zealand education system, as well as by the National Library. The aim of the framework is to promote collaboration and accessibility across sectors, to ensure that participation and consultation occur across the New Zealand education system, and the smart use of ICTs. Once again, the aspirations to enhance learning and to provide high quality support for learning and teaching lies at the heart of this framework. In more specific terms, the ICT Strategic Framework highlights aims around

• connectivity (ensuring access for all);
• content (developing repositories of resources); and
• (building) confidence and capability (of learners, teachers, researchers, workers)

as key to making positive improvements to the use of ICTs.

It is within the “confidence and capability” area that professional development for e-learning is made explicit: “By 2010, all learners, teachers, researchers, administrators and support staff can utilise their IC tools and services effectively and efficiently” (Ministry of Education 2005, Goals 1, 4).

The Interim E-Learning Framework (Ministry of Education 2004) provides high level direction for the development of New Zealand’s tertiary e-learning capability in three core areas:

a) learning and teaching;
b) research; and
c) administration and support.

In this framework the same five guiding principles which appear in the ICT Strategic Framework are outlined:

a) learner-centredness;
b) good practice;
c) collaboration;
d) innovation; and
e) sustainability/affordability.

There are also seven key action areas which address:

• the development of communities of practice;
• research;
professional development;

adoption of standards for the design and technical aspects of e-learning developments;

legal and policy issues related to electronic rights management;

qualifications and credentialling of flexible learning pathways; and

needs of marginalised learners. (Ministry of Education, 2004, p. 2)

The Tertiary E-Learning Action Plan, contained within the Interim E-Learning Framework document restates the seven action areas and makes broad recommendations.

There is recognition in the Interim Tertiary E-Learning Framework that “New Zealand’s overall approach to e-learning needs to be developed in a holistic manner” (Ministry of Education, 2004, p. 17). While alignment amongst the various documents does seem to exist, there has been a realisation that in order to go forward in a more holistic way, there is need to consider a pan-sectoral strategy. A recent step towards this end has been the establishment of the E-Learning Advisory Board (ELAB). The group will “integrate ICT learning and teaching aspects across the Ministry including early childhood and tertiary”; “be cross sector and will include a connectivity subcommittee, inter-operations, interoperability and infrastructure” (Tertiary E-Learning Reference Group, 2006).

As one of the bodies facilitating the further articulation of the far-reaching aspirations outlined in the national documents described above, the tertiary E-Learning Advisory Group (ELAG), in its report, Highways and Pathways, described a vision for e-learning in the tertiary sector (Ministry of Education, 2002). Examples of three initiatives coming out of the ELAG report, which have made some progress, and which have strong connections to the latterly written Interim E-Learning Framework already described, include

1. A project which could be said to promote collaboration and sharing is the T4T4T (Teachers for Teachers for Tertiary) online e-learning professional development programme project, funded by the Ministry of Education. This project was piloted during 2004 (http://t4t4t.interact.ac.nz/spaces/space.php?space_key=112).

2. The creation of a portal for those interested in e-learning giving access to information, services and resources. This initiative is to support accessibility for all, including those who are marginalised. Its existence will be the result of exploration of interoperability, quality mechanisms and affordability/sustainability (http://www.elearn.govt.nz/elearn/elearn.portal).

3. The establishment of the Tertiary Education Commission’s (TEC) eCDF (E-Learning Collaborative Development Fund) from July 2003 to support collaborative capability development initiatives across tertiary institutions. This fund is an explicit implementation of the recognised need for exploration of teaching, learning and ICTs and the building of the e-learning capability of the tertiary education system to promote and enhance access and quality for learners. Projects have included the development of E-learning Guidelines for New Zealand (http://elg.massey.ac.nz/); Information Literacy e-Learning...
Professional development in general is singled out as an imperative by ELAG. Particular note is made about the professional development for Maori tertiary practitioners as part of the responsibilities under the Treaty of Waitangi.

The establishment of the Tertiary E-Learning Research Fund (TeLRF) from 2004 has served to support action and developments in accordance with initiatives outlined in *Highways and Pathways* while also remaining aligned with the *Interim E-Learning Framework*. The TeLRF has supported projects such as the development of the e-learning maturity model for institutions described in *New Zealand Tertiary Institution E-Learning Capability: Informing and Guiding E-Learning Architectural Change and Development* (Marshall, 2006); *E-Learner Profiles* (Jeffrey, Atkins, Laurs & Mann, 2005); a literature review of e-learning developments around the world, called *Global picture, local lessons: E-learning policy and accessibility* (Anderson, Brown, Murray, Simpson, & Mentis, 2006) and a study into the adoption of e-learning by tertiary teaching staff called *E-learning in New Zealand Institutes of Technology/Polytechnics: Final Report* (Mitchell, Clayton, Gower, Barr, & Bright, 2005).

### 2.3.3 Summary

New Zealand has developed a wide range of policies that relate tertiary education to ICT development and several key strategies that seek ambitious outcomes such as ‘By 2010, all learners, teachers, researchers, administrators and support staff can utilise their IC tools and services effectively and efficiently’ (Ministry of Education, 2005). There is a general recognition that New Zealand’s overall approach to e-learning needs to be developed holistically and professional development for tertiary teachers is seen as a central element. To date, this development has been achieved by promoting visions, developing strategies and by producing exemplars and tools.
3 Review of Related Initiatives in Australia and the United Kingdom

As part of our review we have looked in more detail at a number of the initiatives and interventions which were highlighted in Section 2. The summary notes are recorded here and links for further information are also provided. We have noted elsewhere that there have been many initiatives concerning e-learning and related professional development. By looking at a number of key initiatives in greater detail we aim to identify essential aspects to consider for inclusion in a professional development framework appropriate for the New Zealand tertiary sector. In Section 4 of this review we will draw on these detailed examples of practice in Australia and the United Kingdom and on the overviews of Australia, the United Kingdom and New Zealand which were presented in Section 2.
3.1 Australia

3.1.1 ACODE Benchmarks

The Benchmarks were developed as a guide for use by organisational areas within universities as they engage in continuous quality improvement in the use of technologies within teaching and learning. Pedagogical principles are embedded within the benchmarks to ensure that student learning and teacher practice are the core rationale for using the benchmarks to review and refine structures, processes and policies in support technologies for teaching and learning. The Benchmarks consist of a series of statements accompanied by good practice examples against which an institution can self-assess and thus plan for future development and enhancement of their policies, processes and structures in relation to technologies used for teaching and learning.

| 1 | Initiative name and instigator/partners | ACODE Benchmarks for the Use of Technologies in Learning and Teaching at Universities
ACODE is the Australasian Council on Open, Distance and E-Learning and has members from universities from across Australia, New Zealand and the south Pacific. |
|---|---|---|
and final report on the workability of the benchmarking framework:
| 3 | Dates of programme | Development began in 2002 and completed in 2006. |
| 4 | Country | Australasia – ACODE has members from universities from across Australia, New Zealand and the south Pacific. |
| 5 | Was it aimed at? Tertiary, HE, FE, VET? | Higher Education - Universities |
| 6 | What was the strategic approach, vision, policies? | The vision was for developing a set of benchmarks to provide a resource to universities to assist them in reviewing aspects of their processes, policies and practice related to e-learning/the use of technologies in teaching and e-learning. The benchmarks and the general supporting performance indicators provide guidance about what is important to consider and also pointers which indicate areas in need of development and monitoring. In this way, the benchmarks educate institutions about |
critical factors, which together, support good quality teaching and learning using technologies. In addition, they work as a tool for auditing the current state of affairs and work as the basis for planning for future development and ongoing maintenance.

<table>
<thead>
<tr>
<th>7</th>
<th>What/who were the key target(s)?</th>
<th>The key targets were units within universities responsible for the provision of support, leadership and/or services. Such units might be information technology services, staff development centres, departments, or units administering and providing support and service for distance education resources and teaching.</th>
</tr>
</thead>
<tbody>
<tr>
<td>For example, Infrastructure Sector Faculty/staff Learners Leaders</td>
<td></td>
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<thead>
<tr>
<th>8</th>
<th>What were the key priorities?</th>
<th>Key priorities included:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Availability of a resource which was the outcome of a clearly articulated research-based process, hence a resource which users could be confident about in terms of its validity, reliability and applicability.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Development of a resource which was useable in any university context.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Development of a resource which energised staff and generated interest and enthusiasm for reviewing and refining and improving teaching and learning and the support for using technologies.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• A resource that was manageable, that is, uncomplicated, yet able to unveil all levels of complexity about a university unit’s support for teaching and learning using technology.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• A resource that was affordable.</td>
<td></td>
</tr>
</tbody>
</table>

| 9 | How did they seek to change the professional practice of teaching staff? | There was no explicit intention that the benchmarks would change the professional practice of staff in direct terms. The outcome of the evaluation showed that the use of the benchmarks did energise staff and generate interest in, and the support for, teaching and learning using technologies. |

| 10 | What was the role for staff developers? | No specific role for staff developers is part of the benchmarks project. However, as the trial showed, because the use of the tool stimulated discussion and interest in the use of technologies to support teaching and learning, staff developers can capitalise upon such opportunities to build on interest using whatever model or approach is deemed applicable within the institution/unit (Bridgland & Goodacre, 2005). |

| 11 | Where did the funding come from? | ACODE funding |

| 12 | How did this link to other initiatives? | While the direct link to other initiatives is not made clear by ACODE in its documentation, it is reasonable to assume that because the issue of benchmarking arose from the membership of ACODE there was a connection between this project and pressures the members were experiencing from other imperatives. The introduction of the *Backing Australia’s Future* reform package in 2003 and formal audits co-
ordinated by AQUA from 2002, emphasised the need for universities to demonstrate a variety of performance outcomes including those related to teaching and learning and the support for teaching and learning. This meant that the ACODE Benchmark development was a project which would produce a useful tool for universities to help them to fulfill their obligations to themselves (enact university statements vision and intent where the enhancement of teaching and learning and the support for the use of technologies in teaching and learning were concerned) and to external imperatives.

<table>
<thead>
<tr>
<th>13 Who was responsible for implementation? How was this managed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>The project was led by a small group of developers and members of ACODE. Other member institutions contributed to the development and trial. Now that the project has finished the benchmarks are available for any institution to make use of.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14 What form did/will the evaluation take?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluation of the benchmarks took place through a trial involving seven volunteer institutions. The report on the workability of the framework for developing benchmarks was produced. The process involved a draft version of the benchmarks being produced and a trial being held within the seven volunteer institutions. Peer review of assessments (the self-assessments undertaken by each of the institutions) occurred and ratings were gathered and compiled. Lists of areas for improvement were also identified by each institution. A review of the practicality, manageability and usability of the benchmarks was undertaken and reflections on outcomes of the project both in terms of what the benchmarking process was able to teach the institutions and also of unexpected outcomes, such as the generation of wider staff interest in technologies for learning, were gathered and reported.</td>
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<tr>
<th>15 What worked and what didn’t?</th>
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<tbody>
<tr>
<td>Nothing to report in terms of “what worked and what didn’t” beyond the evaluation done in 2005 and reflected in the final version of the benchmarks in 2006.</td>
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</table>

<table>
<thead>
<tr>
<th>16 Overall summary and relevance to New Zealand in 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Benchmarks resource is widely available for any institution’s use, even though designed for use with universities. It is a relatively short document, simply outlined and uncomplicated but with specificity and clarity about facets of organisations, resources, infrastructure, human and material support mechanisms which are key variables in providing support for teaching and learning using technologies. It is specific, but generic enough for any university (or other tertiary institution) to make use of within its own context. It is reflective of performance outcomes imperatives and therefore relevant to a variety of national directives. The Benchmarks provide leaders with a framework for reviewing the use of technologies for teaching. It has been shown through the evaluation that the use of the benchmarks can stimulate interest and involvement in e-learning and engage staff in self review, suggesting that the tool can be seen as a staff development opportunity. Thus the ACODE benchmarks relate to broader concepts of leadership, staff development, increased professional knowledge and values and to individual (unit/institutional) participation, review and goal setting.</td>
</tr>
</tbody>
</table>
3.1.2 Australian Flexible Learning Framework

Through this framework the Vocational Education and Training (VET) sector is provided with professional development to explore teaching and learning through flexible means, principally within a technology-driven environment. The framework consists of the means through which to access “e-learning skills, professional development opportunities, products, resources and support networks” (Framework website: http://www.flexiblelearning.net.au/flx/go/home/about). It is a national framework which emerged to address the imperatives within the MCEETYA 2000 statement and the national strategy for vocational education and training. The strategy aims to support a VET system which includes working to meet the e-learning needs of students and communities, business and industry, indigenous learners, and people with disabilities.

<table>
<thead>
<tr>
<th></th>
<th>Initiative name and instigator/partners</th>
<th>Australian Flexible Learning Framework</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Collaborative project supported by the Australian government and the governments of each of the states and territories.</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>References</td>
<td>Website: <a href="http://www.flexiblelearning.net.au/flx/go/home">http://www.flexiblelearning.net.au/flx/go/home</a></td>
</tr>
<tr>
<td>3</td>
<td>Dates of programme</td>
<td>The framework was begun in 2000 and continues.</td>
</tr>
<tr>
<td>4</td>
<td>Country</td>
<td>Australia</td>
</tr>
<tr>
<td>5</td>
<td>Was it aimed at?</td>
<td>Tertiary, HE, FE, VET?</td>
</tr>
<tr>
<td>6</td>
<td>What was the strategic approach, vision, policies?</td>
<td>Business plans (available from the Australian Flexible Learning Framework website) outline the framework elements and how they are/have been achieved across each of the years of the Framework’s life.</td>
</tr>
</tbody>
</table>

The principle intentions for this framework are articulated in the 2007 plan in which the rationale for upskilling in e-learning by those who engage in vocational education and training, either as staff or students/learners, is outlined as:

“E-learning is an essential part of the effort to deliver the volume of training required as it…

- delivers workplace and blended training at a time and place that suits both learners and industry
- ensures learners have the competence in information and communication technology (ICT) that is now essential to employability and social inclusion
- improves quality and reliability of assessment by enabling new workplace-based models
- enables skills recognition and portability of qualifications
- provides access to a network of learning resources that can be customised to meet specific training needs
- creates opportunities for export of training programs and
In addition, contextual factors such as the nature of the Australian workforce, and the groups within the current and future workforce, viz., business and industry, students and young people, trainers and educators, indigenous communities, people with disabilities and rural and regional communities have meant that the framework has been developed to allow for a variety of uses according to need and situation. Relevance and authenticity of learning experiences, as well as self-determination and ability for individuals and groups including whole institutions to set their own goals for professional development are thus high priorities within the framework. The framework, as a collaborative effort, had to be useful across the sector as there are variations in the governance of bodies making up the VET sector from state to state.

Resources include, as listed on the website (http://www.flexiblelearning.net.au/flx/go/home/resourcecentre):

- **Products** - Products to enhance the teaching and training of learners through the application of e-learning.
- **Professional Development** - Enhancement of e-learning and e-business knowledge and professional skills.
- **Resources** - Practical tools that can help support the application of e-learning within the vocational education and training (VET) system.
- **Case Studies** - Real life examples of flexible learning, including e-learning, in action.
- **The Knowledge Tree** - the journal of the Australian Flexible Learning Framework, an e-Journal of Learning Innovation that enables the sharing of research and innovation in global e-learning practice.

### 7 What/who were the key target(s)?

For example, *Infrastructure*
- *Infrastructure* – for example in the provision of infrastructure (such as the efforts being made to increase bandwidth) to enable networking and equal access to all resources and facilities provided by the framework.
- *The Sector* – to demonstrate that the various groups within the sector can work together, learn from each other and generally, that there is a connection between and amongst them all.
- *Learners* – learners in all the groups making up the sector are provided with opportunities to engage with learning through the framework. The resources and other elements of the framework provide opportunities for individuals and groups to access support and guidance around goals they have determined are important for them.
- *Leaders* – similarly, those with the responsibility for co-ordinating learning at whatever level, can draw on the information and support provided by the framework to design their own curricula. The framework is explicitly linked to broader national and state goals for the VET sector, so leaders can be confident that use of the framework to facilitate their programmes will be aligned with broader imperatives.

### 8 What were the key priorities?

Outlined in part 6, above

### 9 How did they seek to change the professional practice of teaching?

*The intensity of the project* – funding has been injected into this framework from national and state governments. It is well aligned with reforms and policies at the national level and backed up at the state level. This framework also takes into account the demands of the accreditation...
staff?  

of Registered Training Organisations and the qualifications they offer.

*Extensive and co-ordinated efforts* – While there is a central website with information about and access to elements of the framework, each state authority has its own website outlining how the framework makes sense at the state level and, where relevant, how the framework and the states’ individual policies, goals and practices can be achieved through the framework or in association with the framework. The websites are kept current. The coherent policies and statements from the Australian government and some state governments, e.g., South Australia’s *SA VET e-Learning Strategy* ([www.e-learningstrategy.sa.gov.au](http://www.e-learningstrategy.sa.gov.au)) and Victoria’s *Knowledge and Skills for the Innovation Economy* ([http://www.otte.vic.gov.au/pubknow.asp](http://www.otte.vic.gov.au/pubknow.asp)), as well as from authorities such as the Australian National Training Authority (ANTA), serve to send strong messages of focussed activity, agreed intention and collaborative effort.

*Variety of access points* – the breadth of access points through which to engage with e-learning, viz., e-learning skills, professional development opportunities, products, resources and support networks provide flexible ways for different individuals and groups to make use of the framework, according to need, time, availability, intention, location and resources. The facilities have the flexibility to stimulate engagement at a number of different levels, from quick answers to long term engagement through locally designed research and exploratory professional developments investigations or projects.

*Opportunities for new contributions* – The resources and facilities are in many instances sourced from those within the sector and therefore represent authentic activities, examples and exemplars. Opportunities for training organisations which have e-learning professional development-related products for sale are also made part of this framework. In addition, as experiences are gained, projects are completed and resources are further developed, contributions to the resource bank are welcomed.

10 What was the role for staff developers?  

While the role of staff developers in using the facilities provided through the framework is not defined, the nature of the selection of materials suggests that there was a high level of input from staff developers in the design of the website and the design of the overall framework. The nature of the framework is such that the tools available can be used by staff developers at any site to incorporate into local area professional development projects.

11 Where did the funding come from?  

Joint funding from the Australian government and governments of the states and territories.

12 How did this link to other initiatives?  

Links directly with national strategies for education, e-learning and the VET sector. In addition, its form reflects the intentions for e-learning it is purporting to educate staff about, e.g., collaborative effort, research, networking, open access resources etc.

13 Who was responsible for implementation? How was this managed?  

The website outlines the funding and management of the framework in this way:

“The Australian Flexible Learning Framework (Framework) is a national strategy collaboratively funded and managed by the Australian Government and all states and territories. The Flexible Learning Advisory Group (FLAG) provides strategic direction and support to the Framework. It is made up of a strategically-focused group of senior vocational education and training (VET) personnel
<p>| | |</p>
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</table>
| **advising:** | - the Department of Education, Science and Training (DEST)  
- the Australian Information and Communications Technology in Education Committee (AICTEC) |
|   | We provide advice on national issues related to the directions and priorities for flexible learning in VET, with particular reference to e-learning.” (website: [http://www.flexiblelearning.net.au/flx/go/home/about](http://www.flexiblelearning.net.au/flx/go/home/about)) |
| **14 What form did/will the evaluation take?** | Two formal evaluations (Phase 1, 2000-2001 and Phase 2, 2000-2004) have taken place since the framework’s inception, both being published in evaluation reports available via the website. |
| **15 What worked and what didn’t?** | **What worked in 2001:**  
1. The growth in knowledge, skills and confidence of VET practitioners in using flexible learning approaches in their teaching.  
2. The increase in the number and variety of resources on which they can call in implementing flexible learning; in particular, the development of a body of nationally available, crown copyright online material to support teaching and learning.  
3. The development of networks and communities of practice across the country.  
**Improvements needed identified in the 2000-2001 evaluation:**  
- closer engagement of industry stakeholders with Framework activities, products and processes.  
- achieving the potential of three of the Framework goals, viz., goals related to technical infrastructure, VET Policy, and the Legal and Regulatory Environment.  
- systematic capability to leverage the Framework through communication, promotion and advocacy.  
The 2000-2004 evaluation report records continued growth in the above, but adds the following as recommendations for further development and maintenance:  
- continued investment of funds to support the programme  
- roles for the Flexible Learning Advisory Group (FLAG), e.g., to oversee the development and implementation of programmes to achieve a representative and a collaborative approach to the funding strategy to support the Framework; to advocate or undertake activities to support capability across the whole VET sector; and to implement processes to measure its contribution through e.g., developing performance measures and benchmarking. |
| **16 Overall summary and relevance to New Zealand in 2007** | The framework is very clearly linked to national directions for learning and flexible learning in the VET sector. It is based on sound pedagogical and staff training principles. It acknowledges the needs of individuals and groups (including identified groups such as those with disabilities, indigenous learners, and rural and regional learners) and institutions within the sector and across state bodies. In New Zealand the tertiary sector comprises many institutions of different types with a variety of purposes and roles. Much can be learned from the way the Flexible Learning Framework has sought to balance the demands of national and state initiatives |
government as well as individuals and groups across institutions and the community. Thus the developments addressed here relates to broader concepts of alignment with national and other strategies and directions, research into teaching and learning, self-determination of needs and goal setting, networking and collaboration.

### 3.1.3 ICT and Their Role in Flexible Learning - AUTC project

This project’s aim and outcome was the development of a resource that teachers could use to help them design flexible teaching and learning materials and experiences for their students. The product of the work has resulted in 32 exemplars, 5 guides and 4 tools available for use through the Learning Designs Website.

| 1 | Initiative name and instigator/partners | Information and Communication Technologies and Their Role in Flexible Learning |
|   |                                         | There were 140 people who contributed to this project. A 4 member AUTC (Australian Universities Teaching Committee) Steering Committee headed up the project. These people were from 3 Australian universities and one from the Open University. The core project team came from the University of Wollongong and Edith Cowan University. Other contributors from Australian universities formed a research team, a web development team, designers and an evaluation team. From Australian and international institutions came the reviewers, an advisory panel and a project review panel. |
| 2 | References                               | Website: [www.learningdesigns.uow.edu.au](http://www.learningdesigns.uow.edu.au) |
| 3 | Dates of programme                       | The project was undertaken during November 2000 – December 2002 |
| 4 | Country                                  | Australia |
| 5 | Was it aimed at?                         | Higher Education |
| 6 | What was the strategic approach, vision, policies? | The broad vision was to address a growing need amongst teachers in higher education for guidance and support for developing high quality flexible learning experiences and materials for their students. In addition, AUTC had articulated that there was “benefit to be gained in developing shared resources and disseminating successful, generalisable templates between institutions”, (Learning Designs website: [http://www.learningdesigns.uow.edu.au/project/index.htm#projectteam](http://www.learningdesigns.uow.edu.au/project/index.htm#projectteam)) The aims of the project were “to produce generic/reusable learning design resources to assist teachers to create high quality, flexible learning experiences for students. This was achieved by: 1. identifying high quality learning designs used in higher education; 2. selecting those suitable for redevelopment in the form of reusable software, templates and/or generic guidelines; and 3. developing these reusable resources and making them accessible from a central web site.” (Learning Designs website: [http://www.learningdesigns.uow.edu.au/project/index.htm#projectteam](http://www.learningdesigns.uow.edu.au/project/index.htm#projectteam)) |
The project used the following definitions:

"High quality learning experiences refer to experiences resulting from an environment which encourages students to seek understanding rather than memorisation and which encourage the development of lifelong learning skills.

Flexible learning refers to an educational approach that meets the diverse needs of students. This project focused on how ICT can be used to design flexible opportunities for students."

The main activities undertaken were:

a) development of a set of principles for high quality learning in higher education;

b) development of an Evaluation Instrument - Evaluation and Redevelopment Framework (ERF) – through which to apply the principles developed in (a) to consider whether identified exemplars of learning design within learning resources from specific contexts could be redeveloped for more generic use…in (c).

c) application of an evaluation instrument to Learning Design Exemplars – 52 exemplars were identified and 28 selected for evaluation by a team of 64 international reviewers.

d) development of reusable Learning Design resources – 15 learning design exemplars were identified. Generic guidelines and software tools were developed for application.

e) documentation of Learning Design Exemplars – rich descriptions of exemplars were documented so that teachers could see the learning design within a context while simultaneously seeing the generic features through the way the documentation was presented.

f) development of Project Web Site to house the project deliverables – the lasting outcome is the assembly of and ready access to the outcomes of this project via the website.

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<thead>
<tr>
<th>7</th>
<th>What/who were the key target(s)?</th>
<th>university teaching staff</th>
</tr>
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<tbody>
<tr>
<td>For example, Infrastructure Sector</td>
<td>The development of learning experiences at the subject/unit/paper level or the subject/unit/paper components level.</td>
<td></td>
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</tbody>
</table>

| 8 | What were the key priorities? | The key priorities were to develop well-founded and reusable guides and guidelines to use in evaluating and developing flexible learning resources and experiences. The development of a way of sharing knowledge and resources to achieve these ends across institutions was a feature of the aims of the project. |

| 9 | How did they seek to change the | A strong rationale: By providing information based on research about the nature of high quality learning experiences in higher education |

Part B: Otago literature review. An International environmental scan of e-learning professional development initiatives
**Professional practice of teaching staff?**

settings and demonstrating how an evaluation tool was used to identify exemplars provided a sound convincing foundation for teachers wanting to review and refine or redevelop teaching and learning resources and activities.

**Rich descriptions of exemplars:** Through richly described exemplars, teachers are provided with descriptions and explanations of how learning designs have been developed and work within everyday teaching contexts.

**Explicitness of generic features:** The generic features of high quality learning designs are made explicit not only though the process of their development which was part of the project, but also through the way the exemplars are documented. In this way, the project report argues, teachers are better placed to be able to translate the generic features to their own learning designs for their own teaching contexts.

**Accessibility of the resource:** Being available on a website, the learning designs resource is very easily accessible by teachers at any institution.

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**10 What was the role for staff developers?**

The website and report do not list the roles of the people involved in the project. However, many of the named people on the website are known academic staff developers.

**11 Where did the funding come from?**

AUTC in 2000

**12 How did this link to other initiatives?**

At the time of the funding offer, both research and practice of flexible learning strategies and approaches, including e-learning, within higher education had gained much momentum. There was an increased interest in sharing of resources. There was also a continuation of the need to focus attention on teaching and learning and the need for resources to enable teachers to find and create ways of improving their students’ learning and learning experiences.

**13 Who was responsible for implementation? How was this managed?**

The teams listed in part one of this template were responsible for the project. The use of the resources is not prescribed and left as a resource in itself, to be used as individuals or groups desire.

**14 What form did/will the evaluation take?**

a) The evaluation of the outcomes of the project, were in-built within the project as part of its development. For example, exemplars were reviewed by external reviewers and their comments were fed back into the refinement of the exemplars.

b) AUTC distributed a questionnaire to a random sample of Australian university academics for their feedback on all projects they had funded between 2000 and 2003. The questionnaire was used in the main to gauge academics’ awareness and familiarity with the project. They also interviewed some of the project developers, (Hicks, 2004).

**15 What worked and what didn’t?**

According to the report by the AUTC (Hicks, 2004) which provided an overview of the projects and the evaluation they had done of all projects AUTC had funded from 2000-2003, the quality of the information on the website was considered to be very high, it being recognised internationally. The extent of the website is impressive and provides substantial support for the academic involved in teaching. While there have been many publications and conference presentations that have occurred about this project many of the academics who responded to the AUTC survey did not know of its existence and of those who did, know...
about the resource, not one had made use of it. Comments about the resource made in the AUTC report included a note about the level of complexity of the website and the use of terminology which could limit the accessibility by some university teachers. However, overall, the AUTC report praises the website and the quality of the work which led up to its development.

Overall summary and relevance to New Zealand in 2007

The project illustrates how resources can be developed that are practical, useful and applicable across a wide range of contexts. The project demonstrates networking and collaboration through its design and through its product outcomes.

This project includes e-learning but does not emphasise it over any other strategy/tool/resource/approach. What is important is student learning and student learning experience.

The project acknowledges the independence and interdependence of individuals. It provides a starting point which enables teachers to take control over their planning and designing for learning, thereby respecting professional values and allowing staff to set their own goals for making use of the resources.

Finally, the project was research-based with a strong foundation in terms of the rigour of its development.

Thus the developments addressed here relate to broader concepts of networking, research into teaching, increased professional knowledge and values, and student learning.

3.1.4 Developing Capacity to Integrate IT into Higher Education Teaching and Learning

The intent of this project was to develop the capacity of staff at one university to integrate IT into teaching and learning. Both organisation and individual staff level capacities were addressed over a two year period, 1998-1999. A number of awareness-raising and more specific and concrete professional development activities were implemented.

<table>
<thead>
<tr>
<th></th>
<th>Initiative name and instigator/partners</th>
<th>Developing Capacity to Integrate IT into Higher Education Teaching and Learning</th>
<th>Macquarie University</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>References</td>
<td>Final report for a 1997 Staff Development Grant through the CUTSD available on the Carrick Institute website at <a href="http://admin.carrickinstitute.edu.au/dspace/handle/10096/621">http://admin.carrickinstitute.edu.au/dspace/handle/10096/621</a></td>
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<tr>
<td>3</td>
<td>Dates of programme</td>
<td>Funding was received through the CUTSD 1997 round. The project was undertaken during 1998-1999.</td>
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<td>4</td>
<td>Country</td>
<td>Australia</td>
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<tr>
<td>5</td>
<td>Was it aimed at?</td>
<td>Higher Education</td>
<td></td>
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<tr>
<td>6</td>
<td>What was the strategic approach,</td>
<td>The objectives of the project were:</td>
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<tr>
<td></td>
<td></td>
<td>1. To raise the awareness of staff at all levels (Executive, Head of</td>
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</tbody>
</table>

Part B: Otago literature review. An International environmental scan of e-learning professional development initiatives
| 7 | **What/who were the key target(s)?** | This project was based within one institution and targeted  
  - infrastructure;  
  - teaching staff; and  
  - managers and executive staff. |
|---|--------------------------------|--------------------------------------------------|
| For example,  
  Infrastructure Sector  
  Faculty/staff  
  Learners  
  Leaders | | |
| 8 | **What were the key priorities?** | The major aim was to facilitate change and to develop understanding across the university about teaching and learning using IT. Key priorities included:  
  - awareness-raising – to broaden awareness of process and issues related to integrating IT from a variety of perspectives including management, resourcing, teaching and learning resources, design and development of curricula, teaching practice;  
  - educating – to raise knowledge of the institution about IT in teaching and learning; and  
  - planning – to provide explicit opportunities for strategic planning. |
| | | A number of activities were implemented  
  a) raising consciousness – keynote speakers (outside |
| **10** What was the role for staff developers? | The project leaders were staff developers/educational developers/academic staff developers from the Centre for Professional Development and the Centre for Flexible Learning at the institution. While specific details are not given about the role of the staff developers, it can be reasonably assumed that they facilitated and coordinated many of the activities; ran workshops; and organised occasions during which knowledgeable colleagues from within and outside the university were given opportunities to provide expert input and guidance. |
| **11** Where did the funding come from? | CUTSD Funds |
| **12** How did this link to other initiatives? | During the second half of the 1990s on both the national and international scenes there was much discussion and debate and a growing research base about ICTs in teaching and learning. While there is no direct connection made in the project report, this project could be seen to be a response to these interests and research. Also, as the university had a Centre for Flexible Learning, and was, and continues to be, a strong player in offering courses that are flexible and cross-disciplinary, it can also be reasonably assumed that this project was linked directly to local institutional goals and objectives. |
| **13** Who was responsible for implementation? How was this managed? | Project leaders were based in the university’s Centre for Professional Development and Centre for Flexible Learning. They were responsible for managing the project and evaluating its outcomes. Local area projects were the responsibility of the individuals and groups who were funded to undertake the projects. |
| **14** What form did/will the evaluation take? | Evaluations included: a) records of numbers of staff attendances at each of the various sessions; b) open-ended feedback from attendees at each of the sessions; c) a reference group to monitor planning and implementation throughout the life of the project; d) a questionnaire administered to everyone who attended any of the activities to gather feedback on the effectiveness of the activity/ies in terms of the goals of the project; and e) final reports from each of the nine local area funded projects. |
| 15 | **What worked and what didn’t?** | Most successful aspects reported:  
- raising awareness of the issues;  
- invited keynote addresses, showcases and workshops offered during both day and evenings meant that they were well attended;  
- workshop series and showcases stimulated useful networks across discipline areas;  
- local area projects led to collaboration and interaction across groups through mini-conferences where the groups made their formal reports;  
- groups achieved concrete outcomes for teaching and learning through their local area projects;  
- a website and a discussion list for the university was established;  
- the appointment of an administrator to help co-ordinate activities and attend to communication; and  
- bringing together staff from across units and centres, both academic and administrative, across the university.  

Least successful aspect:  
- development of strategic planning and goal setting with members of Executive and Heads of Division.

Nothing was mentioned in the report about whether the university had imperatives that this project would help to attain and there was no mention of any reward and recognition for staff who engaged in the programme. |
| 16 | **Overall summary and relevance to New Zealand in 2007** | Even though this project was a small one within one institution, it serves to illustrate some important features that have relevance to New Zealand in 2007, especially in the light of the variety of tertiary education organisations in New Zealand and the current emphasis on teaching and teaching development for e-learning.

Funds were gained from an external government-supported body. This means that the project aims had to be aligned with the broader national vision for e-learning and general teaching and learning development and enhancement trends and imperatives. Demonstration of outcomes also had to be aligned to a nationally agreed vision.

The institution had complete control over the nature of the project and how it was implemented and was able to set its own goals and actions to match its contextual needs.

The project was a two year project. If change of perception and development of understanding are intended outcomes of a staff development programme, time needs to be invested and made available for staff to learn and to reflect. Thus staff developmental needs were acknowledged.

A variety of approaches to access and become engaged with new ideas about teaching with IT were on offer. Staff were invited to access one or more of the activities which demanded varying degrees of commitment. Individual staff members were free to make their own decisions about, and set their own goals for, what they engaged with and how they engaged. The mix of outside expert input, with local discussions, acknowledgement and sharing of current practice, internally offered input and workshops, plus explicit opportunities to engage in strategic planning, all contributed to the multifaceted nature |
of the project. Staff were therefore able to make their own goals for their own development in the area.

The activities seemed to be authentic for the staff. Activities such as the local area projects were authentic ones in that staff were invited to go through a formal process of developing a project and applying for funds. This served not only to stimulate commitment and focus of goals identified at the local level, and therefore real/authentic goals to be achieved, but also replicated a formal research proposal process. It thus highlighted the research-teaching link and the ‘teacher-as-researcher’ view of tertiary teaching. In New Zealand, the connection between research and teaching is one that is included in the recent Tertiary Education Strategy (2007-2012) (Ministry of Education, 2006).

Project planning was an important part in setting up the framework for action to provide leadership and direction, to maintain momentum and to carry learnings forward. Networking was supported and enhanced across the institution and across disciplines.

The developments addressed here relate to broader concepts of leadership in educational development, goal-setting and decision making, networking, and acknowledgement of developmental stages of staff working with ICTs.
3.2 United Kingdom

3.2.1 HEFCE’s eLearning Strategy and subsequent direct developments

The UK’s Higher Education Funding Council for England (HEFCE) launched its eLearning Strategy in 2005 (http://www.hefce.ac.uk/pubs/hefce/2005/05_12/) following consultation that paralleled the UK Government’s consultation on an e-learning strategy for all levels of education (www.dfes.gov.uk/elearningstrategy). This follows an extended period where the initiative for e-learning research, development and quality assurance for the higher education sector had come from a number of different bodies including the Joint Information Systems Committee (JISC), the Higher Education Funding Council for England (HEFCE) and the Quality Assurance Agency (QAA). “This national strategy will provide a broad framework for bodies such as the Higher Education Academy and JISC to dovetail our efforts, to ensure that institutions carry forward strategies based on evidence of what works, advice and guidance from around the sector and beyond. Cliff Allan, Director of Programmes, Higher Education Academy”. (Introduction http://www.hefce.ac.uk/pubs/hefce/2005/05_12/)

The demise of the UK e-University (UKeU) was no doubt a particular blow for HEFCE. Perhaps it was the failure of the UKeU in 2004 that eventually resulted in transfer of the key integrative and implementation responsibilities inherent within the HEFCE eLearning Strategy to the new Higher Education Academy (http://www.heacademy.ac.uk/e-learning.html). HEA “acknowledge(s) the need for an holistic approach to embedding e-learning in institutional activities. It aims to address the real needs of institutions and their stakeholders in order to facilitate the implementation of effective strategies and practices. To achieve these aims we are working closely with key stakeholders including the Heads of e-Learning Forum (HeLF), relevant CETLs, ALT, the Leadership Foundation and the JISC.”

<table>
<thead>
<tr>
<th>1</th>
<th>Initiative name and instigator/partners</th>
<th>HEFCE, JISC, HEA, Heads of e-Learning Forum (HeLF), ALT (Association for Learning Technologies).</th>
</tr>
</thead>
</table>
| 2 | References | http://www.heacademy.ac.uk/e-learning.html eLearning Strategy  
http://www.heacademy.ac.uk/971.htm e-learning projects  
http://www.heacademy.ac.uk/e-learningimplementation.htm about e-learning strategy implementation  
http://www.heacademy.ac.uk/Pathfinder.htm pathfinder projects  
http://www.heacademy.ac.uk/benchmarking.htm benchmarking projects |
| 3 | Dates of programme | 2005 and beyond |
| 4 | Country | UK |
| 5 | Was it aimed at? Tertiary, HE, FE, VET? | HE, but with good links throughout the post compulsory education sector |
| 6 | What was the strategic approach. | To integrate the efforts of many groups towards coordinated support for the development of e-learning. HEFCE is a powerful organisation but does
<table>
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<th><strong>vision, policies?</strong></th>
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<tr>
<td>not override the particular strategic approaches adopted by each institution. This strategy does, however, appear to seek to persuade and support institutions to adopt e-learning.</td>
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<tr>
<th><strong>7 What/who were the key target(s)?</strong></th>
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<tr>
<td>The e-learning Strategy has many targets. The main aim of the strategy is to “support the HE sector as it moves towards embedding e-learning appropriately, using technology to transform higher education into a more student-focused and flexible system, as part of lifelong learning for all who can benefit.”</td>
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<td><strong>For example, Infrastructure Sector</strong></td>
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<td><strong>Faculty/staff Learners Leaders</strong></td>
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<td>In relation to professional staff development; Strand 5 addresses human resources. Elements of strand 5 include:</td>
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<td>- HEFCE to liaise with the academy and other partners on appropriate implementation of recommendations arising from the national consultation document, “Towards a framework of professional teaching standards”.</td>
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<td>- The Academy and JISC to support the work of the Association for Learning Technology and the Staff and Educational Development Association in developing and implementing a professional framework for learning technologists. [Notable here is the support for a role for SEDA making use of the professional development framework programmes developed substantially from the EFFECTS project].</td>
</tr>
<tr>
<td>- The academy and JISC, with appropriate partners, to look at staff development in the emerging role of the librarian assisting learners and teachers and supporting delivery. [Reference here to the recognition that librarians in many institutions have grasped this new role and need to be factored into notions of team teaching, with implications for the skills-needs of traditional HE teachers].</td>
</tr>
<tr>
<td>- HEFCE, with the academy and JISC, to identify (through appropriate agencies) staffing profile, competences, development needs and recruitment strategies for the use of technology to support learning, teaching and research. This would link across education sectors and consider international developments and trends.</td>
</tr>
<tr>
<td>- The academy and JISC to help to articulate professional roles and working practices for e-learning.</td>
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<tr>
<th><strong>8 What were the key priorities?</strong></th>
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<tr>
<td>The HEA and JISC is jointly leading a higher education Benchmarking of e-Learning exercise that aimed to help institutions to compare their current provision, processes, or practices with other institutions that have undergone a similar exercise and with whom they have developed a relationship during their participation in the exercise. It also sought to identify areas of strategic importance arising from the institutional reflections and analyses that can inform the work of the JISC, the Academy and the Funding Councils. A Pilot Phase began in January 2006 and was completed in July 2006. 12 institutions from across the UK participated in the pilot. Phase 1 of the exercise started in October 2006. Thirty-eight institutions are participating in this phase. Phase 2 is underway at present (May 2007). The Academy benchmarking of e-learning weblog is available at <a href="http://elearning.heacademy.ac.uk/weblogs/benchmarking/">http://elearning.heacademy.ac.uk/weblogs/benchmarking/</a>.</td>
</tr>
<tr>
<td>A number of high profile research projects are designed to complement the benchmarking exercise “the Pathfinder Programme is intended to be a transformation initiative which has organisational change / development and dissemination to the sector as its raison d'être, i.e. a 'pathfinder' helps others navigate their way through uncharted or new territory. ... The emphasis of the Pathfinder Programme is to provide the higher education...”</td>
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Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part B: Otago literature review. An International environmental scan of e-learning professional development initiatives

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<tbody>
<tr>
<td>9</td>
<td>How did they seek to change the professional practice of teaching staff?</td>
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<tr>
<td>10</td>
<td>What was the role for staff developers?</td>
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<tr>
<td>11</td>
<td>Where did the funding come from?</td>
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<td>12</td>
<td>How did this link to other initiatives?</td>
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<tr>
<td>13</td>
<td>Who was responsible for implementation? How was this managed?</td>
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<tr>
<td>14</td>
<td>What form did/will the evaluation take?</td>
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<tr>
<td>15</td>
<td>What worked and what didn’t?</td>
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<tr>
<td>16</td>
<td>Overall summary and relevance to New Zealand in 2007</td>
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</table>
The developments addressed here also relate to broader concepts of leadership in educational development. The HEFCE eLearning Strategy, above all, seeks to integrate the aspirations of many stakeholders in this sector with respect to e-learning.

### 3.2.2 Professional Development Framework for E-Learning in Further Education

The UK Government initiated extensive reforms to the Further Education (FE) Sector in 2006. Part of the result was the development of a CPD requirement for FE teachers and part of this was the development, piloting and adoption of an ePD Framework.

| 1 | Initiative name and instigator/partners | *A professional development framework for e-learning.* Learning and Skills Network (LSN) plus overseen by a group including Department for Education and Skills (DfES), Lifelong Learning UK (LLUK), the Qualifications and Curriculum Authority (QCA), the Institute for Learning (IfL) and others. |
| 3 | Dates of programme | The framework is to be ‘rolled out’ in mid 2007 at a series of Regional presentations: “A series of regional events to support the roll-out of the LSN's new professional development framework for e-learning (ePD) are being held in the months of June and July (2007). The framework focuses on quality improvement in teaching and learning and can be used to support both individual and organisational development…… In addition a number of organisations have actively participated in a pilot and the results and outputs will be shared with delegates.” The framework has been piloted with a number of providers and needs to be in place to support new CPD requirements for the sector in Sept 2007 Note: many related developments/projects over a number of years. |
| 4 | Country | England |
| 5 | Was it aimed at? Tertiary, HE, FE, VET? | Post 16 sector excluding HE. In England this includes Colleges of Further Education, providers of work based learning, adult and community learning, voluntary sector etc. |
| 6 | What is the strategic approach, vision, policies? | Part of national education and training policy. A requirement for CPD was introduced in the 2006 White Paper, ‘Further Education; Raising Skills, Improving Life Chances’ and this comes into effect in September 2007, at the start of the next academic year. Aim is to build on reform agenda which has been developing since 1997 |
E-learning and technology is at the heart of education workforce development as identified by the Department for Education and Skills. This development programme supports learning and skills providers in the sector through raising the quality of professional practice in the teaching and training of e-learning.

The White paper has also led to the establishment of a new Quality Improvement Agency (QIA) for teaching and learning in FE.

Overall aims of the ePD framework is:

‘To provide staff at all levels with an ePD framework of competencies…to inform innovative professional practice in e-learning.’

Focus is on developing practitioner competence in e-learning and associated technologies.

Emphasis on sound pedagogical practice.

Standards based approach adopted – for consistency and quality assurance.

Competences identified through earlier projects. Range of materials and modules available. See www.tower.ac.uk/ecpd

A six stage methodology underpins framework which can be applied to individuals, departments or organisations:

- Background;
- analysis of learner needs by staff developer;
- self assessment and upskilling;
- plan;
- implement; and
- evaluate and reflect.

Tied into the professional body, Institute for Learning, concerned with registration, qualification and CPD.

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<th>7</th>
<th>What/who were the key target(s)?</th>
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<td></td>
<td>Staff in teaching and instructional roles.</td>
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<td></td>
<td>Also applies to initial teacher training and initial professional development.</td>
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<td>Institutions have to set procedures and policies in place so senior staff and staff developers can implement them. Includes an emphasis on leadership of e-learning professional development.</td>
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<tr>
<th>8</th>
<th>What were the key priorities?</th>
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<td></td>
<td>Raising of e-learning capability within teaching and learning environment at all levels.</td>
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<tr>
<td></td>
<td>Important to note the scale of this initiative, the government backing and that this builds upon the work of other projects from at least the last 10 years.</td>
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<tr>
<th>9</th>
<th>How did they seek to change the professional</th>
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| Practice of teaching staff? | Framework based on critical self assessment and support for related developments.  
| Note: elements of compulsion/prescription backed by White Paper. |
| 10 What was the role for staff developers? | Important role in this sector along with senior leaders in institutions. All ties back to Quality agenda, improving outcomes etc. The framework is something that Colleges are required to implement and it includes specific roles for Staff Developers as well as for individual teachers. |
| 11 Where did the funding come from? | The project to establish the framework was funded by the Learning and Skills Council – Government funding.  
| ‘Roll out’ and publicity materials also funded by LSC/LSN. Institutions will be responsible for their own implementation costs. |
| 12 How did this link to other initiatives? | Important to note that this is seen as a key element of the quality of overall e-learning and skills development strategy. Linked to other activities such as funded projects, Q projects, sharing good practice, initial teacher development and so on. These developments have been growing over a number of years – the ePD is seen as critical to success. |
| 13 Who was responsible for implementation? How was this managed? | LSN, institutions, individual staff.  
| During 2006/07 LSN has run numerous events associated with continuing professional development for e-learning (eCPD) and the events planned for mid 2007 will build on these. High profile and publicity in the sector and backed by materials, related projects and pilots. |
| 14 What form did/will the evaluation take? | Number 6 in the six stage process is ‘Evaluate and Reflect’. Should apply at all levels.  
| Fuller details of evaluation not available yet. |
| 15 What worked and what didn’t? | New initiative so too early to say. However there were a number of pilot studies and there will be information from on-going evaluation. |
| 16 Overall summary and relevance to New Zealand in 2007 | The ePD Framework may be particularly relevant for elements of New Zealand’s Tertiary Education Sector that do not reside within the domain of higher education.  
| The UK’s Further Education Sector has broad responsibilities for post-compulsory education and training. It is staffed by highly diverse teachers who do not necessarily have research-level experience and whose work does not necessarily involve direct research activity. Much of their work involves interaction with employers and work-based learning. The sector has endured considerable change and development in recent years and has made considerable progress in adopting new technologies; but perhaps less so than required of it. The developments addressed here relate substantially to the roles and responsibilities of teaching practitioners in this sector, and how these are managed. |
### 3.2.3 EFFECTS and related projects

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<tr>
<th></th>
<th>Initiative name and instigator/partners</th>
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<tr>
<td>1</td>
<td>EFFECTS (The Effective Framework for Embedding C&amp;IT Using Targeted Support) started in 1998 as a multi-institution-consortium project funded as part of TLTP Phase 3 (Teaching and Learning Technology Programme). The original university partners included the UMIST (now part of the University of Manchester), Oxford-Brookes, Southampton, North London (now part of London-Met) and Plymouth. Many other institutions joined the consortium to take part in subsequent projects, some funded by the JISC (Joint Information Systems Committee). EFFECTS continues today as the SEDA ELT programmes (Staff and Educational Development Association, exploring learning technologies and embedding learning technologies) that contribute to the SEDA PDF (professional development framework) and as a number of institutionally accredited M-level professional development modules. Sub-sets of the researchers involved in EFFECTS subsequently received funding for a range of related research and development projects. These include ELT (Embedding Learning Technologies), ELTI (Embedding Learning Technologies Institutionally) and the ‘Learning technology career development scoping study’.</td>
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<th>References</th>
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<td>2</td>
<td>These inter-related projects have left a legacy of web-based resources for those interested in the processes of embedding learning technologies into the work of higher education to follow. All pay particular attention to the development of skills by teaching staff and by those who support them. EFFECTS <a href="http://www.elt.ac.uk">www.elt.ac.uk</a> ELT <a href="http://www.elt.ac.uk/">http://www.elt.ac.uk/</a> ELTI <a href="http://www.jisc.ac.uk/whatwedo/programmes/programme_jos/project_elti.aspx">http://www.jisc.ac.uk/whatwedo/programmes/programme_jos/project_elti.aspx</a> SEDA’s PDF <a href="http://www.seda.ac.uk/pdf/">http://www.seda.ac.uk/pdf/</a> Learning technology career development scoping study <a href="http://www.jisc.ac.uk/whatwedo/programmes/programme_jos/project_career.aspx">http://www.jisc.ac.uk/whatwedo/programmes/programme_jos/project_career.aspx</a></td>
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<th>Dates of programme</th>
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<td>3</td>
<td>1998 to 2004 (with lasting impact in several institutions and an ongoing legacy throughout post-compulsory education).</td>
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<th>Country</th>
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<td>4</td>
<td>UK</td>
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<tr>
<th></th>
<th>Aimed at; Tertiary, HE, FE, VET?</th>
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<tr>
<td>5</td>
<td>Initial projects focussed on HE, but subsequent resources were designed to be applicable to FE also (see the Institutional Audit Tool, for example).</td>
</tr>
</tbody>
</table>
6 What was the strategic approach, vision, policies?

EFFECTS was established to effectively support the professional development of academic staff towards embedding learning technologies in a number of institutions. The support was to be targeted towards the specific needs of individuals who would work in groups to gain academic credits in institutionally credited programmes. It has led to the implementation of institutionally accredited M-level professional development modules in at least seven UK HEIs. These modules follow a variety of formats, from a series of short, intensive face-to-face workshops to year-long development programmes with tailored support. Alongside this targeted support, the EFFECTS consortium developed a set of learning outcomes that defined a common core in the institutional programmes. It also addressed the career opportunities of new professional educational developers known as learning technologists. EFFECTS was funded for a continuation stage and subsequently reappeared as ELT (Embedding Learning Technologies) to encourage dissemination of the wide range of EFFECTS resources. A key element of this stage was the operation of cascade groups. Cascading encouraged participants in programmes in one partner institution to cascade the programme to non-partner institutions in the vicinity. Cascading enabled EFFECTS to reach many institutions and the members of the EFFECTS consortium to develop an understanding of the natures of different institutions and of why embedding occurred in some and not in others. The result was the creation of an institutional audit tool, designed to enable institutions to systematically grapple with the key issues that were encountered in embedding the learning technologies. Another offshoot of EFFECTS, subsequently funded by JISC, was the ‘Learning technology career development scoping study’. This project created a series of briefing papers each targeted to particular roles in institutions (currently available via http://www.elt.ac.uk/institutions.htm) and taking forward the notion of finding space, and opportunities for career development for new e-learning professionals. This project itself evolved into the JISC funded ELTI project, established to review and pilot the original tools from the learning technology career development study and to provide initial support and guidance to institutions.

7 What/who were the key target(s)?

Nearly all staff-groups in HE were influenced in one way or another by EFFECTS and its resulting R&D projects. The original research targeted teaching staff, academic developers and learning technologists in HE. Subsequent projects were equally relevant to managers of learning technologists and to heads of personnel, IT service staff, library staff and senior institutional managers. In one way or another, EFFECTS and its offshoot projects probably influenced the development of all aspects of e-learning in the UK and most of the HE staff involved in supporting e-learning. It also probably represents a precursor stage in the subsequent development of e-learning in the broad post-compulsory sector. Arguably, the EFFECTS outcomes defined an eLearning paradigm.

1: Conducted a review of ICT in learning and teaching and shown an understanding of the underlying educational processes.
2: Analysed opportunities and constraints in using ICT and selected ICT appropriate to the learning situation.
3: Designed a learning resource, programme or activity to integrate appropriate ICT.
4: Implemented a developed strategy.
5: Evaluated impact of the interventions.
6: Disseminated and embedded the findings of the evaluation.
<table>
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<th></th>
<th>What were the key priorities?</th>
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| 8 | Creation of a set of agreed generic learning outcomes for teachers to guide their engagement with the learning technologies.  
  | Academic engagement in mentored projects (leading to the production of a portfolio and in some cases to academic credit).  
  | Cascade processes to disseminate activities to non-partner institutions using collaborative networks between and within institutions.  
  | Briefing papers; each targeted to particular roles in institutions.  
  | Institutional audit for individuals and groups of individuals (for example, to be completed as part of a Learning and Teaching Committee workshop). |

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<th>How did they seek to change the professional practice of teaching staff?</th>
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<tr>
<td>9</td>
<td>The key change sought in teaching practitioners was willingness to engage with innovative practice.</td>
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<th></th>
<th>What was the role for staff developers?</th>
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<tr>
<td>10</td>
<td>Initially to develop institutional programmes and to support participants in institutional programmes; subsequently to contribute to the creation of EFFECTS resources and to contribute to the educational development and learning technology literature.</td>
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<tr>
<th></th>
<th>Where did the funding come from?</th>
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<td>11</td>
<td>JISC</td>
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<tr>
<th></th>
<th>How did this link to other initiatives?</th>
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<tr>
<td>12</td>
<td>Extensive links to other TLTP3 projects with traceable links to a wide range of subsequent developments.</td>
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</table>

|   | Who was responsible for implementation?  
   | How was this managed? |
|---|---------------------------------------------------------------------|
| 13 | The underlying philosophy of EFFECTS was that teaching practitioners were empowered to implement their own changes by providing targeted support and by encouraging processes of institutional change to reward and support practitioner engagement. |
14 What form did/will the evaluation take?

EFFECTS was extensively evaluated by an internal process but was also one of the first of the TLTP projects to include and work with an external evaluator. (See final reports and evaluation documentation at http://www.elt.ac.uk/ELT%20documents/EFFECTS/Finalreport.pdf and http://www.ilrt.org/effects/downloads/effects-evaluation-report.pdf).

The evaluators’ conclusions:

- ‘increased levels of skill and confidence have made academic staff more likely to investigate and refine their teaching practice, including embedding further C&IT applications, in the future’;
- ‘partner institutions weren’t just getting a set of validated outcomes, but rather an underpinning philosophy with an accompanying resource base which could be utilised to suit a variety of needs’;
- ‘staff perceived that the introduction of C&IT was changing the nature of the learning experience for their students’;
- ‘The general increase in relevant skills, experience and confidence, not to mention the creation of a recognised qualification now held by growing numbers of staff, have all helped to create a shift in institutional cultures’;
- ‘The nature of the EFFECTS programme meant that groups of institutional staff were collaborating to develop courses or work on projects. Through this process, networks of staff have been set up across institutions that have helped to create new online projects, and that have been trained in a range of ways in which they might use C&IT to support student learning. These people are now able to support others undertaking similar ventures.’

EFFECTS was also evaluated as part of an overall evaluation of key TLTP Phase 3 and related projects under the auspices of LTSN Generic Centre (http://www.warwick.ac.uk/ETS/TELRI/Transfer/Review_report.pdf).

The evaluation emphasized the success of the cascade approach adopted by EFFECTS and other projects in taking the successes of the project beyond the original consortium members. “Experience across the TLTP suggests that those projects that are working with a supportive central unit, working with the grain of the institutional culture are more likely to embed change. At the onset of TLTP phase 3, Tavistock had already highlighted an issue that persists today, that “this does raise questions about a broad programmatic strategy of implementing generic products and services across diverse institutional contexts, unless there is very real scope for customisation and local embedding.” Cascading allows project aims and operations to be customized to the particular circumstances of each institution.

15 What worked and what didn’t?

Evaluation demonstrated that the key aims of EFFECTS were achieved. It is difficult to find aspects of EFFECTS that did not work, but it is true that aspects of EFFECTS worked differently in different institutions but this learning contributed to the development of offshoot projects.
<table>
<thead>
<tr>
<th>16</th>
<th>Overall summary and relevance to New Zealand in 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>EFFECTS and related projects sought to encourage academic engagement in supported innovative learning and teaching activities using ICT. They need to be considered as one diffuse element of a large number of interacting research and development projects generally supported by the JISC and generally seeking to “provide world-class leadership in the innovative use of Information and Communications Technology to support education and research” (<a href="http://www.jisc.ac.uk/">http://www.jisc.ac.uk/</a>). Arguably, the current manifestation of this work is the eLearning Pedagogy Programme, a JISC theme developing under the auspices of the JISC Learning and Teaching Committee.</td>
</tr>
<tr>
<td></td>
<td>EFFECTS should be considered as a key stage in the pathway that the UK has moved on towards its current position. EFFECTS served its purpose in moving that country forwards but it should not be described as the ‘solution’ to the staff development situation of any other country. The UK still has problems in this area that it is currently using different approaches to solve. The developments addressed here relate substantially to practitioner engagement in research and development and in directly evaluating the impact of this engagement on student learning. The roles and responsibilities of change agents are also directly addressed. In these ways, EFFECTS may be right for New Zealand in its current situation and may help New Zealand to develop.</td>
</tr>
<tr>
<td></td>
<td>It is interesting to note that the current UK-based e-learning research and development work emphasises:</td>
</tr>
<tr>
<td></td>
<td>- the need for an evidence-base about effective practice;</td>
</tr>
<tr>
<td></td>
<td>- a pronounced move away from content delivery as a central element of e-learning pedagogy; and</td>
</tr>
<tr>
<td></td>
<td>- a focus on the role of practitioners in the development and planning of learning activities rather than simply delivering them.</td>
</tr>
<tr>
<td></td>
<td>Accordingly, continuing professional development for teachers in the UK currently seeks to empower teachers to design and deliver their own learning activities and emphasises the role of teachers in encouraging active, participative and autonomous learners. An analysis of this and related aspects of ‘design for learning’ is available from the JISC website as a discussion document designed to provide focus for the e-learning Pedagogy Programme (<a href="http://www.jisc.ac.uk/uploaded_documents/Overview.doc">http://www.jisc.ac.uk/uploaded_documents/Overview.doc</a>). It is notable that current discussion in the UK considers the extent of divergence between e-learning specialists and teaching practitioners who find themselves required to ‘adopt’ e-learning. It may be that e-learning specialists, in their enthusiasm for new areas of learning design, for example, find themselves recommending for more general purposes, processes that they themselves have only recently discovered and adopted.</td>
</tr>
<tr>
<td></td>
<td>On the contrary, EFFECTS supported academic engagement with technologies and pedagogic processes according to a series of agreed outcomes. By supporting academic staff to conduct a review of ICT in learning and teaching, and to show an understanding of the underlying educational processes, and to analyse opportunities and constraints in using ICT, and to select ICT appropriate to the learning situation, EFFECTS supported and empowered teachers to make their own professional judgements on the best way to teach their students and sought institutional changes designed to help them do so.</td>
</tr>
</tbody>
</table>
3.2.4 UK Professional Standards Framework - for Higher Education

This is the first National Professional Standards Framework for teaching and supporting learning in higher education. It was developed after extensive research and consultation and builds upon a number of related initiatives in the UK. The framework covers the areas of activity for all levels of staff.

<table>
<thead>
<tr>
<th>1</th>
<th>Initiative name and instigator/partners</th>
<th>UK National Professional Standards Framework for Teaching and Supporting Learning in Higher Education. Developed by the Higher Education Academy (HEA), in partnership with Universities UK (UUK), the Standing Conference for Principals (SCOP), the education funding bodies for England, Scotland, Wales and Northern Ireland and the Department for Education and Learning. The Higher Education Academy receives grants from the four funding bodies, subscriptions from HE institutions and grants and contracts for specific initiatives.</th>
</tr>
</thead>
</table>
HEA website [http://www.heacademy.ac.uk/default.htm](http://www.heacademy.ac.uk/default.htm) |
| 3 | Dates of programme | New standards introduced in 2006. |
| 4 | Country | UK – England, Scotland, Wales and Northern Ireland |
| 5 | Was it aimed at? Tertiary, HE, FE, VET? | Higher Education – all staff engaged in teaching and supporting learning |
| 6 | What was the strategic approach, vision, policies? | The 2003 White Paper, ‘The Future of Higher Education’ focused on the expansion of higher education and raising the contribution to knowledge and wealth creation. There was considerable emphasis on the need to ensure that staff involved in teaching and learning had appropriate high quality initial and continuing professional development. As part of this development the White Paper announced changes to the funding mechanisms to ensure that resources came into the sector through research and student numbers and also through strength in teaching. Institutions were required to have strategies in place to reward and promote good teachers. Related to this the White Paper announced the establishment of these professional standards linked to accredited training and professional development for all staff. |
| 7 | What/who were the key target(s)? For example; Infrastructure Sector Faculty/staff | The framework seeks to recognise and provide for the improvement of performance of all staff working in aspects of teaching and learning support across the sector. The aim is to provide an enabling mechanism and approach which institutions can use to support staff in initial and continuing professional development. The framework focuses on six areas of activity, core knowledge and professional values which were in use in the previous HEA...
<p>| Learners | Accreditation Scheme. Emphasis on the scholarly approach to pedagogy, the autonomy of institutions, the distinctive nature of learning in HE and the approach to quality enhancement in the sector. This is a very broad framework for professional development and is not specific to e-learning. However e-learning is a component part of recognition and improvement of performance and the use of appropriate learning technologies is included in the Core Knowledge. The framework is tied to accreditation of programmes for staff. Appropriately qualified staff are recognised as Associates, Fellows or Senior Fellows of the Higher Education Academy. |
| Leaders | |
| 8 | What were the key priorities? | Overall aim of raising of standards in Higher Education, tied to knowledge creation and economic growth, with an emphasis on the related need for on-going staff development. Initial and continuing professional development in line with the framework. Aimed at all staff in HE engaged in learning and teaching. Focus is on core knowledge and professional values to ensure high quality teaching and support for learning. |
| 9 | How did they seek to change the professional practice of teaching staff? | Requires accredited programmes for new staff and continuing development opportunities for all staff. Provides for recognition and reward for high quality teaching. |
| 10 | What was the role for staff developers? | Not prescribed. This will depend upon the structures, roles and approach adopted by institutions. However the need for institutions to show they have appropriate strategies has clear implications for staff developers. |
| 11 | Where did the funding come from? | Mainly the HE funding bodies – see item 1. Some funding for institutions tied to implementation. |
| 12 | How did this link to other initiatives? | The development of a single national professional standards framework has flowed on from the 2003 White Paper ‘The Future of Higher Education’. There have been a number of related developments in recent years. For example, the establishment of the Institute for Learning and Teaching, (ILT, subsequently ILTHE) in 1999. The ILTHE might be seen as a forerunner to the current HEA and this launched a professional membership organisation for academics in HE. There was considerable pressure on academics and institutions to join the ILTHE – this may be seen as a more prescriptive approach. However after a relatively short time the ILTHE was closed in 2004 and its work, and members, taken forward by the HEA. Another related example is the Staff and Educational Development Association (SEDA), Professional Development Framework which was launched in 2002. The SEDA framework supports the planning, operation and recognition of professional development for staff working in higher education. Within this framework are a range of named awards to recognise staff in various aspects of professional development. |
| 13 | Who was responsible for implementation? How | Developed in partnership as described in 1 above. Implementation managed by the Higher Education Academy, partners, institutions, |</p>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td><strong>What form did/will the evaluation take?</strong></td>
<td>A recent initiative – evaluation not available as yet.</td>
</tr>
<tr>
<td>15</td>
<td><strong>What worked and what didn’t?</strong></td>
<td>These standards are a recent initiative so too early to judge. However they build upon earlier developments in the HE sector. Reinforces differential approach for the HE sector and responsive to the demands of the sector for a non-prescriptive, flexible approach.</td>
</tr>
<tr>
<td>16</td>
<td><strong>Overall summary and relevance to New Zealand in 2007</strong></td>
<td>It is important to note the very strong support for a simple, inclusive framework for HE that was flexible for individuals and institutions. Also important to note here are the different approaches taken in the UK for HE and other parts of the tertiary sector. At the launch of the standards – ‘…..acknowledgement of the distinctive nature of teaching in higher education and respect for the autonomy of institutions……’ (HEA press release, Feb 2006) Note that in the FE sector (see 3.2.2 Professional Development Framework for e-learning) there is a requirement for all staff to have Continuing Professional Development. In contrast in the HE sector the Framework is less prescriptive but the onus, tied to funding, is on the institutions to decide what is best for their own staff. The developments addressed here emphasise the roles of change agents, in the provision of CPD opportunities; of leadership, in the provision and recognition of accreditation processes; and on the roles and responsibilities of teaching practitioners in the extent to which individual institutions are enabled to decide on their own expression within the framework.</td>
</tr>
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</table>
4 Summary, Analysis and an Outline for a Framework

4.1 Summary - Key themes which emerge

A range of elements have inevitably repeatedly surfaced in this analysis and they are recorded and integrated into broad themes below.

Co-ordination and alignment

Within all the reviews there is evidence of a co-ordinated and aligned approach in terms of the articulation of visions and aspirations for e-learning. It has been recognised that e-learning, or the integration of ICTs into education in whatever sector, cannot be seen or treated in isolation from broad aspirations for education and then more specifically within aspirations at a sectoral level. Where ICT are concerned, there is recognition that, first, ICT have relevance for more than education, and thus each of UK, Australia and New Zealand have separate national frameworks or strategies about this. However, each of those frameworks or strategies informs, and has been informed by, relevant visions for education statements. Once again, this highlights the co-ordination and alignment of national trends and thrusts. While there is variation amongst UK, New Zealand and Australia where organisation of the education system is concerned, the same co-ordination and alignment can be seen between and amongst the national level documents and the ‘translation’ of those documents into sectoral frameworks and strategies. In addition, the consultation processes that have occurred have included representatives of the various sectors as well as from professional bodies, including researchers.

Tight and loose structures

Notable successes seem to result from structures and processes that could be considered as ‘tight’ (such as linkage between clear visions articulated from above, providing leadership, coupled with incentives to demonstrate performance through financing and monitoring of performance through audits and accreditation, working at the institutional or individual level), as well as from much ‘looser’ structures and processes (such as institutions and individuals having the freedom to act on the implementation of ICTs into teaching and learning as they see fit – they are able to make their own plans and put them into place).

Momentum generated through support from bodies external to individual institutions

Especially in the UK, and to a lesser degree in Australia, there is evidence that bodies external to the individual institution, but allied to general trends and movements in implementation of ICTs, can have a great impact on generating enthusiasm and interest, and providing guidance for developments in e-learning. A critical mass of interested people from across institutions can better achieve success than can individuals or groups within one institution. The examples presented from the UK and the Carrick Institute in Australia demonstrate that this is so. The combined efforts to provide avenues for professional development through the Australian Flexible Learning Framework in the Australian VET sector is also a demonstration of this. Of course, there is still the issue that this kind of professional development support is merely ‘on offer’, so its mere presence does not necessarily translate into institutional or individual action. Other imperatives such as accreditation and expectation of performance linked to resources and reward and recognition can be seen to go some way towards creating the environment for institutions to feel more compelled to take on the support for e-learning and e-learning professional development on offer.

The roles and responsibilities of teaching practitioners
Opportunities for staff participation in goal setting appear to be present in some cases, but less apparent in others. The extent to which teaching practitioners themselves identify their increased professional knowledge and values and evaluate the impact of their professional development on student learning is also relatively unknown and almost certainly highly variable. The extent to which teachers develop themselves and their teaching in line with learning theory is also uncertain in many instances. There needs to be a structured debate on the rationale underpinning concepts of universal development for e-learning, in line with the realities of team and individual teaching in institutions with pronounced division of labour around teaching, and research. Teaching practitioners also, on occasions, appear to struggle to address the range of intended learning outcomes that they seek, in relation to the teaching approaches they adopt. This is perhaps particularly important with respect to higher objectives, e.g. graduate attributes. Networking around teaching, leadership towards development and perceived rewards for development are also distinctive aspects of e-learning development that are addressed by some teaching practitioners, but not by all.

The roles and responsibilities of change agents in education

The analysis introduces a range of questions that relate to those who have particular roles to support change in higher education. What do Staff Development Units do and how do they conceive their role in relation to e-learning and in different parts of the education sector? What aspects and stages of the development of teaching practitioners do they regard as their ‘territory’ and is this involvement based on research into teaching or on a simple encouragement for research into practice? How do change agents relate to rewards and recognition for practitioner development? How is development for e-learning related to other professional development programmes? What role should change agents take in the ‘assessment’ of learning by developed professionals?

Broader concepts of leadership

This analysis also addresses concepts of leadership for change. How does professional development for e-learning link to other educational government, institutional or departmental strategies, and what are the underlying modes of operation implicit in these strategies? What of the ethos and expressed values of professional bodies and disciplines?

What of external limiting factors?

To what extent are e-learning possibilities in tertiary education limited by, or driven by, the availability of equipment, of technical support, of infrastructural developments and of software development?

These themes are revisited in the next section, where we bring them together in a different structure contributing to the development of a draft outline professional development framework for e-learning.

4.2 Towards an Outline Professional Development Framework for E-Learning

This broad analysis of professional development for e-learning within tertiary teaching in three countries has sought to identify factors which determined or influenced the process of e-learning development and their underlying policies and practices. Barriers to the development of individuals and to e-learning development within different parts of the tertiary education sector are well documented, but this analysis focuses on what appears to have ‘worked’ within particular contexts and on the lessons that New Zealand’s tertiary
education sector could learn by reflecting on them. This analysis, in turn, needs to inform
the next stage of our work: creating a draft professional development framework for e-
learning for the New Zealand tertiary sector which will be used in the empirical part of the
project.

Despite the impressive range of research on this and related topics and the breathtaking
extent to which governments, representative bodies and institutions have developed and
implemented strategies to achieve certain outcomes, the range of possible ‘futures’ for
professional development for e-learning is relatively limited. Whether the perspective is
that of an individual teacher, a particular academic department, an institution or a segment
of the tertiary education sector, those who seek to influence can do so by providing
direction (leading the way), by persuasion (by providing incentives; reward and
recognition) or by coercion (with obligations and penalties).

It would be possible to place New Zealand, Australia and the UK on a continuum that has
these three substantial emphases as discrete points on this line, but it is likely that their
relative positions would shift as we addressed different parts of the tertiary education
sectors in each country. These ideas have a strong academic basis in management theory,
but for our purposes they can be addressed at a more common-sense level.

- Teachers who do not perceive a need to use e-learning technologies to support the
  learning of their students will always be difficult to lead in this direction.
- Leadership may not be enough for groups who have in the past needed persuasion
to change.
- Coercion is always the last resort for ‘professional’ development but is being
  seriously considered by some.
- Some approaches appear to work better than others in particular circumstances.
- Everything depends on teachers actually engaging in e-learning activities.
- The baseline from which improvements in teachers’ skills must occur is not a static
  base. Teachers are continuously engaging with ICT and developing and using new
  skills. As more teachers do develop interests, experience and skills in e-learning,
  the base from which professional development must work moves on to create a
developmental spiral, not a circle or loop.

An approach that variously combines practitioner participation, leading the way, and
incentivisation (via reward and recognition) can progressively yield a development spiral.
This leads almost inevitably towards a framework for professional development for e-
learning in five repeated stages. It is interesting to note that this sequence of analysis and
activity applies at all levels. Individual teachers can ask themselves what they need, what
their incentives are, what support is available for their professional development, how they
will engage with e-learning activities and what impact this has on their ability to support
student learning. The same sequence applies to departments, to institutions, to elements of
the sector, indeed to nations.
In the table below we have classified the various Australian and UK interventions that were described in the templates in Section 3 and make specific links between these and our prototype framework. It can clearly be seen that the elements in the framework feature strongly in the initiatives we examined.

### ELEMENTS OF DRAFT FRAMEWORK COMPARED WITH INITIATIVES FROM UK and AUSTRALIA WHICH WERE INCLUDED IN SECTION 3

<table>
<thead>
<tr>
<th>Initiatives</th>
<th>Elements</th>
<th>Needs</th>
<th>Incentives</th>
<th>Opportunities</th>
<th>Engagement</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ACODE Benchmarks</td>
<td>Yes</td>
<td>No</td>
<td>Yes – resource widely available</td>
<td>Yes – the aim was to stimulate interest and enthusiasm with staff</td>
<td>Initially through trial with 7 institutions. Changes built in to final version.</td>
<td></td>
</tr>
<tr>
<td>2. Flexible Learning Framework</td>
<td>Yes</td>
<td>Yes – funding from national and state governments</td>
<td>Yes – wide range at a number of levels</td>
<td>Yes – across the VET sector</td>
<td>Formal evaluations at different stages.</td>
<td></td>
</tr>
<tr>
<td>3. ICT and Flexible Learning</td>
<td>No</td>
<td>No</td>
<td>Yes – resources produced which could be used by many staff</td>
<td>Yes – mainly through a number of teams</td>
<td>In-built for the project.</td>
<td></td>
</tr>
<tr>
<td>4. Capacity to integrate IT</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes – number of related activities</td>
<td>Yes – involved staff from across the institution</td>
<td>Number of strands showing good results overall.</td>
<td></td>
</tr>
<tr>
<td>5. HEFCE’s eLearning Strategy</td>
<td>Yes, for teaching and teaching related staff.</td>
<td>Yes – for institutions and individuals</td>
<td>Yes, through a number of initiatives.</td>
<td>This is clearly intended.</td>
<td>On-going.</td>
<td></td>
</tr>
<tr>
<td>6. Professional development framework for e-learning in FE</td>
<td>Yes this is a key part.</td>
<td>Includes requirement for professional development for staff.</td>
<td>Wide range of resources and opportunities.</td>
<td>This is clearly intended. Indications are positive.</td>
<td>Built into the process. Initial evaluation of pilots.</td>
<td></td>
</tr>
<tr>
<td>7. EFFECTS and related projects</td>
<td>This was a key priority.</td>
<td>Yes – at a number of levels.</td>
<td>Yes, through initial and later projects.</td>
<td>Yes – aim was for embedding.</td>
<td>Extensive, largely positive.</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Yes, for Recognition</td>
<td>Yes, provision of</td>
<td>Yes – for staff at all</td>
<td>Recent initiative – too</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The phenomenographic research stage of this project will help us to further determine how teachers and teacher support staff conceptualise e-learning, their role in e-learning, and professional development for e-learning at all levels of engagement and achievement.

5 References


<table>
<thead>
<tr>
<th>Initiatives</th>
<th>NEEDS</th>
<th>INCENTIVES</th>
<th>OPPORTUNITIES</th>
<th>ENGAGEMENT</th>
<th>EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional standards framework – for HE</td>
<td>teaching and teaching support staff.</td>
<td>and reward a key part.</td>
<td>initial and continuing professional development</td>
<td>levels.</td>
<td>early to judge.</td>
</tr>
</tbody>
</table>
http://www.skills.org.uk/lts-wp.pdf HMSO June 1999 Cm 4392

Department for Education and Skills (DfES). (2003a) The future of higher education
http://www.dfes.gov.uk/hegateway/strategy/hestrategy/need.shtml

http://www.dfes.gov.uk/elearningstrategy/strategy.stm


Part C Massey Literature Review: Professional Development for E-Learning: Adoption, Implementation and Improvement

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Table of Contents

PART C MASSEY LITERATURE REVIEW: PROFESSIONAL DEVELOPMENT FOR E-LEARNING: ADOPTION, IMPLEMENTATION AND IMPROVEMENT .................................................2

1. FOCUS OF THIS LITERATURE REVIEW ..................................................................................................2
2. DEFINING PROFESSIONAL DEVELOPMENT AND E-LEARNING .............................................................2
3. PROFESSIONAL DEVELOPMENT AND E-LEARNING IN THE NEW ZEALAND CONTEXT ......................4
4. EVALUATIONS OF CAPABILITY AND BENCHMARKS FOR PROFESSIONAL DEVELOPMENT IN TEOS ......7
5. FACTORS INFLUENCING UPTAKE AND ENABLING OF PROFESSIONAL DEVELOPMENT FOR E-LEARNING AT INSTITUTIONAL LEVEL ..................................................................................11
6. FACTORS INFLUENCING PROFESSIONAL DEVELOPMENT FOR INDIVIDUALS ......................................17
7. PROFESSIONAL DEVELOPMENT PROGRAMMES AND OPPORTUNITIES .............................................20
8. SUMMARY COMMENTS .....................................................................................................................26
REFERENCES: ........................................................................................................................................30
Part C Massey Literature Review: Professional Development for E-Learning: Adoption, Implementation and Improvement

1. Focus of this literature review

This literature review examines the factors which are likely to influence the professional development of individuals located in tertiary institutions. This includes an examination of capability and skills, beliefs and experiences, embedding processes in institutional contexts, and key influences on professional development outcomes. The review examines structural dimensions of professional development (such as institutional mechanisms and strategies) but also social dimensions (including the impact of institutional cultures and individual beliefs). Though this review reflects briefly on the wider New Zealand context for professional development in tertiary organisations, it primarily discusses factors likely to be significant with regard to the professional development of teachers. The broader political economic context for professional development (PD) in New Zealand, and how this is situated with regard to international changes and structures is discussed more fully in the Otago Literature Review, which forms Part B of this report.

2. Defining professional development and e-learning

While numerous definitions of e-learning exist, the definition of e-learning from the Ministry of Education Interim Tertiary e-Learning Framework (2004, pg 1) is used in this research, providing consistency and clarity for both survey and interview participants:

*learning that is enabled or supported by the use of digital tools and content. It typically involves some form of interactivity, which may include online interaction between the learner and their teacher or peers. E-learning opportunities are usually accessed via the internet, though other technologies such as CD-ROM are also used in e-learning.*

Most definitions of professional development tend to revolve around the enhancement of skills, knowledge and an increase in the ability to practices one’s job with the application of, or involvement in learning and training in order to achieve this:

- Increase of knowledge or skill through study, travel, research, workshops or courses, sabbaticals, internships, apprenticeships, residencies or work with a mentor or master. See mentor or master.
  www.canadacouncil.ca/help/lj127228791697343750.htm
• a process of learning and keeping up-to-date in one's area of expertise. [www.sociologycommission.org/docs/GLOSSARY.htm](http://www.sociologycommission.org/docs/GLOSSARY.htm)
• formal or informal training to enhance skills, knowledge, and ability to practise. [www.apegm.mb.ca/register/geninfo/defs.html](http://www.apegm.mb.ca/register/geninfo/defs.html)
• A personally initiated obligation and right to build discipline expertise, to enhance personal growth, to improve teaching abilities and to contribute to organisational development. [www.iib.qld.gov.au/itcareers/talk.asp](http://www.iib.qld.gov.au/itcareers/talk.asp)
• Professional development refers to vocational training. [en.wikipedia.org/wiki/Professional_development](http://en.wikipedia.org/wiki/Professional_development)

For the purposes of this research **professional development** is defined as:

> Engagement in formal or informal training and/or learning in order to enhance skills, knowledge, and ability to practise (one’s occupation).

**Formal professional development** is defined as:

> Programmes or courses that either have an assessment or attendance requirement in order to obtain credit.

The obtaining of credit is broadly interpreted here as relating to the recognition of the professional development within a particular institutional context. This may occur through recording attendance or involvement, crediting participation to a learning programme or qualification, or through forms of assessment. Engagement in formal professional development can be an expectation of the institution, but also of the discipline or profession in which staff are positioned. Hegarty *et al.* (2005a) states this type of development is usually formally recognised, part of an individual’s workload, and may or may not be remunerated and driven by institutional actors such as staff developers and Heads of Schools. Examples include attendance at training courses, study toward a formal qualification and formal mentoring arrangements.

**Informal professional development** includes:

> All activities that undertaken to increase your knowledge and skills in a particular area but which are not formally acknowledged.

Examples include discussions with colleagues, reading articles, practising skills, searching on the internet etc. This type of professional development is not formally recognised, may not be an acknowledged part of staff workload, is not paid and may or may not be driven by Head of School/Department, Dean or Staff Developers (Hegarty *et al.*, 2005a). It can also be seen as “unorganized, unsystematic and even unintentional at times, yet it accounts for the great bulk of any person’s total lifetime learning – including that of even a highly ‘schooled’ person” (Bhola, 1983, p. 24).

While recognising that in some Tertiary Education Organisations (TEOs) there may be clear obligations to undertake professional development, this research acknowledges that
professional development is a reflexive construct, understood and interpreted differently by people and groups in institutional settings, and engaged in for many reasons with potentially varied outcomes in terms of learning and employee practice.


Since the early 2000s New Zealand’s e-learning capabilities have been the subject of considerable discussion. The E-learning Advisory Group (ELAG) for New Zealand was established in 2001 to inform strategic and investment decision making and to explore issues related to the development of e-learning in the tertiary education sector. Part of ELAG’s remit is integrating learning and teaching involving Information and Communication Technologies (ICT) across the education sector. In 2003 the Tertiary Education Commission (TEC) established an e-learning Collaborative Development fund (eCDF) to enhance the ability of the tertiary education to use e-learning to improve the quality of education and to give learners improved access to education (Milne and Suddaby, 2005). Through this fund, a number of projects and initiatives have been directed towards documenting, exploring and envisioning e-learning in terms of current practice and future possibilities. The e-Learning Collaborative Development Fund and the funding provided by the Ministry of Education produced some substantive studies into the adoption, development and delivery of e-learning in TEOs.

A 2002 discussion document from the E-learning Advisory Group for New Zealand Highways and Pathways: Exploring New Zealand’s e-learning opportunities (Butterfield et al., 2002) provided a vision for e-learning in New Zealand. It recommended the establishment of the e-learning collaborative development fund (the eCDF) and the launch of two electronic portals for tertiary education in New Zealand. The importance of sound pedagogical foundations were highlighted as were funding and infrastructural requirements to ensure good access and quality learning opportunities. The report argued it was imperative that professional development was given priority in the tertiary sector with a need for investment in the development of human resource capability. Professional development was identified as a priority so that teachers could support and encourage their students’ learning effectively.

The Tertiary Education Strategy (2007-2012) (Ministry of Education, 2006) describes the structure and focus of the tertiary education system, and focuses on goals and aspirations for teaching and learning. It recognises the broader political, economic and social contexts in which teaching and learning are created and suggests factors which should be addressed in order to achieve quality in provision and delivery of education, effective learning and teaching, and engagement of stakeholders. With regard to professional development it states that TEOs should have in place systems and structures that ensure educators “continually update their knowledge of their subject and of effective learning”
and that they “foster professional learning communities, and offer the resources and support needed for teaching and learning” (Ministry of Education, 2006, p18).

The *Interim Tertiary e-learning Framework* (Ministry of Education, 2004) sets out a vision for “a networked, flexible education system offering accessible, relevant, high quality learning opportunities for all New Zealanders” (pg 15). Produced in discussion with New Zealand tertiary organisations it outlines five guiding principles: learner-centredness, good practice, collaboration, innovation and sustainability/affordability. These principles are intended to underpin improvements in capability in learning and teaching, research and administration and support, and are to be implemented in partnership with key stakeholders and in alignment with the New Zealand Government’s Tertiary Education Strategy. The *Interim Tertiary e-learning Framework* also identified seven action areas essential to the development of sector capability designed to provide direction for the development of e-learning across the New Zealand tertiary system. Of the seven action areas one was devoted to professional development for staff in tertiary institutions. It suggests that supporting tertiary organisations and their staff could include centralised staff development resources, incentive schemes for staff achievement and the development of postgraduate teaching qualifications specific to e-learning. The other areas: the development of communities of practice, research, adoption of standards for the design and technical aspects of e-learning developments, legal and policy issues related to electronic rights management, qualifications and credentialing of flexible learning pathways and addressing the needs of marginalised learners to varying extents also have the potential to influence the form, delivery and outcomes of professional development in Tertiary Education Organisations (TEOs).

The New Zealand e-learning guidelines, *Guidelines for the Support of E-learning in New Zealand Tertiary Institutions* (Milne and Dimmock, 2005; [http://elg.massey.ac.nz](http://elg.massey.ac.nz)) drew on the five guiding principles of the Interim e-learning Framework as well as international literature to provide a series of questions related to audience (teaching staff, managers and students) and teaching activity (learning design, teaching relationships and support) to encourage reflective practice and quality in e-learning in TEOs. A number of these questions related to the need for professional development, including the opportunity for staff involvement in collaborative network and learning communities, the provision of subject and instructional design expertise, ICT support including the need for staff development and institutional factors such as teaching quality expectations and recognition, assessment and evaluation systems, monitoring and review of staff development processes and outcomes.

The e-learning guidelines also provide a framework for the identification of appropriate questions in relation to institutional and managerial commitment to professional development, and the mechanisms by which this might be supported (sections 2.1, 2.2, 2.3) and the monitoring of the effectiveness of staff development outcomes (M014). The following guidelines address staff development issues:
Teaching staff/Other support/Learner centred
TO1 – Are staff development programmes for e-learning developed in consultation with teaching staff, in order to identify and meet staff needs? (p17)
TO2 – Are staff provided with opportunities to learn online so they experience e-learning from a student’s perspective? (p17)

Teaching staff/Other support/Good practice
TO8 – Is subject and instructional design expertise available to staff to develop and support quality e-learning courses? (p17)

Teaching staff/Other support/Collaboration
TO9 – Are staff encouraged to participate in networks and learning communities involved in reviewing, developing or sharing good practice in the use of e-learning? (p17)
T10 – Is good e-learning practice available to staff in a way they can adopt and adapt in their own work? (p17)

Managers/Learning Design/Good practice
MD2 – What guidance is available to staff for the design of student assessment? (p19)

Managers/Learning Design/Innovation
MD6 – Does the institution fund and support champions in their work and to what extent does the work of champions inform the work of their colleagues? (p19)

Managers/Other support/Innovation
MO14 – Does the institution monitor staff development outcomes to ensure effectiveness? (p22)
4. Evaluations of capability and benchmarks for professional development in TEOS

While government practice and policy influence the direction and focus of e-learning in Tertiary education organisations, there are many factors connected with institutional structures and cultures which impact on e-learning and professional development capabilities.

Marshall’s (2005) research on e-learning capability provided a model against which institutions’ capability for e-learning in five categories (learning, development, co-ordination, evaluation, and organisation) could be assessed, and used as a basis for continuous improvement. His study of six universities and three polytechnics revealed that though there was variation between individual institutions, for the most part e-learning capabilities were found to be at a relatively low level. Marshall’s survey of e-learning maturity across New Zealand tertiary institutions demonstrated that teaching staff capability ‘was easily the worst for the sector of any process assessed’ (2005, p96) with staff development in relation to e-learning being largely informal and ad hoc. The indicators of capability most relevant to capability in professional development are:

**Development Capabilities**

- **D4** – Technical assistance in course development is available to teaching staff.
- **D5** – Teaching staff are encouraged to use technical assistance when (re)developing courses.
- **D6** – Teaching staff members are assisted in the transition from classroom teaching to online instruction.

**Co-ordination Capabilities**

- **C10** – Instructor training and assistance continues through the progression of the online course.
- **C11** – Teaching staff are provided with support resources to deal with issues arising from student use of electronically-accessed data.

**Evaluation Capabilities**

- **E7** – Teaching staff capability in making the transition from classroom to online teaching is formally assessed during training.

With regard to development capabilities at the time of reporting, most institutions seemed to be providing, or planning to provide technical support for teachers putting their courses online as well as some support for their own development as teachers – with pedagogical support coming from dedicated units within each institution. Marshall’s data indicates that pedagogical support to assist staff members in the transition from classroom teaching to online instruction is more widely available than technical support in the tertiary sector. Institutions with a formal design and development process have done better in considering the pedagogical issues arising from e-learning. Marshall suggests that the
sector would benefit from evidence-based examples of how technology has positively influenced pedagogical approaches and how different pedagogical approaches result in more effective use of existing technologies.

The e-learning maturity model development by Marshall (2005) identified the importance of planned intentionality in relation to e-learning and reinforcing the need for an institution-wide approach, involving availability of support as well as assessment and recognition of developing skills in e-learning. Those TEOs that had some kind of centralised policy and planning seemed to fare better than those that did not. One polytechnic for example used a check list for quality assurance processes which could be applied by teachers and then checked centrally to determine whether course had used e-learning technology and pedagogy effectively. Identifying differences in expectations of baseline skills and implementation requirements between those engaged in administering and/or delivering professional development programmes and those engaged in e-teaching was also demonstrated to be important for improvement in professional capability, and is also necessary for successfully embedding e-learning PD in institutions (Marshall, 2005).

Coordination was another area with potential impacts for e-learning professional development. Teaching staff on e-learning projects are usually supported with different levels of formality, with organisations varying with regard to the extent that skills and responsibility for e-learning were given to teaching staff. Again, Marshall argues that tertiary education organisations would benefit from evidence-based examples of how technology has positively influenced pedagogical approaches and how different pedagogical approaches result in more effective use of existing technologies. Capability with regard to whether teaching staff were provided with the support and resources necessary to deal with issues arising from student use of electronically-accessed data also varied. Evidence for this capability was seen in the form of provision of support during development of courses through both documentation and staff training and in support for students through libraries and other information management resources. Professional development related to this appeared to be limited.

As well as highlighting the desirability of appropriate pedagogical and technological assistance for teaching staff embarking on e-learning, Marshall revealed there was little or no evidence of any evaluation of teachers’ capabilities with regard to skills obtained in making the transition from classroom to online teaching. He highlighted the need for assessments of staff capability to inform strategies and programmes for continuing staff development.

The Australasian Council on Open, Distance and E-learning (ACODE) produced a capability document *Benchmarks for the use of technology in learning and teaching in universities* (2006) to allow universities to self-assess their provision of technology-based learning and teaching with a view to supporting quality improvement. Benchmarks cover eight topic areas and performance indicators for each one are measured on a five-point scale (where level 5 indicates good practice).
The eight benchmarks are:

1) Institution policy and governance for technology supported learning and teaching
2) Planning for, and quality improvement of the integration of technologies for learning and teaching
3) Information technology infrastructure to support learning and teaching
4) Pedagogical application of information and communication technology
5) Staff support for the use of technologies for learning and teaching
6) Student training for the use of technologies for the effective use of technologies for learning
7) Student support for the use of technologies for learning.

Benchmark 5 involves professional/staff development for the effective use of technologies for learning and teaching and is one of the eight key benchmarks that provides a good practice statement and performance indicators for teaching staff to make effective use of technologies for learning and teaching. The performance indicators for this benchmark indicate areas likely to have a significant impact on continuous improvement professional capability:

- Clearly communicated strategies, policies and practices
- Identification of staff development needs (at the individual and strategic development level)
- Availability of educational and technological support to meet identified needs
- Coordination of staff development across an institution
- Resourcing for staff development
- Flexible and focused delivery of staff development to meet individual needs
- Continuous improvement through evaluation.

As with Marshall’s maturity model, the other areas of capability identified are likely to both directly and indirectly influence the nature, form, practice and evaluation of professional development for e-learning.

The ALET Project (Hegarty et al., 2005a, 2005b) funded by the Tertiary e-Learning Research Fund investigated staff development models in six tertiary institutions and prepared case studies of existing practice and capability. Hegarty et al. (2005a) found that there was a high degree of similarity of staff development offered across the sector. Different models of training and staff development strategies were reviewed with no one model found to be most effective although utilising a number of different strategies was generally supported. The benefits associated with using situated, project based or context oriented approaches were emphasised.

Staff development models for e-learning in the tertiary providers studied by the ALET team were either formal or informal. Formal methods included (in order of prevalence) technical training for using Learning Management Systems, general computing instruction and online teaching. The preferred methods were face-to-face, online and one-to-one training but some participants in the research had worked with a mentor. Formal learning was either undertaken as part of a graduate certificate or similar, or as part of
formal staff development within the institution. The researchers also found that the beliefs people have in their own abilities to perform in particular areas (self-efficacy) did not appear to be linked to formal staff development models but was more likely to be influenced by informal approaches to developing capability. Staff with a high degree of self-efficacy in e-learning tend to engage in a number of informal staff development activities (Hegarty et al. 2005a). Other factors influencing e-learning capability were the range of staff development avenues available to staff, situated learning opportunities, formal and informal learning strategies, resources and planning for staff development, and the fostering of self-efficacy through previous e-learning/teaching experience (see Hegarty et al. 2005a, http://cms.steo.govt.nz/NR/rdonlyres/8C221A73-CF28-4CC9-83E8-B8FD7D9C1164/0/ALETfinalReport251006.pdf for a detailed exposition of factors influencing self-efficacy). The ALET project noted there were considerable differences in motivation and training needs between early and late adopters of e-learning. Hegarty et al. (2005a) also stressed that existing formal staff development models in the six institutions sampled were not adequate to assist staff to fully develop their capability and potential for e-learning. Rather they were providing a beginning competency for e-learning. Barriers to building capability included a lack of shared vision and strategic planning, organisational resistance to change and a lack of familiarity with appropriate e-learning pedagogies opportunities for individual staff members.

The report recommended staff development should be specifically designed to meet an institution’s needs and situated in the programmes and teaching methods used by staff. Flexible delivery of a range of strategies and opportunities for PD and utilising flexible delivery methods was likely to encourage greater involvement by staff. Hegarty et al. (2005a) suggested a project team approach comprising staff, support personnel and mentors and professional development that covers training and scholarly activity would be helpful as it would incorporate both pedagogical and technical aspects of e-learning and promote the development of communities of practice. The research also points to the role of institutional factors in influencing professional development of staff and building capability in e-learning, suggesting organisations should provide funding, time release and promotion for staff who engage in team projects, mentoring and community of practice approaches to staff development.

The report from the E-Learning Collaborative Development Fund (eCDF) (2006) ‘Train the Trainers’ project provides information on the e-learning capabilities of staff developers at 13 universities and polytechnics in New Zealand. The report highlighted the inequity in PD infrastructure across the tertiary sector and though it found the e-learning PD online was deemed to be the way forward by training staff, a number of institutions did not have a staff development infrastructure to take advantage of the project’s outcomes. Such was the shortage of staff developers that the project’s original format had to be modified to account for the number of staff involved that were not staff developers, or had little or no experience with e-learning either in teaching or student capacities.
5. Factors influencing uptake and enabling of professional development for e-learning at institutional level

Rapidly changing ICT, and new modes and mechanisms of e-learning present challenges for institutions wishing to engage with these, however the form and extent of institutional change required in order to support engagement with e-learning is uncertain:

“To date, many universities are using open, distance, and on-line learning to do what they were always doing, albeit more expansively and efficiently rather than fundamentally reforming their structures, operations and curriculum and delivery processes” (Hanna and Latchuem, 2002, pg 122).

Hanna and Latchuem (2002) suggest institutional transformation rather than adaptation may be required to fully engage with e-learning and that the transition to e-learning may require systematically changing the nature, orientation and focus of the organisation. With regard to professional development, this implies an organisation should be open to and willing to engage with different ways of working and thinking if it wishes to engage extensively with e-learning. It implies a TEO should examine the structures and mechanisms underpinning the delivery of professional development, opportunities provided for staff to engage in professional development and the way this is supported, recognised and valued. This involves giving attention to numerous areas and factors which research has indicated may significantly impact the implementation of professional development programmes and their outcomes.

PD programmes are informed by, and should take account of and capitalise on wider political and economic contexts in which they located (Duin and Starke-Meyerring, 2003). Though created by institutions, policy and strategy related e-learning and professional development will be informed by broader political, cultural technological and economic change. Changes in these areas will impact on the scope and direction of the tertiary sector and educational policy, the nature of student and employer demand, staff and student learning and capability, forms of information technology and e-learning, and the emphasis on teaching and research in tertiary organisations. It is essential that tertiary institutions develop long-term policies and strategies that take account of contextual factors particularly in relation to changes in technology and attendant pedagogy (Mitchell et al., 2005).

A strategy, or at least a strategic vision, is often regarded as critical in determining the success of innovations such as e-learning (Guri-Rosenblit 2005; Ismail 2002; Blass and Davis 2003; Greenagel 2002; de Freitas and Oliver 2005; Bates 1999). The dynamic nature of technology creates challenges for producing e-learning strategies which allow for change over time. Consequently institutional change in relation to ICT is often gradual and unsystematic (Collis & van de Wende 2002). Organisational barriers inhibiting the accelerated adoption of technology include inadequate infrastructure access, support and training, as well as staff not being taught how to apply the technology to their teaching (Newton, 2001). The impact of technology on education may be restricted merely to the periphery with teaching practices remaining largely unchanged (Zemsky and Massy, 2004). It is unsurprising then, that technology is often regarded as a
solution without a problem. Romiszowski (2004) provides a partial explanation for the uncertainty surrounding the potential impact of technology. He argues that for many theorists and institutions the emphasis is too much on the ‘e’ rather than on the learning, or even the ‘need’.

McGraw (2001) in an attempt to move away from what Romiszowski would classify as an ‘e’ dominated approach, highlights the importance of infrastructure in the planning and implementation of e-learning initiatives. McGraw argues that critical to the success of e-learning initiatives are infrastructure elements such as an organisation’s overall business strategy and learning strategies. Whilst McGraw’s writing centres on a business-case approach, which it could be argued is better suited to a corporate environment, the concept of planning and seeking answers to key questions such as how the organisation will integrate and manage e-learning, is sound regardless of whether it is a corporate organisation or a tertiary institute.

Unfortunately, e-learning strategies in the tertiary sector are often overlooked or ill-conceived. Greenagel (2002) believes one of the reasons for the flawed strategic approach to e-learning comes from not understanding the role that technology can play in education. He emphasises this point by noting that an institution’s “available platform often drives the instructional strategy, which may not be appropriate to the learning style of trainees or to the learning objectives” (p. 5). Even with careful consideration of elements such as institutional objectives and infrastructure in the creation of e-learning strategies there needs to be equal consideration to what Beckett and Brine (2002) describe as the time intensive yet hidden nature of e-learning. Alexander and McKenzie (1998), in characterising educationally-effective educational technology projects, highlight that the e-learning success of these projects depends on a number of factors, not least of which is that it must be embedded into the department’s normal teaching, and that there should be access to technology and educational support structures. Yet the ‘cost’ of such integration has rarely been quantified or factored into staff workload calculations. Doughty, Spector and Yonai (2003) in their two year study of time spent on tasks associated with e-learning identified the time intensive nature of fully online courses. They found that students spent only slightly longer studying in such courses, with teaching and support staff spending about twice as many hours teaching online versions of courses as they did when teaching regular campus versions of the same course (Romiszowski, 2004).

Consequently a comprehensive institutional approach and commitment to e-learning as part of learning and teaching is necessary to improve e-learning capabilities in TEO. This should involve the integration of pedagogical and technical support, an institutional commitment to staff development (Milne and White, 2005) and financial commitment to resourcing infrastructure and staff (Mitchell et al., 2005). Achieving an institutional approach may be difficult if there are competing agendas of politicians, managers, administrators, teachers, support staff, student and trainers. Resources and effort is also required to configure people, objects, machines, texts and money (Hannon, 2008, p 16-17).
Campbell (2001) in focussing on the context of New Zealand schools and the use of ICT argues for e-learning strategies which sustain change and build a learning culture, encouraging leadership, support and a ‘nurturing’ business model. Institutional leadership is one factor influencing the uptake of professional development for e-learning. Hegarty et al. (2005b) suggest the uptake of e-learning by academics requires a multifaceted strategy which could include such things as the:

- Development of a vision which takes into account the needs of teachers and students and which does not rely purely on the work of early adopters;
- Financial resources and strong leadership to enable that vision which is distributed across the organisation to create and maintain momentum;
- Strong strategic investment and planning.

Factors that Hegarty et al. (2005b) identify as being associated with the success of introducing and using e-learning methods in educational institutions are likely to be relevant to PD outcomes too. These factors include institutional culture, effective leadership and strategic vision, staff support and buy-in, staff development, curriculum change and financial support. They suggest there may be insufficient financial support available for professional development for e-learning in New Zealand TEOs, particularly as much professional development appears to be informal in nature. According to an American review of the literature the majority of professional development is also engaged in on a voluntary basis, thus it is important for e-learning and policy to acknowledge that the needs, motivations and ‘buy-in’ of non-volunteers may be substantively different to those who are keen to participate in e-learning PD (Lawless and Pellegrino, 2007). In addition some staff may not choose to engage regardless of incentive.

In their Guidelines for the support of E-learning in New Zealand tertiary institutions for e-learning, Milne and Dimock (2005) also note the importance of linking strategic planning to practice and suggest certain features of good institutional practice in relation to staff development for e-learning. These include:

- Development of staff development in consultation with teaching staff
- Availability of online learning experience for staff
- Support available to assist in development of online courses
- Encouragement to participate in networks or learning communities
- Availability of examples of good practice for adoption or adaptation
- Guidance for designing appropriate online assessment
- Funding and support for champions who can inform the work of others
- Monitoring of staff development outcomes to ensure effectiveness.

Institutional goals may not just be aligned to securing changes in skills, teaching practice or outcome but also to altering attitudes, confidence and understanding (Lawless and Pellegrino, 2007).

Policy and strategy in relation to e-learning and professional development should be informed by ongoing evaluations of competency and capability (Aragon and Johnson,
This is particularly important given the diverse range of TEOs, their staff, learners and rapidly changing technologies. Marshall’s (2005) evaluation of TEOs capabilities gave a comprehensive list of relevant factors for institutions to consider. It is also important to think about staff competencies when developing policies. Competencies are knowledge or skill areas that are essential for producing key outputs whether these be technical, related to teaching and learner outcomes, or about networking and interpersonal skills (Aragon and Johnson, 2002, p. 430). Competencies are likely to be different for staff, managers, and those involved in PD and e-learning training and support, and these will be oriented toward different tasks. For example, staff competencies may range from a requirement to use a Learning Management System, to facilitating student learning, or producing specific learning outcomes for cohorts of students. Managers’ competencies might relate to setting agendas and priorities of e-learning PD, developing procedural rules, providing staff encouragement and support. Having assessed initial capabilities and competencies, it is important to connect these to institutional visions for e-learning (and PD) and to develop strategies around how these capabilities and competencies might be enhanced across and through institutional levels and networks, and to consider what this means for professional development conceptualisation and practice.

Changing policies, strategies and structures do not necessarily immediately change the cultures of institutions or the motivations and beliefs of individuals. Staff may resist change and conceptions of and assumptions around e-learning can be powerful inhibitors or initiators of involvement in e-learning professional development. For example, in research active universities, incentives that emphasise the scholarly aspects of engaging in e-learning are more likely to be effective than external rewards (Shannon and Doube, 2004, cited in Hegarty et al. 2005b). Even where institutional policy is stated, there may be considerable differences in staff interpretations and application (Hannon, 2008).

Consequently, institutional philosophy, politics, learning culture and social support within the organisation are all likely to be factors influencing uptake and implementation of PD for e-learning (Wang and Wang, 2004, Cheong, Wettasinghe et al. 2006). Staff need to be informed and be given accurate expectations of how their teaching roles might change (Kidney, 2004). They also need to be continually exposed to research demonstrating the pedagogical contribution of e-learning environments and technologies in e-learning environments across a range of disciplines (Mitchell et al., 2005). Demonstrating the practical usefulness of the professional development offered and the usefulness of PD for supporting students’ learning may assist in encouraging uptake (Kanaya, Light and Culp, 2005).

Leadership and involvement in e-learning appears to be more than simply creating informed, policy supported by appropriate mechanisms and structures. It is about developing an institutional vision which is shared by its members (Butterfield et al. 2002). Effective leadership with positive outcomes for students also involves leadership of others, establishing priorities, reducing competing demands, engaging reluctant participants, ensuring focused and productive opportunities to learn, engaging expertise.
where needed, promoting participation in professional communities and a challenging learning culture (Timperley et al., 2007). Cheong et al. (2006) proposed a four step professional development implementation framework for institutions which brings together the views of institutional stakeholders to evaluate and share outcomes:

1) Design and development - in which stakeholders are identified and needs analyses undertaken
2) Implementation – in which programmes are established and formative evaluation undertaken;
3) Impact evaluation – where any outcomes are identified and measured and improvement planned; and
4) Sharing learning – in which outcomes are documented and disseminated

As the concept of institutional ‘stakeholders suggests’ - the implementation of any framework should involve staff in a variety of capacities, embracing e-learning professional development across organisational structures and offering a diversity of professional development activities. Ham’s (2005) study of New Zealand schools’ ICT professional development clusters, found the active involvement of school principals and middle management was essential for professional development to have an effect. The study also discovered that the facilitators’ expertise as professional developers of other staff was more influential in encouraging staff to engage in e-learning, than the facilitators’ role as technical experts or even exemplary teachers. This demonstrates that professional development is not simply an instrumental undertaking, but is actually influenced by and produced in accordance with staff members’ self efficacy, desires, personal beliefs and goals, which are turned influenced by situational and disciplinary context.

Tomlinson (2001) notes the need for managers to understand the role of ICT for improving teaching and learning, in identifying good practices and for improving effectiveness. Research with university managers at the Australian Douglas Mawson Institute (Simpson, 2001) found that some managers were not keen to participate in online courses and were not confident in taking part in team-based professional development activity. Reasons for their trepidation included: inexperience or lack of confidence in using computers; concerns about the relevance, desirability or accessibility of online courses to all types of learners; apprehension about the loss of face-to-face learning and the threat posed by computer-based learning to human interaction, as well as the cost-effectiveness of changing to online learning and a pre-occupation with other priorities. Conceptions of e-learning, a lack of belief and commitment by managers in the merits of e-learning as part of teaching and learning, and of the merits of professional development related to e-learning, are therefore likely to influence both engagement by staff in PD and also e-learning capability. Awareness of available opportunities for PD and of the potential and possibilities of e-learning may also facilitate engagement. Leicester University for example has created a campus ‘zoo’ to help staff understand and use more technology in their teaching. The zoo included exhibits of safe and familiar technologies as well as species ‘new to captivity’ in or to allow staff “to explore the relationship

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Part C – Massey Literature Review: Professional Development for E-Learning: Adoption, Implementation and Improvement
between technological creatures and the online educational world” (Times Higher education Supplement, 2007, p13).

Managers of teaching staff may also have a role in implementing and developing practices and strategies related to e-learning, including incentives, performance appraisal and allocation of time and funding. Berridge et al. (2007) argues that engaging in professional development should be linked to support, encouragement and incentive structures, not only in order to involve staff but also to assist in evaluating capabilities and determining future needs. Managers’ role in recognising the costs of engagement in e-learning professional development incurred by the staff member (rather than just the institution) are also suggested as a significant factor in promoting involvement in professional development for e-learning (CEDEFOP 2001).

Institutional incentives for staff to engage in e-learning may also be necessary and may include time-release or financial allocations to staff, new hardware and software, disciplinary based resource internet sites and involvement in e-learning seminars and online activities run by experts (Ellis and Phelps, 2006). Maor and Volet (2007) highlighted the importance of institutions’ recognising professional study as an integral part of work. A lack of recognition of work within departments has been found to inhibit continuing professional development (Whitelaw, Sears and Campbell, 2004). Workload recognition also implies recognition that time may be used differently, as learning about and applying e-learning technologies may require intense and concentrated time plus additional time spent in experimentation, processing and evaluation (Maor & Volet, 2007).

Given the complexities of introducing and adequately supporting e-learning within institutions it is no surprise that there are implications for effective e-learning PD. Of particular concern is the need to not only train staff that often lack the technology skills and experience required to engage meaningfully in online endeavours, but also to ensure that these same staff have strong pedagogical foundations from which they can launch and support online courses. Yet, all too often the latter suffers in what Donnelly and O’Rourke (2007) term the technological-pedagogical division of e-learning whereby “academic staff tend initially to regard an introduction to e-learning as a course in ICTs rather than an effort to change or improve their teaching abilities” (p.33). Govindasamy (2001) also highlights this dichotomy, arguing that pedagogy is the most neglected aspect of attempts to implement e-learning. A partial solution to this issue can be found in what Segrave, Holt and Farmer (2005) term a strategic, systems-based approach to e-learning PD. They argue that this approach takes into account issues such as the changing role of the academic and the role and the best use of technology (including its accompanying PD) within institutes.
6. Factors influencing professional development for individuals

The previous discussion has highlighted that changes in institutional structures alone will not be sufficient to bring about the engagement of individuals. Institutions should address staff motivations, requirements for continued engagement, the resources necessary to sustain this (Rosenberg, 2007). For individuals, a multitude of factors are likely to influence whether teachers adopt e-learning, whether they engage in professional development and what forms this might take. These factors may include such things as personal aspirations, learning styles and preferences, views about professionalism and peer and student pressure (Rosenberg, 2007). Factors found to influence the uptake of e-learning may also inhibit or facilitate teachers’ decisions to engage in professional development related to e-learning. Conceptions of and about e-learning (explored more fully by the Otago team in Part D of this report) as a result are likely to influence whether and how staff engage in professional development.

Attitudes toward e-learning have been found to be significant in assessments of individual capability (Wang and Wang, 2004). For example Kanaya, Light and Culp’s, (2005) survey of teachers, found that as perceived pedagogical usefulness of e-technology increased, the probability of using new software also increased, noting that “A perception of relevance is important to support the integration of new tools into current practice.” (p324). Relevance may be conceptualised in different ways. Hegarty (2005b) talk about the need for academic staff development to be context oriented and tailored towards staff needs. Garet et al. (2001) discuss the issue of relevance in terms of coherence and the importance of sharing development with other teachers from common backgrounds or disciplines.

In Timperley’s et al. (2007) iterative synthesis of the literature on professional development of teachers in schools reiterates the importance of recognising the theories and beliefs staff bring to the teaching process in providing opportunities for PD. They state that for teachers to access the content of professional development and engage in new practice, they needed to share the beliefs, understandings, values and goals of the professional development providers. This process may take some time and often requires opportunities for staff to revisit or refine the PD messages they have been hearing (Timperley, 2007). Atack and Rankin (2002) point to the importance of experience and expectations as significant factors in professional development outcomes. Their study of nurses participating in a web-based postgraduate course found that inadequate preparation for web learning, lack of computer competency, and erroneous perceptions of course workload meant many never embarked on the course or withdrew. Yet conceptions of e-learning and PD may change over time. More research is needed into how teachers’ attitudes about PD change with experience in e-learning, training and with growing expertise. It is also useful to understand how attitudes and actions change as a result of particular PD interventions (Torff, Sessions and Byrnes, 2005).
Staffs’ sense of self-efficacy or confidence in learning coupled with outcomes of using e-learning tools as well as appropriate teaching methods are important for both initial and continued involvement in professional development (Ham, 2005). However, it is important that educators also have the requisite computer skills and appropriate beliefs about the technology that they use, as this helps to build self-efficacy (Hegarty et al., 2005b; Kanaya, Light and Culp, 2005). Motivation is another determinant in the interest and rate of participation in learning programmes (Wang and Wang, 2004, Simpson, 2001). A belief in the perceived benefits of e-learning can consequently increase both participation and completion of learning programs (Ham, 2005).

Related to self-efficacy is the extent to which individuals may possess fear or anxiety around e-learning PD. This can involve factors ranging from apprehension around incompetence with technologies, social roles (such as a fear of incompetence in the student-teaching relationships), time and workload commitment as well as issues connected to forms of professional development on offer (such as self directed or collaborative learning) or not even knowing where to start (Boyer et al., 2006, Campbell, 2001). Fears may be based on both perception (based on assumptions of e-learning and/or PD) and experience (for example having tried unsuccessfully to implement e-learning technology) which may change over time with experiences of engagement. Support and encouragement may also assist in overcoming such fears. Campbell (2001) focusing on the context of New Zealand schools and their use of ICT reinforced the need not only to have appropriate learning and teaching tools but to construct communities who understand how they can be used. Campbell argues sustainable e-learning growth and development is reliant on the capabilities of e-teachers to see the promise offered by the online opportunities and to understand the landscape of the new environment, thereby indicating a role for professional development activity.

A diversity of attitude, conceptions and motivations of staff suggests singular approaches or models of professional development may be inappropriate. There may also be significant differences between early and late adopters of e-learning, implying different types of professional development and support are required (Hegarty et al., 2005, Wilson and Stacey, 2004, Weaver, 2006). Early adopters can be more motivated and be stimulated by solving problems in relation to e-learning. Late adopters tended to be more sceptical and less motivated. Wilson and Stacey (2004) suggest that individualised staff development should be replaced by institution-wide approaches when trying to motivate late adopters. Late adopters for example may need to be convinced of the benefits of e-learning and may require additional support in learning to use technologies. For non or hesitant users of e-learning technologies different strategies for encouraging professional development may be needed including; demonstrating the benefits of innovations, peer support and competency frameworks as well as input which draws on the expertise of early adopters (Wilson and Stacey, 2004). Staff will also vary greatly in the extent and nature of their use of e-learning technology. It is also not necessarily the case that those who have high levels of technological competency might be the only ones capable of being involved in developing and improving e-learning delivery and outcomes (Ellis and Phelps, 2000).
For those undertaking web-based PD technological challenges (including reliable internet access) can create barriers to the learning experience. Technical problems in learning are often a source of frustration and disillusionment (Maor and Volet, 2007). Hegarty et al. (2005) identified a strong association between computing self-efficacy and computer use and suggest better awareness of computing skills coupled with an understanding of beliefs and effective responses in relation to technology could be a suitable basis from which to make improvements in self-efficacy.

Gender, ethnicity and cultural factors may also be relevant. Hond (2001) for example, identifies a number of factors related specifically to Maori participation in e-learning, which may also influence the extent to which individuals and groups participate in forms of professional development. These factors include: a fear of technology and reluctance to see any relevance between new digital technologies and e-learning, a lack of Maori providers and expertise in delivering quality programmes, pressure on Maori providers reducing the ability to develop e-learning programmes, lack of Maori digital material and incentives for community participation, and varying quality of and access to e-learning technologies.

Numerous studies have identified time pressures as an inhibitor to engaging in continuing professional development (CEDEFOP, 2001; Simpson, 2001, Hegarty et al., 2005b; Pegler, 2005; Cheong et al., 2006; Maor & Volet, 2007). Trying to make time for professional development in institutional environments may be an additional pressure to coping with the time demands of one’s daily tasks (Maor and Volet, 2007). Competing demands on time can be amplified by personal responsibilities outside of work and pose an additional challenge to involvement in continuing professional development (Wang and Wang, 2004).

Learning styles may not directly influence initial decisions to participate in professional development but may play a critical role in whether a learner continues with professional development programmes (Wang and Wang, 2004). Jeffrey et al.’s (2005) study of the learning related orientations of students may also be relevant to those involved in the delivery of e-learning. The research not only noted different orientations toward modes of learning but also highlighted differences in a person’s motivation to achieve, and whether involvement was driven by intrinsic or extrinsic motivations. From their analysis they were able to derive three key learner profiles: cognitive voyagers, strategic competitors and multimedia collaborators. They also found variance in these profiles with age, ethnicity, gender and by academic discipline.

Jeffrey et al.’s (2005) study commented on the role of attitudes in creating learning. They suggested students dislike online learning because of their own inexperience, an inability to cope with self-directed learning, and having a learning orientation that does not easily adjust to the use of e-learning technologies. Preferences for working alone or collaboratively, or for self-directed or programmed learning will also influence PD forms and outcomes. It is widely argued that teachers need to experience e-learning from the
student’s point of view in order to gain the insight they need for their own teaching (Simpson, 2001; Kidney 2004; Massachusetts DoE, 2005; Milne and Dimock, 2005, Pegler, 2005). Boyer et al. (2006) argues self directed learning is not for everyone, nor is the online environment. They suggest there will always be resistance to e-learning PD with some staff never moving beyond and initial frustration or reluctance despite intensive assistance and support.

7. Professional development programmes and opportunities

Policies or strategies for e-learning should address professional development for staff. The challenge for institutions in creating PD programmes and in facilitating informal forms of professional development is to accommodate and reflect a wide range of e-learning-related skills and attitudes of faculty and managers (Mitchell et al., 2005). It is also imperative that PD programmes are cognisant of contextual factors – institutional, disciplinary, and pedagogic - which may impact on content, delivery and outcome of professional development.

Timperley et al.’s (2007) Teacher Professional Learning and Development Best Evidence Synthesis Iteration reviewed a comprehensive range of studies that examine specifically the PD practices and contexts that have positive impacts on student outcomes. Though based primarily around formal professional development of school teachers (and oriented toward student rather than staff outcome based measures of effectiveness), the report has much to say about the characteristics of effective professional development, many of which may have relevance for PD in tertiary contexts, and for PD related to e-learning. With regard to formal professional development Timperley’s (2007, p. xxvii suggests the following seven contextual factors have positive impacts:

1. Extended time for opportunities to learn was necessary but not sufficient
   These often occurred over an extended period and involved frequent contact with a provider, though how time was used was more important than how it was provided.

2. External expertise was typically necessary but not sufficient.

3. Teacher engagement was more important than initial volunteering
   Who initiated the PD opportunities and whether they were compulsory bore no particular association to student outcomes.

4. Prevailing discourses were challenged.
   Learning gains were made as a result of thinking about alternatives and changing teaching approaches.

5. Opportunities to participate in a professional community of practice were more important than the place PD occurred.
Effective communities provided opportunities for new understandings to emerge, challenged beliefs and focussed on analysing the impact of teaching on student learning.

6. Consistency with wider trends in policy and research. Approaches considered research findings, recommendations of professional bodies and/or current policy.

7. Active school leadership, whereby leaders did one or more of the following: actively organising a supportive environment to promote PD opportunities and implementing them in classrooms; focussing on developing a learning culture where learners along with researchers provided alternative visions and targets for student outcomes and monitored these; and/or creating the conditions for distributing leadership by developing the leadership of others.

A review by Lawless and Pellegrino (2007) reiterates many of Timperley et al.’s (2007) key points. They suggest effective PD which makes a connection to student achievement is generally longer in duration, provides access to new technologies for teaching and learning, engages teachers in meaningful and relevant activities, promotes peer collaboration and community building and has a common vision for student achievement. However, there is limited research on what constitutes effective methods of e-learning professional development with respect to teaching and learning outcomes (Lawless and Pellegrino, 2007). As much professional development appears to be informal in nature (CEDEFOP, 2001; Hegarty et al., 2005b; Rothwell and Arnold, 2005) considering how contextual factors might facilitate and support informal ways of learning would seem to be appropriate, as well as assessing how these are seen to be effective other than assessments based on teacher’s opinions or experiences. Evaluations of the effectiveness of e-learning are complex, with delivery, duration and content being key dimensions which might be appraised, with changes in teacher knowledge, behaviour, confidence and student learning being possible outcomes (Lawless and Pellegrino, 2007).

Where formal professional development programmes are offered, sufficient expertise and instructional support as well as communication should be made available to staff. This would also include provision for staff trainers to enhance their own technological and pedagogical skills (Maor and Volet, 2007). Mitchell et al.’s report of e-learning in ITPs noted the urgent need for professional development to provide staff with the skills they needed to fully utilise e-learning and to exploit the range of pedagogical possibilities e-learning can offer. The provision of opportunities for professional development should consequently involve understanding employees’ needs and consider their learning styles, particularly for those employees who are unfamiliar with e-learning technologies (Schweizer, 2004).

As mentioned previously, professional development programmes should not focus solely on what e-technologies are available, or how to use them, but their relevance and application in terms of learning and teaching. A University of Houston study of a
CampusNet Online Workshop (COW) programme (Kidney, 2004) identifies a number of factors which contributed to successful professional development for teaching staff. These are:

- Ensuring that as much of the workshop as possible is linked to working with participants’ own projects;
- Provision of adequate time for questions allowing staff members to explore new ideas or techniques that could be useful in their courses;
- Opportunities to practise online in order to give staff insight into online study;
- Offering advanced workshops to support those who wish to learn more about e-learning;
- Running workshops in discipline-based groups in order to cater for discipline specific requirements.

The COW programme was successful for a number of reasons. It facilitated networking by staff across the whole university, it enabled staff to showcase work and ideas, it balanced theory and practice; it provided a non-threatening atmosphere, addressed the needs of learners with different e-learning competences and allowed staff to try new e-learning tools. Simpson (2001) also identifies some critical factors that promote work-based learning. These include using an experienced facilitator, having small groups staff for discussion and maintaining motivation, making the learning relevant to staff.

The need for integration of e-learning PD into professional development strategies and for it to accommodate a diversity of learners was also a finding of the T4T4T action research project which emerged from the E-Learning Advisory Group. It comprised a web-supported professional development community project run in 2004 involving groups of tertiary teachers working within four Canterbury tertiary institutions. The project was intended to promote collaboration and cross-institution interaction and to enable participants to engage with and reflect on effective practice. Trained mentors supported and guided small groups as they developed an action-based and reflective approach to professional development online.

The project concluded with the following findings:

1. Online professional development needs to be part of an overall professional development strategy for tertiary institutions.
2. Online professional communities must cater for a range individual differences and a range of groupings within the community.
3. Strong facilitation is essential.
4. Effective mentoring is required.
5. Incentives for participants to be involved should be linked with legitimate work-related reasons for participation.
6. A flexible and adaptive online environment is essential for success. The design and core features of the environment should be in place from project inception. (http://home.core-ed.net/projects/copy_of_T4T4T)
The creation of professional development opportunities and programmes that have relevance for staff needs and everyday practice is mentioned elsewhere in the literature. Pegler (2005) argues that a learner-centred approach to staff development is essential and a pick-n-mix approach may be the most effective where time is at a premium for staff. Ellis and Phelps (2006) advocate collaborative team based approaches to staff development and learning, whereby a small group of staff and an instructional designer are involved in action learning involving planning, acting, observing and reflecting.

Ham et al.’s (2002) study of the New Zealand ICTPD School Clusters Programme noted that programmes which focussed on personal skill development, practical classroom ideas and sound pedagogical or theoretical rationales for the use of ICTs had more wide-ranging and possibly longer term effects than more narrowly focussed courses. Finding the right emphasis on personal skills, practical ideas and pedagogical theory is important as is the need to emphasise both the technical and pedagogical aspects of e-learning in professional development (CEDEFOP, 2001; Marshall, 2005). Schroeder and Spannagel (2006) note that many e-learning materials lack pedagogical principles and theoretical foundations and are, as a consequence, failing to motivate learners or enrich the learning experience. It is vital for academics to develop more than just new technical skills in order to make the transition to online teachers or learning facilitators (Ellis and Phelps, 2006). In their view producing successful on-line teachers involves the development of new pedagogical approaches including assessment, group interaction and student/teacher dialogue, but also attention to academic work practices, including challenging notions of academics’ working in isolation.

The New Zealand ICTPD School Clusters Programme study (Ham et al., 2002) also found teachers most appreciated the professional development strategies which maximised the time available to them to come to grips with ICT skills and uses, and which combined substantial ‘time out’ with ongoing access to collegial support. Ham (2005) suggests good professional training should involve a focus on participant needs, careful preparation, orientation towards practice and action, as well as elements of coaching. It should also be comprehensive (broader than skills in IT) and authentic in so far as having relevance to teacher issues and problems. The human, social and interpersonal aspect of connecting with others should also be acknowledged as this was found to be significant in most teachers’ descriptions of effective professional development (Ham, 2005). The role of trainers or facilitators is crucial not simply in terms of technological or pedagogical knowledge, but because enthusiasm, experience and the ability to motivate and empower is also important (Ham, 2007).

Whether the professional development is orientated towards one’s disciplinary base may also influence professional development outcomes. Garet et al.’s (2001) study of school teaching staff who had participated in a national professional development programme in the USA found that professional development that focuses on academic subject matter gave teachers opportunities to learn actively, to integrate learning into everyday tasks and was more likely to enhance knowledge and skills. This also raises the issue of whether a separation of ‘e-learning’ PD from ‘other’ teaching related PD in policy should exist, and

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part C – Massey Literature Review: Professional Development for E-Learning: Adoption, Implementation and Improvement
whether this is conducive to building the professional capability and efficacy of teaching staff.

Timperley et al.’s (2007:xxxii) review of a range of studies that examined specifically what PD practices have positive impacts provides suggestions as to what it is about the content of formal professional programmes that makes for effective outcomes. These four key content based characteristics involve:

1. Different aspects integrated
   Here the integration of theory and practice was important, with theory providing the basis for making curricular and pedagogical decisions, and assistance to translate this in practice.

2. Clear links between teaching and learning and/or student-teacher relationships established
   PD was underpinned by assumption that teacher-student relationships were influenced by what teachers did in their classrooms and that identifying problems could provide new vision.

3. Assessment used to focus teaching and enhance self regulation
   In 50% of the reviewed studies student assessment was used as a basis for identifying learning needs of student and staff and of reflecting on the effectiveness of teaching practice. It was also used as a tool to provide motivation for both initial and continued involvement in PD by providing feedback on the learning and the teaching-student relationship and in the identification of next steps to improve teaching practice.

4. Sustainability
   This was dependent on teachers developing an in-depth understanding of theory to assist with instructional design and inquiry skills to judge impact of teaching and to formulate next steps.

Existing research not only characterises the qualities of ‘good’ professional development, but also outlines some forms of professional development which have been successfully implemented. The New Zealand ICT school cluster study found a variety of professional development activities were rated by teaching staff as effective: teacher release time, technology mentors, on-the-spot support, and to a lesser extent workshops/seminars (Ham, 2005).

Hegarty et al. (2005) reviewed different models of training and staff development strategies and concluded that it may be necessary for organisations to utilise a number of different strategic approaches. Their research advocated PD based on metacognitive approaches whereby programmes of professional development are formulated by staff who are encouraged to pursue goals that are personally relevant to them. This is in contrast to approaches where specific objectives or outcomes are ‘imposed’ on learners.
As well as programmes orientated towards individual needs and assessments most studies emphasise the benefits of collaborative learning, and of using situated, project based or context oriented approaches. A variety of forms were suggested as being effective for e-learning PD. These might include:

- advanced workshops for early adopters (Kidney 2004)
- active learning approaches (Garet, et al. 2001)
- meta-cognitive strategies to build self efficacy (Hegarty et al. 2005)
- learner-centred, question-based strategies (Pegler 2005), (Kidney 2004)
- context based learning (Simpson, 2001, Lawless and Pellegrino, 2007)
- developing learning communities within groups of learners (Garet et al., 2001, Milne and Dimock, 2005).
- project based learning (Hegarty et al., 2005)
- allowing staff to become on-line learners (Weaver, 2006)
- presentations of good practice (Weaver, 2006)

While a variety of types of PD have been advocated each form will have its own strengths and weakness, content and outcomes. It is the characteristics of such forms in facilitating both professional learning, self efficacy and changed teaching practice which are critical. The understanding promoted through engagement in these activities is more important than the activities themselves. Timperley (2007, p. xxxvi) identified six core characteristics of activities which promoted professional learning:

1. Content and activities were aligned with a clear relationship between learning goals and activities.
2. A variety of activities was needed.
3. Content conveyed through the activity was more important than any particular activity.
4. Professional instruction was sequenced (typical sequences involved a rationale, instruction in key theoretical principles, and opportunities to translate theory into practice).
5. Understanding of concepts and theories were discussed and negotiated.
6. A student perspective was maintained.

The notion that the ‘best’ professional development activities occur over extended time periods with opportunities for follow-up and feedback is cited as the reason for a shift in professional development away from workshops and towards design-based opportunities which allow teachers to use technologies in contexts relevant to them (Lawless and Pellegrino, 2007). Situational or context based learning is also seen as assisting in the building of communities of collegial learning and practice which may help sustain knowledge and practice gains. Mentoring and coaching, and encouraging e-learning leaders to train others are believed to benefit both teachers and ‘trainers’ and also involve building relationships over time (ibid.). Learning directed toward changing practices often provides challenges for teachers (Timperley et al., 2007). The acquisition of new beliefs, knowledge and skills may be both consistent with one’s current positioning, or
dissonant to it. Reflecting on, and reconciling managerial, teaching, and support staff’s e-learning and professional development orientations and dispositions is critical if practices, cultures and institutions are to undergoing e-learning ‘transformations’.

8. Summary comments

This literature review has explored the factors likely to influence the professional development of individuals located in tertiary institutions. A series of reports and studies have identified that professional development of staff is essential for building capability in e-learning in New Zealand Tertiary organisations. The professional development of staff is consequently imperative and pressing, but requires a substantial investment in human capital. The review presented in Part C of this report provides details of reports and material which can be used for capability assessments while identifying the key dimensions to be considered in relation to developing capability in e-learning. Through an examination of what is known about policy, strategy and implementation of professional development in institutional contexts, this review has discussed the sorts of processes and practices which might be undertaken in order to successfully embed e-learning professional development in tertiary organisations. It also highlights the need for further research on the relationship between professional development and e-learning with a view to exploring how sector, institutional and individual capability might be increased.

After reflecting on the broader New Zealand context for direction in e-learning in New Zealand, the literature review examined some of the factors influencing the content, delivery and provision of professional development. These included attention to policy, strategy and structures and mechanisms necessary for implementation and factors influencing individual uptake and involvement. The review reinforces the need for institutional change to address not only structures, but also the cultures and beliefs of organisations, groups and individuals. Achieving interconnectedness of people, things, and structures across institutions would seem to be imperative in developing and implementing e-learning PD as policy and practice. This review also suggests qualities of best practice. A summary of key points listed in the literature is given below:

**Connecting institutional policy, infrastructure and people:**

- A need for planned intentionality and shared vision with regard to e-learning and PD
- Policies should be orientated towards addressing attitudes and building confidence and understanding
- Achieving real transformation is about building a supportive learning culture which is self-sustaining and innovative
- Developing leadership is important and can be done by promoting institutional networks and learning communities
• Policies and strategies should take into account the needs of a diversity of staff and students and be clearly communicated
• Comprehensive institutional approaches should be employed which involve attention to co-ordination of staff, financial resources, technologies and forms of personal support
• In particular, pedagogical and technical support should be co-ordinated
• The involvement and engagement of (middle) management is helpful
• Engaging with staff in order to facilitate acceptance of e-learning PD programmes and strategies is important especially if e-learning PD is to be expected of non-volunteers
• Ongoing monitoring and evaluation of cross-institutional competency and capability is desirable to ensure effectiveness

Encouraging staff engagement through:

• Demonstrations of the merit of e-learning PD for staff teaching and student learning
• Incentives and motivations for engagement (PD time, recognition of learning)
• Embedding e-learning in staff’s teaching and learning programmes
• Recognising and reconciling competing agendas of staff across institutions
• Ascertaining the needs of staff and formulating PD opportunities to meet individual needs
• Providing different types of and opportunities for PD which recognise staff have different capabilities and will learn and engage differently

Factors affecting uptake and involvement in e-learning PD for individuals:

• Conceptions of and attitudes toward e-learning and professional development (understanding what these constructs comprise, what they involves, what is required of individual staff, and the likely outcomes of engaging in it).
• Personal beliefs, aspirations, goals
• Fear, anxiety or belief in competency to engage in e-learning
• A sense of self-efficacy aids in initial and continued involvement
• Belief in perceived benefit
• Time and workload commitments
• Peer and student support
• Previous engagement with, and experience of, e-learning
• Technical capability
• Hardware and software access, availability and suitability
• Social factors, gender ethnicity, cultural beliefs
• Learning styles and orientations (preferences for modes of delivery and for learning e.g. working alone or in collaboration with others)
• Staff having insight and experience of e-learning from a student perspective
• Exposure to examples of good practice, demonstrations, and disciplinary application

**Characteristics of effective professional development programmes and opportunities:**

• Extended opportunities to learn (rather than one off sessions) including providing time for learning
• Employs the expertise of trainers and leaders
• Positive social and interpersonal dimension – enthusiasm, experience and empowering of individuals
• Links teaching and pedagogy in delivery
• Good collegial support, mentoring and coaching
• Cognisant of learning styles and provides a range of learning opportunities
• Should challenge prevailing discourses – enable discussion and negotiation of key concepts that staff and trainers bring to PD
• Gives good reasons why individuals might do things differently
• Evaluation of changes of teacher behaviour, self-efficacy and student learning
• Emphasis on contextualising e-learning – relevance and application (disciplinary orientated)
• Clear links to teaching and learning outcomes, student perspectives and building staff/student relationships
• Opportunities to actively participate in PD programmes/workshops – promotes peer collaboration and development in learning communities and/or communities of practice
• Allows for individualised learning based on staff member’s needs and context
• PD goals are formulated by staff and are personally relevant
• Recognises different e-learning competencies and enables staff to become online learners
• Involves presentations and exemplars demonstrating good practice
• Motivates staff learners to take their learning further
• Promotes sustainability – encourages self sufficiency and next steps

This review has outlined some of the implementation requirements for the adoption of e-learning professional development, and it has indicated some of the characteristics of formal PD programmes which are effective. Throughout it highlights the need for linking pedagogical and technical aspects of e-learning and the importance of connecting policy to practice. Part C has examined issues of implementation; delivery, form, content, uptake and ‘best’ practice and effectiveness.

Investment in human capital through staff development may be significant for institutions but engagement and uptake is not simply a reflection of the need for skills acquisition or improvements in technological capability. The knowledge, dispositions, attitudes and
prior experiences and support that teaching and managerial staff bring to professional development activities are critical to securing engagement in professional development. The review has been based primarily around research based on experiences of ‘teaching’ staff at school or tertiary level, yet involvement and professional development of technical, training and managerial staff is also important in achieving a co-ordinated and coherent approach to professional development and e-learning.

While there is an increasing volume of research on what constitutes good practice in professional development, there is much less with regard to how this might be embedded in institutions, how the effectiveness of PD policies and practices might be evaluated, and how PD related to e-learning is understood, experienced and undertaken by staff in institutions. Tertiary sector and institutional ‘voices’ identifying the merit and direction of e-learning are increasingly evident, yet there is a danger that e-learning PD will be driven by action rather than by a substantial knowledge base about what works and why (Lawless and Pellegrino, 2007). Consequently, it is important to consider the voices and perspectives of staff as they relate to the construction of e-learning PD in tertiary organisations. Part D examines the Otago team’s research on conceptions and in Part E the preferences, assumptions and experiences of staff are explored by the Massey Team with a view to informing embedding processes and implementation requirements for building capability in relation to e-learning professional development.
References:


Part D  Phenomenographic Research and Analysis

Professional development for e-learning:
A framework for the New Zealand tertiary education sector

Table of Contents

INTRODUCTION ............................................................................................................................... 2
STRUCTURE OF THE REPORT ........................................................................................................... 3

1. RESEARCH PHILOSOPHY, DESIGN AND METHODS................................................................. 4
   1.1. RESEARCH PHILOSOPHY ....................................................................................................... 4
   1.2. OVERVIEW OF RESEARCH DESIGN AND METHODS .......................................................... 5
   1.3. PARTICIPANTS AND DATA SOURCES ................................................................................. 6
       1.3.1. Questionnaire survey ................................................................................................... 6
       1.3.2. Interviews .................................................................................................................. 7
   1.4. DETAILS OF APPROACH TO ANALYSIS .......................................................................... 7
   1.5. RELIABILITY AND VALIDITY ............................................................................................ 8

2. RESULTS ..................................................................................................................................... 10
   2.1. CATEGORIES OF DESCRIPTION - CONCEPTIONS OF E-LEARNING ..................................... 10
   2.2. CATEGORIES OF DESCRIPTION - CONCEPTIONS OF PROFESSIONAL DEVELOPMENT FOR E-
       LEARNING ............................................................................................................................. 17

3. DISCUSSION, IMPLICATIONS AND NEXT STEPS .................................................................. 22
   3.1. OUTCOME SPACE – E-LEARNING ....................................................................................... 22
   3.2. OUTCOME SPACE – E-LEARNING PROFESSIONAL DEVELOPMENT ................................ 23
   3.3. LINKS BETWEEN THE CATEGORIES AND THE PROPOSED DRAFT FRAMEWORK ............ 24
   3.4. NEXT STEPS ....................................................................................................................... 27

REFERENCES ..................................................................................................................................... 28
Overview of the Tertiary E-learning Research Project and Phenomenographic Report

Introduction

This research study forms one part of a tertiary e-learning research project (supported by the Tertiary e-Learning Research Fund - TeLRF), ‘Professional development for e-learning in the tertiary sector’, funded by the New Zealand Ministry of Education and conducted by the University of Otago. The project team comprises Professor Kerry Shephard, Dr Sarah Stein and Irene Harris. The overall project aim is the development of a professional development framework for teachers and teacher support staff in the New Zealand tertiary sector. The project builds upon earlier New Zealand project work in the area and will also work in collaboration with a current tertiary e-learning research project led by Massey University.

In the first stage of this project we conducted an international environmental scan which examined approaches to e-learning and professional development programmes which are building e-learning capabilities in the tertiary sector. In particular a number of tools, policies and practices that have been and are being used in Australia, the UK and New Zealand were examined with a view to informing the development of a framework for professional development. This review helped us to identify and illustrate trends, issues, strategies and success factors and to consider their relevance for the New Zealand tertiary sector. In our international environmental scan we concluded that there are actually a limited range of ‘futures’ for professional development for e-learning. In terms of influencing individual teachers, academic departments, institutions or segments of the tertiary sector those who seek to influence can do so by:

- leading the way and providing direction;
- persuasion – by providing incentives, reward and recognition;
- coercion – with obligations and penalties.

At the end of our international environmental scan an initial outline for a framework for professional development was based on combinations of practitioner participation, leading the way and incentives which we argued could progressively lead to a development spiral. In the later stages of this project we intend to develop the ideas which underpin this spiral as part of our recommendations for a professional development framework.

The second stage of this project has involved empirical research which is also intended to inform the framework we will recommend. For this part of the project we have used a phenomenographic research approach to determine how New Zealand tertiary teachers and teaching-support staff conceptualise their role in relation to e-learning and their need for professional development. The research included an e-mail survey targeting teaching and support staff from a small but representative number of tertiary institutions and a number of follow-up interviews.

The research seeks to identify the variation in conceptions of e-learning and professional development held by teachers and teaching-support staff across tertiary education organisations in New Zealand. This should provide a foundation for judging how the professional development framework could best be applied to support the development of teachers’ and support-staff baseline knowledge and continuing
expansion in capability in e-learning across a variety of New Zealand tertiary education organisation contexts. The results from this phenomenographic research and our international environmental scan will therefore inform the next stage of the project which is the development of a framework for professional development for e-learning. This work will be carried out in collaboration with the Massey project team in order to recommend the most effective framework for embedding staff development for e-learning within New Zealand tertiary education organisations to support the continuous improvement of e-learning capabilities.

**Structure of the report**

**Section 1:** Reviews the Research Philosophy, Design and Methods used.

**Section 2:** Presents the results of the research including the categories of description together with exemplars from the data to illustrate each category.

**Section 3:** Discussion, Implications and Next Steps.
1. Research Philosophy, Design and Methods

1.1. Research philosophy

Phenomenographic research approaches are about making statements about the relationship that exists between a person and a phenomenon. Phenomenographers hold certain assumptions about the nature of knowledge. For them, knowledge is viewed as relational, that is, knowledge is not completely independent, objective or separate from an individual. It is also not wholly dependent upon an individual’s interpretation either (Svensson, 1994). Instead, knowledge is the result of the relationship that an individual has with a phenomenon. In other words, the meaning of a phenomenon is created as a result of the relationship that exists between it as an external reality and the person as the interpreter (Marton, 1992; Svensson, 1994).

Phenomenographic research approaches result in statements that elucidate this experienced relationship between persons and phenomena (Marton, 1989). Where the relationship is concerned, phenomenographic research approaches are founded on the assumption that individuals experience the world in different and unique ways (Säljo, 1988). A person’s unique set of life circumstances, including the person’s purpose and intent for accessing and utilising knowledge, will contribute to the sense that person makes of knowledge.

Phenomenographic research approaches aim therefore, to identify the varying conceptions individuals can have of the same concept. The internal relationship between the person and the phenomenon is thus the focus of such studies. In this study the aim is to describe

what [e-learning] is seen as, what [it] appear[s] to be, what [its] potentially differing meanings are, how [it is] delimited from - and related to - [its] context, as well as other phenomena, how [its] parts are delimited and related to each other, as well as to the whole; what is figural and what is grounded, what is focused and what is not; from what point of view [e-learning] is seen, and so on (Marton, 1994, p. 7).

The outcome of phenomenographic research is to identify the varying conceptions held of the chosen phenomenon across the population under examination. There are usually a limited number of these qualitatively different conceptions held within a population (Renström, Andersson & Marton, 1990), and they can be identified by gathering data through open forms of data collection to produce what are called categories of description (Marton, 1981). Each category is the common meaning of the perceived meanings of a phenomenon, grouped together (Svensson, 1994).

This research approach is the result of a second order perspective (Johansson, Marton & Svensson, 1985), that is, these essential meanings, expressed through categories of description, are the researcher’s interpretations of others’ interpretations. The categories are regarded as discoveries in themselves (Johansson et al, 1985; Marton, 1981), revealed by the researcher through analysis of data gathered through open ended data gathering instruments which allow individuals to express their ideas and viewpoints. Analysis involves the researcher looking beyond and beneath the words to seek images which can coalesce into categories or groups of similar notions, that is, the categories of description. The categories, by capturing and elucidating the varying conceptions of a phenomenon that exist across a population, are thus the intended results of phenomenographic studies. Often though, in addition, finding the
connections, links or relationships across the categories becomes a further layer of analysis that phenomenographers apply (Lybeck, Marton, Ströhndahl, & Tullberg, 1988). Explicating the logical relationships or connections through what is termed ‘outcome space’, can provide deeper insights into both the makeup of the categories, as well as into how the categories of description together reveal the varying facets of a population’s conceptualisation of the phenomenon under examination.

The phenomenographic research approach outlined here was adopted for this study as conceptions of learning and conceptions of teaching studies are well known and have been extremely influential in education research and development work.

1.2. Overview of research design and methods

In this study we have investigated tertiary teachers’ and teaching support staff conceptions of e-learning and professional development for e-learning.

Teachers and teaching-support staff from selected tertiary education organisations were invited to respond to a short email questionnaire survey. As well as some demographic information, respondents were asked to provide answers to open-ended, qualitative questions about their broad thoughts about e-learning and e-learning professional development, and provide responses to statements about the availability and quality of support provided/available for e-learning professional development. Participants were encouraged to write as much as possible and were encouraged to use free thought/stream of consciousness and notes.

The survey questions included were;

Demographic questions

1. Please state the type of tertiary institution you work in.
2. How long have you been employed in the tertiary sector?
3. Do you have a teaching role?
4. Do you have a teaching support role?
5. Please indicate which ethnicity you most closely identify with.

Open-ended questions/statements

6. When you think of teaching that includes e-learning, what comes to mind?
7. When you think of e-learning what comes to mind?
8. When you think of professional development, to support teaching that includes e-learning, what comes to mind?
9. I have a clear idea about the support that I need to help me with my teaching using e-learning and I also understand the range of other support that is available to me and my teaching colleagues from within the institution and from elsewhere.
10. I do not think that progress in e-learning is significantly limited by lack of support for teachers. There is a lot of support available and other factors limit progress.
11. I think that I can directly support teachers by spending time helping them e.g. to produce resources. I also indirectly support teachers’ professional development through training sessions. I think that the balance between direct and indirect support is about right. I cannot think of any particular form of support that is missing.
12. Everyone who asks for my help has had different experiences and has different capabilities and yet they all seem to make progress and discover something new.
13. Add other comments about professional development for e-learning here.
14. If you are willing to participate in an interview to provide us with more information about your views, we invite you to provide us with your contact details.

Respondents to the email survey were also invited to participate in an interview (approximately 30 minutes in length; recorded and transcribed; face to face or via telephone) during which we were able to probe the conceptions expressed in the
written survey response further. Through the interview we were able to ask the participants to elaborate on the responses they provided in the survey thereby providing more in-depth responses than the email survey could elicit.

1.3. Participants and Data sources

1.3.1. Questionnaire survey

An explanatory e-mail with a link to the on-line questionnaire survey was sent to known contacts, at a range of tertiary institutions, who were asked to circulate it to their colleagues within their department or more widely if possible. These institutions included 2 Universities, 3 Polytechnics, all the Industry Training Organisation (ITO) Chief Executive Officers, a Wananga and a Private Training Establishment. Overall 114 responses were received and the demographic information for participants is shown in table 2.

<table>
<thead>
<tr>
<th>Q1 Type of tertiary institution type</th>
<th>Response total</th>
<th>Response percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wananga</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>University</td>
<td>79</td>
<td>69</td>
</tr>
<tr>
<td>Polytechnic</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>Industry Training Organisation</td>
<td>11</td>
<td>9.5</td>
</tr>
<tr>
<td>Private Training Organisation</td>
<td>4</td>
<td>3.5</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total respondents</td>
<td>114</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q2 Time employed in the tertiary sector</th>
<th>Response total</th>
<th>Response percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-3 years</td>
<td>22</td>
<td>19</td>
</tr>
<tr>
<td>3-5 years</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>5-10 years</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>10-15 years</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>More than 15 years</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td>Total respondents</td>
<td>114</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q3 Do you have a teaching role?</th>
<th>Response total</th>
<th>Response percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>86</td>
<td>75</td>
</tr>
<tr>
<td>No</td>
<td>28</td>
<td>25</td>
</tr>
<tr>
<td>Total respondents</td>
<td>114</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q4 Do you have a teaching support role</th>
<th>Response total</th>
<th>Response percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>38</td>
<td>33</td>
</tr>
<tr>
<td>No</td>
<td>76</td>
<td>67</td>
</tr>
<tr>
<td>Total respondents</td>
<td>114</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Q5 Please indicate which ethnicity you most closely identify with.</th>
<th>Response total</th>
<th>Response percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Zealand Maori</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Pakeha / Caucasian</td>
<td>88</td>
<td>78.5</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Asian</td>
<td>4</td>
<td>3.5</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Total Respondents</td>
<td>112</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 2 Demographic details of respondents

The responses to the open-ended survey questions provided us with interesting insights into the range of conceptions held. These ideas were further explored in the

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part D – Otago research report. Phenomenographic research and analysis
follow up interviews and quotes were also drawn upon in the analysis to identify categories described in Section 2.

1.3.2. Interviews

In total 37 respondents volunteered for a follow up interview. We selected 20 to represent a cross section of experience across tertiary education organisations and then set up the face to face or telephone interviews. In selecting volunteer interviewees we also took account of experience, expressed conceptions, discipline areas and ethnicity as indicated in the questionnaire responses. As per our project plan 20 interviews were conducted with 12 staff from Universities, 7 from the Polytechnic sector and 1 from an Adult Training Provider.

A semi-structured approach was adopted for the interviews where our aim was to ask the participants to elaborate on the responses they provided in the survey thereby providing more in-depth responses than the email survey may have elicited. Our aim was to encourage participants to talk freely about their experience and ideas and also to encourage them to reflect on their experiences of e-learning and professional development.

The broad areas of focus for the interviews were:

- common/general understanding of the word “e-learning” and its nature;
- ‘doing’ e-learning;
- human role, situational/environmental/cultural influences and change;
- experience of e-learning projects/practices, implementation and support.

Within these broad areas we identified a number of question areas and these included:

- What does the word ‘e-learning’ mean to you? What does the word mean in common use?
- Give examples of e-learning you came into contact with recently. Why do you classify them in that way?
- How do you work with e-learning?
- What does it mean when you say that someone is ‘teaching using e-learning’?
- What sort of people are teachers who use e-learning? What skills do they have?
- What can go wrong with e-learning training/professional development?
- What about the staff who are not interested in e-learning. What could be done to get them involved?
- How does e-learning play a part in the teaching and learning of an institution?
- How do institutional communities change/advance in the way they use e-learning to enhance teaching and learning? What factors influence these changes?
- How can teachers’ e-learning knowledge and practice be accelerated?
- What can go wrong with e-learning projects? Why do things go wrong? To what can you attribute the failure to achieve what is intended?

1.4. Details of approach to analysis

After all survey and interview data had been collected they were separated from identification information. Analysis of the data was done phenomenographically (searching for themes and commonalities within the data), to identify the variety of
conceptions of e-learning and professional development for e-learning held by tertiary education organisation teaching staff and teaching-support staff. Conceptions were then sorted and classified into categories of description. The categories – the set of descriptions of the different ways the population surveyed conceptualises professional development for e-learning are described in detail in Section 2 of this report.

After interviews (an instrument widely used to gather data in phenomenographic research and often semi-structured in form) were transcribed quotes from the responses were selected according to their relevance, and identified. These then, make up the data pool. The quotes were then examined as entities of meaning in themselves, separate from the individuals who made the responses. These entities called "ideas" or "defining ideas" which from hereon, constitute the categories that finally emerge.

The next phase of analysis involves interpretation of the quotes in order to identify similar defining ideas. These groups of similar ideas become categories, singled out on the basis of the differences between them. Much sorting and resorting of quotes occurs throughout the process to ensure that the categories are clearly defined and explicit in their differences. Finally, a description for each of the categories is developed, accompanied by quotes from the data pool to provide supporting evidence.

1.5. Reliability and validity

The nature of phenomenographical analysis means that conceptions, viewpoints or emphases focussed on by the researcher can easily become those highlighted through the resultant categories. At the same time, this does not mean that the researcher places frameworks upon the subjects’ ideas. It becomes necessary therefore, to examine how validity and reliability are achieved.

The issue of reliability is addressed through ensuring that the categories are easily recognizable by others (Marton, 1986; Säljo, 1988). Beaty (1987) suggests that a group of independent judges can be used to establish reliability. Similarly, Johansson et al. (1985) and Säljo, (1988) recommend an independent co-judge examine the transcripts of the responses to determine reliability of categories. This incorporation of a co-judge involves a person other than the researcher gaining knowledge of the researcher's categorization process and perspective, and judging whether the classifications would be made in a similar way.

*Co-judging is a check of the communicability of categories and thus gives the researcher information that someone else can see the same differences in the material as he or she has done.* (Säljo, 1988, p. 45)

In this research two colleagues of the researcher confirmed the categories created by gaining a sense of the written pieces through viewing a sample of the responses and discussing with the researcher the main ideas that emerged. There was clear agreement with the researcher by these co-judges. Johansson et al. (1985) report that inter-judge reliability figures should be within the range of 75% to 100%. Säljo (1988) suggests that they should be in the order of 80% to 90%.

Validity can be achieved through showing the appropriateness of the internal logic of the categories (Marton, 1986; Säljo, 1988). This means that categories can be said to be valid if their logical links illustrate how the differing conceptions of reality relate to each other in specific ways, “What separates conceptions of a phenomenon is what is assumed to be in need of being explained” (Säljo, 1988, p. 46). In this study, the outcome spaces described in Section 3 Discussion, Implications and Next Steps
illustrate logical links between the differing conceptions held about experiences of e-learning and e-learning professional development. That is, links across the categories are highlighted.
2. Results
In this section we present the categories of description for each of the two phenomena under consideration, namely, e-learning and e-learning professional development. Each category is described and comments drawn from the data set (made up of the combined data from interviews and survey) are used to illustrate its key features.

2.1. Categories of description - conceptions of e-learning

Category A  E-learning is seen as tools, equipment, hardware and software
In this category expressions of e-learning emphasise the variety and type of technologies available to support teaching and learning.

There is a particular focus on the existence of the tools, with many comments simply listing the various technologies available. For example,

[e-learning] is a tool to support learning

*E-learning is any learning where ICTs are involved to assist and enrich the learning.*

Electronic media, audio conferences, BB, linking students, creating a learning community and a stimulating environment.

*Online courses, websites, discussion forums, web video, DVD, interactive web learning tools, web surveys, online submission of assessment, online assessment, email, e-books, electronic databases, electronic materials (including books, articles, course materials), 24/7 access.*

Blackboard; intranet; whole classes on computers; smart boards; self-directed learning; students being able to access teaching and learning materials; web-links; synchronous and asynchronous discussion

Computer based lecture notes, and learning sources from the internet. CD used in classrooms. Consultation by emails. BBS discussion forums, etc.

Comments also included reference to the technologies and, in general terms, to their use in the support of teaching and learning. Overall, however, a lesser emphasis is given to how the technologies are used than is placed upon the variety and type of technology available. For example,

*I think of students learning using electronic technologies (ICTs) to facilitate what they learn and how they learn it.*

E-learning is incorporating the use of technology into teaching. By this I mean the inclusion of simulations, quizzes, student discussion forums that add something to their learning experience. Learning management systems are useful, convenient tools but I don't think they necessarily improve learning if they are only used as a repository for information. However, using an LMS is often the first step for lecturing staff into the world of e-learning.

[E-learning is] a way of supplementing face-to-face contact with students, with contact via computer; to provide material to students via computer; to provide means for students to assess how well they are doing. By 'computer' I mean things such as Blackboard, blogs, electronic discussion groups...
So, to me, e-learning is computerised based learning. So it’s gone from paper to doing it through the computer.

Yes, a tool...it may be that the course is completely taught using technology, rather than any face-to-face interaction...I guess e-learning then, is just where the learning is involving technology, either partially or fully.

Because e-learning is about enhancing teaching and learning through the use of ICTs etc then you have to be reasonably savvy with the technologies available and know about the pedagogy.

Using all form of electronic media to assist learning e.g. e-mail, video, audio, web material etc etc

I think e-learning is learning, supported and facilitated by digital technologies and Internet resources in learning environments wherever they may be. Digital technologies can include multimedia resources from online course/training/education material in printable format, CD's, DVD's, videos, graphics, animation and audio files. Podcasting is a technology that can incorporate both audio and/or video files as learning resources. Devices which enable the use of digital material include the cellphone, Personal Digital Assistants (PDA), iPods and MP3 players, computers of all types, a range of ‘compact disc’ players and some game consoles.

Teaching that makes use of the interactive resources of the internet or that are taught through the internet. Also those that make use of blackboard, power-point and other computer software.

Category B  E-learning is seen as a means through which learning interaction is facilitated

This category expresses experiences of e-learning as interaction between and among students, teachers and the course material.

Comments described how students’ interactions and communication occur and then how e-learning supports these activities.

[An example of something that is not e-learning is] Those where there’s not the opportunity to interact, to ask questions.

Using electronic media to facilitate peer interaction by the learners.

...we use [e-learning] to really bring learning communities together.

An interweaving of tuition where the student is sometimes relating directly to the tutor and sometimes independently studying electronic materials that support his/her learning.

Technologies, students and teachers all have roles in facilitating and supporting communication and interaction to varying degrees. The role of the teacher in setting up learning situations using the technologies is given prominence, with some recognition of how teacher and student roles have altered from more traditional face to face teaching contexts. For example,

I realised you’d have to set it up with discussion questions and allocate the questions, you know, at the end of each session, for the next session and make
sure that you had people that were going to report back and try and get them
to sort of generate discussion throughout that time…

[E-learning means] reading lots of email! - the challenge of getting people to
contribute to discussion topics - the challenge of how to design interaction so
it contributes to assessment (experience suggests interaction must contribute
to assessment for students to really get involved)

[Some students can] think about it too much and, and when you write it, you
kind of write it so that it’s quite easy to follow and not ambiguous and you’re
trying to cover all the little questions they could have.

But actually to deal with students in this other way, it can be more time
consuming in some ways, but it also can be sort of more draining because
you’re dealing with things that you can’t plan for as much in a lecture because
in a lecture, you’re totally in control. But when you start getting them to do
things and you’re observing and you’re thinking, oh, that’s a wacky idea. I
know it’s wrong but I can’t just say it’s a wacky idea. I’ve got to sort of [craft
my words] Yes, and it’s harder. It’s much harder. So when you’re letting them
do their independent work that’s got lots of benefits but, as I said, you can’t
just sort of abandon them and say, well, the experience itself would be great
because I mean, it will be good to do it but you can’t have them going away
and say, for example, getting wrong ideas about the discipline, the core ideas
in the discipline.

I think that, again, when people are doing the traditional lectures, they say,
oh, you know, you’re taking the easy way out [by using e-learning]. You’re
not, because I have a mailbox full of emails from students, even though they’re
doing this, because they say, oh, look, you know, am I on the right lines here
and sometimes they are and sometimes they’re not. Now, it’s pointless them
having this bad experience of saying, I really crashed out in this course
because I didn’t have confidence, then I just, you know, hid. You know, I
turned up but I didn’t participate.

I guess the biggest change from face-to-face, which I do as well, is you can
kind of do it off the cuff a bit more. You can kind of sense what the class wants
to talk about and you can go on tangents. Where with e-learning, you really
have to think, you have to plan so far ahead, that you have to come with every
little nuance or every little question and kind of package it in.

Category C  E-learning is seen as learning

In this category, the idea of learning is foregrounded and the technologies are given a
less important position within expressions of perspectives. While technologies are
mentioned, as being facilitators or support mechanisms for learning and teaching, they
are not described or discussed to the same depth as they are in Category B.

Learning is learning and e-learning is a particular focus at the moment on the
use of technology to support learning. Now, in time, in most things, the E has
been stuck on the front, the E will disappear, but I think it’s perfectly valid at
this stage to emphasise the E because, in fact, we’re trying to get some
changes in the way that learning and teaching is done.

I think wanting to better engage with the students, is a driver. I think,
sometimes, e-learning still comes in the category of an attempt to save time or
make things more efficient which is, in some ways, perhaps, a justifiable thing as long as it’s the quality of the e-learning experience isn’t sacrificed.

I think of teachers making use of information and communication technologies to help them to teach their students, and to plan for their teaching. I think of teaching that capitalizes upon the opportunities that these technologies provide to facilitate what they want to do as teachers better and to make the learning environment more easily accessible by students and more interesting than paper based resource supported teaching might be.

Learning happens when communication happens.

I think they’ve really got to think again about the whole process of learning and how teaching facilitates that and the opportunities that come up when you can do things in very different ways with technology, with the help of technology. In some cases, technology may be no help at all. In other cases, it may make a total difference to how you can approach supporting the learning process. So I think teachers have to be very open to the opportunities.

In some expressions of experience, the ‘e’ in e-learning is either consciously or unconsciously extracted from discussion or thought. In fact, the ‘e’ can be regarded as drawing attention away from that which teachers and support staff should be focussing on, namely, learning. How learning happens in a broad and generic sense is highlighted, for example, through reference to theories and practices of learning and teaching that are applicable in any context/setting. A key feature of this aspect of the category is that expressions may carry with them a sense of dislike for the term ‘e-learning’ and the influence its can have on how e-learning is understood and applied.

I think e-learning is one strategy for learning. I don’t think it should be at the expense of others.

Could drop the ‘e’

‘e’ may equal the computer but that doesn’t necessarily equal learning.

[When I think of e-learning, I think of] social constructivist flexibility, interactivity, communication.

[When I think of e-learning, I think of] learning environments, teachers working with students - too easy to expect autonomous work - are these students capable of that and is this the best way for them to learn constructivism - zone of proximal development - learning more with others

Learning generally

Challenge of linking pedagogy and technique

A different approach to learning

I can see no benefit to having the E because however one is learning … I mean we don’t, for example, you don’t talked about, mechanical learning for people who learn how to drive a digger or a truck. They just learn how to do it. …so adding the E, what does it tell us? Electronic learning. Well, you’re not learning electronically. You’re learning exactly the way human beings have always learned. There’s nothing different going on. You’re using different, potentially, you’re using different tools to do what people did a hundred years ago, but so what.
There is an underlying theme about students becoming responsible and independent learners, being freed up from the teacher. Again, learning is the prominent feature in this conceptualisation, with references to various technologies being integrated.

... when I was [teaching Paper X] which was supposed to be focused on online learning, it was the fact that the students were getting information themselves from what I’d set up on Blackboard. They were sort of discussing that maybe, in chat rooms, discussion boards and that I would be seeing how they were sort of searching for information, discussing it with other people. But it was all, if you like, distinct from me. I was sort of observing it as a third party and I think that’s when you think, oh, yes, they’re doing something sort of on their own, but they couldn’t really do it if they didn’t have the technology because they wouldn’t be getting together in their groups. If you said, oh, get together in a group, you know, what it’s like. Students say, oh, I can’t. I don’t have time. But when they’re doing it using the technology where they can actually get the information, download it, go online and then communicate with each other through, as I say, discussion boards, it facilitates that and you sort of think, yes. It’s this sort of independent, autonomous learning and they’re taking the initiative, and it isn’t dependent upon me. They’re not sort of using me even as a bouncing board. They’re doing it, they’re interacting and I think this is the other thing, interacting independent of me. I don’t have to be there to sort of keep guiding them.

...the technology is the means but the end product is, as I said, the sort of independent learning, taking their own initiative. In a sense, being in control of the pace and how they learn and what they learn, you know, within a framework that we’ve set down right at the beginning and that the university’s provided us a technological infrastructure.

The independence of students from their teachers is also a strong feature of this category. This independence is described in positive terms, as a good outcome of the lack of/limited physical presence in the teaching-learning situation; again, reflecting the strong focus on learning rather than e-learning. Having said that, though, there is a sense that the e-learning situation results in the generation of something new and different in the learning environment; and e-learning is deeply embedded within the conceptualisation which is really about learning. The following excerpt illustrates this.

What comes to my mind [when I think about e-learning] is that it’s a way of the student gathering information or receiving information from the lecturer but it’s sort of done independently, if you like, of the sort of face-to-face lecture theatre or seminar or tutorial. … So it’s got that flexibility and it’s got the ability for students to sort of do their learning when they want, how they want and where they want. And we, you know, once had a student say that it’s great doing this e-learning because you can study in your underpants. You know, so that’s what comes to my mind. It’s sort of like breaking that, almost physical connection that exists when you think about lectures and courses where you have the students and you in the same room or you’re sort of symbiotically linked.
Category D  E-learning is seen as a means through which to reduce distance between and amongst teachers, students and the course material

In this category, emphasis is on flexibility, access and timing of courses. It is through e-learning that students are given the opportunity to make closer contact with other students in the course, their teacher and the course material. Often reference is made to self-contained packages and self-directed learning. E-learning in this category is often equated with learning at a distance.

*Distance learning or self paced/self directed learning.*

*E-learning is about flexible learning. Not just an emphasis on technology but on tutor contact whether on or off campus.*

*My students are widespread, covering the bottom of the North Island. There is huge potential to communicate, discuss, instruct, debate and direct student learning and through that monitor progress. I think the value is in the quality of responses you give as a teacher.*

*Flexibility, recovering from missing a lecture, being able to re-listen to sections missed or not fully understood, tapping into different learning styles, useful for English as a second language students.*

*It allows the student to feel in touch with the university and have a regular dialogue with those teaching.*

*Flexibility in terms of time, place and learning methods.*

*Faceless interaction with students, challenge of translating a course that has probably been delivered for the last 1000 years in the same way to a completely new medium/method of delivery and increasing the level of knowledge gained by the students (or at least maintaining it at the same level), teaching transcends time and place (i.e. teaching from anywhere at any time), a lot of time will be spent on the computer.*

*Lessons are put onto a website and students access the material.*

*Benefit to my role as an educator, one who could be considered a distance educator; the benefits ... including my own learning. E-learning is an opportunity to learn, attend and contribute to forums, to participate with other centres because of geographic isolation. I think the value lies in the quality of the response you receive as a student.*

*Self-directed learning by students. Professionally prepared resources (e.g., by textbook publishers).... More efficient use of lecturer time (fewer interruptions at the door).*

*Flexibility to learn at times to suit, isolation, potentialising e-media.*

*Materials that, by their dynamic, interactive nature, assist the student to make knowledge their own.*

*On-line, 24/7 access to materials and tuition aids.*

There is some notion of inherent difficulties caused by the lack of contact between teachers and students. For example,

*Students do need to have personal contact. E-learning can be a bit sterile.*
When I think of e-learning I think of students having a limited amount of contact with a teacher. The nature of e-learning might be inter-university study or individual distance teaching. So the community may or may not be as large and collaboration may only occur online. Teacher contact restricted to a couple of weeks in either term. Assessment and feedback may be more problematical than as before. Difficulty explaining concepts or resolving misconceptions. 

Some danger of slippage by weakly motivated students.

Category E  E-learning is seen as a collaborative enterprise

In this category, the whole enterprise of teaching and learning is presented as the result of a number of stakeholders working in collaboration. These stakeholders include students, teachers and support staff. E-learning is collaborative because it depends on stakeholders knowing their roles and contributing appropriately and effectively. Major roles described include,

- **Students** – knowing how to learn on-line or at a distance
- **Teachers** – knowing about their roles as facilitators and managers of learning and knowing about the technologies and how to use them
- **Support staff** – contributing to and supporting infrastructure, instructional design, management and organisation of resources.

The following extracts from the data serve to illustrate this category.

Regarding teachers and support staff:

*I think teachers have to be very open to the opportunities. I suppose this is the key thing and to help do that, of course, we require an environment with a lot of support people who have some knowledge of the teaching and learning process and are able to help from the point of view of their knowledge or what technologies can do. So there’s a marriage there.*

*I think there’s different levels that you actually have to operate on. ... I do think you need that educational input, the instructional design element as well as the software management that’s going to actually produce something that actually is good.*

*Whilst I might actually be okay on instructional design, I would have no idea how to stream a video link or, you know, I could do a storyboard and I can do the instruction but I can’t do the software. So, you know, I think you need a combination of skills.*

Regarding teachers and students:

*I think the lecturer has to be flexible and if you’re not, then I think the problem could be that you would, instead of having the learning outcomes that you want, it would be the opposite. The student will withdraw and they’ll have a bad experience and they’ll lose confidence and it’ll affect their other papers.*

*You have to be aware that not all students are going to take this up in the same way because you know, in an ordinary lecture, you could have a great student sat there and a poor student and it doesn’t really make a difference, do*
you know what I mean? Because the students don’t have any different experience. They just maybe sat there and not taking much notice but when you’re trying to do this interactive thing or group work, online or discussion board, it’s much more obvious if you’re not a good student and it’s clear to everybody else in the group.

I also think you have to monitor [student interaction and participation] to a certain degree because there’s a lot of students who have been used to being supported, are used to having the security blanket of the lecture and the contact. And if you start saying to them, oh, you’re on your own, e-learning, some of them do panic a bit...You have to make yourself accessible even if you are saying a lot of this can be done independent of me.

Well, I think the technology … isn’t the thing in itself but that is usually the way we’re sort of using e-learning to get our learning outcomes. … I think the technology has to match your aspirations because if you’re saying to students, oh, I’m leaving you to do it now, you can do your e-learning and they’re saying, well crikey, I couldn’t get on [to the internet/LMS]. It didn’t load. So you have to be sure. You need a trial run. You need to get somebody and go and pretend to be a student. … so I think you have to make sure the technology’s there and that you’re not overreaching yourself.

You have to tailor your goals to the technology otherwise you will lose students.

Regarding teachers and their responsibilities/roles

Design of courses is important. Administration is an important consideration as well.

[Introducing e-learning brings] work and lots of it! Providing an element of e-learning is time consuming, the technical support is sometimes not available.

Was fortunate in last position at another University, to have a dedicated web support person who was able to design and maintain departmental web pages as well as provide support for staff to upskill in this area. This model seemed to work best for me - it was immediate and ongoing support rather than extraction-type workshops.

2.2. Categories of description - conceptions of professional development for e-learning

Category A E-learning professional development is seen as training to use technologies/tools/equipment

In this category, e-learning professional development is seen as opportunities to learn about or be trained in the use of technologies and related skills. The content of such training is around the technical side of working hardware and the software.

The following excerpts from the data provide illustrations of this category.

Training with new software, use of on-line resources (ESRI’s virtual campus comes to mind - GIS again)
Training teachers in various software programmes - eg. Powerpoint or other computer programmes to create CAL packages, Filemaker Pro for information management - so they are competent and comfortable incorporating computer-related activities into their teaching repertoire. Also, supplying teaching staff with information on what is out there in terms of technology, and how this could be applied in learning situations. Providing technical support to teachers, to enable teachers to be more confident about utilising computer-related activities.

Teaching teachers about technology that could support learning - whether it be video technology (video conferencing), audio support (recording lectures, recording interviews, sound in lectures/music classes), web-based applications such as wikis, blogs, social bookmarking, etc, or full database applications for courses to store info and get students to contribute to.

Category B E-learning professional development is seen as opening up possibilities for using technologies for teaching and learning

In this category, e-learning professional development is seen as presenting a positive opportunity to teachers and other staff to rethink practices. It is about creating opportunities for re-conceptualising teaching and learning processes and to explore possibilities. For example,

Teachers need ideas about how to use technologies and ideas about how to use them to teach.

They need to be shown what is possible.

[There] should not be an assumption that everyone will be early adopters but [a] recognition that most are the late majority.

E-learning offers a stimulus for teachers to re-think well-established practices and re-evaluate current ways of thinking about teaching and learning. There is an emphasis in this category on the opportunities and potential for teachers, their students, the course and the institutions to gain the best possible benefits from e-learning professional development. The following examples that express “possibilities” in ways that, for early adopters of technologies may seem quite mundane, illustrate these notions.

With e-learning, there’s that layer behind the actual learning that helps to make learning more efficient. I think it’s the same with teaching too. Like if you’ve got a teacher there that’s spending, you know, three-quarters of their day answering their emails because they’ve got insufficient, well, inefficient methods for handling their email, then that’s just a waste of teaching time as well as any other responsibility they have. So maybe the best way to do professional development for that particular teacher is not to teach them some fancy new e-learning tool, but teaching them how to better manage their email so it frees up three-quarters of their day to do something else.

Just taking the clicker example, what it needs is actually to have teachers themselves who are using it to be the ones to have the conversations with other teachers who are wondering about whether to use it or not. … or even just be going into a situation where they can see it being used. … If I could sit in his classroom to see how it was being used … that’s very powerful because you
can make connections with your own teaching and I think somehow it’s a little bit different from just a technical seminar on how to set up the software and that sort of thing.

[Teachers] need to develop the ability to predict what might not work and have plans in place to address anything that might go wrong.

Teachers need to develop a sense of the technical.

Category C  E-learning professional development is seen as a collaborative exercise that can take many forms.

In this category, all involved in e-learning (including for example, ICT specialists, teachers, support staff, institutions, senior managers, Heads of Departments, Co-ordinators etc.) are seen to have a role to play in professional development. Professional development roles can vary: from the organisation and implementation of formal workshops, to the provision of general encouragement by institutional leaders or heads of sections or senior management, or even more formal recognition through policy (affecting for example, employment and progression, curriculum development and implementation, assessment and so on). Types of professional development interactions can take many forms, including workshops, quick on-the-spot answers, long term coaching and guidance, individual and departmental support, and training sessions for all staff or larger groups.

I think of opportunities that arise in an ad hoc fashion or which are planned and structured that present teachers with information and insights into how to use technologies to support and enhance teaching and learning. Professional development could be a variety of things from discussion and reading to practice, training, workshops, ongoing experimentation etc

Regarding encouragement for learning about e-learning:

I don’t think the encouragement is there. I think it’s still perceived as being a, a novelty on the fringe for some of the technologies.

But I wonder whether more than pushing out an idea, helping people customise that idea to their particular course, so some hands-on work there would perhaps be a good idea. Focusing on a few areas and doing them well rather than trying to cross the whole spectrum.

Regarding sharing of practice amongst colleagues with the support of specialists:

I think it takes a champion.

I’d start small and maybe even form a little group so you’ve got peer support and between two or three of you, you could do, make an electronic crossword or come up with an online multiple choice assessment or whatever. Yeah, it could be really small and fun and, and you could get creative. Yeah just bit by bit. But you’d want to turnaround and be able to get on the phone to somebody in ITS or whatever or from Blackboard to give you the answer that you need initially, yeah. A lot of people, after a while, just go on their own. But that might take you a while.

Case studies and seminars will help to inspire good practice.
Professional development sessions could include show and tell sessions e.g. using wikis, peer to peer interaction, technical developments and other professional development that addressed the pedagogical side to things.

Regarding, close at hand support for the technical, as well as the pedagogical:

It would be great to have e-learning specialists that cross between teaching pedagogy experience, understanding of where the research is, but also some technical skills.

I think it is useful for those intending to use e-learning - particularly discussion boards, to be a 'student' in a course themselves to experience first hand what it is like as a 'student'. This would point to the need for short-term online courses to be available for staff, as well as more extended certificate qualifications - with new technology coming online all the time it is hard to keep up with the language, let alone the technology. So this points to the need for some way of reaching the teachers - maybe via some workshops or more central support for say, development of wikis, blogs etc.

I guess the biggest fear is that you’ll do a lot of work and you’ll lose it or you do a lot of work and there’ll be nothing you get out of it and I think that’s, that’s not going to happen. You'll get something out of it, even if it brings you into the 20th Century. But, you will get something out of it and it doesn’t replace your other methods. You still have them. I guess it means more work but maybe they could start small and not do a whole paper. Only do two lectures or do one assessment.

Category D  E-learning professional development is seen as being about relevance and purpose

In this category, relevance, purpose and value are highlighted as key elements which need to exist if staff are to engage in any development activity about e-learning. Relevance, purpose and value can come from many sources including the reward that teachers can gain from seeing their students learn, and from experiencing, first hand, the possibilities and practical real life applications of e-learning within familiar teaching and learning contexts. Rewards, incentives and stimuli to spark interest in e-learning are included as important parts of professional development in this category. Relevance comes from tailoring professional development to suit individual needs, related to specific contexts and subjects, and being available when they are needed and in a form that is most useful, appropriate and effective.

I sort of think of the rewards as actually just being the student learning itself… If something improves learning, then I think of that as reward.

I think the crux of it is in the course design and that’s, you know, here we offer workshops and things in course design and often go and work with departments in course design and that’s the stage where you need to really discuss options in terms of technology or, or whenever you’re discussing course design, you ideally should start with the outcomes and then work backwards and see what support, what teaching methods are going to help to get those outcomes and that’s where technology can come in.

I’m thinking maybe, maybe there should be some more requirements in the way we structure our, [institution] I don’t know whether, whether some at the
dean level have a little bit more authority to push some of these things through. It needs some more funding so that you can set up that infrastructure side and that top-down approach. I think if that's more well established, and then, hence, promoted, people would see the value, and if it's got value, they would all see the value and want to adopt it and if they know it's easy for them to get into it, then, they will.

Educators need buy in – they need to be convinced that e-learning is worthwhile.

Need to be a sense of progression in any professional development – from small steps and close guidance for teachers, then ongoing guidance and support to help them develop to a more advanced level.

Staff need time to develop skills. They need a different range of starting points, learning needs and competencies.

Good infrastructure is needed – for example, decent band width available in remote areas, firewalls and levels of protection also need to be looked at.

Need to see/participate to reduce the threat. A broad approach to professional development is needed – do a course and experience it for yourself.

Professional development should have elements of exposure, watching, sharing and making aware.

They need to be reflective. If you make something mandatory it can have a positive effect as long as the value of what is being made mandatory is made explicit.

Value needs to be seen in the pedagogy and that teachers efforts that they put into their teaching (e-learning) does have value for students. This then becomes a big reward for teachers.

In the next section of this report we discuss these categories of description and consider the implications for the development of a framework for professional for e-learning.
3. Discussion, Implications and Next Steps

One of the ways in which the implications for the phenomenographic study can emerge is through an examination of outcome space. Outcome space is the result of fitting the categories into an order according to logical complexity and conceptual content (Dahlin, 1994; Lybeck et al., 1988). In determining outcome space a more complex conception is usually placed above a more simple one, that is, the simpler conception is implicated by the more complex one (Dahlin, 1994). Thus, the logical relations between categories are found (Lybeck et al., 1988).

The following diagrams (Figures 1 and 2) illustrate the outcome spaces derived for the categories of description for e-learning and for e-learning professional development. Within the description and discussion of the outcome spaces, we make direct reference to the proposed draft framework for e-learning professional development that was broadly outlined in our Milestone 2 report, the Literature Review (see Figure 3). Making explicit connections in this way serves to a) enhance the validity of the categories discovered in this study; and b) provide a degree of empirical support for our proposed framework, which was generated upon the basis of our international environmental scan.

3.1. Outcome space - e-learning

The outcome space for conceptions of e-learning is presented in Figure 1. Category C (e-learning is seen as learning) appears at the centre of a series of concentric circles. It is placed here to emphasise its core place in the educational process. The goal of any educative activity is to enhance learning.

Categories B (e-learning is seen as a means through which learning interaction is facilitated) and D (e-learning is seen as a means through which to reduce distance) are about ways and means to stimulate learning and to support the process of learning. Thus through interaction, learning can be sustained, maintained and enhanced, and distance, whether physical, geographical, intellectual, perceived or real, can be reduced.

Without tools, software and hardware, e-learning cannot happen. Thus Category A (e-learning is seen as tools, equipment, hardware & software) has been placed in the third concentric circle. Category A refers to the technologies or the enablers that both shore up and provide possibilities and opportunities for processes of teaching and learning to happen.

Finally, Category E (e-learning is seen as a collaborative enterprise) is placed outside the circles showing the important role played by staff and structures at all levels to make the enterprise or system of education involving e-learning happen. Different groups within the collaboration have different roles which will impinge upon various aspects of the teaching-learning enterprise represented in the concentric circles.

In summary, tools (Category A) support and facilitate the interaction (Category B) and the “meeting places” that bring students, teachers, courses, institutions together, no matter where they are (Category D). Collaboration (Category E) at all levels supports the functioning of the whole system. The ultimate purpose of e-learning is to enhance learning (Category C).
3.2. **Outcome space - e-learning professional development**

A diagram showing the outcome space for conceptions of e-learning professional development appears in Figure 2.

Category D (e-learning professional development is seen as being about relevance and purpose) is placed in the centre of the diagram to show that e-learning professional development will occur effectively if staff can see purpose, relevance and value in the learning they are engaging in. The positioning of this category in the diagram signifies that professional learning needs to be viewed as valuable, relevant and useful if staff are to engage fully in it.

Categories B (e-learning professional development is seen as opening up possibilities for using technologies for teaching and learning) and A (e-learning professional development is seen as training to use technologies/tools/equipment) are placed in the next layer of circles in the diagram to represent the content or ‘territory’ of e-learning professional development. The two categories placed in this way bring together the conceptualisations of e-learning professional development being about training in the technical (Category A) with learning about and exploring the pedagogical (Category

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Figure 1: Outcome Space for the Categories of Description for E-learning
B). Where staff learning is concerned, this outcome space diagram is suggesting that both areas are of equal importance.

Figure 2: Outcome Space for the Categories of Description for E-learning Professional Development

The final category, C (e-learning professional development is seen as a collaborative exercise that can take many forms), makes reference to the various processes of professional development, all of which should be responsive to individual, departmental or unit and institutional needs. This category is positioned in the outermost ring, indicating that in practical terms, element of categories A, B and D rely on collaborative support from all involved in the teaching and learning enterprise or system.

3.3. Links between the categories and the proposed draft framework

In this section we examine the categories of description, including the outcome spaces, in the light of the proposed draft framework for e-learning professional development, as presented in our Literature Review (Milestone 2 report). The proposed draft framework appears in Figure 3, below.
From a view which argues that learning happens when an individual alters his or her conceptualisation of a phenomenon, learning occurs when the individual sees the change as fruitful, rational, reasonable, plausible and intelligible (Posner, Strike, Hewson, & Gertzog, 1982). The proposed e-learning professional development framework – designed to be applicable to individual staff, groups, institutions and the tertiary sector as a whole - is founded upon the principle that learner engagement is paramount for appropriate and effective professional learning to occur. Engaged learners are better placed to view their learning experiences and outcomes as worthwhile and work towards embedding new ideas, practices and beliefs.

From this basis, there is alignment between the overarching e-learning professional development Category D (e-learning professional development is seen as being about relevance & purpose - see Figure 2) and the proposed professional development

1. **Identifying needs** for professional development for e-learning
2. **Finding incentives** appropriate for professional development for e-learning
3. **Providing opportunities** appropriate for professional development for e-learning
4. **Achieving engagement** with e-learning
5. **Evaluating the success** of professional development for e-learning leading to ….

**Figure 3: Draft Proposed Framework for E-learning Professional Development.**

framework in which engagement plays a pivotal role (i.e., 4: Achieving Engagement in Figure 3).

Foundations can be laid for staff and institutions to see the plausibility, rationality, intelligibility and fruitfulness of new e-learning phenomena through professional development activities which are responsive to needs and provided in forms which are:

- manageable;
- related to context;
- both anticipatory and ‘just-in-time’;

Professional development for e-learning: A framework for the New Zealand tertiary education sector
on topics which are both essential (to meet practical technical and pedagogical needs) and imaginative, creative and proactive (to stretch imagination and to promote and suggest possibilities);

and which bring with them reward and recognition for effort.

Links thus exist between 1. Identifying Needs and 3. Providing Opportunities from the draft professional development framework, and Category B (e-learning professional development is seen as opening up possibilities for using technologies for teaching & learning) and Category A (e-learning professional development is seen as training to use technologies/tools/equipment) in the e-learning professional development outcome space (Figure 2). Other direct connections exist between 4. Achieving engagement, 2. Finding incentives (Figure 3) and Category C (e-learning professional development is seen as a collaborative exercise that can take many forms) (Figure 2). We will explore these links and connections in depth in the next stages of the project.

Where the range of conceptions of e-learning is concerned (Figure 1), how staff view e-learning (including the degree to which they view e-learning knowledge and practice as fruitful, rational, reasonable, plausible and intelligible) will determine and influence their uptake of e-learning, their learning about it and the integration of it into their teaching. It follows that groups and individuals working through the steps of the proposed framework should have in mind the range of conceptions held by teaching and support staff, and this range should also be taken into account in policy and planning. The building of contextually-based/oriented actions should thus be incorporated into the enactment of the framework to ensure that active engagement results. For appropriate and effective outcomes of any professional development to result, all staff, not just those already enthusiastic and positive about e-learning, have to be involved and planning and action should occur at a number of levels: institutional, department/unit, teaching group, individual.

In summary, the outcome space for e-learning professional development provides a platform upon which the sequence of steps outlined in the proposed professional development framework rests. The conceptions of e-learning professional development that are held within the tertiary sector and reported in our categories of description and outcome space, also align well with the framework. The outcome space provides an empirical foundation for the framework, including providing deeper insights about the form and nature of the steps within it.

Similarly, the e-learning categories of description and accompanying outcome space provide insights into the range of conceptions held by teaching and support staff about e-learning. Professional development planners and implementers should acknowledge and recognise this range of conceptions within any system, strategy, programme or activity they propose.
3.4. Next Steps

The results of the phenomenographic research reported here have provided additional insights into our understanding of the issues related to professional development for e-learning. In the next stage of this project we will work closely with the Massey led tertiary e-learning research project to propose a framework for professional development for e-learning. This framework will be informed by the results of research of both projects. Once the framework has been agreed and presented then we will work towards our overall report which will include all the work undertaken to date and make recommendations for implementation of the framework.
References


# Table of Contents

1. **INTRODUCTION AND OVERVIEW OF PART E – MASSEY RESEARCH REPORT** .....4

2. **RESEARCH PHILOSOPHY, DESIGN AND METHODS** .......................................................5

   2.1 OVERVIEW OF THE CONCEPTUAL FRAMEWORK ..................................................5

   2.2 RESEARCH DESIGN AND METHODS ........................................................................6

   2.3 ON-LINE QUESTIONNAIRE SURVEY ........................................................................7

      2.31 Conduct and analysis ............................................................................................7

      2.32 Participant characteristics ......................................................................................8

   2.4 QUALITATIVE INTERVIEWS ......................................................................................9

      2.41 Conduct, analysis and participant characteristics ...................................................9

3.0 **RESEARCH FINDINGS: ON-LINE QUESTIONNAIRE** .................................................12

   3.1 VIEWS OF AND INVOLVEMENT IN PROFESSIONAL DEVELOPMENT .........................12

      3.11 Beliefs about institutional importance accorded to professional development ..........12

      3.12 Individual expressions of belief in PD ....................................................................12

   3.2 FORMS OF PROFESSIONAL DEVELOPMENT ENGAGED IN BY STAFF .........................15

   3.3 INVOLVEMENT IN E-LEARNING ..............................................................................17

      3.31 Using e-learning in teaching ..................................................................................17

      3.32 Non involvement in e-learning ...............................................................................21

   3.4 ENGAGEMENT AND PARTICIPATION IN PROFESSIONAL DEVELOPMENT FOR E-LEARNING ......23

      3.41 Engagement and non-engagement in professional development for e-learning within institutions ..............................................................................................................23

      3.42 Engagement and non-engagement in professional development for e-learning outside institutions ..............................................................................................................26

   3.5 OPPORTUNITIES AND CONSTRAINTS ON PROFESSIONAL DEVELOPMENT FOR E-LEARNING ....30

      3.51 Preferences for forms of professional development ...................................................30

      3.52 Constraints on engaging in professional development for e-learning ......................31

      3.53 General comments relating to e-learning and professional development .................32

   3.6 ISSUES IN NEED OF FURTHER EXPLORATION ......................................................35

4.0 **RESEARCH FINDINGS: QUALITATIVE INTERVIEWS** ................................................37

   4.1 INDIVIDUAL CAPABILITY AND EXPERIENCE IN RELATION TO E-LEARNING ..............37

      4.11 New entrants ........................................................................................................37
5.22 Institutional/infrastructural context

6. DISCUSSION AND CONCLUSIONS

REFERENCES:

PART E: MASSEY RESEARCH REPORT - APPENDICES

APPENDIX 1 - COPY OF THE ONLINE SURVEY

APPENDIX 2 - ON-LINE SURVEY DATA

Table 1. Extent to which PD is viewed as important within the Institution

Table 2. Extent to which respondents believe PD is viewed as important in by the Institution by general and academic staff

Table 3. Extent to which respondents believe PD is viewed as important in by the Institution by Polytechnics and Universities

Table 4. Individual belief in the importance of PD

Table 5. Institutional differences in choice of professional development activity

Table 6. Forms of PD engaged in by Academic and General Staff

Table 7. Length of time involved in e-learning and listing of e-learning activities and tools

Table 8. Number of e-learning tools used in polytechnics and universities

Table 9. No of e-learning activities and tools engaged in by support and teaching staff

Table 10. Awareness of e-learning PD

Table 11. Relationships between types of e-learning used and whether respondents have been online students

Table 12. Participation in e-learning professional development outside of ones institution

APPENDIX 3 - INTERVIEW SCHEDULE
Part E - Massey Research Report
Beliefs, experiences, preferences and practices of e-learning in institutional contexts

1. Introduction and overview of Part E - Massey Research Report

While existing research and literature from New Zealand and overseas indicates key facets of a potential framework for professional development and e-learning, it is important that any framework for teachers and teacher support staff in the New Zealand tertiary sectors take account of, and be informed by existing conceptualisations, beliefs, experiences and practices of staff in their institutional settings. This chapter reports on the Massey University led research into individual staff opinions, assumptions and practices surrounding engagement with professional development (PD) for e-learning.

After introducing the conceptual framework for the research, Part E of this report outlines how the online survey and a series of qualitative interviews were designed to explore individual and institutional dimensions of professional development and e-learning. The survey and interview methods and analysis are briefly outlined. The bulk of the chapter reports on the empirical findings of the survey, and the rich experiential data obtained from qualitative phone and face-to-face interviews. The online survey provides a snapshot of the practices and preferences of staff in five Tertiary Education Organisations (TEOs) in relation to forms of professional development and e-learning, while the interviews extend these findings, looking at how participants’ meanings and interpretations are embedded in institutional contexts. In bringing together questions of extent and meaning, the two components of the research in combination provide valuable insights into the practices and interpretations surrounding professional development in institutional contexts. This provides a means of contextualising experiences and of understanding the real and everyday issues faced by staff as they embark on e-learning journeys and engage in a variety of forms of professional development.

The discussion section reflects on issues of capability, and the sorts of practices and measures staff desire within and beyond their institutions for effective professional development in relation to e-learning. The experiences and assumptions of individuals around e-learning and professional development are seen to been critical in identifying immediate and longer term issues which institutions and the wider tertiary sector institutions might address. Part E also outlines some ideas for achieving good practice in professional development and e-learning, and reflects on both opportunities and constraints for the continued development and effective delivery of e-learning in New Zealand TEOs. These reflections form the basis for the key questions that underpin the e-learning and professional development framework developed jointly with Otago University and outlined in Part F of this report. They also form the foundations of the core principles for the framework implementation outlined in Part G.
2. Research philosophy, design and methods

2.1 Overview of the conceptual framework

This research focuses on the experiences, practices, beliefs and preferences of staff in relation to professional development and e-learning. It draws on a post-structural political economic conceptual framework (Larner and Le Heron, 2002, Le Heron, 2007). Post-structural political economy is not a unified theory but a set of critical ideas which provide a basis for examining how relationships amongst people and things (such as Tertiary Education Organisation (TEO) staff and Information and Communication (ICT) technologies) are connected and given form, legitimacy and power (Lewis et al., 2002). Post-structural political economy perspectives have been informed by Actor-Network theory of Latour (1987) to examine how people and things constitute networks which may be controlled and governed at a distance. It is also informed by governmentality theories (Dean, 1999 and Rose, 1999) which examine how ‘how we think about governing others and ourselves in a wide variety of contexts’ (Dean, 1999: 18).

Unlike traditional political economic approaches which have tended to focus primarily on individuals’ economic role as agents in institutional and organisational settings, post-structural political economic approaches move beyond an examination of the structures, mechanisms and practices by which people and things are connected to consider how such things are also culturally constructed and imagined. Thus professional development and e-learning are not relatively static practices which staff engage in for particular institutional ends, but can also be understood as social constructions, actively shaped and given form, legitimacy and power by those who undertake them (for example, students and teachers) as well as those who are involved in supporting, training and enabling these practices to occur within and outside institutions (for example, by managers at different institutional levels, the Tertiary Education Commission and the actions of other Tertiary Education Organisations). As situated ‘actors’ in institutional settings, staff are understood to occupy multiple positions which are embedded in differing organisational forms which are in turn influenced by processes occurring at other scales. Thus, post-structuralist political economies have the potential to provide insights into how professional development and e-learning are imagined by different institutional agents (such as managers, support and teaching staff) and the role of these understandings in how e-learning and professional development are produced, experienced and expressed in practice. Consequently, e-learning capabilities and capacities are not simply seen as material practices but also as discursive ones – imagined, shaped, governed and translated in and across a variety of spaces.
2.2 Research design and methods

The complex nature and constitution of e-learning and professional development in institutions was approached using intensive and extensive research designs (Hare, 1979, Sayer, 1984, 1992). The use of extensive and intensive research designs enables the researcher to explore different dimensions of the experiences, beliefs, practices and preferences of teaching, support and managerial staff in the institutions in which they are embedded.

The first phase of the research comprised extensive research – focussed around questions of extent – discovering the common properties and general patterns of a population or a phenomenon as a whole in order to draw descriptive or representative generalisations. A quantitative on-line survey delivered in two universities and three polytechnics and involving 408 respondents was conducted. The survey was intended to ascertain the extent to which individuals were engaging in e-learning and professional development related to e-learning, the forms these activities took, whether these activities were effective, and the potential constraints to building individual and institutional capability. The emphasis of the questionnaire was not on scientific hypothesis testing but on gathering descriptive information which could be used to gain a picture of e-learning and professional development which would inform the second phase of the research. The limited complexity and length of questions in a questionnaire means that is difficult to provide detailed explanations of participant actions and beliefs or the connections between them (Hoggart, Lees and Davies, 2002), as such an intensive research design involving qualitative research techniques was employed.

Intensive research designs are intended to examine processes and mechanisms via a smaller number of cases or people in order provide causal explanation – to discover how people, things and objects are connected and operate to produce particular outcomes (Sayer, 1992). The intensive phase of the research involved qualitative semi-structured interviews with teaching, support and managerial staff in the five TEOs where the earlier survey was conducted. The forty phone and face-to-face interviews explored experiences, practices, beliefs and preferences related to e-learning and professional development as it occurred in institutional contexts.

Qualitative research methods are well suited to answering questions of causation and connection, addressing questions such as “What is the shape of societal structures and by what processes are they constructed, maintained, legitimised, and resisted?” and ‘What are individuals’ experiences of places and events?” (Winchester, 2005, 5-6). These questions when applied to e-learning and professional development practices in TEOs are well aligned with aspects of the post-structural political economic framework outlined earlier. Exploring the experiences, beliefs and preferences of individuals who are both located in and producers of institutional structures, mechanisms and practices was deemed to be an essential part of the development of a framework for professional development and e-learning which might be applied across New Zealand Tertiary Organisations.
How concepts of validity and rigour might be applied in relation to qualitative research has been much debated (Mansvelt and Berg, 2005, Baxter and Eyles, 1997). Traditional constructions of reliability as involving a stability of methods and findings, and validity (accuracy and truthfulness of findings) tend to be related to the notion of an empirically verifiable and central truth. Post-structuralist approaches refute the ideas of a singular truth, arguing for rigour which is constituted around concepts of transparency – and accountability to both perspective and position. This involves a process of making choices in the creation, conduct, interpretation and writing of the research explicit and ethical. This research consequently draws on validity as craftsmanship (Hess-Biber and Leavy, 2006). Validity as craftsmanship is based on transparency and rigour of method and the ethical integrity of the research and the researcher. Thus choices and assumptions are made explicit in description of research design, conduct, method and analysis. This is done in the introductory sections for the survey and the interviews (sections 2.7 and 2.8). The research also sought to achieve communicative validity (Hess-Biber and Leavy, 2006) involving ‘dialogue’ with the wider research community and key stakeholders, for example through exploring alignment with the Otago findings and earlier research, discussing findings with key stakeholders and via the intended placing of the findings of the Massey University research on a discussion group forum for participants.

Both the on-line survey and the interviews were subject to ethical guidelines and a full ethics application to the project was submitted and approved by the Massey University Human Ethics Committee. Members of the research team in participating institutions were responsible for ensuring appropriate ethical approval was obtained in their respective institutions.

### 2.3 On-line questionnaire survey

#### 2.31 Conduct and analysis

The survey was intended to collect data designed to provide a general picture of the type and nature of PD activity in five tertiary institutions (two universities and three polytechnics). More specifically it sought to discover academic and support staffs’ views on the importance of professional development, the types of professional development engaged in generally and in relation to e-learning, the e-learning tools utilised, and the effectiveness of PD associated with e-learning. The survey also sought to discover preferences for PD opportunities, and constraints on existing PD.

The on-line survey utilised the definition of e-learning provided in the Ministry of Education *Interim Tertiary e-learning Framework* (1994) and also defined professional development and formal and informal professional development for participants. For listings of e-learning and professional development activities it drew on Rothwell and Arnold’s (2005) survey of how human resources professions rate continuing professional development. A copy of the Massey team survey is provided in Appendix 1.
The survey instrument was devised, evaluated and administered by the Massey team with colleagues from each of the five collaborating institutions. It involved 27 non-compulsory questions in which teaching and support staff gave demographic and employment details, reflected on institutional and personal beliefs about professional development, the type of PD engaged in, engagement and non-engagement in e-learning, the use of e-learning in teaching or support roles, formal and informal professional development activities related to e-learning, their effectiveness and future involvement in PD for e-learning. The survey was mounted on-line using Survey Monkey (http://www.surveymonkey.com/) and on testing took 10-15 minutes to complete.

The use of the on-line survey was approved by the Massey Ethics Committee and via appropriate Ethics committees and/or procedures in the collaborating institutions. It was administered by a contact person in each collaborating institute so as any queries or concerns could be directed most easily to the project member in each institution. All responses were anonymous, but respondents could elect at the end of the survey to volunteer for participation in a thirty minute phone interview. The survey was open for a three week period in May and June of 2007, with an email reminder sent out at the midway point. In total 408 participants undertook the survey with 295 completing the survey to end. After completion responses were downloaded and the qualitative responses coded. The results were then analysed using Microsoft Excel.

While completion rates were reasonably good, overall institutional response rates were relatively low and so inferential tests have not been applied to the findings. Nevertheless the descriptive statistics presented here provide a valuable snapshot of the type and nature of PD activity and key factors influencing this. The information derived from this extensive research provided a useful baseline for exploring dimensions of individual’s involvement in professional development through semi-structured interviews, which were used to identify key areas and questions for further exploration in the second and intensive phase of the research. The interviews were particularly helpful in clarifying forms of involvement in professional development (and e-learning), its effectiveness and in identifying constraints on involvement.

### 2.3.2 Participant characteristics

The characteristics of on-line survey participants are shown in Table 1. The majority of participants were female (60.3%), 30 years or more in age (91.5%) and identified themselves as of New Zealand and European descent (82.4%), with 4.4% and 3.9% identifying as Asian and Maori respectively. Most staff were academic staff (58.1%) and had been in employment for five years or less (52.7%). Of the 408 respondents who attempted the questionnaire 71.5 percent were from the two Universities (292 respondents with 146 in each university) and 116 from the three Polytechnics (16, 44 and 56 respondents). Gender, age, ethnicity and employment status differences appeared to be relatively insignificant and are mentioned in the analysis where substantial distinctions have been found.
Table 1. Characteristics of participants

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency (n=408)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>162</td>
<td>39.7</td>
</tr>
<tr>
<td>Female</td>
<td>246</td>
<td>60.3</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 20</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td>20 – 29</td>
<td>31</td>
<td>7.6</td>
</tr>
<tr>
<td>30 – 39</td>
<td>97</td>
<td>23.8</td>
</tr>
<tr>
<td>40 – 49</td>
<td>139</td>
<td>34.1</td>
</tr>
<tr>
<td>50 +</td>
<td>137</td>
<td>33.6</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>European</td>
<td>131</td>
<td>32.1</td>
</tr>
<tr>
<td>New Zealander</td>
<td>205</td>
<td>50.3</td>
</tr>
<tr>
<td>Asian</td>
<td>18</td>
<td>4.4</td>
</tr>
<tr>
<td>Maori</td>
<td>16</td>
<td>3.9</td>
</tr>
<tr>
<td>Other</td>
<td>38</td>
<td>9.3</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic staff</td>
<td>237</td>
<td>58.1</td>
</tr>
<tr>
<td>General staff</td>
<td>162</td>
<td>39.7</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>1.4</td>
</tr>
<tr>
<td>No answer</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Length of employment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>less than 1 year</td>
<td>66</td>
<td>16.2</td>
</tr>
<tr>
<td>1 - 5 years</td>
<td>149</td>
<td>36.5</td>
</tr>
<tr>
<td>5 - 10 years</td>
<td>78</td>
<td>19.1</td>
</tr>
<tr>
<td>10 - 15 years</td>
<td>51</td>
<td>12.5</td>
</tr>
<tr>
<td>15+ years</td>
<td>61</td>
<td>15.0</td>
</tr>
<tr>
<td>No answer</td>
<td>3</td>
<td>0.7</td>
</tr>
</tbody>
</table>

2.4 Qualitative interviews

2.41 Conduct, analysis and participant characteristics

Qualitative interviews were used to explore narratives of e-learning and professional development. A series of open-ended questions were asked, providing a ‘space’ for individuals to reflect on their beliefs, and experiences, and to express in practical ways their desires and preferences. Geertz (1973) argues good qualitative research is comprised of ‘thick’ descriptions whereby readers are taken to the centre of experiences, events, actions and motivations. These descriptions are richly embedded in the contexts in which they are framed. This type of interviewing is designed to
tease out participants’ perspectives, worlds and practices as framed in their own terms. The analysis of interviews presented in Part E is consequently replete with quotations, not simply to substantiate the analysis derived from them but to enable participants’ voices (albeit in a limited way) to speak for themselves.

Forty phone and face-to-face interviews were conducted between 26th September and 20th December 2007. These were between 20 – 50 minutes in duration, with the majority 30 minutes long. Collaborators in the two universities and three polytechnics institutions were asked to provide names of at least five participants for interview. These were primarily staff who had volunteered to be interviewed after participation in the on-line survey (all participants who volunteered were interviewed). Additional respondents were sought by the lead collaborators in the participating institutions to ensure staff with a managerial role and those not involved, or recently involved in e-learning were also included. Ten staff were managers of academic or support programmes, with two of these being Heads of Schools, four staff were employed in supporting staff or student e-learning rather than in teaching per se. The bulk of participants were female (n=27). Of the 40 staff, 13 were from Massey University, 6 were from Canterbury University, 6 from the Open Polytechnic, 6 from Southern Institute of Technology, and 9 from Otago Polytechnic. Participants were drawn from a wide range of disciplines including health, education, social sciences, natural and physical sciences, business and media fields.

Interviews were semi-structured and based around the open-ended questions developed with colleagues in participating institutions (see appendix 3). There were six sections to the participant interviews: involvement and experience in relation to e-learning; beliefs about importance of professional development; professional development activities and changes over time; effectiveness of professional development; institutional context; and support, access, preferences and constraints. The semi-structured interview format was chosen as it allowed the key themes to be touched upon, explored and expanded to differing extents based on the experiences and beliefs of participants. Thus the researcher and participants could be seen as ‘co-constructors’ in the production and interpretation of the interview.

The researcher’s own positionality – his/her own subjectivity and positioning is important to acknowledge in the co-construction of the interview data and in the analysis (Cloke et al., 2004). Being the lead researcher in one of the institutions and conducting all the interviews, meant that I (Juliana) needed to be cautious about interpreting comments related to my own and other institutional contexts in terms of my own experience. Entering this project because of my interest in improving teaching and learning outcomes, I was relatively new to e-learning having only been involved for three years. Though I had undertaken formal professional development and completed an e-learning certificate offered by my institution, I still felt I had much to learn with regard to both pedagogy and practice. Coming to the interviews with limited prior experience meant that occasionally I struggled with understanding the detail of what was involved in the application of various e-learning technologies, but it also meant that I did not take the existence and meanings of terms and concepts for granted and frequently sought clarification. A number of participants, particularly those new to or reluctantly involved in e-learning expressed their relief that the questions were not centred on technical aspects of e-learning technologies. My role as
a university teacher and researcher with an interest in learning and teaching also meant I had some knowledge of learning and teaching and how it plays out in an institutional context, and this facilitated both the interview dialogue and the analysis of interview texts.

The lead collaborators in each institution were also asked to complete a questionnaire on the structure and practice of professional development in their own institutions to inform the interpretation of interviews. Participant interviews were transcribed in full and coded using a conceptual mapping technique. The technique consists of identifying and coding key themes in the participants’ texts, by developing descriptive and analytic categories and sub-categories of meaning which emerge from the participant’s own narratives (Tolich and Davidson, 1999, Cook and Crang, 1995). This form of analysis was used to establish a participant-centred view of e-learning and the social and institutional context in which it is constituted, enabling the research to develop a picture of rationales and experiences based on the participants’ own understanding of key concepts, experiences and actions and how these were connected.

Quotations have been used in this report and are shown in the alternative font, but participants have not been identified by name or by name of the institution to ensure their anonymity. Participant quotes are coded by gender/ interview number/ type of institution (P - polytechnic or U – university): For example M/10/P = Male/ interview 10/ Polytechnic. Though this report summarises the main findings of the interviews analysis it does not reflect in detail on differences between staff experiences in the five institutions as it was felt this might compromise the anonymity of participants.
3.0 Research Findings: On-Line Questionnaire

3.1 Views of and involvement in professional development

3.11 Beliefs about institutional importance accorded to professional development

Information was sought on whether staff felt their institution viewed PD as important. 46% of staff across the five institutions either agreed or strongly agreed with the statement “I believe my institution views professional development for its staff as important” (Appendix 2: table 1). There was little difference between academic and general staff in relation to beliefs about this difference with 72.6% of academic staff and 76.4% of general staff agreeing or strongly agreeing (Appendix 2: table 2). When the data were split into Polytechnics and Universities (see Figure 1 and Appendix 2: table 3) these proportions indicated that opinion about professional development was much more emphatic in the polytechnics, than in the universities. 69.9% of staff in universities agreed or strongly agreed that their institution viewed PD for their staff as important, with 15% disagreeing or strongly disagreeing) while in the Polytechnics 84.1% agreed or strongly agreed with only 4.5% of staff expressing some degree of disagreement with this statement.

Figure 1. Differences between polytechnics and universities in expression of agreement with statement that the institution views PD as important for its staff

3.12 Individual expressions of belief in PD

Individuals across institutions overwhelmingly believed in the importance of professional development to their job. The numbers of respondents expressing a personal belief in the importance of PD were greater than those who believed their institution saw professional development as important. When asked whether they believed that “professional development is an important part of my job” 95.6% of
survey participants agreed or strongly agreed, with only 3.9% neither agreeing nor disagreeing and 0.5% strongly disagreeing with this statement (Appendix 2: table 4). Again the data were examined by academic and general staff, with there being little difference (agreed or strongly agreed) between the two (96.6% and 94.0% respectively). This opinion did not appear to alter with length of employment in the institution. Nor was there substantive variation between staff across the polytechnics and universities, with less than 2% of those who answered the question disagreeing or strongly disagreeing (Table 2).

Table 2. Individual beliefs about PD across all institutions

| Question: I believe that professional development is an important part of my job |
|------------------|-----------|-----------|-----------|-----------|-----------|
| Answer options   |           |           |           |           |           |
|                   | Percentage response | University (U) or Polytechnic (P) |
|                   | U1 (n=142) | U2 (n=133) | P1 (n=52) | P2 (n=43) | P3 (n=16) |
| I strongly agree  |            |            |           |           |           |
|                   | 57.8       | 43.6       | 68.5      | 60.4      | 62.5      |
|                   | 39.4       | 48.1       | 29.6      | 37.2      | 37.5      |
| I neither disagree nor agree | 2.8 | 6.8 | 1.9 | 2.3 | 0 |
| I disagree        | 0          | 0          | 0         | 0         | 0         |
| I strongly disagree | 0   | 1.5        | 0         | 0         | 0         |

The numbers of those who did not respond to this question were 4, 13, 2, 1 and 0 for U1, U2, P1, P2 and P3 respectively.

While Rothwell and Arnold’s (2005) research on attitudes to professional development indicates that women generally hold more positive attitudes to the value of continuing professional development than men, this did not appear to be the case, as Figures 2 and 3 demonstrate.
Figure 2: Female perspectives on the importance of PD

![Pie chart showing female perspectives on PD]

Figure 3: Male perspectives on the importance of PD

Error! Not a valid link.
3.2 **Forms of professional development engaged in by staff**

Participants were asked to indicate the types of professional development they had engaged in. Examples given included both formal and informal professional development activities, and respondents were able to choose as many activities as they wished. These are presented in rank order in Table 3.

**Table 3. Frequency ranking of professional development activities**

<table>
<thead>
<tr>
<th>Forms of PD</th>
<th>Frequency (n=408)</th>
<th>Percent</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharing knowledge with colleagues</td>
<td>355</td>
<td>87.0</td>
<td>1</td>
</tr>
<tr>
<td>Spontaneous learning arising from work or personal activities</td>
<td>336</td>
<td>82.4</td>
<td>2</td>
</tr>
<tr>
<td>Learning through informal discussions in the workplace</td>
<td>331</td>
<td>81.1</td>
<td>3</td>
</tr>
<tr>
<td>Regular reading of journals and books relevant to my profession</td>
<td>291</td>
<td>71.3</td>
<td>4</td>
</tr>
<tr>
<td>Acquiring knowledge through browsing websites or ‘surfing the net’</td>
<td>285</td>
<td>70.0</td>
<td>5</td>
</tr>
<tr>
<td>Attending conferences, symposia and or workshops</td>
<td>285</td>
<td>69.9</td>
<td>6</td>
</tr>
<tr>
<td>Acquiring generic transferable skills and competencies related to my job</td>
<td>281</td>
<td>68.9</td>
<td>7</td>
</tr>
<tr>
<td>Internal training courses</td>
<td>248</td>
<td>60.8</td>
<td>8</td>
</tr>
<tr>
<td>Technical Training: e.g. courses where I am learning how to use new computer software or technologies</td>
<td>203</td>
<td>49.8</td>
<td>9</td>
</tr>
<tr>
<td>Exchanging emails on professional topics with other members within your institution</td>
<td>185</td>
<td>45.3</td>
<td>10</td>
</tr>
<tr>
<td>Engaging with professional interest groups</td>
<td>172</td>
<td>42.2</td>
<td>11</td>
</tr>
<tr>
<td>Practising the rules and procedures of my institution</td>
<td>170</td>
<td>41.7</td>
<td>12</td>
</tr>
<tr>
<td>External courses my employer has paid for</td>
<td>163</td>
<td>40.3</td>
<td>13</td>
</tr>
<tr>
<td>Action learning: learning from development projects</td>
<td>161</td>
<td>39.4</td>
<td>14</td>
</tr>
<tr>
<td>Membership of committees relevant to my profession</td>
<td>128</td>
<td>31.4</td>
<td>15</td>
</tr>
<tr>
<td>Membership of committees at my place of work e.g. quality, health and safety</td>
<td>122</td>
<td>29.9</td>
<td>16</td>
</tr>
<tr>
<td>Undertaking academic study that isn’t necessarily related to my job or profession</td>
<td>118</td>
<td>28.9</td>
<td>17</td>
</tr>
<tr>
<td>Keeping a portfolio record of professional development activities I have undertaken</td>
<td>117</td>
<td>28.9</td>
<td>18</td>
</tr>
<tr>
<td>Learning professional knowledge: e.g. professional codes of practice</td>
<td>117</td>
<td>28.7</td>
<td>19</td>
</tr>
<tr>
<td>Working toward a qualification that is paid for by my employer</td>
<td>103</td>
<td>25.3</td>
<td>20</td>
</tr>
<tr>
<td>Taking part in an online discussion forum relevant to my profession</td>
<td>94</td>
<td>23.0</td>
<td>21</td>
</tr>
</tbody>
</table>
The top five ranked activities with 70% or more of respondents participating in are sharing knowledge with colleagues, spontaneous learning arising from work or personal activities, learning through informal discussions in the workplace, regular reading of journals and books relevant to my profession, acquiring knowledge through browsing websites or ‘surfing the net’. These can all be classified as informal activities, defined by Swartz and Bryan (1998) as “learning by association and affiliation” (23) and for the purposes of the survey as “activities undertaken that increase your knowledge in a particular area but which are not formally acknowledged”. This suggests that most professional development activity does not occur as part of “a programme or course that has either an assessment or attendance requirement in order to obtain credit”. Formal professional development activities are nevertheless important, comprising three of the next four highest ranked activities with between sixty and seventy percent of respondents engaging in these. Rankings 10-16 in which approximately 30 - 45% of people are engaged in, are primarily comprised of activities in which forms of networking are important, this includes email contact, professional committee and interest group involvement, and action learning. Another form of networking activity, that of taking part in an online discussion relevant to one’s profession, was mentioned by a much smaller number of respondents (23%). External courses paid for by employers also feature here as the 13th ranked activity. There was a wide range of activities in which less than thirty percent of respondents engaged. These included: working towards a qualification paid for by oneself or an employer; engaging in professional practice; and learning through codes of practice and activities connected with recording and reflecting on PD undertaken (reflexive diaries and portfolios).

While there was some variation in percentages of people stating they had engaged in PD across the five institutions, there were no consistent differences relating to polytechnics or universities. The greatest variation between institutions appeared to be in relation to the categories, ‘PD activities around academic study not necessarily related to my job or profession’, ‘engagement with professional interest groups’, ‘technical training courses, and external courses paid for by ones employer’ and ‘internal training courses’ (see Appendix 2: table 5). There did not appear to be any substantive differences between activities indicated by support or academic staff apart from ‘regular reading of journals and books relevant to my profession’ (chosen by 87% of academic staff and 49% of general staff, see Appendix 2: table 6). The relationship between length of time employed and type of activity engaged in was
complex, with the most identifiable trend being the proportion of activity in each category, which was generally lower for those employed for less that one year.

3.3 Involvement in e-learning

3.31 Using e-learning in teaching

All respondents were asked whether they were using e-learning. Of those who answered the question (n=383, 93.9%), 52.5% were involved in using e-learning in teaching with 23.5% involved in supporting e-learning (see Figure 4).

Figure 4. Percentage of participants had been involved in e-learning

The respondents (n=193) who indicated they were involved in using e-learning in their teaching were asked about the length of time they had been involved. Most had been involved for between 1 and 10 years, with the majority having been involved between 1 and 5 years (Figure 5).
Support Staff involved in e-learning were asked how long they had been involved in supporting e-learning; this is shown in Table 4.

Table 4. Time involved in supporting e-learning

<table>
<thead>
<tr>
<th>Time involved in supporting e-learning</th>
<th>Frequency (n=76)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>12</td>
<td>15.8</td>
</tr>
<tr>
<td>1- 5 years</td>
<td>44</td>
<td>57.9</td>
</tr>
<tr>
<td>6-10 years</td>
<td>18</td>
<td>23.7</td>
</tr>
<tr>
<td>more than 10 years</td>
<td>2</td>
<td>2.6</td>
</tr>
</tbody>
</table>

76/90 responded to the question

The 201 staff who indicated they used e-learning in their teaching were asked to identify the reasons why they were doing so. The main reasons are shown in Table 5, with the most significant motivator appearing to be related to a belief in the merits of e-learning with 62.7% stating ‘E-learning allowed me do things I couldn’t do using other methods’. The second most important factor was an institutional requirement to be involved in e-learning. Another external driver – demand from students to have an e-learning presence - was also an important motivator. Importantly, the role of colleagues in initiating interest seemed to be a factor for 17.4% of participants. There were a wide variety of reasons in the other category. These included: having a belief in the value of e-learning; wanting to lead the way in the institution; friendship with consultants and support people; staying current to new trends; it is interesting and fun; to reach and communicate with distance students; being able to see the benefits; addressing the needs (rather than desires) of students, tutorial personnel and funding shortages; and having used e-learning as a student.
Table 5. Main reasons for use of e-learning in teaching

<table>
<thead>
<tr>
<th>Main Reasons for use of e-learning in teaching</th>
<th>Frequency (n=201)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>My School/Department required me to have an e-learning presence</td>
<td>94</td>
<td>46.8</td>
</tr>
<tr>
<td>Increased demand from students to have an e-learning presence</td>
<td>54</td>
<td>26.9</td>
</tr>
<tr>
<td>My colleagues were engaged in e-learning so I thought I should too</td>
<td>35</td>
<td>17.4</td>
</tr>
<tr>
<td>E-learning allowed me do things I couldn’t do using other methods</td>
<td>126</td>
<td>62.7</td>
</tr>
<tr>
<td>As a response to perceived students needs</td>
<td>3</td>
<td>1.4</td>
</tr>
<tr>
<td>As an avenue for applying knowledge gained in technical course</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>Other</td>
<td>40</td>
<td>19.9</td>
</tr>
</tbody>
</table>

Teaching Staff also used a wide variety of e-learning tools and activities in their teaching (see Table 6).

Table 6. Activities and tools used by teachers in the delivery of e-learning

<table>
<thead>
<tr>
<th>Rank Order</th>
<th>Types of e-learning activities/tools used or currently using in teaching</th>
<th>Frequency (n=201)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Email</td>
<td>182</td>
<td>90.6</td>
</tr>
<tr>
<td>2</td>
<td>Providing content online that is in HTML (web page form)</td>
<td>173</td>
<td>86.1</td>
</tr>
<tr>
<td>3</td>
<td>Use an Learning Management System (such as Blackboard, Moodle or WebCT)</td>
<td>157</td>
<td>78.1</td>
</tr>
<tr>
<td>4</td>
<td>Providing clickable links to online journal articles</td>
<td>138</td>
<td>68.7</td>
</tr>
<tr>
<td>5</td>
<td>Discussion boards</td>
<td>129</td>
<td>64.2</td>
</tr>
<tr>
<td>6</td>
<td>Providing Content online that is in Flash form</td>
<td>103</td>
<td>51.2</td>
</tr>
<tr>
<td>7</td>
<td>On-line quizzes</td>
<td>90</td>
<td>44.8</td>
</tr>
<tr>
<td>8</td>
<td>On-line surveys</td>
<td>79</td>
<td>39.3</td>
</tr>
<tr>
<td>9</td>
<td>Scenarios delivered online or through a CD or DVD</td>
<td>77</td>
<td>38.3</td>
</tr>
<tr>
<td>10</td>
<td>Electronic whiteboards</td>
<td>56</td>
<td>27.9</td>
</tr>
<tr>
<td>11</td>
<td>Chat rooms</td>
<td>54</td>
<td>26.9</td>
</tr>
<tr>
<td>12</td>
<td>Providing clickable links to websites</td>
<td>47</td>
<td>23.4</td>
</tr>
<tr>
<td>13</td>
<td>Online videofiles (that do not use podcast technology)</td>
<td>40</td>
<td>19.9</td>
</tr>
<tr>
<td>14</td>
<td>Audio files delivered via CD or DVD</td>
<td>36</td>
<td>17.9</td>
</tr>
<tr>
<td>15</td>
<td>Video files delivered via CD or DVD</td>
<td>32</td>
<td>15.9</td>
</tr>
<tr>
<td>16</td>
<td>Online image databases</td>
<td>29</td>
<td>14.4</td>
</tr>
<tr>
<td>17</td>
<td>Web based conferencing</td>
<td>27</td>
<td>13.4</td>
</tr>
<tr>
<td>18</td>
<td>ePortfolios</td>
<td>26</td>
<td>12.9</td>
</tr>
<tr>
<td>19</td>
<td>Voice over IP (e.g. Skype)</td>
<td>24</td>
<td>11.9</td>
</tr>
<tr>
<td>20</td>
<td>Electronic assignment submission</td>
<td>22</td>
<td>11.0</td>
</tr>
<tr>
<td>21</td>
<td>Blogs</td>
<td>21</td>
<td>10.5</td>
</tr>
<tr>
<td>22</td>
<td>RSS feeds</td>
<td>17</td>
<td>8.4</td>
</tr>
</tbody>
</table>
The three most often listed activities used by respondents were email (90.6%), providing content in web page form (86.1%) and the use of a learning management system (78.1%). Over fifty percent of respondents also used clickable links to online journal articles, discussion boards and providing content online in Flash form. Activities which 20-50% of respondents used included in rank order from highest to lowest: online quizzes and surveys; scenarios delivered through a CD or DVD; electronic whiteboards; chat rooms; and providing clickable links to websites. Less than 20 percent of respondents identified engagement with activities or tools that can be seen as requiring specialist knowledge or equipment (for example video, audio and images), or involved the use of relatively newer forms of e-learning technologies, i.e. social networking tools.

Most participants used between six and ten activities in their delivery of e-learning (47.2 %) (see appendix 2 Table 7). The majority of respondents who had been involved in e-learning for less than three years tended to be involved in fewer e-learning activities (34.4% one to five activities, 39.1% six to ten activities, 26.6% 11 or more activities) than those who had been involved for six or more years (7.7% one to five activities, 43.6% six to ten activities, 46.2% 11 or more activities).

Teaching staff employed in polytechnics generally used a greater range and number of activities/tools (see appendix 2: table 8). 11.1 % of staff in polytechnics were using five or less activities/ tools, compared with 31.4% of teaching staff in universities. 48.6% of polytechnic staff were using six to ten activities/tools compared with 46.3 % in universities, and 31.9% of polytechnic respondents were using 11-15 activities/tools compared with 15.7% of university staff. (see Figure 6)

<table>
<thead>
<tr>
<th>Rank Order</th>
<th>Types of e-learning activities/tools used or currently using in teaching</th>
<th>Frequency (n=201)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Podcasting</td>
<td>14</td>
<td>7.0</td>
</tr>
<tr>
<td>24</td>
<td>Online audio files (that do not use podcast technology)</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>25</td>
<td>Social bookmarking websites (e.g. Furl, del.icio.us)</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>26</td>
<td>Digital stories</td>
<td>13</td>
<td>6.5</td>
</tr>
<tr>
<td>27</td>
<td>Wikis</td>
<td>11</td>
<td>5.5</td>
</tr>
<tr>
<td>28</td>
<td>Other</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>29</td>
<td>Interactive content delivered via CD or DVD</td>
<td>4</td>
<td>2.0</td>
</tr>
<tr>
<td>30</td>
<td>Communication tools have audio functionality built-in</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>31</td>
<td>Library associated e-learning</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>32</td>
<td>Electronic plagiarism tool</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>33</td>
<td>Electronic assessment pre-submission services</td>
<td>1</td>
<td>0.5</td>
</tr>
</tbody>
</table>
Teaching staff generally utilised more e-learning tools and activities than support staff, with 69.0% using six to fifteen activities compared with 25.4% of support staff (appendix 2:table 9). 23.8% of teaching staff utilised fewer than five activities (compared with 69.6% of support staff). See appendix 1 table 9.

### 3.32 Non involvement in e-learning

The 92 respondents who were not involved in e-learning were asked an open-ended question about why this was so. The predominant reason was that e-learning was not applicable for their job (Table 7). Other reasons were based on personal experiences and assumptions about what e-learning involved; the need to see benefits from e-teaching, time constraints and beliefs about the benefit of e-learning for their teaching.

#### Table 7. Reasons why e-learning is not used

<table>
<thead>
<tr>
<th>Reasons for not using e-learning</th>
<th>Frequency (n=92)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not applicable to my job</td>
<td>56</td>
<td>60.8</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
<td>8.7</td>
</tr>
<tr>
<td>Preference for face-to-face teaching</td>
<td>4</td>
<td>4.35</td>
</tr>
<tr>
<td>Insufficient time to learn about and use e-learning</td>
<td>2</td>
<td>2.17</td>
</tr>
</tbody>
</table>
Many of the comments in relation to these categories, including some of those who stated e-learning was not applicable to their job (for example they may have been involved in research only, or administration not involving support for e-learning) were related to assumptions and beliefs about perceived possibilities and limitations of e-learning, the validity of which can not be assessed. Other assessments were made in relation to perceived differences to current teaching techniques, for example comparisons of e-teaching with face to face delivery, and were often built on the assumption that e-learning was an alternative, rather than a potential addition or supplement, to other modes of delivery:

I am really concerned that e-learning will dilute my enthusiasm for the material I teach- I thrive on face to face contact in my classes and my students evidently appreciate it too.

Teaching and learning are human centred. Digital media normally interferes in this because of the way it constrains the presentation of information and the way it favours the fleeting, the pretty, the superficial and the entertaining over the slower, the thoughtful and the substantive.

A lack of awareness of what e-learning was and its possibilities for teaching, in particular disciplinary specific contexts, was also a feature of the responses:

I am not sure what is.
The use of the internet for e-learning is totally inappropriate.
There are no adequate e-learning tools for our area of research.
I have not yet developed any material that could be used in this learning medium.

For some, a decision not to be involved in e-learning was an expression of a personal preference for the mediums of working:

I prefer paper – I spend enough time online at work.

Still, others rejected what they saw as an imposition of a political agenda:

It seems to be that e-learning is being pushed by universities for reason that have nothing to do with helping students learn (e.g. because it is trendy). I don’t see that e-learning would significantly improve students’ learning in the courses I teach (or at least, not enough to outweigh the time and effort to see it up).

A reluctance to get involved in something new, and the need to invest time in learning to teach using e-learning was also an issue.

Old habits I guess.
No time to undertake it.

A minority had also tried to use e-learning tools (including learning management systems) and found them frustrating:

I think the system is not easy to use, unreliable, unstable and with too many small problems that make the experience somewhat of a nuisance.
Have tried but have been wholly unsupported by our IT department.

3.4 Engagement and participation in professional development for e-learning

3.41 Engagement and non-engagement in professional development for e-learning within institutions

Of the 345 respondents who answered the question “Are you aware of e-learning professional development courses run in your institution” (71%) were aware of PD courses related to e-learning. For individual institutions there was variance in responses to this question with affirmative responses expressed by 53.6% to 83.2%, though there were no notable differences between polytechnics and universities as groups. (Appendix 2, table 10).

Staff were then asked whether they had participated in any forms (both informal and formal) of professional development within their institution. The percentage indicating their involvement in professional development for e-learning was considerably lower than the 95.6% of participants which had indicated they agreed or strongly agreed with the statement “professional development is an important part of my job”.

Table 8 Staff participation in formal or informal e-learning professional development activity within their institution

<table>
<thead>
<tr>
<th>Participation in e-learning PD</th>
<th>FREQUENCY</th>
<th>PERCENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>185</td>
<td>53.6</td>
</tr>
<tr>
<td>No</td>
<td>160</td>
<td>46.4</td>
</tr>
<tr>
<td>Total</td>
<td>345</td>
<td>100</td>
</tr>
<tr>
<td>No answer</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

Table 8 shows of those 185 staff who had participated in PD for e-learning, 53.6% had also been an online student at some time. Those who had been online students were using more e-learning tools and techniques. (There was variation in types too, see Appendix 2 Table 11). Those who had been online students were also more aware of e-learning opportunities than those who had not.
Table 9 Types of e-learning professional development engaged in

<table>
<thead>
<tr>
<th>E-learning PD activities</th>
<th>Frequency (n=185)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal professional development</td>
<td>130</td>
<td>70.3</td>
</tr>
<tr>
<td>Technical training courses run by a central unit within my institution</td>
<td>103</td>
<td>55.7</td>
</tr>
<tr>
<td>Attended e-learning events at my institution</td>
<td>87</td>
<td>47.0</td>
</tr>
<tr>
<td>Working one to one or in small groups with e-learning staff outside of centrally run courses</td>
<td>74</td>
<td>40.0</td>
</tr>
<tr>
<td>e-learning courses that cover both technical and non-technical skills run by a central unit within my institution</td>
<td>68</td>
<td>36.8</td>
</tr>
<tr>
<td>e-learning courses/events run by my school department or institute</td>
<td>52</td>
<td>28.1</td>
</tr>
<tr>
<td>Courses and/or papers that are run within my institution and that counts toward a formal qualification</td>
<td>38</td>
<td>20.5</td>
</tr>
<tr>
<td>Courses that focus on non-technical skills and run by a central unit within my institution</td>
<td>35</td>
<td>18.9</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>3.2</td>
</tr>
</tbody>
</table>

As table 9 shows, the majority of e-learning activities involve informal professional development (70.3%) which comprises activities undertaken to increase knowledge and skills in a particular area but which are not formally acknowledged or assessed. The second most frequently engaged in form of professional development are technical training courses run by a training unit. Training courses which focus on both pedagogical and technical aspects had been attended by 36.8% of participants. Attending e-learning events and having one-to-one assistance or being involved in small group sessions with e-learning staff were the third and fourth most frequently engaged in activities.

Participants were asked to rank the effectiveness of e-learning professional development on your e-learning activities using a scale of 1 - 4 where 1 represented completely effective and 4 completely ineffective (see Table 10). Most effective was informal professional development (35.4%) and working one-to-one with e-learning staff outside of centrally run e-learning courses (25%). Least effective were two popular forms of e-learning activity - attending e-learning events at my institution (26.3%) and technical training courses run by my institution (21%), both generally regarded as formal professional development activities.
### Table 10 Effectiveness of e-learning professional development on e-learning activities in respondents’ institutions

<table>
<thead>
<tr>
<th>E-learning activities within respondents’ institutions</th>
<th>Effectiveness of e-learning</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Extremely effective count, (column percent)</td>
<td>2 count, (column percent)</td>
</tr>
<tr>
<td>Courses and/or papers that are run within my institution and that counts toward a formal qualification</td>
<td>7 (5.30)</td>
<td>16 (5.80)</td>
</tr>
<tr>
<td>Technical training courses run by a central unit within my institution</td>
<td>14 (10.61)</td>
<td>52 (18.84)</td>
</tr>
<tr>
<td>Courses that focus on non-technical skills and run by a central unit within my institution</td>
<td>4 (3.03)</td>
<td>21 (7.61)</td>
</tr>
<tr>
<td>E-learning courses that cover both technical and non technical skills run by a central unit within my institution</td>
<td>8 (6.06)</td>
<td>39 (14.13)</td>
</tr>
<tr>
<td>E-learning courses/events run by my school department or institute</td>
<td>8 (6.06)</td>
<td>23 (8.33)</td>
</tr>
<tr>
<td>E-learning courses/events run by my school department or institute</td>
<td>10 (7.58)</td>
<td>36 (13.04)</td>
</tr>
<tr>
<td>Have worked one to one or in small groups with e-learning staff outside of centrally run courses</td>
<td>33 (25.00)</td>
<td>30 (10.87)</td>
</tr>
<tr>
<td>Informal professional development</td>
<td>46 (34.85)</td>
<td>58 (21.01)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (1.52)</td>
<td>1 (0.36)</td>
</tr>
<tr>
<td>Totals</td>
<td>132 (100)</td>
<td>276 (100)</td>
</tr>
</tbody>
</table>

The reasons for the 160 staff who stated they did not engage in e-learning PD are shown in Table 11.
Table 11 Non-engagement in e-learning PD within respondents’ institution

<table>
<thead>
<tr>
<th>Reasons for non-engagement</th>
<th>Frequency (n=160)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>I haven’t had the time</td>
<td>71</td>
<td>44.4</td>
</tr>
<tr>
<td>I haven’t needed to do any PD</td>
<td>34</td>
<td>21.3</td>
</tr>
<tr>
<td>My institution provides inadequate practical support for e-learning</td>
<td>30</td>
<td>18.8</td>
</tr>
<tr>
<td>My institute doesn’t offer any e-learning professional development activities</td>
<td>26</td>
<td>16.3</td>
</tr>
<tr>
<td>I am not rewarded for engaging in e-learning PD</td>
<td>26</td>
<td>16.3</td>
</tr>
<tr>
<td>The e-learning professional development that is on offer is inadequate</td>
<td>24</td>
<td>15.0</td>
</tr>
<tr>
<td>I don’t want to or can’t see the use/purpose for e-learning</td>
<td>21</td>
<td>13.5</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>11.3</td>
</tr>
<tr>
<td>Not aware of what is on offer</td>
<td>13</td>
<td>8.1</td>
</tr>
</tbody>
</table>

The most commonly stated reason for non-engagement was a lack of time. A substantial number of respondents also felt they did not need to engage in any professional development. A range of reasons was given for non engagement by those who ticked the ‘other’ category – these included non-applicability or relevance to ones’ job, a lack of accessibility of PD opportunities, a lack of institutional support, new to the job and comments such as the one below relating to prioritisation of forms of PD:

In the PBRF publish or perish environment spending time on teaching related development is not a rational decision. Time is a major barrier as is lack of institutional/technical support.

I learn these things quicker on my own; seminars of this sort are chocka-block with people who need to be taught first how to use a mouse!

Inadequate doesn’t describe it – there is NO practical support for e-learning. Advice and preaching – but no practical support that I have seen.

If my institution offers e-learning PD opportunities then I am not aware of them.

3.42 Engagement and non-engagement in professional development for e-learning outside institutions

Respondents were asked whether they had ever participated in any e-learning professional development outside of their institution. A higher proportion of polytechnic staff have engaged in PD for e-learning outside of their institution than university staff with 54 % of polytechnic staff and only 34 % of university staff doing so (see Figure 6 and Appendix 2; Table 12).
When asked what professional development activities respondents’ engaged in outside of their institution (Table 12), it was those associated with informal professional development which were most prevalent (63.6%) followed by e-learning events (52.6%). Courses that focus on non technical skills were the least prevalent.

**Table 12. Engagement in e-learning outside the institution**

<table>
<thead>
<tr>
<th>Examples of e-learning engaged in outside their institution</th>
<th>Frequency (n=140)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informal professional development undertaken outside your institution</td>
<td>89</td>
<td>63.6</td>
</tr>
<tr>
<td>e-learning events</td>
<td>73</td>
<td>52.1</td>
</tr>
<tr>
<td>Courses and or papers that count toward a formal qualification</td>
<td>51</td>
<td>36.4</td>
</tr>
<tr>
<td>Technical training courses</td>
<td>47</td>
<td>33.6</td>
</tr>
<tr>
<td>e-learning courses that cover both technical and non technical skills</td>
<td>38</td>
<td>27.1</td>
</tr>
<tr>
<td>Courses that focus non technical skills</td>
<td>32</td>
<td>22.9</td>
</tr>
<tr>
<td>Others</td>
<td>8</td>
<td>5.7</td>
</tr>
</tbody>
</table>

Respondents were asked to rank the effectiveness of e-learning professional development on their e-learning activities using a scale of 1-4, where 1 represented completely effective and 4 completely ineffective (Table 13).

As with the assessments of effectiveness within institutions (Table 11) the results of Table 13 demonstrate that again the most effective form of professional development...
was informal professional development (32.99%), but in contrast to the institutional assessments the second most effective form of PD was attending e-learning events (26.03%), suggesting more formal PD e-learning activities are also necessary.

Table 13 Effectiveness of e-learning professional development on e-learning activities in respondents’ institutions

<table>
<thead>
<tr>
<th>E-learning activities outside respondents’ institutions</th>
<th>Effectiveness of e-learning</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Extremely effective (1) count, (column, percent)</td>
<td>(1) count, (column, percent)</td>
</tr>
<tr>
<td>Courses that count towards a formal qualification</td>
<td>16 (16.49)</td>
<td>19 (12.67)</td>
</tr>
<tr>
<td>Technical training courses</td>
<td>12 (12.37)</td>
<td>21 (14.00)</td>
</tr>
<tr>
<td>Courses that focus on non-technical skills</td>
<td>7 (7.22)</td>
<td>18 (12.00)</td>
</tr>
<tr>
<td>E-learning courses that cover both technical and non-technical skills</td>
<td>9 (9.28)</td>
<td>22 (14.67)</td>
</tr>
<tr>
<td>E-learning events</td>
<td>19 (19.59)</td>
<td>32 (21.33)</td>
</tr>
<tr>
<td>Informal professional development</td>
<td>32 (32.99)</td>
<td>36 (24.00)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (2.06)</td>
<td>2 (1.33)</td>
</tr>
</tbody>
</table>

The 197 respondents who had not engaged in forms of PD outside of their institution were asked why this was so (see Figure 7).

Reasons for non-engagement outside the institution: again insufficient time is important, also what is/is not on offer. Within institutions, insufficient time was cited most frequently as the reason for non-engagement. Respondents also indicated that they were not aware of opportunities outside their institution.
Figure 7. Reasons stated for non-engagement in e-learning outside the institution

There were a substantial number of comments made in relation to the question of non-engagement outside the institution (Figure 7). These comments revolved primarily around a lack of awareness or perceived relevance, courses not being offered, a lack of funding for outside PD activities, no interest in engaging in PD opportunities, and no time. A sample of these comments is presented below:

- Not aware of it, no pressing need.
- Lack of motivation or desire to seek out opportunities.
- Time and costs associated with this. I’m not convinced extending my e-learning capacity is the way forward for me.
- Given the pressures of my immediate responsibilities, this is not a high priority.
- Cost - my School rarely contributes to such development and applying for such funding and leave is a laboured and tortuous process.
- Time, money, energy and have never needed to.
- Time – workload is a huge issue. I would absolutely love to but am constantly snowed under with work.
- Time and relevance. I am too busy to be able to spare time to do training that would be useful rather than essential.
- I see enough of this (e-learning) in conferences and paper presentations to see it will not help teaching.
- No incentives.
3.5 Opportunities and constraints on professional development for e-learning

3.5.1 Preferences for forms of professional development

The survey also asked respondents to indicate the types of the e-learning professional development that they would like to engage in. Table 14 shows the counts and percentages across institutions in regard to preferences for future e-learning professional development activity. 114 participants stated they wished to be involved in technical courses run by their institutions, 112 wished to engage in courses or papers that count towards a qualification and 110 noted they would prefer courses that combines the technical and non-technical aspects of e-learning. The least popular category was e-learning that is specific to my subject or discipline which only four people mentioned.

Table 14: Institutional differences in types of e-learning professional development respondent don’t currently engage with but would like to

<table>
<thead>
<tr>
<th>E-learning activities not currently engaged in</th>
<th>Percentage of respondents who wish to engage in</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U1 Count</td>
<td>P1 Count</td>
</tr>
<tr>
<td>Technical courses run by my institution</td>
<td>40</td>
<td>19</td>
</tr>
<tr>
<td>Non-technical courses run by my institution</td>
<td>27</td>
<td>14</td>
</tr>
<tr>
<td>Courses that combine technical and non-technical aspects of e-learning run by my institution</td>
<td>40</td>
<td>16</td>
</tr>
<tr>
<td>Course/papers that count toward a qualification</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>Courses that are run by my School/Department /Institute</td>
<td>17</td>
<td>14</td>
</tr>
<tr>
<td>Informal e-learning professional development</td>
<td>36</td>
<td>16</td>
</tr>
<tr>
<td>Technical courses run outside of my institution</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Non-technical courses run outside of my institution</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Courses that combine technical and non-technical aspects of e-learning and are run outside of my institution</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>e-learning events</td>
<td>34</td>
<td>11</td>
</tr>
<tr>
<td>e-learning that is specific to my subject or discipline</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>4.8</td>
<td>0</td>
</tr>
</tbody>
</table>
3.52 Constraints on engaging in professional development for e-learning

Table 15 shows constraints which affect respondents’ ability to engage in PD for e-learning.

Table 15. Constraints on non-engagement in PD for e-learning

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Male Count, (column percent)</th>
<th>Female Count, (column percent)</th>
<th>Total Count, (column percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t have enough time</td>
<td>69 (42.59)</td>
<td>132 (53.66)</td>
<td>201 (96.25)</td>
</tr>
<tr>
<td>I am not encouraged or rewarded</td>
<td>47</td>
<td>47</td>
<td>94</td>
</tr>
<tr>
<td>There are not enough PD courses on offer</td>
<td>37 (29.01)</td>
<td>57 (19.11)</td>
<td>94 (48)</td>
</tr>
<tr>
<td>I am not interested in e-learning professional development</td>
<td>13 (22.84)</td>
<td>11 (23.17)</td>
<td>46.01 (48)</td>
</tr>
<tr>
<td>Not relevant</td>
<td>1 (8.02)</td>
<td>7 (4.47)</td>
<td>8 (12.49)</td>
</tr>
<tr>
<td>Inflexibility with regard to when PD opportunities are available</td>
<td>2 (0.62)</td>
<td>1 (2.85)</td>
<td>3 (3.47)</td>
</tr>
<tr>
<td>Can’t see the value of e-learning</td>
<td>2 (1.23)</td>
<td>2 (0.41)</td>
<td>4 (1.64)</td>
</tr>
<tr>
<td>Insufficient practical support</td>
<td>2 (1.23)</td>
<td>3 (0.81)</td>
<td>5 (2.04)</td>
</tr>
<tr>
<td>Not aware of what is offered</td>
<td>1 (1.23)</td>
<td>3 (1.22)</td>
<td>4 (2.45)</td>
</tr>
<tr>
<td>Lack of discipline or subject specific courses</td>
<td>3 (0.62)</td>
<td>4 (1.22)</td>
<td>7 (1.84)</td>
</tr>
<tr>
<td>Other</td>
<td>12 (1.85)</td>
<td>20 (1.63)</td>
<td>32 (3.48)</td>
</tr>
<tr>
<td></td>
<td>(7.41)</td>
<td>(8.13)</td>
<td>(15.54)</td>
</tr>
</tbody>
</table>

The main constraint was time, followed by “I am not encouraged or rewarded”, and there are “not enough PD courses on offer”. However, 12 percent of respondents indicated that they were not interested in professional development related to e-learning. There were slight gender differences in expressed constraints, with females stating more frequently they did not have time to engage, and males more often stating they are not encouraged or rewarded, and expressing less interest in e-learning professional development.
There were numerous comments given by respondents in relation to constraints. A small minority of respondents felt there were no constraints. A lack of actual and perceived time figured heavily in these, as well personal preferences, and reference to institutional factors. Some illustrative quotes representing the categories in Table 15 are given below:

- "I have many demands on my time and this means the time I have for PD is limited.
- "Need to have allocated time from employer.
- "I am not supported by like-minded colleagues or middle management.
- "I have already used up my amount of funding towards professional development.
- "There is a lack of technical support for development and preparation of material. It is extremely time intensive and few academics can afford to substitute research time in order to develop the skills needed and then construct the web material.
- "The courses are either too simplistic or too hard to follow in my opinion.
- "I get frustrated that I can’t seem to be able to apply the knowledge I have learnt to my own teaching context, and that the courses don’t effectively link teaching and pedagogy.
- "I sometimes feel that I am not good at technical things.

3.53 General comments relating to e-learning and professional development

Survey respondents were given the opportunity to make any comments they liked in relation to undertaking professional development and e-learning at the end of the survey.

A minority of participants expressed their enthusiasm for e-learning, highlighting both its possibilities and potentials:

- "My small experience of undertaking e-Learning was very enjoyable and I worked hard at it. It required a significant time input but the outcome was excellent.
- "E-learning development is the best thing an academic can do to equip oneself.
- "Bring it on!
- "Should be an essential part of contemporary teaching and learning.

Other participants spoke of their confusion about what e-learning was and what it could offer in terms of teaching and learning outcomes.

- "E-learning sounds like it has a lot of potential, but it is hard for me to appreciate this because there is little advertising of it, especially e.g. "e-learning is better because..."

Some were unsure about the benefits for students, or even if students wanted to engage in e-learning:

- "My experience with students leads me to believe that the majority of students do not like e-learning; they prefer to have teaching from a real person.
- "What do students want - do they need this? Are we excluding them via technologies?"
A number of comments suggest that conceptions of e-learning might be barriers to uptake:

There is a limit in terms of communicating effectively, learning is containerised rather than made flexible and open.

E-learning, for example, was often presented negatively in relation to face-to-face teaching, with comments noting students ‘would prefer to have face-to-face contact’. As stated previously this belief tended to present e-learning as an alternative to, rather than as something which could be used in conjunction with, more traditional modes of delivery.

I believe that the push towards e-Learning will disadvantage people who are better suited to face to face delivery. It feels that e-learning is impersonal.

Perceptions of e-learning also extended to evaluations of its merits and therefore its prioritisation in existing workloads.

Unless it is its valuable in terms of my position, I don’t want see the need to spend more time in front of a computer.

E-learning was seen as a constantly changing field due to the technology involved, and one participant expressed concern about their ‘ability to keep up’. Again, many of the respondents’ comments related to the perceived and actual time involved in e-learning.

It needs to be understood that academic staff time is a rare and valuable resource.

Institutional recognition of the time involved in engaging in e-learning and professional development via workload assessments and promotion processes was seen as critical to engagement.

I am very interested in skilling myself and becoming proficient in all aspects of e-learning that enhances the quality of my teaching and makes it more efficient to administer. However, there is not much support for doing that at this university, whatever one does has to be slotted in within the rest of ones existing commitments. In the end it just becomes to hard to keep up with it and apply it because of the time entailed in bringing oneself up to speed.

I suggest that e-learning professional development be recognised in staff workloads. In this way staff would gain recognition for their time. I would further suggest that e-learning professional development be identified as a priority and that demonstrated engagement with e-learning be explicitly identified in the criteria for promotion.

Numerous comments highlighted the need to explore institutional factors in creating a place and space for e-learning and its professional development. Comments suggested perceptions about institutional beliefs about e-learning might be significant influences on e-learning and professional development uptake:
I am also concerned that people in my institute expect e-learning to decrease the time I spend on teaching where as I have found this to not be the case-- definitely worthwhile for the student, but not a time-saver for me. Academic staff should not be required to do e-learning design simply to save money for the university which can’t be bothered to provide professional support.

They also indicated that managerial beliefs and attitudes might be important:

Extremely keen, but while it is an expectation thrown at me by my HOS it is not something he/she is pro-active or useful in supporting - or has enough of a knowledge base to support me to up skill to. I am not allocated any time to achieve this goal. I am actively prevented from participating in the uptake of e-learning education as my workload is excessive and currently in breach of my contract. There is no effective support for this from middle level administration (managers) - they are only concerned with external course reviews and what is wrong.

The need for appropriate organisational infrastructure, financing and support staff were also shown to be important to the implementation of e-learning, as was the co-ordination of these resources:

If e-learning is to be introduced, it must be done well. Resources and trained personnel must be at hand to do the implementation. Staff with a high teaching load have zero time available to devote to this.

The level of knowledge (in self and other resources to help) required to deliver quality e-learning tools is high. The current work expectations of tertiary providers slow this immensely. A huge injection of funding into training a pool of staff to produce excellent resources is required.

E-learning needs to be planned/coordinated at a department or degree programme level to avoid wasted effort - it is extremely hard for staff to act alone in this area.

The final group of comments related specifically to the type of professional development that respondents had experienced or desired. A couple of respondents stated they were not aware of professional development opportunities, or had not been able to attend formal professional development training/sessions. Others had preferences for the types of PD activities they desired:

I would like an e-learning training course that teaches me a few new things in an hour or two that can be taken away and applied. But I’m not interested in investing a lot of time in it.
I think e-learning professional development would work best if directly related to the courses students and I work with and are engaged in.
I would love online e-learning PD that I could undertake on my own time and complete in one short session. I would really enjoy taking on some formal PD if it was presented in this way.

Some comments alluded to how PD needs might change over time with growing capability, and also to the value of sharing emerging knowledge and skills with colleagues:
The stage I am at now I feel as if I want informal sharing, sharing with colleagues and being kept up to date. Much of this I do in my own learning, and most of that is informal. It’s more about being kept up to date now rather than learning anything new.

(E-learning PD) Great idea needs to be linked to group of people who can meet up as this puts a human face to the learning process.

I have always been very keen to participate in training in this area but have been disappointed in the lack of enthusiasm from most of my colleagues and have occasionally been the only participant in some attempts at training.

For someone like myself who is not particularly interested in computers it is difficult to learn these skills and remember them. The best learning is a buddy system which is highly resourced so that a person is on call to help when a task has to be completed.

### 3.6 Issues in need of further exploration

A summary of the on-line survey findings is presented in section 6 of this chapter.

The survey raised a number of issues which were explored in more depth in interviews. While highlighting that individual respondents believed PD was an essential part of their job, there appeared to be a disjuncture between expressed belief and practice, with close to half of all the participants who agreed or strongly agreed that PD was an important part of their job, not engaging in e-learning PD of any kind. The data suggest the reasons for this may be related not only to institutional expectations, structures, support and provision, but also to beliefs about the role of e-learning in work-time activities, whether involvement in PD is necessary, and whether improving capability in e-learning actually constitutes ‘professional development’.

How individuals experienced professional development activities is also not addressed in the survey, nor is the issue of why informal professional development activity appears to be both preferred and effective. The interviews were consequently intended to explore individuals’ beliefs about what constituted e-learning PD and their experiences and practices of engagement.

While cross-institutional trends have been highlighted in the survey analysis, there were differences across institutions in relation to forms of involvement in e-learning and PD and expressed constraints and preferences. The interviews with individuals in each of the five collaborating institutions allowed the Massey Team to explore how institutional factors (both infrastructural and cultural) and individual beliefs combined to produce e-learning PD practices and outcomes, and thereby to reflect on key issues influencing e-learning capability.

The survey analysis revealed that time constraints also appeared to be a significant barrier to the uptake of e-learning, as well as with engagement in continuing professional development. Comments from survey participants indicate engagement in PD is influenced by perceptions of the time e-learning and related professional development will take, the need to prioritise time effectively while at work, and the
sorts of recognition or value which might be placed on work-related tasks. These issues are examined in more depth in the interviews.

Despite uncovering a range of PD activities that individuals are involved in, the survey indicates little about the purpose of these activities and their intended outcomes for teaching and learning, and how these activities might build individual and institutional capability. Consequently, semi-structured interviews comprised questions aimed at unpacking involvement and experience in relation to e-learning; beliefs about importance of professional development; questions relating to professional development activities and changes over time; the effectiveness of professional development; institutional context; and support, access, preferences and constraints. It is to these factors that the discussion now turns.
4.0 Research Findings: Qualitative Interviews

4.1 Individual capability and experience in relation to e-learning

Participants demonstrated different trajectories in their e-learning journeys, and while such trajectories are varied, most participants could be divided into three broad groupings – early innovators, confident users, and new entrants. These categories are not only illustrative of the depth of engagement in e-learning, but they also provide a basis to reflect on how professional development needs change over time and in relation to improvements in capability.

4.11 New entrants

New entrants were a mixed group of 15 participants comprising six staff who had been involved for less than a year, two not involved in e-learning, and seven who were involved for one to three years. They included two who had reluctantly become involved in e-learning because it was an expectation of their manager that they did so, a number who had joined existing courses with a web-based component, and a minority that consciously decided ‘to take the plunge’ and give e-learning a go. It was most common for participants in this group to describe their technical ability as low and to express some anxiety about their e-learning capability.

I’m not independent, I’m not self reliant. F/29/U

Some had stated they were reluctant to volunteer for being interviewed as they were concerned they might be asked technical questions. Several respondents describing an initial intimidation about becoming involved in e-learning, and some frustration with the steep learning curve they experienced in mounting, managing and/or supporting e-learning. However, for the majority, being involved in e-learning had been a positive process through which they had gained confidence with both the technology and its application in teaching and learning. Almost all in this group became involved in e-learning through the use of a Learning Management System (WebCT, Blackboard or Moodle), though participants varied in whether they had others mount information and design pages and courses on-line, or whether they were involved in doing this themselves.

Though new entrants most commonly articulated concerns about e-learning, many of them were enthused by the possibilities of it, feeling that in improving their own capability that they had improved the courses in which they were involved to the benefit of their students.
New entrants expressed desires for PD assistance and learning related to their individual needs. Many had attended introductory courses on e-learning and learning management systems run by information technology or educational training units, though these did not necessarily integrate the pedagogical, technological and institutional processes that combine to produce ‘e-learning’ in a given institution. A number noted how they had been helped significantly by personal assistance of colleagues and/or training and support people, and that they were now at a point where they wanted to try to build on what they had achieved.

Non-involvement in e-learning was not a function of access to professional development and training, rather it was associated with beliefs and assumptions about the costs and benefits of embarking on e-learning and any training or skills development associated with it. A participant reflecting on the variable uptake of e-learning within her institution also alluded to a lack of clarity around what e-learning involves, and what its use might be.

Reluctance and non-involvement in e-learning tended to be strongly framed around beliefs about the time investment which might be involved. When asked why she wasn’t involved in e-learning this participant replied:

Time. That’s a biggy. I just don’t have the time and, to learn it, and it seems to me that it takes up a lot of time. F/16/U

This participant could see some of the benefits for students, but argued that it would not save her any time in her teaching or elsewhere, and when combined with a belief that there was a lack of technical support in her institution, and the fact she could not see that it would produce recognised research outputs, this created a considerable disincentive to engage in e-learning. Other new entrants were also unsure about the time which might be needed to develop e-learning skills and knowledge.

Part of it is a little bit of conflict about how much we spend our time. I could spend a lot ...it would benefit me enormously but other things would slide and it’s not part of PBRF. F/29/U

4.12 Confident users

A second group of participants (and the largest single group in the study, comprising 17 staff) might be described as confident users. These individuals had largely been using e-learning technologies for three or more years. While they considered they possessed a reasonable e-capability, they felt they were still gaining confidence and in need of further forms of PD. Some had come into the field as e-learners, and had seen the benefit of the technology for learning, while others had some technical capability and had seen opportunity to utilise this in the delivery or support of teaching. A
number described how they initially sought to improve communication and interactivity with students using email and then shifted to using a learning management system. This group most clearly articulated that their e-capability developed over time. In addition, as capability and confidence grew, staff tended to shift from mounting material on-line, to using tools and techniques designed to encourage greater interactivity between student and staff member.

You know the more I learn, the more enthusiastic I become. F/24/P

As they gained experience their self-efficacy grew, promoting curiosity and the desire to continue to innovate and evolve their teaching. Most in this group described how they had started small, initially having low to average technical ability, but noting that they were now at a stage where they wanted to embark on new learning challenges for themselves and their students.

I’m now actually trying to play with it. F/28/P.

Some still described the frustration they had with overcoming technological barriers, recognising the time required to acquire familiarity and confidence with a particular e-learning tool or activity. Needing to devote time to acquiring skills, playing and learning with e-technologies and teaching environments was a significant factor in becoming confident, but also in developing e-learning capability through reflecting on the merits and purpose of e-learning.

It was this group, and the group of ‘new entrants’, that most clearly specified the need for particular forms of professional development, especially those orientated towards personalised assistance and being part of a learning community. It was common for individuals in this group to describe how their involvement in delivering e-learning and their growing capability, actually made them much more aware of their PD needs and requirements, but also about the possibilities of e-learning for enhancing student outcomes.

4.13 Early innovators

The eight individuals who have been involved for eight or more years had had significantly different experiences from those who had adopted e-learning technologies much later. Many had initially sought out forms of e-learning tools prior to the establishment of any formal system within their own institution. One participant had compiled their own learning management system, and another used open source software to establish a system of collective communication with students. Some described themselves as early innovators and all...
described themselves as technically capable, confident with most applications and tools. These were the self-identified ‘experimenters’ who sought to try new tools and methods, and who tended to prefer self-directed, incidental and self-reflective learning, noting an ability to learn easily from doing, from manuals and from on-line resources and learning environments. A number saw themselves as e-learning crusaders, believing e-learning to be a crucial, exciting and a way forward for learning in tertiary institutions.

Though some early innovators were now embedded in their institutions as ‘key leaders’, such roles were not always formalised or recognised outside of the institutional academic units in which they were located. Often a belief in the merits of e-learning and a willingness to commit time was an additional demand on an existing workload. Participant F5 told me how she had people coming to see her all the time, and how she did a lot of work on other people’s courses which was unrecognised:

I like being an evangelist ....kind of trying to bring people on board but it is a lot of work. F/5/U.

Others served as mentors, having an informal role in the professional development of others:

I am happy to mentor anyone who comes along – it’s kind of round the back door but it is professional development of a very serious sort. M/8/U

I’ll sit down with them and just sort of say, what are you trying to do? Or why don’t you do it like this? And that’s great because it’s like sowing seeds. M/39/U

While the majority of early innovators described e-learning as comprising both teaching and technology elements, one participant stressed his desire for learning and courses on educational theory, noting his technical capability was not matched with an equivalent understanding of how e-learning tools might most effectively be applied.

For the remainder of the others, existing PD needs and past PD experiences were largely informal (i.e., not related to programmes or courses that either have an assessment or attendance requirement in order to obtain credit), with most having engaged in a self-directed process of learning by doing.

I haven’t profited from any form of (formal) professional development. M/3/P

Many continued to explore new ideas and interests through attending conferences, spending time exploring possibilities online, being part of online and web-based communities of interest. For some, professional development occurred through conducting research on e-learning and via involvement in joint e-learning projects.
4.2 Conceptualising Professional Development and e-learning

While a small minority of participants discussed e-learning and its associated professional development solely in terms of improving one’s technological capability, the vast majority of participants saw e-learning as involving changes in the implementation and effectiveness of both technological and teaching and learning capacities. Participant 18 (M/18/U) suggested that professional development for e-learning should be about “embedding our best practice” whereby an understanding of pedagogy should come first, and technology second.

It is a tool we are just using to achieve our learning intentions. M/38/U

Consequently PD for e-learning was as much about becoming an excellent teacher as it was about mastery of techniques and tools for course delivery:

| E-learning for most is about combining good learning and teaching practice and technology |
| “The best mix is when it (the technical and pedagogic) comes together.” M/11/P |

I mean if you don’t have the fundamental knowledge of how people learn, how can you deliver it? F/9/P

This understanding was one which was very much based in the need to deliver valuable outcomes for student learning, achieving the best learning experience and environment for the students and communicating interactively with learners. This need to understand and relate to learners was also presented as a rationale for being involved in e-learning. Some participants were concerned that tertiary teaching staff should address the interests and preoccupations of younger and more ICT savvy students, focussing on student-centred modes of learning via things like mobile technologies, gaming and virtual environments, noting that as ‘older’ tertiary teachers...

Older people may have had limited experience of these technologies personally therefore not gravitate towards them. F/1/P

This belief however was tempered by the need to provide appropriate and accessible technologies for all student cohorts.

For many, relating technical competency to good teaching practice was not only critical in e-learning delivery but also had significant implications for how professional development was conceptualised, and for beliefs about its relevance and its effectiveness. It was not uncommon for participants to express their PD needs as comprising three components: upskilling, in their discipline or subject domain (content), in their delivery and use of e-learning technologies (teaching practice), and in the technological skills and tools (ICT capability) needed to do this effectively. Participants reflected on the limits and opportunities for professional development for e-learning: A framework for the New Zealand tertiary education sector

Part E – Massey Research Report: Beliefs, experiences, preferences and practices of e-learning in institutional contexts

Balancing technological and teaching tasks in e-learning:

“I do not believe that it is the role of an academic to have to design websites.” M/18/U
professional development according to what they identified as their area of need. All groups except the early adopters generally expressed a desire for more PD related to the application of e-learning technologies, rather than in learning how to use e-learning technologies. This was seen as particularly important for TEOs to address where professional and or expert people were involved in teaching but who had limited understanding of teaching practice, and therefore how to apply e-learning tools and technologies effectively in disciplinary contexts.

However, a number of participants also highlighted the ambiguity inherent in desire to build on existing e-learning capabilities with regard to bringing technology, theories of learning and teaching practice together effectively. Some questioned whether tertiary teachers should be undertaking technological tasks which could be delivered at were deemed necessary and were undertaken. This was most obvious with regard to those not involved in e-learning, or who had initially reluctantly involved. Confusion about what e-learning comprised, beliefs about its possibilities and limitations, and personal concerns about time and skills involved could operate as barriers to uptake of both e-learning and professional development.

Conceptions of e-learning (explored in more depth in the Otago project) did appear to influence not only uptake of e-learning but also the types of professional development that were deemed necessary and were undertaken. This was most obvious with regard to those not involved in e-learning, or who had initially reluctantly involved. Confusion about what e-learning comprised, beliefs about its possibilities and limitations, and personal concerns about time and skills involved could operate as barriers to uptake of both e-learning and professional development.

The fear is really well founded. Although I think often that conservative fear is founded on something different, but you know we are rightly afraid of things that are going to intrude on the time that we have to think and write and teach. F/23/U

4.21 Identifying the need for e-learning for professional development

Decisions to engage in professional development for e-learning were influenced by a myriad of contextual factors such as institutional policy and prioritisation, support structures and staff, financing and resourcing, managerial support and institutional culture (see sections 4.7-4.9). Engagement was also related to attitudes and beliefs about e-learning and PD. These assumptions included beliefs about what e-learning involves, its usefulness and value, the time which might be needed to be invested in it and assessments of its value and worth relative to other employment tasks.

It can’t be seen to be done at the expense of other worthy things. M/II/P

Making informed decisions about involvement based on accurate understandings:

“The people (staff) that are resistant. I sometimes think it’s just because they don’t actually know what difference it can make, they don’t actually know what’s available and how it can affect their teaching.”

F/24/P

Valuing e-learning as part of ‘professional’ development?

“My professional development is around (discipline content) and it’s about networks and publishing and things like that so that’s my profession development. E-learning is my, is part of how I deliver my materials, that’s all. It’s a tool.”

F/22/P
All except one participant believed that continuing professional development related to e-learning was essential. Reasons for this varied, as did the extent to which professional development for e-learning was to be prioritised.

When I look at my role as a lecturer and the whole job of having to do some research for myself, having to do internal lecturing, having also to do admin stuff and so on and so, all of a sudden it (PD for e-learning) kind of gets a little bit less important… F/2/U

The one individual who believed professional development was not relevant with regard to e-learning saw teaching, research and e-learning as largely separate entities and saw her priorities as being devoted to research scholarship. E-learning was simply a means to an end, a tool for the teaching component of her job.

But I don’t do professional development for the sake of my teaching. I do it for the sake of my scholarly advancement, so I do it for the sake rather – of my research. F/22/P

This individual was expressing a tension that was evident in other respondents’ narratives relating to the measurement and valuing of staff effectiveness within institutions, and the wider academic and political economic context in which such assessments are made.

And so there are no PBRF brownie points for it. So if you’re being absolutely strategic about the environment that we are working in, you don’t take on extra things that are going to take away from research time. F/16/U

For staff involved in teaching and research, the measure of staff effectiveness was normally stated to be the Performance Based Research Fund (PBRF) a funding mechanism for New Zealand tertiary organisations which involves assigning letter grades to staff based on the quality and quantity of their research outputs. One manager expressed the incredulity of his colleagues that he should be involved in e-teaching because it would take his time away from research demands:

I was regarded as a lunatic for doing this. M/8/U

4.3 Functions of professional development

Participants were encouraged to reflect on what PD for e-learning (through both formal and informal forms) should enable them to do. Three themes emerged from participant responses.
4.31 Self development and knowledge acquisition

For many, professional development was about the development of self and was connected with the continuing ability to improve one’s own capability in relation to one’s occupation. This development in personal capability could be manifest in a number of ways:

- through encouraging continual innovation and creativity;
  
  To extend myself, to build on what I already know and push forward. F/5/U

- by introducing new ideas into existing forms of professional practice;
  
  Professional development is a way of applying or connecting (knowledge, tools etc) with what I already know. F/21/P

- by encouraging reflexive practice;
  
  You are not a professional unless you completely reflect on your own practice and abilities. M/7/P

- by finding ways to work more effectively;
  
  Helps me do my job better. M/18/U

- by building knowledge, confidence and enthusiasm.
  
  I think build my confidence. Build my knowledge of the available tools, so that I can start to make decisions about where to apply them most appropriately. F/12/P

Self development and knowledge acquisition undertaken in order to improve one’s skills and professional practice was a significant intrinsic motivating factor. The sense of achievement gained through continued growth in e-learning capability was also a positive motivating factor, and this was particularly so for those relatively new to e-learning.

- It should give enough gains that I can see the benefit to me. F/28/P

4.32 Improving teaching practice and learning outcomes

A second rationale for PD emerged from its specific role in enhancing teaching and learning. Again engaging in professional development had several dimensions:

- It was undertaken in order to become improve teaching practice.
  
  To be a better teacher F/16/U
I need to present the learners with a more professional (persona), more ideas and more up-to-date and current technologies and ways of doing things. F/9/P

**Improving teaching practices and learning outcomes:**

“I want to create the best learning experience I can for students so I’m always on the look out for something that might be better than what I might otherwise do.” F/21/P

- Professional development has a role in connecting the technical and the pedagogical.

(Its) should be designed to enable you to do the technical stuff but also to do the value for learners stuff. F/23/U

To take onboard that tool or techniques and to apply it effectively in my teaching. F/13/U

- It enables teaching staff to develop better communication with students.

It should be teaching you how to improve your communication with your students so that you keep them involved and hooked into the topics... F/4/P

- To improve learning outcomes and experiences for students:

Trying to maximise the learning and have it efficient and effective, memorable, motivational and meaningful and yeah, that is always a work in progress as far as I am concerned! M/11/P

4.33 Keeping up with technological and institutional changes

Finally, professional development was described in terms of the necessary acquisition and application of technical skills in the teaching environment:

- to build technical capability;

(Its) should enable me to operate as many of the functions of WebCT as possible. F/17/U

- to gain familiarity with institutional practices related to e-learning;

To enable you to understand what is going on and to do things efficiently. F/6/P (support person)

- in order to keep up with technological change;

If you don’t do continuing development you’re just left behind and that’s it. M/7/P

- to meet student expectations for e-enabled learning.

“(Is necessary) to take bigger advantage of the resources that are out there (that the students know about and use in their everyday life).” F/24/P

Keeping up with institutional and technological change:
Because I don’t know any longer what’s going on secondary schools in relation to e-learning and I don’t know whether when students come to us as under-graduates they bring a whole different set of expectations and knowledge that we’re not matching... you know they’ve got all of those incredible new capacities as e-people ... I think don’t, at the university level, we know how to explore and expand on that ... F/23/U

4.4 Opportunities for engaging in professional development for e-learning

As mentioned previously, all but one participant felt engaging in e-learning PD was important. The types of activities undertaken by interview participants included a range of both formal and informal activities identified in the earlier survey: attendance at conferences, seminars, and training courses internal or external to the organisation; e-learning and technical courses and conferences; discussion with colleagues; searching the net; reading articles; getting advice and help to colleagues; reading disciplinary content and engaging in research (and relating these to e-learning practice); going to best practice seminars; completing a teaching qualification; learning by experimentation (e.g. blogging); sharing ideas with others in a discussion forum; self-directed learning; and following a manual.

Confirming the findings of the survey, interview participants described how the majority of their professional development activities were informal in nature. The type and nature of PD did vary significantly between individuals, influenced by modes of learning and learning preferences, and also the stages of one’s e-learning trajectory.

4.41 Initial competency training

Most participants (with the exception of many of the early adopters) had attended basic training sessions run by their institutions on using e-learning technologies or systems (such as student management and support systems, learning management systems, and/or specific e-learning tools e.g. discussion boards). A number commented that this had been useful, but retaining the skills learnt was difficult particularly when these skills or tools were being used irregularly.

If you don’t do anything with it immediately, you just forget all about it. F/23/U

Thus though helpful, this experience did not necessarily give a new entrant a feeling of capability or control...

Going to a class, or showing me how isn’t enough. I need something to refer to ...... I would like to feel more as though I could work independently. F/29/U
It was usual too for participants to describe early PD as being about establishing proficiency in the use of e-learning technologies, with later learning becoming less about matters of technical competency and more about reflections on what technology can enable one to do in relation to teaching.

### 4.42 Continuing professional development - needs and ideas based learning

Those who had been involved in e-learning for a number of years could articulate more clearly their training and development needs. Some noted how any initial training had helped them recognise the limits of their capability, enabling them to identify some teaching and learning goals and to seek assistance from e-learning and/or technical specialists and colleagues. It was common for participants to state that their professional development had shifted from ‘training’ to becoming more needs driven over time (and often less formal) with ‘basic’ courses no longer meeting current needs as proficiency increased (though some attended courses or training sessions as new areas of interest emerged). These staff expressed a desire for more individualised professional development programmes:

> I think it (PD) needs to be tailored to individuals. F/33/U

Over time, professional development tended to become more self-directed. Expressed needs usually became more specific and were more easily identified with growing capability. Achieving a level of competency and success was often an important motivator in decisions to engage in further professional development.

> The more comfortable I actually feel using e-learning tools the more courageous I get. F/2/U

However, an important aspect of the professional development ‘journeys’ was the time required to absorb, practice and apply new information in the context of one's job:

> I need to be able to reflect about it, absorb things at a rate I can cope with it. M/9/P

Others also noted (particularly those involved for longer periods of time, or using a greater range of e-tools) that their learning and PD had shifted from being needs driven, e.g. wanting to know how to master a tool or technique, to becoming more ideas driven:

> I know enough about it now to know what I don’t know. F/23/U

These participants explained how they had become more proactive over time and involved in a process of

#### Changing PD needs and identifications:

> “After a while, once you’ve played with it for a while you start to see what you don’t know and what you do know...then you know the right questions to ask.”

F/5/U.

#### Individualised professional development needs:

> “They (the institution) need to develop a professional development profile for each individual...assessing the bundle of skills and knowledge I have and drawing up an individualised learning programme.”

F/35/U.
searching out new possibilities for their teaching, looking for information and ideas with a view to thinking about the possibilities of these for their own teaching practice. This process often appeared to result in, and be a consequence of, a greater involvement in formal and informal networks of e-learners and through both web and personal interactions.

Nevertheless, it is important to recognise that the experiences of individuals are varied, with participants each grappling with different combinations of learning, teaching, technological and practical challenges. Some enthusiastic participants had for example, been to E-Fest (a conference showcasing innovative information and communication technologies, ideas and practices) but they did not feel they had the time, or the capability to implement the ideas they saw in their own teaching/support context:

Well they have a lot of different people presenting and, and they show like the latest, some of it’s just the latest technology, sometimes it’s latest teaching methods using electronic learning and so you are inspired by it, but then you come back and you think okay, practically how can we put this in place, and so sometimes you’re inspired for a wee while and then you just get back and it’s a little bit hard to adapt what you’ve seen and learnt. F/4/P

Ironically, others who had been involved in e-learning for longer and who made more extensive use of e-learning technologies felt that E-Fest offered little in terms of challenges and new ideas. Having new learning challenges, new ‘problems’ to solve and not getting bored were also identified as motivating factors for participants to extend their knowledge and application of e-learning.

### 4.5 Evaluating professional development capabilities

#### 4.5.1 Assessing the effectiveness of professional development

Discussions with staff revealed that many had not thought about the effectiveness of their professional development activity. Almost all reflected on the difficulties associated with measuring any particular PD activity and its potential outcomes. Nevertheless, when prompted to reflect on the value and significance professional development had for their practice most expressed a change in their own capacity to engage in e-learning whether expressed in the acquisition of knowledge, belief or actions:

It’s a change in what you do. And whether that’s a change in a belief or value I hold, whether that’s a change in a particular piece of knowledge that I use to inform my values and beliefs, or to shape them or whether that’s a particular tool I pick up. F/21/P

Effective PD was also framed in relation to

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**Effective Professional Development:**

“If I can come away and put it to use immediately, and if it shifts my thinking and if I have a real experience of learning something.”  
F/23/U
specific teaching and learning tasks, and the efficiency with which they were able to be completed:

- (Increased) competency in managing course delivery. F/2/U
- I can do specific tasks without difficulty. F/2/U
- It becomes easier and quicker to do things. M/19/P
- If I’ve learnt something and can apply it. F/14/P

Expressions of confidence, enthusiasm and motivation were also seen as a consequence of effective professional development:

I think what I have noticed is my change in enthusiasm. F/24/P.

This sense of achievement, though not able to be objectively assessed, could be shared and passed on to others. Several individuals described successful e-learning PD in terms of the transference of ideas, skill and passion, enabling them to share knowledge, ideas and enthusiasm with others. As with decisions to engage in e-learning, the costs and benefits of engaging in PD related to this were also assessed, with some individuals weighing up the merit of different PD activities:

How easy does it make my job, does it make my job easier or more difficult? M/18/U

The other predominant way in which individuals assessed the effectiveness of PD activity was via their own evaluations of student learning, reflecting on changes in motivation, grades, ability to complete tasks, retention rates, and student feedback.

Effective outcomes of PD:

“I would see students grasping the concepts that I’m trying to encourage them to think about ..... There is positive feedback from them about how I’m meeting their learning needs.” F/21/P

Again, assessing the efficacy of PD and relating it to student learning outcomes was difficult because it was not possible to establish cause and effect. Feedback from students through discussion boards and emails was helpful, as were expressions of enjoyment of learning:

You measure how good you are in terms of the what the added value for students is and that isn’t just in terms of pass rates although that’s important, it is also important to look at the affect you are generating in a class, how good do students feel about themselves in learning what you are teaching? M/8/U

4.52 Reflecting on good practice

While outlining how the effectiveness of PD could be assessed was a difficult task for the participants, they had no problems in recounting forms of professional development which had worked well. Most of these forms were informal, confirming the findings of the online survey.
The PD activity most often suggested as valuable was obtaining assistance and guidance from individuals. This guidance often came from a colleague, but also from recognised support people within the institution in which participants were located. What worked well was:

- Accessing help and support from a colleague, someone I could call on. F/26/U
- Having person on campus come and sit beside me and take me through it. F/23/U
- I like having a close relationship with the teaching development type of people, more than I say... with a lot of my peers. F/13/U
- One on one support. F/5/U
- I had a mentor... and he worked with me ....coming around and having an overview of what everyone's doing and sharing that. M/38/U

While formal courses provided by institutions had variable value for participants, the personal assistance provided by training and development, flexible learning and e-learning personnel was generally highly spoken of across the various institutions:

- E-learning advisors are a source of valuable suggestions ...their one-on-one service is fantastic. F/2/U
- Approachability of TDU staff was great. F/1/P
- The e-learning folks are very pro-active and keen and they’re good at getting in touch and they run seminars and encourage staff to talk about what they’re doing in terms of e-learning - so that’s really good about sharing information in that way and helping people and responding to lecturers' requests for a greater ability to do certain things. F/1/P

The value of having a colleague or trained support person lay not only in the personalised assistance, in being shown how to complete a task or engaging in discussion, but also in the establishment of a working relationship in which the person needing help could feel free to ask “dumb questions” F/22/U. This appeared to be particularly important for those new to e-learning. A couple of participants also mentioned the value of mentoring relationships they had been in.

It’s lonely doing it on your own and it feels like a slog, whereas when you’ve got somebody teaching you, I think it’s much better. And that you’ve got, you know you have their support and you have an opportunity to ask questions as they arise and that kind of thing. F/24/P

Another participant noted that when service-based assistance becomes a personal relationship it builds trust, whereby:

You declare your situation or something, knowing that you could be exposing yourself to looking like a fool or still being at an elementary level when you know the other person is perhaps in a different league. M/11/P

A number felt having a colleague or support person who understood the nature of their academic discipline was invaluable in considering the merit and application of e-
learning methods. This type of relationship is also of benefit because it offered the type of immediate responsive assistance staff felt they needed to overcome challenges or problems in their delivery of e-learning as they arose. Colleagues located in/near one’s academic or service unit provided even greater immediacy of response and assistance.

Another activity that had worked well in terms of developing e-learning practice was small group sessions based around discussion of practice, ideas and issues. These might be formally organised or informal discussions which provided the opportunity to learn new ideas, see what is being done and to evaluate the potential of teaching tools and techniques for one’s own use.

- What I like is to be with colleagues who have experience and share ideas. F/31/P
- Just being able to talk over ideas with fellow colleagues is wonderful. F/31/P
- You get a group of people together who are interested and you can have a discussion and that’s really fantastic, and that builds a sense of community. F/5/U
- I’ve benefited from seeing some other people’s websites in a practical sort of way, that’s often very more helpful than sitting around in a room with an couple of enthusiastic well meaning techno nerds who will tell you the world’s your oyster but which is all in the abstract. M/36/U

Learning in small groups, and in practical workshop situations was mentioned as useful and participants (other than early adopters) generally expressed a preference for face-to-face methods rather than learning in online courses.

- I don’t want to sit in a classroom….I need to sit down with people who do it and chat about it and play with it and do it myself and make my own mistakes, that kind of thing. F/22/P
- A small group using the computer is what works. F/29/U
- Face to face training which is not someone standing in front of you for three hours. F/24/P

Face to face delivery of courses was generally preferred because it gave opportunities to ask questions. Face to face sessions made new entrants feel less isolated and it was often easier to prioritise time to go to a small group workshop or training session, than to schedule the (often flexible) demands of on-line use into one’s working day.

I’m less keen on the fully on-line stuff. Mainly because I think you the sort of stuff is done usually from your office ...does tend to mean that all other demands crowd in around it. F/26/U

Other participants believed on-line courses were valuable, particularly those courses which provided flexibility, timeliness of resources and self-directed clear content. Learning and gaining new ideas was also seen as a benefit of learning on-line with others, enabling individuals to discover new ways of working and teaching, and new forms of application.
Several participants felt it had also been highly useful to have been an on-line student, giving them insight into the issues faced by their own learners. This experience is supported by literature that suggests that teachers need to experience learning from the student’s point of view in order to gain the insights they need for their own teaching (Simpson, 2001, Kidney 2004, Massachusetts_DoE 2005, Milne & Dimock 2005, Pegler 2005). Others mentioned their exposure to new tools and possibilities through their involvement in on-line learning communities and conferences:

- It was the first time I’d ever been involved in an on-line conference and that gives me ideas about what I can do. F/1/P

Despite mentioning and having a preference for the types of activities which worked well for them, staff acknowledged what they wanted was a mix of PD activities to be available to them both in and outside the institutions in which they are located. Combining online and face to face forms of professional development was seen by many as ideal, providing flexibility of choice and scope for the development of learning related to one’s particular learning style. A number of staff stated that it was important for institutions to consider how the different learning styles and needs of teachers and support people could be accommodated. Individuals expressed preferences for forms of PD activity, and their beliefs about best practice were influenced by their own experiences and learning preferences.

4.6 Suggestions for building personal, institutional and sector capability

There was some difficulty in separating good/best practice from PD activities that staff desired, at least in part because exposure to best practice ideas informed such desires. Though much of PD learning is informal, staff expressed the need for formal and institutional structures that would effectively support them in their own professional learning, and in the delivery and support of e-learning for students. This section outlines some of the desires of staff for specific forms of professional development in institutional contexts. Details about how such practices might be embedded are covered in section 4.7 on institutional context.

4.61 Establishing communities of interest

Establishing opportunities for e-teachers and support personnel to meet and talk in person was seen as critical to encouraging information sharing and innovation, but also for overcoming the isolation some participants expressed.

Communities of Interest:

“I would be keen to be involved in something where I was at least talking with other people doing interesting things so I could pick their brains... get good ideas which springboard me into my own solutions.”

F/26/U
I’d like opportunities for informal discussion with colleagues and other people because ...that is really interesting and stimulates your thinking. F/24/P
I’d like a key group of people who were sharing what they were doing (in terms of) best practice. M/38/U
To find out what everyone else is doing... to see what is available. F/14/P
Being part of a whole national group would be great. M/38/U

Having regular meetings was seen by some as important as it helps to cement relationships and solidify the networking and connecting aspects of groups of those involved in the delivery and support of e-learning aspects. A desire for face to face meetings and sessions was preferred. A strong rationale for this type of meeting was the bringing together of people who had been doing similar things with e-learning, who ordinarily might not meet, given the disciplinary bases of connections in institutions. Such meetings were also seen as a means of discovering the possibilities and pitfalls surrounding e-learning techniques and tools.

While face to face meetings were preferred, having access to a community of interested and involved people on-line was also suggested, with the possibility that virtual teams working on teaching problems could emerge from such on-line communities. ‘Meeting’ with like-minded and interested people was believed to be a motivational factor in delivering e-learning and may also play a role in developing leadership and mentoring relations. This desire to be involved with others was expressed across all learning groups, not simply those new to e-learning, as this staff member who had been involved for a number of years suggests:

At the university, we don’t have enough communities of users to help motivate us and spur us on to innovation. I would like to see something for people who are not at the ‘let’s learn how it works’ stage. F/26/U

4.62 **Personal, individualised assistance and training**

**Just-in-time personal assistance:**

“The sort of PD you really need is you know, ready in time sort of stuff, that is that can be personalised to you.”

F/26/U

While most participants were satisfied with the technical assistance available to them in their institutions, a number were frustrated with the lack of immediacy of such services and/or their relevance to teaching practice. Many desired ‘just-in-time’ professional development whereby information resources, assistance and training are available as and when needed.

(Training courses) are too simple for my needs ...I got much more from personal assistance. F/2/U

Some individuals expressed a need for helpdesk staff to be able to show teachers skills by providing "hands on experience" F/26/U. Personal face to face assistance was seen as
complementing on-line resources “quick, live help for stupid questions about product use” F/22/P.

Some teaching staff mentioned the division of labour with regard to the delivery of e-learning, suggesting that technical (as opposed to teaching tasks) be given to support staff. This would enable teaching staff to prioritise the teaching aspects of e-learning.

Developing content is a huge job in itself so I don’t want to have to spend hours and hours loading stuff up, altering it, you know if there’s some technical person, so that’s…. so I am conflicted in what I’m saying really. On one hand I’d like to be able to do it (myself), but I’d also like it to be easy.

F/29/U

So I think the university also has got to ask itself – does it make sense for someone in a senior position from why they are expecting research outputs...does it make sense for us to become second rate web developers? F/35/U

Others expressed a strong desire for disciplinary based teaching and learning assistance, and one suggested that key individuals could have a networking and institutional information co-ordination role.

4.63 Professional development which combines on-line teaching practice and educational theory

Staff expressed the need for formal professional development courses to involve more than ‘toolkit’ or technique mastery. In their opinion, such courses should be based on solid pedagogical understanding with clear exposition of why a technique works, its educational application, and exercises or activities through which staff might apply it.

Staff involved in e-learning for three or more years and who felt they had mastered the technological aspects of e-learning most often expressed a desire for pedagogical training, for someone who could help them contextualise e-learning tools and provide assistance in getting great outcomes for teaching and learning:

“I’ve had, there’s been nothing, nothing in terms of distance education and, and e-learning per se and what that actually means in terms of learning styles. M/25/P

Those who were ‘more advanced’ in their use of e-learning technologies also desired courses and seminars which were aimed at a higher than entry level standard, a critical factor in fostering innovation and educational gains:

We have a really good sort of system at the level, at the introductory and even slightly above level, probably both those levels, we need more at other end. F/26/U
4.64 Access to exemplars and examples of good practice

The need to know and be aware of the possibilities of e-teaching was both a stimulus to engage further, and a frustration in terms of one’s e-learning journey. Many staff would like course exemplars and templates available on-line.

I love to know what people are doing ...to sit in someone’s lecture but there doesn’t seem to be opportunity...to see what people doing in teaching practice that’s different. M/18/U

Teacher exchanges, encouraging staff to talk about and share what they did, having an up-to-date on-line ‘one-stop-shop’ with information about e-learning techniques and their applications were all suggested as means by which staff could gain access to ideas and information. Access to disciplinary based examples was also seen as valuable.

I want more specialised knowledge about what is possible in relation to subject area. M/3/P

A few staff suggested regular e-learning ‘update’ seminars on new developments, topical issues and on what is available with regard to institutional and departmental policy and support might be helpful. Another suggested the existence of ‘manuals’ to document processes and procedures thus ensuring continuity and sustainability (particularly important for support staff, with job sharing and where there is there is a rapid staff turnover). Other participants expressed a desire to attend e-learning conferences, and to have the opportunity to study elsewhere in order to access information of latest developments, but cited barriers of funding, particularly when their disciplinary area was not related to e-learning.

4.7 Institutional/Infrastructural Context

Assessments of best practice, experiences of professional development and forms of e-learning were influenced by the institutional context in which participants found themselves. Participants were asked a set of questions relating to this, and while responses did vary across institutions, again there were commonalities of belief and experience.

4.71 Awareness of and access to opportunities for formal Professional Development

The majority of staff were aware of opportunities to engage in formal forms of professional development within their institution, having had emails sent out from their respective e-learning, or teaching and learning departments.

For a minority – limited awareness of opportunity:

“No I don’t think it’s made very easy for us and it’s something we have to muddle around, muddle about and find out ourselves.”

F/29/U
learning sections. A minority in both polytechnics and universities claimed that there were either few opportunities for formal professional development, or they were unaware of them.

If I hadn’t (gone onto their website) I wouldn’t have really had knowledge of what they were even up to. F/12/P

A few participants could not tell me what opportunities were available to them:

Not really … because we are in admin there are not a lot of PD opportunities. F/6/P (administrator)

Only a minority of participants were aware of opportunities to engage in formal PD activities outside their institution, and knowledge of these was most commonly a product of the individual seeking to learn more, rather than any systematic notification by sections within the university or polytechnic.

Participants also made a number of comments relating to the accessibility of PD. There was a preference for multiple offerings of face to face courses. While on-line courses were generally assumed to be more flexible and accessible for staff, some respondents felt this flexibility was lost where staff were required to come on-line at various times, or not given sufficient time for interaction or learning.

4.72 Financial Resourcing

Responses to questions about the types and forms of resources provided for PD for e-learning were often vague. Knowledge of what was available within institutions, for whom, and how this operated across levels of organisational structure was limited and highly variable. Some institutions did provide a specified amount of money for staff to spend on professional development, though this was often not specifically earmarked for e-learning.

While some participants thought there was money available in their institutions specifically for e-learning and associated professional development, how individual staff could access this was less evident.

Not in terms of finances, they don’t put the money where their mouth is. F/16/U

We have policies coming out our ears, but you know we need, we just need commonsense really …. To free someone up from teaching you need to replace them…and I guess that all comes down to money, money yeah! F/14/P

One manager commented on the need for senior management to recognise the need to invest in staff development:

Finance- availability and access?

“In terms of finances, I don’t know what’s available, I just don’t know. It’s not transparent. I think that’s a big thing about finance, knowing about what’s available.”

F/29/U
I mean producing this stuff or bringing people up to speed, and it’s blinking expensive….Very time consuming, it’s very expensive and for the people up at the top to actually realise that and not be trying to do it on a shoestring… Staff have got to be released they have got to be funded, it’s got to be recognised that there are time and costs involved. M/7/P

4.73 Making infrastructural, policy and social connections

Numerous participants referred to ‘gaps’ in their institution’s infrastructure and as mentioned previously, this was especially framed around the connection between the policy related to e-learning and professional development, and how this might be implemented at the level of departments or academic units. People who felt they were not functionally connected to others involved in e-learning (teaching, support, admin, ICT etc) often described a sense of isolation.

A lot of the time I’m like a little bit of an island, where I’m doing something that's different from everybody else and…. And like half the time I don’t know what I’m doing. It’s not a very nice feeling. F/5/U

The institutional gaps in policy formation and implementation were seen to cause both confusion and frustration:

- There seems to be a gap between what I think we’re supposed to be doing and what top management understand themselves about it. F/27/P

- We are being told there is a big pot of money that is marked for developing our e-learning capacity of our staff, but we’ve yet to realise that or have any information about how we would access that source. F/12/P

Support structures and personnel were also not always clear or equally accessible across institutions. Overall, staff had favourable things to say about the technical assistance available to them, but as mentioned previously, many noted a need for readily available teaching assistance too.

(There are) definitely technical people but not sure about pedagogical. F/12/P

Others mentioned how valuable teaching and e-learning advisors were, but how institutionally their separation from technical support people meant the two aspects of e-learning were not well linked. This meant staff had to find their own way through the institutional frameworks and their own teaching dilemmas.

In terms of support for e-learning, No they don’t have the human resources for that. That is quite clear to me. F/16/U

Negotiating institutional structures:

- “The lecturers are very much on their own trying to figure their way through the system with very little support.” F/16/U
I think it needs a dedicated staff member in each department to provide support to staff in that department. F/27/P

Several individuals suggested regular meetings with other interested staff, trainers, and support staff would be of benefit. These could cover changes in on-line learning environment, ideas and innovations, clarify goals and expectations and provide opportunity for discussion. The desire was for provision of e-learning opportunities and support to coalesce, and for real and meaningful connections which are transparent across institutional structures.

It is important that everybody, even though we’re all working from home and not in one office, to be on the same page, to catch up together once in a while. F/6/P

Having a seamless political and physical infrastructure was seen by managers and staff as a means of encouraging growth in, and capability of, those involved in e-learning and associated PD. Participants believed that if the strategic aims of an institution for facilitating e-learning were genuine and cohesive, then this would be substantiated through investment in multiple areas, for example, learning management systems, technology, training, finances, technological and pedagogical support and in releasing and equipping personnel.

Staff desired that policies encouraging e-learning filtered through institutions and that they would be implemented across academic, service and support units, believing this would require “some real creative interventions and connections” F/26/U. It was suggested such interventions should involve exploring considerations of efficiency with consideration to who could be undertaking what tasks to best effect.

Have teams and ‘get the best use of the resources by working on people's strengths. M/II/P.

I think we really need a dedicated school resource person who is appointed to be able to do things. Be available to provide assistance to staff as and when required...maybe every school should have a person who could deliver that on one thing in an on-going basis. F/33/U

A few staff also identified the need for cross-institutional ‘sharing’ of knowledge and jointly funded e-learning projects. These participants suggested the current competitive student-based funding situation in New Zealand tertiary organisations militated against the development of new institutional possibilities, capabilities and co-operations.

### 4.8 Institutional prioritisation and direction

As alluded to previously, participants identified the need for clear institutional prioritisation and expectations with regard to policy on e-learning and related professional development. One participant identified the sort of questions which might be asked with regard to departmental and institutional

#### Need for clarity around institutional expectations:

“Exactly, exactly what is their expectations? Do they have a strategy that says we want everybody to be doing the following? Added to which has anybody asked students if they really like this?” F/35/U
discussions around the potential and possibilities of e-learning and the strategic directions tertiary organisations might follow:

Let’s have discussions on what this might involve for individual staff members. How can we avail ourselves of these possibilities, how will we (do it), what will that mean for our teaching and our research? How do we make the time for it? How can it be supported? F/33/U

Awareness of e-learning as a strategic institutional goal was also variable. Those involved in the support for teaching were sometimes able to comment on the extent to which their institution supports PD for e-learning in policy. But the majority of staff could not say what e-learning policy or strategy consisted of, nor of what this meant in relation to professional development.

I get the sense they want us to do it.... F/28/U

Has been recent remits ‘come down from high saying thou shall do this’ .... They went through the motions but didn’t really want to do anything. F/13/U

It was common for staff to state that they believed their institution supported and encouraged e-learning (and professional development for e-learning) but the extent to which e-learning strategies were implemented and how support was manifest in practical ways at departmental level was criticised.

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<thead>
<tr>
<th>Implementation of policy at department level:</th>
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<tr>
<td>&quot;From the top it’s very much supported, but not so much from other (management) levels.&quot;</td>
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<tr>
<td>It’s not filtered down in any way to the academic level... all the incentives are PBRF.</td>
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<tr>
<td>There is support at institutional level but implementation is lacking.</td>
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### 4.81 Recognition of time need for e-learning and professional development

The application of finance was often related to professional time. The importance of recognising and financially supporting time to engage in professional development was mentioned by numerous participants, and time was very much seen as a constraint on uptake of opportunities:

I think there are just heaps of opportunities. The difficulty is as time goes by, everyone gets busier and busier. I mean we don’t have morning tea, we don’t have lunch. M/8/U

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<th>Recognising time commitment to PD:</th>
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<tr>
<td>“You do have to acknowledge that it takes an investment of time and the institution needs to be aware that time doesn’t just magically appear. If you want people to be trained in this way you’ve got to do something to release them from their other responsibilities.”</td>
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</table>
The crunch point really and for me personally is that it takes quite an investment of time. F/28/P

Once again there was considerable variance in the extent to which staff were aware of whether they had been allocated any PD time. Even where leave had been allocated many staff would be faced with a choice between professional development related to their disciplinary subject or professional practice and e-learning.

Well I mean it’s part of the strategic plan and there’s, there is certainly financial support for it in term of the funding of teaching and learning, but nobody gets time off if they do this, and nobody gets teaching relief if they do it and I think that is where the real problem lies. M/8/U

Many staff felt their institution and their managers did not adequately allow for the time taken to engage and up-skill in e-learning, and that recognition of the time needed should be backed by financial and/or teaching assistance, to have e-learning recognised as an integral part of workload calculations.

And then they also need at the other end to allow sort of hours free from teaching.F/14/P

Recognising PD for e-learning as an integral part of workload:

“I think (our institution) is trying to support PD for e-learning, but that is not appreciated in policy and it’s not incorporated into our workload.”  
F/12/P

These people needed to be released from their day-to-day duties (manager). M/7/P

Still others noted how time taken for technical training might be recognised, but that this was not necessarily the same for the time devoted to conceptualising and exploring e-learning as part of teaching in one’s discipline:

I think learning to become technically competent and learning to understand the potential of the medium has to be given that same (attention)... assigned that same space of validity. F/32/U

4.82 Valuing teaching and e-learning

Participants felt institutional prioritisation of research productivity over learning and teaching generally (and e-learning specifically) was a reason why time invested in this was often unrecognised or unacknowledged. These sentiments were evident in polytechnic respondents but were most strongly expressed in comments from university staff and managers:

We do not get promoted on e-learning. You know you get promoted on you know - your outputs in terms of research and teaching. F/35/U

......Time commitment is not recognised and it’s certainly not recognised in promotion at the same level as publication. M/8/U

Valuing e-learning and teaching Institutionally?

“I don’t think it’s (this institution’s support of e-learning) very strategic and it doesn’t support it in the way it supports research and the PBRF.”  
F/17/U
Teaching and research for many were talked about as separate entities with the prioritisation, quantification and measure of research output associated with the Performance Based Research Fund being a constant motif. Only a minority suggested time invested in e-learning could be, or was, an area of publishing and research. Here a participant reflects on the relative lack of recognition of good teaching with regard to promotional structures:

Yeah and I think we’re very hypocritical about this. The management always talks about how important teaching is, but when it comes to it, and I’ve seen enough promotion committees now to think, yes if you are a really rotten teacher it will count against you, if you’re a really good teacher everyone says “where are the publications”? M/8/U (manager)

Given the wider political economic and institutional regime which staff felt prioritised research over teaching, some also alluded to the attitudinal change required in institutions, particularly at departmental level, which was required in order to recognise both the time investment in, and value of professional development for e-learning.

It’s basically things on my own initiative. There’s been nothing that’s come from above saying you know, you ought to do this and this would be the next step and so forth. And the strange thing is once you do upskill yourself then it doesn’t automatically mean, that you know your superiors and so forth actually appreciate or value those techniques either. In fact you’re often left in the position of having to try to sell them something to use within the department which they, you know are uncomfortable with. M/19/P

One respondent suggested some kind of formal recognition of e-learning expertise in relation to teaching could also be helpful as a motivational tool to get staff involved in professional development:

Some sort of formal acknowledgement that we’d done that education (related to delivery of e-learning) would be good because it makes us more appealing as a provider of that education. F/12/P

4.83 Managerial support/practice

Where direct-line managers supported and actively encouraged e-learning and PD for e-learning this was an incentive for staff to engage:

I just think it’s absolutely fantastic. I like having the flexibility though, and we do have that here in our institute, we have DVDs, we have written materials, we have information on our LMS and for me personally here in the team situation, we have heaps of team support. F/31/P

Managers as positive role models:

"As I’ve got confident with it I’ve started to filter that information out to my staff, for me learning from one person I will probably have had an influence on 20 other people."

F/20/P (manager)

The commitment and support for e-learning by individual managers consequently appeared to influence both awareness and also uptake of professional development activity (for example, in
providing clear expectations, encouraging people to take time to study, providing teaching relief and support, and including e-learning as part of appraisal processes).

I’m the head of that (academic unit) so I’m very facussed on saying to people this (PD) is in your job description next year. M/7/P

Where managerial support was lacking, this was a source of anxiety for staff who chose to engage in e-learning and associated professional development. A few participants had to convince their managers continually of the merit of e-learning. For part-time staff, and staff not involved in teaching degree courses getting time and funding for formal professional development, especially outside the institution, was not always easy.

There does seem to be a gap between what the top management themselves understand about it (PD for e-learning) if you know what I mean. M/11/P

My manager doesn’t understand, she doesn’t have enough knowledge about what e-learning is all about. F/27/P

One previous head of an academic unit acknowledged the difficulties in encouraging staff without an inherent knowledge or experience of e-learning.

As Head, I was trying to sell it to the School and trying to mobilise a group of individuals who might be interested in exploring those options. It wasn’t particularly helpful for me as an individual participant, partly because I guess it assumed an amount of prior knowledge that I didn’t have. I can barely turn the computer on so yeah there were some inherent limitations there. M/36/U

However, opinion was divided on the extent to which expectation of managers could be motivating when involvement in e-learning was entirely optional. Involvement in e-learning, and PD for e-learning was generally an individual decision.

The challenge: Changing attitudes

“The challenge for professional developers is how you get people to realise that if they put time in, there are rewards for their students.”

M/8/U (manager)

The university on a very high up level supports e-learning...I also think that within our School we are encouraged to use e-learning but if I think about how much is it promoted or are they any sort of activities going on a regular basis, no I don’t think so. I think it’s more and individual desire to be involved or not involved. F/2/U

As mentioned previously, these decisions were not only a function of conceptions, and assumptions about e-learning and the institutional support available for it, but also about what formal and informal PD might involve, the time it might take, and the potential costs and benefits of engaging in it.

Knowledgeable and proactive managers:

“You need managers who have enough of a knowledge of what e-learning requires to be able to have the vision of what professional development staff need”

...I don’t think they quite acknowledge the level of skill that we’re going to need to be able, have to develop to deliver effective courses.” F/12/P
It can’t be seen to be done at the expense of other worthy things M/11/P

One manager noted how the problem of PD uptake by staff was not with infrastructure, or even with opportunities to engage in professional development:

The major problems as I said before are with institutional attitudes and with just a huge pressure on people with time. M/8/U (manager)

Whereas I can get funding I can’t free staff from their teaching. F/28/P

Another respondent suggests that acknowledging the importance of e-learning in the institution in so far as it looks good on paper, but the real issue was:

How can we really help people to engage and give them time to do this? F/12/P

Managers themselves were time pressured and did not necessarily prioritise professional development:

I do very little professional development because I am Head of School. M/8/U

Even where managers wished to fully support professional development for e-learning, this was not always possible. Some managers described how they were hampered by institutional barriers so could not support their staff practically to the fullest extent they might wish. One polytechnic academic unit manager for example suggested that institutional budget allocations to academic units should recognise the value and necessity of making time for PD for e-learning.

4.9 Incentives for engaging in professional development and e-learning

4.91 Current incentives

Staff were asked what sorts of incentives existed to engage in professional development. For a minority of staff in primarily in polytechnics, incentives were in the form of institutional expectations. However, participants’ discussions of incentives were overwhelmingly related to personal motivations. Many described an intrinsic desire to up-skill, to develop teaching practice and build confidence as motivating factors in engage in PD for e-learning:

Yeah, the incentives would be feeling myself of more, feeling more competent, myself, so there’s an incentive just in how I feel about my ability. And also I want to be up with my, you know, the peers who are just, so there’s that sort of, those sort of incentives. F/29/U

Incentives are primarily personal:

“(Incentives) - probably just personal ones, you know just because I want to help people learn to the best of my abilities, so I’m looking out for opportunities myself.” F/4/P
Some staff believed keeping up with technological change was a necessary part of being an academic, and of meeting student needs.

(I’t’s about) feeling more competent myself....I don’t want to be a complete technophobe. F/29/U

I mean there’s a whole generation of young people who are very comfortable, very very at home with technology alright which range from laptops, PCs, mobile phones etc. We need to be engaging with that, learning about that, designing programmes which can be delivered to this, this new group of people who are coming up. M/25/P

Even where participants identified incentives in the provision of PD such as leave and funding, the uptake of (formal) professional development was highly dependent on workload, available time and individual prioritisation of work-related tasks.

4.92 Constraints on engaging in PD for e-learning

Constraints on engaging in professional development were also explored, with only a few participants suggesting there were none.

There are actually disincentives...because engaging in professional development requires a commitment of my time, in some cases my money as well... That’s why we don’t do it. Even though we want to and we have something useful to contribute we don’t do it. M/18/U

The vast majority of participants in both polytechnics and universities mentioned time and workload were the most critical constraints on their continued involvement in PD for e-learning. Time was a factor influencing whether staff were enthusiastic about e-learning or not, regardless of length of time involved in e-learning.

I don’t have the professional development time to sit around playing, getting more familiar with e-learning. F/12/P

It takes quite a lot of time and this has been underestimated. F/28/P

Those who were heavily involved in e-learning were able to devote more time to PD as part of their ‘job’, but still a number of these were doing much of their learning and exploration in e-learning outside work hours, as it was something they enjoyed.

And you know at the moment, you know I guess, you know yeah I’ve been blogging but I do that at home in my time. I have to provide the laptop and the broadband and yet what I’m doing is work really. F/28/P
Staff in universities most often stated workloads were seen as unrealistic and the time demands unreasonable. As mentioned earlier, not engaging in e-learning was related to assumptions about how much time and workload would be involved and a belief that costs outweighed benefits.

Essentially any of the time that I spend in discussion groups and the like is likely to be poached out of my research time and I’m not sure I’m really willing to do that anymore .... I think I am going to waste a huge amount of time trying to get up to speed with the Learning Management System. F/35/U

Ideally... they (the institution) would have to start fundamentally with workload and workload equity, and I don’t think that unless they address workload equity across the University then the lecturers who don’t see it as a benefit are going to be able to participate. F/16/U

As a practice, staff also felt that e-learning itself could impose additional time demands and that there is a need for recognition that e-learning implied a different way of working:

E-mail has shattered the continuity of our days...absorbed a huge amount of our time. F/23/U

For those relatively new to e-learning, conceptions of e-learning and the assumed capability required to engage in it were potential barriers to involvement.

But I didn’t do too many of the papers to do with e-learning in there (teaching and learning for adult education) cause it’s a elective. I sort of avoided that because I wasn’t very confident in computers but...sometimes you know it’s a bit scary in terms of, for them and it’s this bit about how do we manage the risk and you know, how much are we expected to do? F/28/P

Ignorance of the benefits of e-learning was another factor suggested by participants for their colleagues not being involved. While some ‘beginners’ mentioned feeling intimidated by others with superior technical knowledge, new entrants could be encouraged by those who had overcome similar anxieties:

What motivates me is talking to people who have used it successfully. That was the real good thing for me and seeing that you know, they are not whizz kids, they learned this stuff somehow as well, and they’ve figured it out and its now working really well for them. F/24/P

4.93 Balancing encouragement and compulsion

Managers, support people and lecturers all referred to ways in which the motivations of individuals must be understood within the institutional contexts in which they were located.
As we move more into technology, how do we quickly get staff to that level? It’s a huge challenge really...
And I’m just so aware that if people don’t have the right skills, if they don’t have the help at the right time, if they don’t become motivated enough by what is happening they will fade away so much more quickly on-line. F/28/P

Personal motivation (see previous section) was the overriding incentive for people to be engaged in e-learning and professional development. Participants recognised that not all of their colleagues felt as motivated and some referred to staff reactions to imposed changes:

The commitment of the department to make so many papers web-based – meant external criteria was imposed on a reluctant group of academics –their reluctance was about lack of time and lack of support...(it was) quite scary to change the study guide, to say it was all going on line and then actually not know how that worked. F/16/U

Managers reflected on how provision of incentives would not necessarily facilitate attitudinal change, and noted that despite encouragement, incentive or ‘coercion’, some staff would never engage with e-learning and associated PD.

Two other groups who won’t touch it (e-learning) no matter how much you paid them, - those who are hesitant because they think it’s technically difficult, or time consuming and those who prioritise their research because then you get promoted. M/8/U

The same manager noted that the relevance and value of e-learning needed to be established for staff, and that implementation of e-learning (and PD related to it) might work best as gradual rather than coercive approach.

Pushing people into e-learning in cases where maybe it’s not the best way to go ....giving stuff time to develop a momentum of its own and not forcing it down everyone’s throat, on the other hand you also have to make sure everyone does have a change to see what’s available and how it might work for them. M/8/U

I think probably the credibility bit is the crucial bit, rather than the resourcing. Whoever’s doing it has got to be seen as a peer and to be able to show some leadership and enthuse us - particularly as I don’t think management will easily be able to force us to go to these things. If they do force people to go, it will be a disaster for everyone. M/36/U

While staff preferred active support and encouragement to coercion, a number felt structural and policy measures could be applied in order to promote the development of e-learning in institutions. Participants were of the view that staff would make informed decisions when they could see transparency in costs and benefits, and they understood the application of e-learning technologies for their disciplinary base:
Incentives have to be built in or motivations have to be thought about, so that the people who are not all that thrilled about it now, can be at least shown the possibilities. F/24/P

Measures suggested included linking PD for e-learning to promotion and appraisal, providing professional development leave provision, ensuring basic training on e-learning systems and providing information on place, value and support for e-learning within institutions.

Would be a course all need to do as part of our professional development so that we are all aware of where we are heading together. M/19/P

Others felt that if e-learning was not an integral part of professional and work practice, then it would continue to have little or no priority within work schedules. Having a more codified form of expectation also meant time was more likely to be prioritised for professional development related to e-learning:

It's finding the time to do that and it's only when you have an external influence that really forces you to bite the bullet and say "Oh I really need to get to grips with this". F/13/U

And that all staff understood the direction and scope of institutional beliefs surrounding e-learning:

4.94 Other factors to be considered in the implementation of e-learning and professional development programmes

As well as incentives and constraints on PD for e-learning, staff identified a number of concerns related to the implementation of e-learning in TEOs. These include:

**Issues of intellectual property**

One participant expressed concerns about the ownership of knowledge, and how this is influenced and affected in on-line environments.

I have issues around intellectual property......whether the institution owns it once it goes on (the learning management system). Maori knowledge, some of the stuff I teach draws on collective knowledge, of you know our people, so I wouldn’t want to go into a space where the University could own that knowledge. F/16/U (participant not involved in e-learning)

**Assessing students’ needs and desires**

Concerns were raised by a number of participants about the extent to which students had been considered and consulted with regard to their e-learning needs.

A degree of political detachment is needed for those people who are advocates of e-learning so that, so that you really do the analysis beforehand and say "is this meeting the needs of students?" M/B/U
There was also the suggestion that there needs to be continued evaluation of the value and merit of existing e-learning methods for student learning, and for the student experience.

Developing culturally appropriate ways of e-learning and teaching

It was also considered important to acknowledge varying learning and teaching styles of different student populations and to develop culturally appropriate ways of learning and teaching. A participant involved in teaching Maori for example, noted the importance of face to face teaching and the challenges of adapting traditional ways of learning to e-learning. Achieving interactivity and letting the ‘learners lead’ within the teaching and learning context was seen as crucial.

Staff suggested issues of access to e-learning needed to be addressed particularly for Maori and Pasifika students and other groups who may have lower rates of access to the internet and ICT technologies, as well as less secure access and slow dial-up connections:

That we don’t put up technical barriers which frustrate students trying to access on-line environments. F/4/P

Staff also noted the need to evaluate and adapt to the technical capabilities of student cohorts. There was a desire to ensure continuity for school leavers, and to continue to investigate possibilities for new areas of e-learning such as mobile technologies.

Acknowledging and addressing differential access to professional development for part-time and physically ‘distant’ staff was a significant issue, and expressed most often as a concern by polytechnic staff. Part-time staff often did not have the same entitlement to PD leave or finances, felt they were already overworked, had less access to personal face to face assistance, less collegial discussion and more restricted access to formal and informal PD opportunities which occurred on campus. Part-time and staff living distant from their institution also described feeling more isolated and felt they were located in a space that was less conducive to developing their e-learning capacities.

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Full time staff eligible for funding for PD, doesn’t apply to part-time. F/4/P,
The issue being able to attend scheduled courses (was a concern). F/24/P
Professional development is less available – I pretty much work on my own. F/6/P

Recognising that some staff belong to professional communities (such as nursing, law, and planning) which involve demands and commitments to PD in addition to professional development allied to research and teaching,
was also considered important with regard to institutional and managerial expectations of engaging in e-learning PD.

Remember I’m in a profession...so I’m faced with trying to maintain my professional skills and also maintaining or enhancing my teaching skills. F/35/U
4.95 Looking forward...

While staff spent much time discussing constraints and disincentives, overall the bulk of those who were engaged in e-learning did find it rewarding. Many were enthusiastic about the possibilities of applying e-learning technologies and tools in their teaching, and were positive about the changes that had and might occur with regard to their own personal PD trajectories.

I think it’s a wonderful way forward for education but I think it’s really poorly resourced and poorly acknowledged in terms of the commitment and the time that it takes, you know. We are acquiring a new skill and that takes time. F/12/P

It is this sense of expectation, the desire to be involved in collegial networking and sharing and a belief in e-learning as a valuable and integral part of teaching and learning which holds much potential for future personal and institutional investment for professional development in e-learning:

I’m excited about where things are going now, like I think finally money is being put into this and some real commitment being made to it, not just e-learning but support for e-learning amongst staff and but this is, this is the way forward.... F/5/U
5. Summary of findings

5.1 Key findings of on-line survey

- The majority of participants believed their institutions saw PD as important, though this was expressed more emphatically in polytechnics. The semi-structured interviews indicated reasons for differences in institutional prioritisation around e-learning PD. These included existence and communication of policy, clarity of expectation, co-ordination of institutional structures, and departmental and managerial emphasis and support.

- There was stronger expression of agreement around individual (than institutional) beliefs of PD generally. This was not surprising given the extent to which individuals were intrinsically motivated to engage in both formal and informal PD activities.

- The top five ranked activities with 70% or more of respondents participating in are: sharing knowledge with colleagues, spontaneous learning arising from work or personal activities, learning through informal discussions in the workplace, regular reading of journals and books relevant to my profession, acquiring knowledge through browsing websites or ‘surfing the net’. These can all be classified as informal activities, defined for the purposes of the survey as “activities undertaken that increase your knowledge in a particular area but which are not formally acknowledged”. The importance of informal activity is consistent with the literature, but demonstrative that in the first instance it is activities which closely connected to practice of daily workplace tasks that are the source of the most participated in forms of PD.

- Just over half the respondents were involved in using e-learning in teaching, and around 24% involved in supporting e-learning. The majority were relatively new to e-learning – involved for less than six years. Most of those involved in e-learning were doing so because ‘e-learning allowed them to do things they couldn’t do using other methods’, suggesting they could see the benefits of engagement. The second most important rationale for involvement was an institutional requirement to be engaged in this at school or department level.

- The survey documented the types of e-learning activity utilised. The most common types included email, providing content that is on-line, using a Learning Management System, providing links to journal articles and discussion boards.

- Non-involvement in e-learning was primarily because respondents stated it was not applicable to their job. Information from both survey data and interviews suggest non-involvement is influenced by assumptions about the
possibilities and limitations of e-learning, and comparisons with face to face teaching.

- There was a high level of awareness of e-learning PD courses available across institutions (71%) with a much lower percentage of respondents (53%) having engaged in some form of formal or informal professional development for e-learning. Given the high percentage expressing PD was a necessary part of their job, this indicates the existence of a gap between expressed attitudes and behaviours with regard to e-learning, and suggests that for many, e-learning may not be viewed as an intrinsic component of one’s ‘professional’ work. This was explored further in the interviews.

- The types of professional development engaged in both within and outside institutions primarily comprised informal professional development activities. Various types of technical training courses were engaged in, but these were generally seen as less effective than more informal forms of PD. Staff also expressed a preference for working one to one with e-learning staff or in small groups within their institution.

- Time was the primary factor stated in reasons for non engagement in PD within and outside institutions. Issues of institutional, personal and financial support, awareness, applicability and rewards for efforts were also factors. Awareness of opportunities was more significant as a barrier with regard to being involved in PD outside of one’s institution.

- Though technical courses and courses combining technological and pedagogical aspects run by institutions were considered less effective than forms of informal professional development, they were ranked highly on a list of activities participants are not currently engaged in but would like to be engaged in. Informal professional development was not ranked as highly as preferred activities for future engagement, indicating formal activities do have a role to play in e-learning PD.

- Time was the constraint mentioned most often in regard to engaging in e-learning professional development. A lack of encouragement or reward, and not enough PD courses offered were also mentioned as significant factors affecting the individual’s ability to engage in PD for e-learning. The interviews explored the notion of constraints in more depth, including ascertaining whether it was lack of time, or the prioritisation of time which was a factor.
5.2 Key findings of the semi-structured interviews

5.21 Individual reflections:

- Participants demonstrated different and varied trajectories in e-learning journeys, and had different expressed PD needs, capabilities and self efficacy. Those expressing higher levels of self-efficacy and longer involvement in e-learning tended to be relatively independent and self-directed in their professional development learning.

- While it was possible to divide the experiences of individuals from the interviews into three main groupings, the new entrants and/or reluctant learners, confident users and the early innovators, there was considerable diversity both within and between these groups.

- New and or reluctant users most often expressed anxieties and fears, but were generally positive after initial experiences in using e-learning. Confident users had often previously attended introductory courses but now expressed desire for more advanced courses and just-in-time assistance to explore possibilities of e-learning technologies in teaching. Many staff wanted to know more about pedagogy of e-learning and its disciplinary application. Early innovators were independent and self-directed in their PD activity and expressed high levels of confidence in their e-learning and teaching capabilities.

- As indicated by the survey data, non-involvement in e-learning PD was often not due to a lack of access to PD opportunities, but stemmed from conceptions of e-learning and assumptions about possibilities and practice of e-learning and professional development. The interviews suggested engagement was also connected with how staff see these activities as being valued by the institution.

- Apart from those new to e-learning, much PD involvement is informal, usually occurring through collegial help and advice, and for those with more experience and confidence involving self-tuition and exploration.

- Early innovators are generally keen to share knowledge, but this was often informal and unrecognised in terms of workload. Enthusiasm was seen to be a key attribute of leadership.

- Staff felt it was important that institutions and managers recognise the time needed to learn new skills, to reflect on, engage and ‘play’ with e-learning methods and tools.

- E-learning capability was viewed by staff as having three dimensions, technological, pedagogical (directed at teaching practice) and disciplinary (directed at subject matter and content). Addressing the connections between these was seen as important by staff. This poses challenges for professional
developers particularly with regard to how to combine these dimensions across diverse disciplinary contexts.

- Staff expressed concerns about the division of labour in e-learning, arguing their efforts should be devoted to improving teaching practice rather than to the technological work of producing courses using e-learning. There appears to be some tension within institutions around who should do what tasks in relation to time and cost evaluations, and in assessing what work and PD practices constitute effective teaching outcomes.

- Whether e-learning PD is seen as ‘professional development’ is an issue for some staff. Expectations arising from the application of the Performance Based Research Fund in institutions are often seen as having priority in terms of professional learning. E-learning is seen by a number of staff as additional to, rather than an integral part of, teaching and learning within institutions.

- The decision to be involved in e-learning and e-learning PD is often made on a cost-benefit analysis. Staff want to see tangible benefits of their involvement in e-learning and e-learning PD, with institutional acknowledgement and recognition of the time involved in these activities and what this means for workloads. Again this points to a lack of integration in teaching and learning, and in workplace activity. Negative beliefs about engagement in e-learning PD are more evident in participant narratives which position e-learning a non-core workplace or workload activity.

- Functions of professional development:
  - self development and knowledge acquisition (including self efficacy);
  - improving teaching practices and learning outcomes;
  - keeping up with technological and institutional changes (including expectations of students).

- Opportunities for engaging:
  - A range of opportunities was identified as useful. The bulk of these were informal activities, further confirming the results of the on-line survey.
  - Initial competency training was helpful where staff were unsure what they needed to know, to give a basic overview of what was involved and to develop essential skills.
  - Continuing professional development tended to be articulated around needs and ideas based learning with a desire for just-in-time help and advice, problem and issue based learning, and learning situated in current teaching contexts and dilemmas. Staff talked of growing competency in terms of knowing enough to ask the right questions, knowing what is needed in order for them to improve teaching capability and in the developing of a vision or plan of where they wanted to go to next in terms of teaching and e-learning PD.
• Assessing the effectiveness of PD:
  o Many staff had not thought about this, or were unsure how effectiveness could be assessed.
  o For staff personally, effective PD was seen as invoking a change in their capacity and willingness to engage with e-learning through the acquisition of knowledge, belief, actions and confidence.
  o Measures of PD effectiveness in relation to student learning included improvement in student grades, retention of students, greater motivation and engagement by course participants, and positive feedback from students.

• Reflecting on Good practice:
  o While staff had difficulty in stating why PD activities were effective, they had much less difficulty in listing PD activities that had worked well for them.
  o Obtaining help and guidance from colleagues and recognised support people was important because it was individualised and relevant.
  o Personal interaction with knowledgeable, helpful and approachable e-learning support staff.
  o Not doing PD on your own – a preference to link with and learn from others.
  o Small group sessions – workshop based.
  o Exposure to ideas and examples of successful practice.
  o Preference for face to face interactive training, but also for on-line courses that provide flexibility, timeliness of resources and self directed and clear content.

• Staff suggestions for building capability:
  o Establishing communities of interest – sharing ideas and experiences and communities of practice instigated and orientated to achieving particular ends.
  o Personal individualised assistance and training.
  o Networked e-learning facilitators with disciplinary expertise.
  o PD which combines on-line teaching practice and educational theory.
  o Access to exemplars and examples of good practice and experiences of other staff.

5.22 Institutional/infrastructural context

• Awareness of, and access to, opportunities for formal professional development is important to uptake. Understanding of e-learning and PD expectations should be accurate and clearly communicated.

• Few knew of opportunities to engage in formal PD outside their institution.
• Informal activities were initiated by individuals rather than facilitated by others.

• Financial prioritisation and availability of resources for staff and technology were often not transparent.

• There appeared to be significant disparity in access and institutional uptake producing a lack of coherence around e-learning and PD related to it.

• Alignment of policy and practice with regard to e-learning PD throughout the organisation is essential. Infrastructural, policy and social connections were often poorly linked, causing both confusion and frustration for staff. Staff sometimes struggled to negotiate institutional structures particularly where support was dispersed across different organisational units.

• Staff expressed a desire for recognition and allowance for the time commitment needed for building e-learning capability through PD, with recognition in workloads. Formal recognition in appraisal and promotion structures might also provide incentives for staff engagement.

• Participants believed teaching generally, and e-learning specifically, should be valued by institutions

• Managerial support, encouragement and pro-activity is important in leadership for e-learning.

• Attitudinal change may be necessary at many institutional levels. Staff need to be informed of the benefits and have the costs of engagement acknowledged.

• Current incentives for engaging in e-learning are primarily personal, there appeared to be few institutional or departmental incentives.

• Constraints on engaging in PD for e-learning, and in e-learning are primarily about time and workload, with decisions to engage related to the prioritisation of other workplace tasks, particularly those related to research.

• The experiences of individuals indicate that PD has a role in overcoming fear and scepticism as potential barriers to involvement in e-learning.

• The relevance and value of e-learning should be highlighted for staff, and institutions need to consider how they might balance encouragement and compulsion. According to staff, positive engagement is the best way to gain momentum and develop individual and institutional capability.

• Other issues which have arisen:
  o Concerns about intellectual property.
  o The need to assess students’ needs and desires.
o Developing culturally appropriate ways of e-learning and teaching.
o Addressing the different technological competencies and access of students.
o Acknowledging the special requirements of part-time and distant staff.
o Recognising additional demands placed on staff with regard to PD from membership of professions.
6. Discussion and conclusions

The literature review has noted that policy and strategy for e-learning should take into account the needs of a diversity of staff and students. What has been understated in both the literature review (Part C) and the presentation of the Massey University results (Part E) is the very real difference institutional context makes. While trends and consistencies can be identified from both the survey and the interviews, there was variance in responses both between universities and polytechnics, within all five institutions and within individual institutions. It is clear from interviews that beliefs, opinions and experiences have not emerged in a vacuum, but are formed in the conditions and contexts in which they are produced, reflecting not only past experiences, but assumptions and discourses about current and future practice as well. While the analysis presented here is based primarily around commonalities of expression, institutional context does matter through numerous dimensions. The political, economic and social context, policy and strategy, material and organisational structures, communicative rhetoric, technological environment, learning culture of staff and students, forms of help and support, disincentive and incentive are all influenced by the institutions’ own culture, orientation and position relative to broader changes in economy, society, tertiary sector institutions and policies. Hence in this discussion section and in the final synthesis and recommendations chapter (Part G), it is not possible to identify a particular policy or strategy or prescriptive action which will be appropriate for any given institution. A key finding of this research is the diversity of contextualised experience and institutional context, and hence the need for individual institutions to determine and make clear their objectives and actions for engagement in both e-learning and professional development. Notwithstanding this, it is possible to identify some key themes and agendas which have emerged from the Massey University study:

If the aim is to build a supportive learning culture which is both self-sustaining and innovative (Campbell, 2001), then changing the culture of institutions must involve attention to attitudes and beliefs as well as structures and mechanisms. The interview data suggests that policies for e-learning, suitable training provision and technological support are by themselves insufficient. Ham’s (2005, p69) study of ICT clusters in schools also concluded that “the interplay among the various variables that might combine to produce an ‘effective’ PD programme in ICT is complex and for the most part irreducible to a singular form of best practice”. The Massey study confirms that institutional philosophy, politics, learning culture and social support within the organisation are all factors influencing uptake and implementation of PD
for e-learning (Wang and Wang, 2004, Cheong, Wettasinghe et al. 2006). Changing cultures of work practice, of teaching and learning and of social interaction between staff may be necessary to improve e-learning capabilities, as is attention to addressing the sorts of knowledges, practices and contexts which give rise to particular belief systems and conceptions. For example, while this discussion has primarily focussed on the experiences, desires and practices of teaching staff, it has highlighted that professional development/education of support, administrative and managerial staff may be needed in order to provide a social environment which is both facilitative and encouraging of e-learning, and which promotes leadership and continued innovation.

The survey found that individual staff expressed more emphatically their belief in the need for PD, than that they believed their institution did. This could be explained by a lack of clarity around institutional expectations which was noted by interview participants. Staff were often unclear what policies and strategies were in place with regard to e-learning and professional development, or how these were interpreted and implemented in practice across the various levels and forms of the institution concerned. As Kidney (2004) suggests, staff should be informed of policy and practice and need to understand how their teaching roles might change. Making accurate information about the possibilities and pitfalls of e-learning available to staff would seem to be critical for staff to make informed decisions about personal engagement. Narratives of interview participants suggest decisions to become involved are made on a cost/benefit basis. Consequently institutional acknowledgement of the ‘costs’ of involvement in e-learning (such as additional time commitments or having to learning new skills) may actually assist in promoting engagement. Demonstrating the pedagogical contribution of e-learning environments and technologies in e-learning environments across a range of disciplines (Mitchell et al., 2005), the practical usefulness of the professional development offered and the usefulness of PD for supporting students’ learning (Kanaya, Light et al., 2005) are also likely to help in informing staff of the benefits of e-learning and e-learning PD. The notion of cost and benefit with regard to staff choice to engage is also illustrative of the fact that many staff do not see e-learning as a core or integral activity in teaching (exemplified by those interview and survey participants who felt it was ‘an alternative’ to face to face teaching and something they did not want to engage in).
Information on and about the implementation of e-learning is insufficient without addressing the way in which other structural and contextual factors constrain and enable e-learning and professional development. Alignment in policy, infrastructure and support is essential for building capability. Staff in interviews mentioned numerous factors contributing to this. This lack of alignment was frustrating for staff and resulted in a myriad of expressions. Some staff felt confused, not only about what policies existed but as to what was expected, what e-learning involved, and where to obtain assistance and resources. Others felt frustrated about having to negotiate institutional structures to try to implement e-learning; something which was exacerbated where managerial support was lacking. Support from managers was viewed as critical for encouragement of staff to become involved, but also appeared to have a part to play in developing and promoting e-learning leadership amongst teaching staff. Other staff felt isolated from colleagues in terms of their engagement in e-learning, and in terms of resourcing, financial and personal support. Staff also recounted infrastructural impediments to e-learning capability with regard to a lack of co-ordination between organisational units related to forms of professional development (such as IT and teaching skills), as well as differential access to e-learning and technical support across disciplines and/or departments.

While just over half of the survey respondents used some form of e-learning technologies in their teaching, most used a small number of tools and had only become involved in the last six years, suggesting there is still considerable scope for institutions to improve uptake, facilitate a range of forms of engagement and to build leadership structures and practices which are sustainable. While the categories derived from interviews demonstrated three main groups of participants: those new to, or reluctant users of e-learning; confident users; and those who engaged early in e-learning innovation, it is important to recognise the diversity within and between these groups. For many new to e-learning, initial competency based courses such as using Learning Management Systems, email groups, face to face discussion groups were helpful. For staff who expressed they now had greater levels of self efficacy and engagement, there appeared to be a shift from training directed or run by the institution, to more self-directed forms of learning where PD was accessed on a want or needs basis and where just-in-time support was desirable.

While there are multiple and diverse trajectories of e-learning (and these are by no means linear), this research points to the need for institutions to assess and evaluate the PD needs and desires of staff and to recognise and reconcile competing agendas of staff (Hannon, 2008). Ham (2005) argues such evaluations should be more than just an analysis of the form and
structure of PD, rather longitudinal and holistic modes of evaluation need to be
developed. Findings of the survey analysis and interview narratives of staff are
consistent with Mitchell et al.’s (2005) suggestion that there can not be a ‘one-size-
fits-all’ approach to any professional development programme, and that it must
accommodate a diversity of skills, attitudes and learning styles (Jeffrey et al., 2005). It
may also be that some attitudes, beliefs and orientations towards e-learning and PD
will not change despite engaging in professional development (Boyer et al., 2006) and
that the use of e-learning technologies may not be appropriate in some teaching
contexts.

Both the survey and the interviews revealed the significance of informal forms of
professional development for staff learning, both in relation to PD development
generally and e-learning particularly. This is consistent with existing studies
(CEDEFOP, 2001; Hegarty et al., 2005a; Marshall, 2005). Descriptions of informal PD activity
indicate that the bulk of informal PD activities occur naturally and spontaneously or in an ad hoc
manner (such as talking with colleagues, or being helped by another staff member to overcome
challenges) or is immediately accessible via the internet, the library, and online communities.
Given the importance and expressed effectiveness of informal forms of professional development,
ways in which these learning opportunities can be capitalised on should be considered. For example
facilitation could involve encouraging those involved in e-learning to meet face to face or on-line to discuss and demonstrate their
teaching experiences and courses, providing online resource self-help material, facilitating mentoring relations and developing communities of interest or practice
(Hegarty et al., 2005a).

While informal activities were rated in the survey as being more effective than formal
activities, informal activities were not rated as highly as formal activities in terms of expressed activities staff would like to engage in. While interviews demonstrated those relatively new to e-learning found content and training based courses helpful, others expressed a need for more advanced courses. This suggests there is a role for more formal kinds of PD and that this might usefully be oriented toward the needs and teaching programmes of groups of staff to allow for situational and individualised learning where possible. Though some felt formal PD courses reinforced what the staff member already knew, a number acknowledged this helped consolidate existing knowledge. In addition, participants noted how workshops, courses
and seminars stimulated interest in areas that the staff member was unfamiliar with, as well as performing a useful means of connecting staff and developing more informal social learning relationships with both colleagues and trainers. The wide range of formal and informal PD activities engaged in and desired by staff suggests that it is important to provide a variety of formats (both on-line and via the generally preferred face to face methods).

Interview participants were able to outline what activities worked well for them. Characteristics of effective professional development were consistent with those outlined in part C (Massey Literature Review) of this report. Whether formal or informal activities were being described, their value tended to centre on the relationship of the professional development activity to individual needs, practices, and problems. The concept of relevance was particularly important, where learning should be applicable to personal professional practice and ideally situated within the teachers’ disciplinary field. With regard to desirable professional development activity, interview participants again highlighted the need for readily available ‘just-in-time’ support and professional development which was directed towards staff priorities and problems and was disciplinary focussed. The sort of personalised assistance desired by staff would appear to have substantial implications in terms of the resourcing of support and training personnel, particularly as readily available assistance was viewed as essential. The development of interpersonal relationships with professional developers, support staff, mentors and colleagues was a common factor in the effectiveness of both formal and informal forms of PD. Open and ongoing relationships were extremely important in the continued involvement in e-learning as well as the building and growing of self-efficacy in e-learning.

Lawless and Pellegrino (2007) suggest there is a danger that e-learning PD will be driven by action rather than by a substantial knowledge base about what works and why. While staff could say ‘what worked’ they were less articulate about why and even less so when probed about how effectiveness could be assessed. Effectiveness was generally seen in terms of a subjective analysis of growing self-efficacy (Hegarty et al., 2005a), changes in teaching practice and in relation to improved student outcomes. The challenge remains as to how to assess the effectiveness of involvement in formal and informal forms of PD, and whether individual expressions of self-efficacy and knowledge acquisition and/or measures of student involvement and learning are valid indicators of the difference e-learning PD makes.

Survey respondents who stated they were involved in e-learning were most often using it because it allowed them to do things they could not do using other methods.
This finding suggests many staff saw merits and potential in engagement in e-teaching. However, comments from the survey and interviews revealed that a minority of participants were confused about what e-learning involved and how it might be usefully applied in teaching contexts. Providing information about the possibilities and pitfalls, advantages and applications of e-learning may encourage uptake and engagement. The majority of interview participants believed e-learning and its associated PD were not simply about improving technological capability, but about learning about pedagogy and the application of e-learning in one’s teaching and disciplinary context. Many staff expressed a desire for PD that integrated teaching and learning and e-technologies, with demonstrated outcomes for staff and students. In part this desire reflects what Donnelly and O’Rourke (2007) term the technological-pedagogical division of e-learning, whereby teaching staff may regard an introduction to e-learning as a course in ICTs rather than an effort to change or improve their teaching abilities. On the flip-side there is also the suggestion that staff do see e-learning PD as more than building technological competency recognising that a knowledge of pedagogy is essential as part of good teaching and e-learning (Marshall, 2005).

The second most cited rationale in the survey for engagement in e-learning was an institutional requirement to be involved at school or department level. This finding suggests forms of prescribed involvement may also be a significant factor in engagement. Although awareness of opportunities for e-learning within institutions was high for survey participants, the survey revealed a lower proportion of staff actually engaged in forms of informal or formal activities, suggesting a knowledge of available professional development activities is not in itself sufficient to achieve engagement. Staff noted their engagement was not simply a function of available activities but implied involvement and commitment of a range of stakeholders (e.g. teaching, training and support staff, students, managers). While awareness of PD opportunities within institutions is relatively high, access to and knowledge of opportunities offered outside of the institution in which staff are located is not common. Staff expressed a desire to link with others and to learn from their experiences, to network both within and outside their institution and for institutional incentives to encourage involvement. The interviews suggested there is scope for and merit in developing communities of interest and practice across individual institutions, as well as cross-institutional sharing of knowledge and expertise, thereby building both institutional and sector capability.
If involvement is required by the institution but engaged in reluctantly, this adds support to views expressed by interview participants to have the costs as well as the benefits of engaging acknowledged by managers and institutions. The separation of e-learning within institutional structures and/or rhetoric, and the belief by some staff that e-learning is an alternative (rather than complementary to) other forms of teaching appears to contribute to decisions about whether to engage and the extent to which e-learning is worth a continued investment of time. A number of staff resented what they saw as the imposition of e-learning as an expectation ‘on top of’ existing workloads, particularly when they could not see the merits of engaging with this. The concept of involving stakeholders in decision making also implies a need to consult students as part of policies and practices designed to embed e-learning in institutions. Staff who viewed e-learning both favourably and unfavourably made assumptions about their need (or not) to engage with it in relation to student capability, student needs and preferences. This study did not examine this, but research on this should be undertaken.

Non-involvement in e-learning in the survey was primarily due to it being non-applicable to the staff members’ job (i.e. it might be research only, administration or non-teaching support), however the interviews revealed non-involvement was also related to beliefs and assumptions about e-learning (explored by the Otago team in Part D of this report, see also Hannon, 2008). The interviews revealed that the experience of initially reluctant learners engaging in e-learning had actually been favourable, with many staff keen to continue to develop their skills and knowledge in this area. Regardless of whether conceptions about e-learning are based on accurate information, or are misinformed they would seem to influence both initial and continued involvement in e-learning. In addition, interviews with managers revealed that attitudes towards e-learning and the extent and nature of one’s experience of engaging with e-learning can impact on capacities to lead and encourage others.

Pressures of time were repeatedly mentioned by both survey and interview respondents as a major constraint to involvement in professional development and e-learning. Again, this was consistent with current literature (Maor and Volet, 2007). While staff often stated they had no time to engage, the interviews revealed this belief was connected more to the prioritisation of time. This prioritisation was related to assumptions about the time required to engage in e-learning and e-learning PD, in obtaining necessary skills and capabilities, and in managing and engaging with students using e-learning. These assumptions may have been developed in response to e-learning not being seen as a core activity in terms of the teaching-research nexus. Attitudinal and conceptual barriers to uptake were also confounded sectoral, institutional and managerial expectations with regard to workload and the balancing

Conceptions about e-learning and professional appear to be important in influencing both initial and continued involvement in professional development.

The conceptualisation and institutionalisation of e-learning as a non-core or additional work activity can lead to a lack of prioritisation and engagement by staff.

High workload and time constraints limit engagement in e-learning and professional development.

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part E – Massey Research Report: Beliefs, experiences, preferences and practices of e-learning in institutional contexts
of teaching and research, particularly in universities. Staff mentioned the need for recognition and allowance of the time needed for building e-learning capability particularly in workload calculations. Where staff are part-time, physically distant or involved in a profession with its own PD requirements this posed additional (competing) demands on time, demands which can be exacerbated by personal responsibilities outside of work (Wang and Wang, 2004).

It is important to recognise professional development is constructed both via institutional structures and practices and culturally. As previously stated, conceptions of what constitutes e-learning and professional development influence the extent to which people may engage in various activities. Both the survey and interview highlighted that views over what constituted professional development were not uniform, and that some staff struggled with the notion of e-learning professional development, i.e. it was not constituted as a core activity of professional learning unlike professional development orientated towards one’s research development or profession. In interviews, almost all staff noted that personal motivation was a key driver for engaging in e-learning PD and while intrinsic motivations are important for building capability and confidence (Hegarty et al. 2005a) many staff argued there were no institutional incentives for engaging in e-learning and for e-learning PD. The Performance Based Research Fund (PBRF) and a sectoral and institutional environment in which research is seen (by teaching staff) as being valued above teaching, meant many felt disinclined to engage in professional development related to e-learning particularly when it was felt that involvement in e-learning would be time-consuming and would receive no extrinsic recognition or reward.

The majority of staff interviewed were engaged with e-learning and regardless of the extent of their involvement in formal professional development, were intrinsically motivated to continue to improve their e-learning capabilities. For those who had initially been reluctant to become involved in e-learning, engaging in both formal and informal PD had been beneficial in improving self-efficacy and most particularly in overcoming initial anxieties or fears about e-learning involvement. This finding suggests that involvement in some form of e-learning PD may be a first step to implementation of e-learning in teaching. This bodes well for further engagement and for developing a culture in which learning gains are shared. Despite the frustrations expressed by many, those who were engaged in e-learning generally found it personally rewarding, many expressed a hope and optimism around building capabilities, with a belief that e-learning was (and should be) a valuable and integral part of teaching and learning.

The Massey findings have highlighted the importance of institutional context in framing e-learning PD policy. It has stressed the importance of developing support
structures and practices for staff, of producing a supportive and innovative culture of learning and of engaging with staff in the formation and evaluation of policy and practice. The identification of staff beliefs, experiences and preferences has raised many questions about how individuals, institutions and how changes in the tertiary education sector might enable or constrain e-learning, and e-learning professional development. Issues highlighted by the survey and interview findings have been used to derive questions which inform the jointly developed framework presented in Part F. The summary points identified in Part E are also used as a basis for the formation of the key principles outlined in part G of this document. These principles are in effect recommendations which stress the need for individual institutions, and other sector agencies to consider their own distinctive goals, aspirations, structural and human capability and stakeholders in creating and implementing policy and practices directed towards improving capability e-learning and professional development.
References:


Part E: Massey Research Report - Appendices

Appendix 1 - Copy of the online survey
### Appendix 2 - On-line Survey Data

#### Table 1. Extent to which PD is viewed as important within the Institution

<table>
<thead>
<tr>
<th>Agreement with the statement “I believe my institution views PD for its staff as important”</th>
<th>Frequency (n=388)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>76</td>
<td>19.6</td>
</tr>
<tr>
<td>Agree</td>
<td>211</td>
<td>54.4</td>
</tr>
<tr>
<td>Neither disagree nor agree</td>
<td>55</td>
<td>14.2</td>
</tr>
<tr>
<td>Disagree</td>
<td>39</td>
<td>10.1</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>7</td>
<td>1.8</td>
</tr>
<tr>
<td>No answer</td>
<td>20</td>
<td></td>
</tr>
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</table>

#### Table 2. Extent to which respondents believe PD is viewed as important in by the Institution by general and academic staff

<table>
<thead>
<tr>
<th>Agreement with the statement “I believe my institution views PD for its staff as important”</th>
<th>Academic staff (count, row and column percent)</th>
<th>General staff (count, row and column percent)</th>
<th>Other (count, row and column percent)</th>
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<th>Total</th>
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</tr>
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<td>20.4</td>
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<tr>
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<td>89</td>
<td>2</td>
<td>0</td>
<td>211</td>
</tr>
<tr>
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<td>56.9</td>
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<td>100</td>
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<td>51.7</td>
</tr>
<tr>
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<td>23</td>
<td>1</td>
<td>0</td>
<td>55</td>
</tr>
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<td>100</td>
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<td>15.1</td>
<td>16.7</td>
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</tr>
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<td>1</td>
<td>0</td>
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</tr>
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<td>16.7</td>
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Table 3. Extent to which respondents believe PD is viewed as important in by the Institution by Polytechnics and Universities

<table>
<thead>
<tr>
<th>Agreement with the statement</th>
<th>Polytechnic (count, row and column percent)</th>
<th>University (count, row and column percent)</th>
<th>Total</th>
</tr>
</thead>
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<td>Strongly Agree</td>
<td>Strongly Agree</td>
<td></td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>37</td>
<td>76</td>
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<td>34.5</td>
<td>13.5</td>
<td>19.6</td>
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<td>155</td>
<td>211</td>
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<td>54.4</td>
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<tr>
<td></td>
<td>11.5</td>
<td>15.3</td>
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</tr>
<tr>
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</tr>
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<td>42.9</td>
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<tr>
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<td>2.7</td>
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<tr>
<td>Total</td>
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<td>275</td>
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<td>No answer (count)</td>
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### Table 4. Individual belief in the importance of PD

<table>
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<tr>
<th>Extent of agreement with the statement “I believe professional development is an important part of my job”</th>
<th>Frequency (n=388)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
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<tr>
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<td>No answer</td>
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</tbody>
</table>

### Table 5. Institutional differences in choice of professional development activity

<table>
<thead>
<tr>
<th>Forms of PD</th>
<th>Institutions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>U1 (count, row, column percent)</td>
<td>P1 (count, row, column percent)</td>
</tr>
<tr>
<td>Regular reading of journals and books relevant to my profession</td>
<td>116 (30.4)</td>
<td>42 (11.0)</td>
</tr>
<tr>
<td></td>
<td>39.9</td>
<td>14.4</td>
</tr>
<tr>
<td></td>
<td>79.5</td>
<td>75.0</td>
</tr>
<tr>
<td>Sharing knowledge with colleagues</td>
<td>128 (33.4)</td>
<td>53 (13.8)</td>
</tr>
<tr>
<td></td>
<td>36.1</td>
<td>14.9</td>
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<tr>
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<td>Activity</td>
<td>Frequency Distribution</td>
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<td>Exchanging emails on professional topics with other members of your institution</td>
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<td>32.98, 18.09, 26.6, 4.26, 18.09, 100</td>
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<td>21.23</td>
<td>30.36, 17.12, 25.00, 38.64</td>
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<td>78.08, 71.43, 60.27, 56.25, 77.27</td>
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<td>40</td>
<td>14.04, 30.88, 3.16, 11.93, 100</td>
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<td>Engaging with professional interest groups</td>
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<td>47.95, 58.93, 32.19, 18.75, 43.18</td>
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<td>40.7</td>
<td>19.19, 27.33, 1.74, 11.05, 100</td>
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Table 6. Forms of PD engaged in by Academic and General Staff

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<th>Academic staff (count, row percent)</th>
<th>General staff (count, row percent)</th>
<th>Others (count, row percent)</th>
<th>Total</th>
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<tr>
<td>Regular reading of journals and books relevant to my profession</td>
<td>206 (80, 70.79)</td>
<td>80 (27.49, 1.72)</td>
<td>5 (1.72)</td>
<td>291</td>
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<tr>
<td></td>
<td>70.79 (86.92, 70.79)</td>
<td>27.49 (49.38, 83.33)</td>
<td></td>
<td>100</td>
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<td>Sharing knowledge with colleagues</td>
<td>210 (139, 59.15)</td>
<td>6 (1.69)</td>
<td></td>
<td>355</td>
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<td>59.15 (88.61, 59.15)</td>
<td>1.69 (85.80, 100.00)</td>
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<td>100</td>
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<tr>
<td>Acquiring generic transferable skills and competencies related to my job</td>
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<td>4 (1.42)</td>
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<td>60.85 (72.15, 60.85)</td>
<td>1.42 (65.43, 66.67)</td>
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<tr>
<td>Spontaneous learning arising from work or personal activities</td>
<td>199 (132, 59.23)</td>
<td>5 (1.49)</td>
<td></td>
<td>336</td>
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<tr>
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<td>59.23 (83.97, 59.23)</td>
<td>1.49 (81.48, 83.33)</td>
<td></td>
<td>100</td>
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<tr>
<td>Practising the rules and procedures of my institution</td>
<td>91 (76, 53.53)</td>
<td>3 (1.76)</td>
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<td>1.76 (46.91, 50.00)</td>
<td></td>
<td>100</td>
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<td>Learning through informal discussions in the workplace</td>
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<td>5 (1.51)</td>
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<td>331</td>
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<td>59.82 (83.54, 59.82)</td>
<td>1.51 (79.01, 83.33)</td>
<td></td>
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<td>Action Learning: Learning from development projects</td>
<td>94 (65, 58.39)</td>
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<tr>
<td>Acquiring knowledge through browsing websites or surfing the net</td>
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<td>4 (1.4)</td>
<td></td>
<td>285</td>
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<td>1.4 (64.81, 66.67)</td>
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<td>3 (2.56)</td>
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<td>117</td>
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<td></td>
<td>67.52 (33.33, 67.52)</td>
<td>2.56 (21.60, 50.00)</td>
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<tr>
<td>External courses my employer has paid for</td>
<td>81 (79, 67.21)</td>
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<td>163</td>
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<td>67.21 (34.18, 67.21)</td>
<td>2.04 (48.77, 50.00)</td>
<td></td>
<td>100</td>
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<tr>
<td>Membership of committees at my place of work</td>
<td>82 (39, 49.69)</td>
<td>1 (0.04)</td>
<td></td>
<td>122</td>
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<td>0.04 (40.12, 33.33)</td>
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<td>Internal training courses</td>
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<td>3 (1.84)</td>
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Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part E – Massey Research Report: Beliefs, experiences, preferences and practices of e-learning in institutional contexts
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<th>Activity</th>
<th>Percentage</th>
<th>Score</th>
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<td>71.43</td>
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<td>Technical training</td>
<td>127</td>
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<td>Undertaking academic study that isn't necessarily related to my job or profession</td>
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<td>Exchanging emails on professional topics with other members within your institution</td>
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<td>Membership of committees relevant to my professional development</td>
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<td>1</td>
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<td>Attending conferences, symposia or workshops</td>
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<td>Engaging with professional interest groups</td>
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Professional development for e-learning: A framework for the New Zealand tertiary education sector
<table>
<thead>
<tr>
<th>Number of e-learning activities used</th>
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<th>Total</th>
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Table 7. Length of time involved in e-learning and listing of e-learning activities and tools
Table 8. Number of e-learning tools used in polytechnics and universities

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<td>6 -10 activities/tools</td>
<td>35 38.5 48.6</td>
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<td>23 54.8 31.9</td>
<td>19 45.2 15.7</td>
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<tr>
<td>16 - 20 activities/ tools</td>
<td>5 38.5 6.9</td>
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Table 9. No of e-learning activities and tools engaged in by support and teaching staff.

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<td>6 - 10 activities/tools</td>
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<td>20.3</td>
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<td>5.1</td>
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<td>16 - 20 activities/tools</td>
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<tr>
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Table 10. Awareness of e-learning PD

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<td>P1 count (column percent)</td>
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<td>100</td>
</tr>
<tr>
<td>No answer</td>
<td>21</td>
<td>7</td>
</tr>
</tbody>
</table>
Table 11. Relationships between types of e-learning used and whether respondents have been online students

<table>
<thead>
<tr>
<th>Types of e-learning used</th>
<th>Yes count, row and column percent</th>
<th>No count, row and column percent</th>
<th>No Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use an LMS</td>
<td>80.0 98.0 4.0 4.0</td>
<td>44.0 53.9 2.2</td>
<td>100</td>
</tr>
<tr>
<td>Providing content online that is in HTML form</td>
<td>77.0 92.0 4.0 4.0</td>
<td>44.5 53.2 2.3</td>
<td>100</td>
</tr>
<tr>
<td>Providing content online(Word, Excel, PDF, PowerPoint documents)</td>
<td>71.0 83.0 3.0 3.0</td>
<td>45.2 52.9 1.9</td>
<td>100</td>
</tr>
<tr>
<td>Providing clickable links to online journal articles</td>
<td>66.0 70.0 2.0 2.0</td>
<td>47.8 50.7 1.5</td>
<td>100</td>
</tr>
<tr>
<td>Email</td>
<td>67.0 59.0 3.0 3.0</td>
<td>51.9 45.7 2.3</td>
<td>100</td>
</tr>
<tr>
<td>Providing content online that is in Flash form</td>
<td>51.0 49.0 3.0 3.0</td>
<td>49.5 47.6 2.9</td>
<td>100</td>
</tr>
<tr>
<td>Online quizzes</td>
<td>43.0 46.0 1.0 1.0</td>
<td>47.8 51.1 1.1</td>
<td>100</td>
</tr>
<tr>
<td>Online surveys</td>
<td>40.0 38.0 1.0 1.0</td>
<td>50.6 48.1 1.3</td>
<td>100</td>
</tr>
<tr>
<td>Scenarios delivered either online or through a CD or DVD</td>
<td>36.0 40.0 1.0 1.0</td>
<td>46.8 52.0 1.3</td>
<td>100</td>
</tr>
<tr>
<td>Electronic whiteboards</td>
<td>29.0 24.0 3.0 3.0</td>
<td>51.8 42.9 5.4</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>23.8 11.2 4.2</td>
<td>56</td>
</tr>
<tr>
<td>Technology</td>
<td>Yes (%)</td>
<td>No (%)</td>
<td>Don't Know (%)</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------</td>
<td>--------</td>
<td>----------------</td>
</tr>
<tr>
<td>Chat rooms</td>
<td>30.0</td>
<td>24.0</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>55.6</td>
<td>44.4</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>24.6</td>
<td>11.2</td>
<td>0.0</td>
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<tr>
<td>Providing clickable links to</td>
<td>21.0</td>
<td>25.0</td>
<td>1.0</td>
</tr>
<tr>
<td>websites</td>
<td>44.7</td>
<td>53.2</td>
<td>2.1</td>
</tr>
<tr>
<td></td>
<td>17.2</td>
<td>11.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Online video files (do not use</td>
<td>21.0</td>
<td>16.0</td>
<td>3.0</td>
</tr>
<tr>
<td>podcast technology)</td>
<td>52.5</td>
<td>40.0</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>17.2</td>
<td>7.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Audio files delivered via CD or</td>
<td>17.0</td>
<td>18.0</td>
<td>1.0</td>
</tr>
<tr>
<td>DVD</td>
<td>47.2</td>
<td>50.0</td>
<td>2.8</td>
</tr>
<tr>
<td></td>
<td>13.9</td>
<td>8.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Video files delivered via CD or</td>
<td>16.0</td>
<td>16.0</td>
<td>-</td>
</tr>
<tr>
<td>DVD</td>
<td>50.0</td>
<td>50.0</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>13.1</td>
<td>7.4</td>
<td>0.0</td>
</tr>
<tr>
<td>Online image databases</td>
<td>18.0</td>
<td>11.0</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>62.1</td>
<td>37.9</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>14.8</td>
<td>5.1</td>
<td>0.0</td>
</tr>
<tr>
<td>Web based conferencing</td>
<td>19.0</td>
<td>8.0</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>70.4</td>
<td>29.6</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>15.6</td>
<td>3.7</td>
<td>0.0</td>
</tr>
<tr>
<td>e-Portfolios</td>
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<td>7.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>69.2</td>
<td>26.9</td>
<td>3.9</td>
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<tr>
<td></td>
<td>14.8</td>
<td>3.3</td>
<td>1.4</td>
</tr>
<tr>
<td>Voice over IP</td>
<td>11.0</td>
<td>12.0</td>
<td>1.0</td>
</tr>
<tr>
<td></td>
<td>45.8</td>
<td>50.0</td>
<td>4.2</td>
</tr>
<tr>
<td></td>
<td>9.0</td>
<td>5.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Electronic assignment submission</td>
<td>9.0</td>
<td>12.0</td>
<td>1.0</td>
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<td>40.9</td>
<td>54.6</td>
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<tr>
<td></td>
<td>7.4</td>
<td>5.6</td>
<td>1.4</td>
</tr>
<tr>
<td>Blogs</td>
<td>14.0</td>
<td>7.0</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>66.7</td>
<td>33.3</td>
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<td>11.5</td>
<td>3.3</td>
<td>0.0</td>
</tr>
<tr>
<td>RSS feeds</td>
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<td>9.0</td>
<td>1.0</td>
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<tr>
<td></td>
<td>41.2</td>
<td>52.9</td>
<td>5.9</td>
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<td></td>
<td>5.7</td>
<td>4.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Feature</td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>------</td>
<td>------</td>
<td>----</td>
</tr>
<tr>
<td>Podcasting</td>
<td>7.0</td>
<td>5.7</td>
<td>50.0</td>
</tr>
<tr>
<td>Online audio files (do not use podcast technology)</td>
<td>6.0</td>
<td>4.9</td>
<td>6.0</td>
</tr>
<tr>
<td>Social bookmarking websites</td>
<td>8.0</td>
<td>6.6</td>
<td>61.5</td>
</tr>
<tr>
<td>Digital stories</td>
<td>9.0</td>
<td>7.4</td>
<td>69.2</td>
</tr>
<tr>
<td>Wikis</td>
<td>7.0</td>
<td>5.7</td>
<td>63.6</td>
</tr>
<tr>
<td>Other</td>
<td>4.0</td>
<td>4.0</td>
<td>40.0</td>
</tr>
<tr>
<td>Interactive content delivered via CD or DVD</td>
<td>2.0</td>
<td>1.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Communication tools that have audio functionality built-in</td>
<td>1.0</td>
<td>0.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Library associated e-learning</td>
<td>1.0</td>
<td>0.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Electronic plagiarism tool</td>
<td>1.0</td>
<td>0.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Electronic assessment pre-submission</td>
<td>1.0</td>
<td>0.8</td>
<td>100.0</td>
</tr>
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</table>
Table 12. Participation in e-learning professional development outside of ones institution

<table>
<thead>
<tr>
<th>Participated in e-learning outside institution</th>
<th>Institutional type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Polytechnic count and (column percent)</td>
<td>University count and (column percent)</td>
</tr>
<tr>
<td>Yes</td>
<td>61 (58.7)</td>
<td>79 (34)</td>
</tr>
<tr>
<td>No</td>
<td>43 (41.3)</td>
<td>154 (66)</td>
</tr>
<tr>
<td>Total</td>
<td>104 (100)</td>
<td>233 (100)</td>
</tr>
<tr>
<td>No answer</td>
<td>12</td>
<td>59</td>
</tr>
</tbody>
</table>
Appendix 3 - Interview Schedule

Reminder for participants: purpose of study, ethical considerations, consent forms, tape-recording of interview etc

Definition of e-learning used in this research is taken from MOE Interim Tertiary e-learning Framework: “learning that is enabled or supported by the use of digital tools and content. It typically involves some form of interactivity, which may include online interaction between the learner and their teacher or peers. E-learning opportunities are usually accessed via the internet, through other technologies such as CD-Rom are also used in learning”

1. This first section is about your involvement/experience in relation to e-learning (keep brief – drawing on the info I have already received from them by email)
   - Please tell me more about how long you have been involved in supporting/using e-learning methods and tools
   - What form this has taken (e.g. web enhanced, based or supported, putting content on-line, interacting with students, distance, internal, blended delivery etc)
   - Why have you used these e-learning methods or tools
   - How would you describe your technical ability

2. Now I would like to find out what you think about the importance of PD
   PD is defined as engagement in formal or informal training and/or learning in order to enhance skills, knowledge and the ability to practise one’s occupation
   - Why do you believe PD is necessary (or not) to prepare teachers for using e-learning methods?
   - If you think PD is necessary, what sort of PD would you prefer (or suits you best?)
   - How important do you think it is for you personally to have ongoing/continuing PD?
   - What do you believe professional development activity should enable you to do in relation to e-learning.

3. I am interested in finding out about the type of PD activities you have been involved in and whether or not your professional development activity has changed over time.

   Reminder:
   **Formal PD:** is Programmes or courses that either have an assessment or attendance requirement in order to obtain credit. E.g. attendance at training courses, study toward formal qualifications...
Informal PD: All activities undertaken to increase knowledge in a particular area but which are not formally acknowledged. Discussions with colleagues, reading articles, searching on the internet...

- Can you describe what PD activities you have been engaged in and why you chose these?
- How have you been using what you have learnt through these activities?
- Have the forms PD activity you have been involved in changed over time?
- What sort/forms of professional development do you prefer?
- Based on your experience, what would your ideal ‘mix’ of professional development activities available for enhancing the delivery of e-learning look like?

4. The next set of questions explores the effectiveness of the professional development you have encountered for your own practice/teaching requirements

- Tell me about how suitable you have found the different kinds of PD you have been accessing for helping you in your practice/teaching.
- Was the PD flexible and easy to access?
- Was it appropriate and relevant for your current expertise and needs?
- Best practice –what has worked well for you?
- How do you measure/assess the effectiveness of your PD activity?
  - for your own teaching/support practice,
  - in terms of outcomes for student learning.

5. This section is about the support your institution provides for PD in eLearning.

- Are you aware of opportunities to engage in PD in/outside your institution?
- Does your institution support PD for e-learning at a strategic level?
- Is PD for e-learning supported at departmental level?
- What sort of incentives and opportunities are there to engage in for PD?
- How is the infrastructure set up to support your PD e.g. resourcing, expertise, and personal assistance?
- Based on your experience if you had an ideal scenario for an organizational infrastructure to support you in your delivery/support of e-learning what would it be?

6. The following Qs relate to the availability of PD you currently have or would like to access either within your organisation or externally.

- Are the forms of PD activity currently available to you meeting your needs? (why/why not?)
- Are there any constraints on your current and/or continued involvement in PD for e-learning?
- Are there any forms of PD, not currently available to which you would like access?
- Is there anything you would like to do, or be involved in, in order to improve your teaching (or support) e-learning methods? How might you achieve this?
7. **Do you have anything further to add about PD for e-learning?**
   - Is there anything you thought I might have asked about PD activity and its relationship to the delivery of e-learning which I haven’t asked?
Part F A framework for professional development for e-learning

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Jointly prepared by:

University of Otago, Higher Education Development Centre
Dr Sarah Stein
Professor Kerry Shephard
Irene Harris

and

Massey University
Dr Juliana Mansvelt
Gordon Suddaby

Table of Contents

BACKGROUND ......................................................................................................................................................... 2
ORIGINS OF THIS FRAMEWORK .......................................................................................................................... 2
PURPOSE .............................................................................................................................................................. 2
AUDIENCE ............................................................................................................................................................ 2
UNDERLYING PRINCIPLES: ................................................................................................................................. 3
APPLICATIONS AND IMPLICATIONS OF THE FRAMEWORK ................................................................. 3
DESCRIPTION OF THE FRAMEWORK ........................................................................................................... 3
APPLICATION OF THE FRAMEWORK ............................................................................................................... 5
EVALUATING THE IMPACT OF THIS FRAMEWORK .................................................................................. 10
REFERENCES ...................................................................................................................................................... 10
Background
The professional development of teaching staff in tertiary education organisations (TEOs) and of those who support them has been identified as an essential element of future progress towards implementing and building capability in e-learning in tertiary education. This framework addresses this perceived need, but also suggests that many of the features of the professional development of teachers can and should be replicated at other levels.

Departments and divisions within TEOs, the TEOs themselves, and the governmental organisations that support them, all need to undergo progressive development as learning organisations to properly understand and promote the development of teachers. Whether we regard this as the professional development of staff within these organisations, or as a development of the ethos of the organisations, development is needed.

Origins of this framework
This e-learning professional development framework was developed by teams of researchers led by the Universities of Massey and Otago in 2007. Their research was funded by the Ministry of Education. The research drew upon the experiences of a wide range of teachers, managers and support staff in many TEOs. The Ministry commissioned this research following recommendations from stakeholders over several years. This framework has been developed by drawing on the literature and research into current e-learning practice in New Zealand. It provides a platform for effective professional development. It is based on a series of research-informed conceptions for e-learning.

Purpose
This framework outlines levels of analysis and activities concerning the development of teachers engaged in e-learning and those who support them at all levels in the tertiary sector.

‘Levels’ refers to the individual, the department/institution, and the agencies that make up the tertiary sector. The purpose of the framework is to provide a set of principles/guidelines for TEOs and their staff and all other groups in the sector to consider when developing and implementing strategies for professional development for e-learning with the aim of continual improvement in professional capability. It is intended to complement the wide range of tools already available to the sector that promote e-learning by focussing on professional development for e-learning and by posing specific questions about the context within which professional development occurs.

Using information and communications technologies (ICTs) in tertiary education to enhance learning and teaching depends on an institutional approach to planning, monitoring and evaluation. It also involves seeking effective use of ICTs to support learning and teaching and the development and enhancement of capabilities across all levels of a TEO.

Audience
The intended audiences for this framework are Government, TEOs, tertiary teachers and their academic units, professional development groups, and other relevant stakeholders.
Underlying Principles:

This professional development framework reflects the five principles underlying the interim Tertiary E-learning Framework (Ministry of Education, 2004, pp 9-11).

- It is learner-centred in that it acknowledges that decisions about professional development at each level within a particular context are best made by those directly involved at the appropriate level.

- It is informed by, and seeks good practice, by being based on research carried out internationally as well as within New Zealand into professional development for e-learning.

- It promotes collaboration because it acknowledges and recognises the interconnections between and amongst the different levels and participants of the tertiary sector.

- It is innovative because it supports the generation of a breadth of possibilities and new ideas for professional development for e-learning reflecting the emerging and immature nature of this area. It is not a ‘one size fits all’ model, but enables the different levels to design, develop, implement and evaluate professional development activities that are best suited to meet their own needs.

- It is affordable and sustainable because it promotes systemic and systematic professional development through an ongoing and iterative process of engagement and evaluation.

Applications and Implications of the Framework

Our research has identified a range of conceptions, assumptions and experiences of e-learning and of professional development for e-learning. It is likely that these differences will influence how individuals and institutions will work with the framework. Some will approach the framework seeking specific skills and requiring specific incentives, others will approach the framework with research goals in mind and will expect no incentives other than opportunities for research. Some institutions will anticipate that all teachers will develop information technology skills, while other institutions will focus on the development of teams to support the learning of their students.

The framework is sufficiently flexible to allow all of these possibilities. It takes account of the various starting points and pathways that individuals, institutions and the sector agencies may follow.

These various starting points and pathways are illustrated in more detail in our final report.

Description of the framework

This approach variously combines practitioner participation, leading the way, and provision of incentives (via reward and recognition) which can progressively yield a development spiral. Working at all levels our framework suggests an iterative sequence of analysis and activity. This always starts with an analysis of development needs, of incentives for development and of opportunities for development. This is continued through active
engagement in learning or research and followed by an evaluative exploration of progress. There are five repeated stages as shown in Figure 1. This sequence of analysis and activity applies at all levels.

For example individual teachers can ask themselves what they need, what their incentives are, what support is available for their professional development, how they will engage with e-learning activities and what impact this has on their ability to support student learning. The same sequence applies to departments, to institutions and to other parts of the tertiary education sector.

| 1. Identifying the need for professional development for e-learning |
| 2. Finding appropriate incentives for professional development for e-learning |
| 3. Providing appropriate opportunities for professional development for e-learning |
| 4. Achieving engagement with e-learning |
| 5. Evaluating the success of professional development for e-learning leading to …. |

*Figure 1: A Framework for Professional Development for E-learning*
Application of the Framework

The following table provides guidance as to how the different stages of the framework can be applied at each level. It poses key questions which may be asked and addressed at any point in the continuing cycle/spiral of professional development for e-learning. The last column includes educational institutions along with a range of other bodies with interests and influence in the sector in the broader category of Tertiary Sector Organisations. The Ministry of Education, TEC and Ako Aotearoa would be in this category.

<table>
<thead>
<tr>
<th>Stage of the Framework</th>
<th>Individuals</th>
<th>Institutions/Departments</th>
<th>Tertiary Sector Organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identifying the need for PD for e-learning</td>
<td>What does e-learning mean in my teaching context? Is there potential/value in e-learning for my teaching and for my students? Is e-learning relevant for my teaching? How might it have application in terms of a) improving teaching and learning outcomes? b) the teaching/research nexus c) personal professional development and capability What would I like to be able to do in</td>
<td>What do we know about the potential and value of e-learning for meeting institutional teaching and learning priorities? Is there a need for goals and planning objectives concerning e-learning? What form might these take? How might these strategies be aligned and connected through the policy, structures and practices in the institution? How can we provide leadership and direction for managerial, support and teaching staff (e.g. exemplars, learning from colleagues’ experience, facilitating communities of interest, and internal interactions)? What skills and knowledge are needed by</td>
<td>What kinds of teaching and learning should be made available in NZ? How is research and scholarship around the value of e-learning promulgated and shared amongst TEOs? What research and development initiatives can be employed in order to help TEOs with their strategic planning? What parts of the wider Tertiary community can provide leadership in this area? How might the sector value and recognise innovative teaching?</td>
</tr>
</tbody>
</table>

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part F A framework for professional development for e-learning
<table>
<thead>
<tr>
<th>Stage of the Framework</th>
<th>Individuals</th>
<th>Institutions/Departments</th>
<th>Tertiary Sector Organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>relation to e-learning?</td>
<td>Who are my students, what do they want/desire in terms of e-learning?</td>
<td>staff at all levels of the organisation?</td>
<td></td>
</tr>
<tr>
<td>What ICT skills and access do they have?</td>
<td>What ICT skills and access do they have?</td>
<td>What value is placed on innovative teaching?</td>
<td></td>
</tr>
<tr>
<td>• How do student capabilities and preferences mesh with my teaching and learning objectives?</td>
<td>• How do student capabilities and preferences mesh with my teaching and learning objectives?</td>
<td>Are institutional expectations made clear at all organisational levels?</td>
<td></td>
</tr>
<tr>
<td>Prioritisation of Professional Development</td>
<td>Prioritisation of Professional Development</td>
<td>Is there transparency and equity in access to resources for PD and e-learning (personal, funding, ICT capability)?</td>
<td></td>
</tr>
<tr>
<td>• What sort of professional development activities do I need to engage in?</td>
<td>• What sort of professional development activities do I need to engage in?</td>
<td>What services does the institution need to provide to its students?</td>
<td></td>
</tr>
<tr>
<td>• What sort of skills and knowledge might I need to develop in order to use e-learning effectively? (teaching, pedagogy, subject matter, technical capability)</td>
<td>• What sort of skills and knowledge might I need to develop in order to use e-learning effectively? (teaching, pedagogy, subject matter, technical capability)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• How might I prioritise PD for e-learning within my</td>
<td>• How might I prioritise PD for e-learning within my</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stage of the Framework</td>
<td>Individuals</td>
<td>Institutions/Departments</td>
<td>Tertiary Sector Organisations</td>
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<tr>
<td>------------------------</td>
<td>-------------</td>
<td>--------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td></td>
<td>work schedule?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| **Finding appropriate incentives for PD for e-learning** | Why should I learn new skills?  
What are the benefits to be gained from using e-learning for myself and my students?  
How will my efforts be recognised? | What sort of incentives might encourage staff to engage with e-learning, and to be involved in PD for e-learning?  
What encouragement and recognition is available for those who provide informal support for teachers engaged in e-learning? | What strategies and processes need to be in place to ensure the desired learning and teaching services are available?  
How does the sector recognise and value PD for e-learning?  
What networks of collaboration and information can be built to facilitate the development of ideas and exemplars and lead to engagement in e-learning? |
| **Providing appropriate opportunities for PD for e-learning** | What opportunities exist to develop new skills and knowledge?  
What forms of professional development can I access/engage in?  
What are my professional development preferences?  
Are current forms of PD meeting my needs (technical, social and pedagogical)?  
Do personal workload models and | What kinds of PD do staff prefer?  
How can a range of PD development activities and opportunities to meet the needs of a diverse range staff (both full and part time), at different stages in their e-learning journeys be provided?  
How are staff made aware of PD opportunities, both inside and outside institutions?  
How can informal professional development be facilitated and built upon? | What processes, policies, resources, and strategies will need to be in place to support the sector in offering these opportunities for staff? |

Professional development for e-learning: A framework for the New Zealand tertiary education sector

*Part F A framework for professional development for e-learning*
<table>
<thead>
<tr>
<th>Stage of the Framework</th>
<th>Individuals</th>
<th>Institutions/Departments</th>
<th>Tertiary Sector Organisations</th>
</tr>
</thead>
</table>
|                       | personal professional development goals reflect the time involved in e-learning and PD for e-learning? | Can PD opportunities and assistance be provided on a ‘just-in-time’ basis?  
What resources – physical, financial, personnel and technical need to be provided?  
What training and career structures are available for those who support the development of teachers?  
Do workload models and appraisal processes reflect the time involved in e-learning and PD for e-learning?  
How might teaching and technology be linked within the structure and operation of the institution with regard to the practice of teaching? | |
| Achieving engagement with e-learning | What will I do? | How is staff engagement monitored and their development recognised? | How is institutional engagement and development monitored and recognised? |
| Evaluating the success of PD for e-learning | Was it worth the effort for me and my students?  
How do I know? | Was it evaluated and what are the outcomes of the evaluation?  
How was the uptake and effectiveness of e-learning and PD for e-learning assessed? | What are the lessons learned?  
What improvements may be made for the future? |
<table>
<thead>
<tr>
<th>Stage of the Framework</th>
<th>Individuals</th>
<th>Institutions/Departments</th>
<th>Tertiary Sector Organisations</th>
</tr>
</thead>
</table>
|                        | What have I achieved?  
                       | Where do I go next?    | Was reflective practice on the part of staff encouraged?  
                       |                          | Was a sustainable culture of continual innovation and development built?  
                       |                          | How are the experiences of e-learning as an on-going stimulus to change shared and promoted?  
                       |                          | How are e-learning leaders/innovators recognised and valued?  
                       |                          | Where to next?  
                       |                          | How are the experiences of e-learning as an on-going stimulus to change shared and promoted?  
                       |                          | How are e-learning leaders/innovators recognised and valued?  
                       |                          | Where to next?  

**Part F A framework for professional development for e-learning**
Evaluating the impact of this framework

Audits of e-learning development in tertiary education often emphasise barriers to uptake of e-learning tools and resources and tend to describe slow rates of change across the sector as a whole. Meanwhile, the use of email to support communication in and between our TEOs has become almost ubiquitous, students and teachers use word processors and spreadsheets as a matter of choice, use of online learning management systems is spreading rapidly and a wide range of multimedia is used routinely to support teaching, and learning. The e-learning professional development framework described in this document accepts that each part of the tertiary education sector is making progress in adopting, implementing and evaluating e-learning as part of a broad and ongoing exploration of education. However, the processes involved cannot be successful if only applied to the development of teachers and to the work of academic staff developers Institutions and the sector as a whole must identify needs, incentives and opportunities for professional development. Each part of the whole must engage in e-learning development and in evaluation of what is working and what is not.

The e-learning professional development framework itself does seek change and its impact also needs to be evaluated. As each element of the sector adopts the framework and progressively moves forward from its own particular baseline and evaluates its progress, the sector as a whole will change. An analysis based on targets and performance indicators may not be the best way to monitor this change, which may be slow and variable and will always be difficult to separate from more general developments in education. Oversight from an organisation which is both part of and distinct from the sector is likely to be valuable in assessing the development of the sector and of the e-learning framework. Several possibilities exist but Ako Aotearoa, as a new entity within the tertiary education sector with a developing range of interests and activities, potentially has a unique opportunity to be involved in this evaluative role.

References

Part G  Project findings and framework implementation: Discussion, synthesis and core principles for framework implementation

Professional development for e-learning: A framework for the New Zealand tertiary education sector

Table of Contents

1. SYNTHESIS.................................................................................................................................2

2. OTAGO FINDINGS AND FRAMEWORK IMPLEMENTATION ................................................3
   2.1 PROFESSIONAL DEVELOPMENT FOR E-LEARNING CONCEPTIONS: INDIVIDUALS’ PERSPECTIVES
       ..................................................................................................................................................3
   2.2 PROFESSIONAL DEVELOPMENT FOR E-LEARNING CONCEPTIONS: OTHERS’ PERSPECTIVES ......8

3. MASSEY FINDINGS AND FRAMEWORK IMPLEMENTATION .................................................14
   3.1 EMBEDDING AND IMPLEMENTING E-LEARNING PROFESSIONAL DEVELOPMENT IN
       INSTITUTIONAL CONTEXTS........................................................................................................15
   3.2 BUILDING CAPABILITY THROUGH EVALUATION AND INTERPRETATION OF
       PROFESSIONAL DEVELOPMENT INDIVIDUAL PREFERENCES AND PRACTICE .............18

4. FRAMEWORK IMPLEMENTATION, KEY ISSUES AND CORE PRINCIPLES .........................22

REFERENCES ..................................................................................................................................25
1. Synthesis

The main purpose of this part of the final report is to discuss how the framework for Professional Development described in Part F might be applied or used at the different levels identified namely:

- Institutions
- Departments
- Individuals.

It is clear from both the Otago and the Massey Research that there is a wide diversity of belief, opinion and practice amongst staff, and that these are informed and shaped with and through an equally diverse range of institutional contexts. In addition, e-learning and professional development are not static concepts but subject to continual forces of change and innovation. Consequently it is not possible to identify a particular policy or strategy, a mode of implementation, or prescriptive action which will be entirely appropriate for any given individual or institution. The intention of this synthesis chapter is to reflect on the implications of the findings of the two research projects and to establish some core principles. These core principles are intended to be flexible and open to interpretation by a range of individuals, institutions and sector agencies. They provide a way of using the framework both as a means of assessing current policy and practice and for forward planning purposes.

In setting out the e-learning framework in Part F we explained that the framework was the result of collaboration across two separately funded tertiary e-learning research projects. In preparing this final part of this joint report it is important to emphasise that we are drawing on all the earlier outputs and work conducted by both projects. This work includes:

- The two reviews (see part B and part C). Each review took a different approach and the results led to a far richer appreciation of practice and issues in this area.
- The two research projects (see part D and part E) took rather different research approaches yet substantially support the underlying thinking of the proposed framework.

The Otago research highlights a range of conceptions on what constitutes e-learning and e-learning professional development, including insights into what TEO staff would like to have and in what form. The Massey team’s research emphasises the ways in which conceptions, experiences and practices are shaped in institutional settings, and the factors which both constrain and enable uptake, engagement and implementation of e-learning professional development. E-Learning professional development within institutions is influenced by conceptions of e-learning as highlighted by the Otago research. The way in which e-learning is used, experienced and shaped at the institutional level, and the broader macro level of the tertiary sector is highlighted in the Massey research. The sum result is a rich account of how e-learning and e-learning professional development is shaped by the experiences, beliefs and preferences of a wide range of teachers, managers and support staff in tertiary education organisations. Acknowledging and understanding the voices of tertiary education organisation staff and recognising these are influenced by diverse
institutional contexts is critical if the framework outlined in Part F of this research is to be usefully applied. Though informed by different philosophical perspectives and orientated towards different aspects of e-learning and professional development the Otago and Massey studies are complementary. Together they create a coherent foundation for e-learning and professional development practice in New Zealand's tertiary education organisations and for the implementation of the framework.

2. Otago findings and framework implementation

The Otago study began with an international environmental scan and continued with a new study which focussed upon the conceptions of e-learning and professional redevelopment for e-learning held by teachers and support staff within New Zealand tertiary institutions. The international environmental scan summarised some experiences and outcomes of e-learning professional development programmes from the UK and Australia (Part B) and led to the development of a framework for professional development which was presented in Part F. The new study was the phenomenographic research which served to bring to the project new data from the New Zealand context. The phenomenographic research outcomes were reported in Part E.

The current section will draw on the phenomenographic findings specifically and discuss in some detail possible implications for the implementation of the framework for professional development. The nature of the phenomenographic research of the kind undertaken within this project is such that it has resulted in a set of ideas that individuals, institutions and the sector can reflect upon and take into account when making plans for implementation of e-learning and professional development for e-learning. Thus, it must be noted that the phenomenographic study provides only background information for those interested in professional development for e-learning. In other words, the purpose of this section is to describe how the phenomenographic study outcomes might be used within future plans and actions related to e-learning and professional development for e-learning.

2.1 Professional development for e-learning conceptions: individuals’ perspectives

The phenomenographic research (see Part B) identified a variety of conceptions of e-learning and professional development for e-learning held by teachers, and by those who support teachers in New Zealand’s tertiary education organisations. The value of the research lies primarily in how it serves to inform interpretations of the framework by those who plan for, design, implement and support academic staff development at a variety of levels, in tertiary education organisations.

The nature of phenomenographic research is such that the conceptions discovered describe the variety of ways a phenomenon is viewed. An individual is very unlikely to hold only one conception; rather views are multi-faceted. In addition, individuals can express those views differently depending upon the context they find themselves in and/or the purpose they have for making use of, or interacting with, the
phenomenon under question. Therefore, classification of individuals as holding a single conception, for example, is not an appropriate use of phenomenographic outcomes.

In an effort to make some explicit links between the conceptions discovered in the Otago study and the framework, vignettes of fictional individuals who represent combinations of the conceptions were developed. It then made it possible to consider how the professional development needs of these imaginary individuals may be addressed, in terms of the proposed professional development framework.

This is attempted below for imaginary teaching staff, Chris and Alex, and imaginary support staff, Sam and Les. An imaginary professional development team, Jade, Max, and Jo, is also presented, as one example of how, with insights gained from the phenomenographic study, the framework might be utilised in the design, development and implementation of professional development.

To show the links among the conceptions, the framework and the imaginary characters’ experiences and actions, throughout the following descriptions, references to the categories of conceptions appear in *italics* and in parentheses, while references to the framework appear in **bold**.

Depicting imaginary characters is not a simple and straightforward process. People hold complex notions, have vast amounts of varying experiences and knowledge, live and work in complex environments and deal with many intricate and multi-faceted thinking and doing tasks within their teaching and support roles. Teachers hold their own conceptions of e-learning and professional development for e-learning and carry those into their teaching behaviours and practices and their responses to professional development. This is true of support staff as well, but further, they carry their conceptions into their professional development practices and behaviours as well.

Thus, we do not claim in the descriptions below to present the full gamut of possibilities within the characters we portray. However, the following vignettes have been assembled as a selection of imaginary characters to demonstrate one possible way into the use of the research outputs.

1 Teacher - Chris

*E-Learning*

Chris thinks about how the learning of his students can be supported through the inclusion of a variety of teaching and learning activities in the courses he teaches. He makes use of e-learning technologies where he sees fit, drawing upon them because they are easily available, and assist him to manage his time and communication with students (*E-l Cat C*). The students appear to be comfortable with the inclusion of learning technologies, and the graphical and communication facilities of the technologies provide Chris with the capacity to give students good illustrations of key concepts (*E-l Cat A*). Chris does not highlight e-learning when he talks about his teaching, however. Rather, he describes his students’ learning and their ability to come to grips with the content and process of his discipline as translated through the course he teaches (*E-l Cat C*).
**Professional development for e-learning**

Chris conceptualises professional development for e-learning as collaboration (*PD Cat C*). He sees teaching as a shared activity, including necessary support staff to help provide and maintain the resources he uses and the services he draws upon to communicate with his students. Chris identifies his professional development needs in terms of what he can learn in order to improve student learning, and is only likely to participate in e-learning activities when current situations do not satisfy his aspirations for the good learning for his students. He is interested in new technologies that can serve to provide extensive possibilities for improving the illustrations of the concepts he teaches (*PD-L Cat B*), but no matter what professional development opportunities are available, Chris won’t access them. At times when Chris does identify a need to learn more about e-learning, because of his views about the collaborative nature of teaching and support for teaching, he will benefit from opportunities to work with a wide range of support staff. He may not need extrinsic incentives to engage; he is driven to engage by his inherent need to see achievement in student learning. He is likely, however, to see the need for evaluation (of the effectiveness of his teaching, which includes e-learning) without being prompted. Whether he wishes to contribute to this personal learning to public scrutiny depends on other factors.

2 Teacher - Alex

**E-learning**

Alex sees e-learning entirely as an instrument to achieve flexibility (*E-l Cat D; E-l Cat B*), to enhance communication with students and to provide a means through which to build relationships with her students, especially those who are not on-campus students. She is motivated by her student’s success in their learning. E-learning enables her to make close connections with her students so that she can understand better their learning needs.

**Professional development for e-learning**

For Alex, professional development is an instrument to train her to use e-learning (*PD Cat A*). Alex will clearly identify her needs, will respond positively to opportunities that illustrate the range of possibilities that technologies offer (*PD Cat B*) and train her to use them (*PD Cat A*). Where incentives for Alex to teach flexibly are in place, no further incentives are necessary for Alex to result in her engagement. Alex will evaluate her innovations if prompted to, but mostly is likely to see innovation as part of the job and as a matter of course as a way of achieving her goals of ensuring better communication with her students. She does not tend to see evaluation as integral to her teaching. Rather, Alex sees evaluation as a task that is additional to her teaching.
3 Professional development support staff - Sam

E-learning
Sam, a staff developer who works with teaching staff on teaching and learning topics and issues, sees e-learning as a means to facilitate learning (E-l Cat C), but is profoundly unimpressed with the amount of work and bother it seems to take to ensure smooth running and management of a course that includes e-learning. Sam struggles to use simple tools, such as email, and often talks about e-learning in terms of software and hardware (E-l Cat A). He notices that many of the teachers and students he comes into contact with also do not feel comfortable with e-learning and is suspicious about all the ‘hype’ that discussions about e-learning seem to generate. He genuinely feels that he has given e-learning ‘a go’, has discovered what it is good for, and decided to move forward in his own way, with minimal exploration of ‘the new’. He therefore believes that he has no needs in terms of professional development for e-learning, other than to be left alone to work as he sees fit.

Professional development for e-learning
Sam sees that any professional development should be relevant and purposeful (PD Cat D) for those who take it up, and its ultimate aim should be that of improving students’ learning. Although Sam’s role is to support teachers’ own professional development, Sam sees little place for ‘training’ in the use of technologies/software and hardware, the form he sees most professional development for e-learning taking (PD Cat A). In Sam’s opinion, this type of training should come from a training section of an institution, not from those who are professional developers, and it has minimal relevance to those who wish to teach effectively. While Sam does not discount the existence of e-learning and acknowledges its place in teaching and learning and the possibilities that e-learning can open up (PD Cat B), he believes over-emphasis on e-learning is not conducive to encouraging deep thinking about teaching and learning as a whole. He therefore believes professional development should include e-learning in an integrated way and not as a separate topic or set of issues.

As a result of his views about professional development, professional development for e-learning and e-learning, there are no incentives that will stimulate Sam to engage in any e-learning opportunities that are made available. He will evaluate teaching and learning innovations with little or no prompting, but not with a view to focussing upon e-learning.

4 Professional development support staff - Les

E-learning
Les’s vocation is to support teachers’ uses of e-learning. Les sees e-learning as a wide range of tools and strategies (E-l Cat A) that can support the interaction and communication between and amongst students and their teachers (E-l Cat B), and provide endless possibilities for exciting and worthwhile learning in all sorts of places, times and situations (E-l Cat D).

Professional development for e-learning
For Les, e-learning professional development can open up possibilities for teachers to use them (PD Cat B). Les is on a mission and can see the needs for professional professional development for e-learning: A framework for the New Zealand tertiary education sector
development for herself, as well as the needs of other teaching staff. Opportunities for professional development, including professional development for e-learning, should be taken up by staff, she believes. For example, she has trained as a teacher in tertiary education having taken her institution’s Certificate in Tertiary Teaching. Les was disappointed that no teachers had been on the same certificate programme as she had (they were mostly librarians and other teacher support staff). She was also disappointed that so little e-learning was involved in the certificate, although it did make use of Blackboard. Furthermore, Les is disappointed that so few teachers came to the workshop she arranged on e-learning, as she believed it provided a good opportunity for teachers to engage in learning about some of the e-learning tools and teaching strategies that would set them on their way (PD Cat A, E-l Cat A). For Les, the excitement of using new technologies in a variety of ways to really help students to learn is a big incentive for learning more. She is passionate about passing on her enthusiasm to others through the professional development workshops she offers. Nevertheless, for as long as she has a job she will do her best to convince teachers and her institution that e-learning is the right way to go. Providing convincing evidence through formal evaluation may not be at the forefront of her mind, however, because, for Les, the most enjoyment (and therefore, the most convincing evidence for including e-learning) can be found in implementing ideas and seeing the learning happening.

**Chris, Alex, Sam and Les: their perspectives and the framework**

The following table provides a possible way to apply the framework to Chris, Alex, Sam and Les from a professional development planning perspective. Within each cell, appear a few words to indicate how an institution, a department or an individual might respond in order that professional development plans are matched with the imaginary characters’ perspectives of e-learning and professional development for e-learning. The few notes against the elements of the framework for each imaginary character make reference to their expressed working experiences and beliefs, in the light of the conceptions discovered in the phenomenographic study.

<table>
<thead>
<tr>
<th>Elements of the Framework</th>
<th>Chris</th>
<th>Alex</th>
<th>Sam</th>
<th>Les</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs</td>
<td>Research opportunities</td>
<td>Training and a job</td>
<td>To be left alone to work as he wants to</td>
<td>Teaching opportunities</td>
</tr>
<tr>
<td>Incentives</td>
<td>Institution values innovation</td>
<td>Required to use e-learning</td>
<td>No reasonable incentives will work</td>
<td>None necessary</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Collaboration and support</td>
<td>Workshops, one-to-one, IT helpdesk</td>
<td>None necessary</td>
<td>Workshops, one-to-one, IT helpdesk</td>
</tr>
<tr>
<td>Engagement</td>
<td>Institution values research into teaching</td>
<td>As a matter of course</td>
<td>No chance</td>
<td>As a matter of course</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Institution values evaluation into teaching</td>
<td>Required to evaluate</td>
<td>Why bother?</td>
<td>Required to evaluate</td>
</tr>
</tbody>
</table>
2.2 Professional development for e-learning conceptions: others’ perspectives

When matched against the perspectives, viewpoints and conceptions held by a party other than the imaginary individuals, how the framework ‘plays out’ for each of the imaginary characters may very well be different. For example, an individual’s self reported preference or need for one type of professional development over another may stem from a limited knowledge of the variety of professional development approaches available or simply reflect experiences from the past. What is viewed as opportunities for professional development approaches and types to meet the variety of needs can vary according to knowledge that individuals have of what is available or possible, resources, and the nature of the context. Similarly, incentives vary as do ways in which individuals engage, often being a factor related strongly to the availability of resources, including time. Views about the place and worth of evaluation, how it can demonstrate good teaching and contribute to the development of oneself as a teacher, is understand in different ways by different individuals/departments/institutions.

The imaginary teaching and support staff presented in the vignettes above do provide examples of one set of perspectives derived essentially from the application of the e-learning professional development framework at the level of individuals. The table above focusses, for example, on needs identified by individuals. Another set of perspectives that are just as legitimate as these individuals’ perspectives will come from those with the responsibility of enhancing teaching and learning, specifically e-learning, at an institutional or policy level through large scale, longer term projects in order to achieve broad goals.

To illustrate how the outputs from the phenomenographic research may help to inform the decisions about professional development from the perspective of a professional development team engaged in planning and implementing a strategic plan for professional development for e-learning, another imaginary set of characters is presented. This time a small team is described.

Vignette of a team of professional developers

Jade, Max and Jo form the core professional development group charged with establishing a professional development programme for e-learning for their institution.

They all have lots of experience as teachers and as teachers who have incorporated e-learning into their courses. Each has some professional development experience. Their current roles include the design, development and implementation of professional development programmes for all teaching staff at their institution. They have been included at the institutional level, because of their expertise and ability to provide advice about how to articulate the institution’s goals for e-learning and providing advice about staff change and development. They are therefore committed to helping the institution achieve its goals for e-learning.
They are also very committed to the staff, and because they are experienced professional developers they are aware of the variety of staff and their likes, needs wants and dislikes. They run a variety of professional development programmes/opportunities for staff at their institution that attend to individual needs (e.g., one-to-one consultancies) and group needs (e.g., formal centralised workshops, departmental workshops designed around departmental needs, facilitation of working groups on curriculum design development and evaluation). They also design and develop teaching and learning professional development resources for staff, both online and paper based. As learning and teaching specialists, they are convinced that learning happens when learners are engaged and take an active role in their learning. In this regard they do not see staff as any different from students. From this team’s perspective, professional development experiences need to engage staff. They are interested in providing well-founded evidence of the effectiveness or otherwise of e-learning innovations and therefore naturally encourage evaluation, reflection and reporting on developments at a number of levels. They encourage teachers to do the same. Simultaneously, the team is aware that there is a variety of motivations to engage in e-learning and professional development for e-learning. For some staff the incentives are personal and related very closely to their students. For others, it is research or opportunities to make contact with the broader community of teaching and learning that is the incentive. For still others, it is the reward gained through demonstration of high quality teaching, and hence the possibility of promotion and recognition of good practice that is the incentive. Finally, the team also accepts that there are staff who are simply not interested in teaching development, or more specifically, not interested in e-learning development.

While as individuals within the team, each may hold conceptions of e-learning and professional development for e-learning that are unique to him or herself, in general they are in agreement about the place and worth of e-learning: that it can enhance learning and teaching; and that it can aid communication and connection among students and teachers. They are very aware of the amount of work that e-learning generates for teachers, especially when teachers are in the beginning throes of coming to grips with hardware and software and new ways of thinking about teaching. They can be sceptical of the support that the institution provides for its staff, but mostly attempt to work within the limitations of provision and bureaucracy, because if they did not, very little would be achieved.

For this team, the phenomenographic research provides insights into the variety of conceptions held by staff. The research does no more than to provide the variety of those conceptions, but it thus provides some confirmation for the team of how staff could be viewing e-learning and e-learning professional development.

While the role of the academic staff developer/professional developer may be contentious (e.g., Manathunga, 2007; Webb, 1996) and not necessarily the same across institutions (and not in existence in many!), working from an assumption that staff/professional development is a form of teaching and learning, it can be suggested that there is a legitimate place for some kind of “diagnosis’ of learning needs to occur in any development interaction. By “diagnosis” we mean that the staff developer, through processes of review and consultation, is often in a position to be able to recommend a variety of learning paths that individuals and groups may not be able to

Part G – Project findings and framework implementation: Discussion, synthesis and core principles for framework implementation
recognise immediately. (The way a staff developer goes about making such recommendations, in recognition of appropriate teaching and learning/staff development principles, would not be to impose activities that should be undertaken, but to bring individuals and groups to a point of being able to recognise new learning paths for themselves.) This notion of diagnosis can be seen to be embedded in many of the orientations to the staff development role as described by Land (2001). It is not about telling people what they should do, or taking steps to remediate. It is about opening up opportunities for staff to explore new and possible ways of viewing and understanding e-learning and teaching.

In the light of this assumption about the diagnostic element that can be an inherent part of any staff/professional development process or interaction, the following provides an example of how, in working with the four imaginary characters described earlier, the imaginary professional development team could respond. For each of the imaginary characters, possible opportunities for learning are suggested in the dot points that follow.

Note that we have not included any description of how the perspectives of the professional development team might be shared with the imaginary staff members. This overview is simply to highlight some reflections, and implications for the use of the phenomenographic outcomes in the light of the framework from the perspectives of professional development.

**Sam**

Sam claims that he has no professional development needs. However, it could be argued that, in his support role, he has not taken into account the variations in the way others view e-learning and professional development for e-learning and his one approach to focusing only on learning and not providing support on a more specific level in terms of the technical and pedagogical aspects of the use and integration of e-learning, may result in teachers who work with him failing to see the relevance, purpose, worth and potential of any aspects of e-learning. Sam’s professional development needs, as assessed by a party other than himself may include, therefore, his engagement with the learning needs of teachers who are involved in developing their teaching, with specific reference to e-learning, how teacher professional development and learning occurs and what sorts of professional development for e-learning teachers do need in order that they are able to develop. Incentives that may be required for Sam to engage with e-learning in a different way than he has in the past, may include active involvement in planning for professional development and other kinds of support for teaching staff, alongside colleagues who hold conceptions of e-learning that are more aligned with the institution’s goals; or the inclusion of specific targets set for Sam’s development within his annual review and goal setting plans.

Summary of professional development opportunities for Sam, which he may not have identified for himself, may include:

- A course on teacher professional development, teacher learning and ‘diagnosis’ of teacher e-learning needs;
- Opportunities for reflection on how e-learning changes the teaching/learning situation and the whole learning environment;
• Collaborating with other support staff on professional development support for teaching staff as a way of learning from others how they view e-learning and e-learning professional development;

• Targets for Sam’s own professional development in e-learning that are built into his annual review and goal session plans.

**Chris**

Consultation with Chris may elicit that he is not using some of the software he has incorporated into this teaching in the most advantageous way; that his current practices are actually increasing his workload and that he could be operating in a much more efficient manner. He may also have no knowledge of a new product supporting e-learning, just on the market, that may help him to achieve a graphical quality to the illustrations he uses that far outshines the quality of his current illustrations. For Chris, one professional development need therefore that he had not identified for himself may be the need to learn more about the software and hardware that is available. The professional development process for undertaking the necessary learning may involve a variety of approaches. However, for Chris, knowing that he is more likely to think about the learning of his students and the opportunities his teaching may present for research and investigation, a brief workshop or opportunity to work one-to-one with a member of support staff may be all the ‘training’ he needs to get him up to speed with the technology. He will then benefit from having time and space to experiment with its use and plan an investigation that will provide a well-founded evaluation of the worth of the new product in terms of student learning. As he is planning for his teaching and experimenting with ideas, because Chris sees teaching as a collaborative exercise, he tends to chat with colleagues about how they may be using the technology, or, as questions arise, he often calls on help desk answers to technical questions and instructional designer expertise to help him think through the pedagogical use of the technology.

Summary of professional development opportunities for Chris, which he may not have identified for himself, may include:

• consultation with a professional developer;

• a workshop on the technical aspects of the new software;

• time to plan implement and evaluate a small research project;

• access to learning technology specialists - help desk and instructional designer to provide ‘just in time’ answers to queries;

• access to colleagues who have used or are in the process of planning for the use of the new technology.

**Les**

For Les, who is so enthusiastic about e-learning and about sharing her knowledge with other teachers through formal courses and workshops, it may be appropriate for her to be made aware of the variety of activities other than workshops that are also professional development activities. Though Les has completed her Certificate in Tertiary Teaching and is well versed in reflective practice, she may be encouraged to begin to view the teachers she works with as learners as well and she should be introduced to the notion about reflecting upon her own actions as professional developer and the influence her actions can have on staff development and learning. Included in that exploration, the place and value of evaluation could be highlighted
and she could be assisted to embed evaluation strategies within her professional development work as a matter of course.

Summary of professional development opportunities for Les, which she may not have identified for herself, may include:

- working in collaboration with other more experience professional developers to plan programmes that are broader than just workshops;
- engagement in discussion with colleagues on topics such as reflection and evaluation;
- opportunities to work in departments with teachers as they design, develop and evaluate their teaching;
- processes and routines within Les’s department that include evaluation and reflection as a matter of course.

Alex

Alex is generally content with the situation in which she works, and is happy to follow the direction set by her institution. For her, evaluation has not been seen as something of importance and learning about how to go about evaluation of e-learning may be a way for her to reflect more deeply about her teaching, her students’ learning and why making connection with students’ understandings is such an important thing for teachers to be able to do. Through reflection and evaluation may come deeper insights into how and why she is doing what she is doing and enable her to contribute better, not only to her own students’ learning, but to her colleagues’ understandings as well, through sharing her learning with them.

Summary of professional development opportunities for Alex, which she may not have identified for herself, may include:

- consultation with a professional developer;
- a course on teaching, learning, assessment and evaluation and the place of e-learning within teaching and learning in tertiary settings;
- processes and routines within Alex’s department that include evaluation and reflection as a matter of course.

This team-based vignette naturally emphasises the needs of the institution over the needs of the individuals, as identified by the individuals themselves. This imaginary institution has clear goals that anticipate that all of its teachers will embrace e-learning and its e-learning professional development team has been dispatched to identify opportunities for its staff. This team has been instructed, probably as a last resort, to suggest that targets be built for some staff in their annual review and goal session plans. There is clearly no room for diversity or dissent amongst these teachers or within this team of professional developers on this matter. Sam, as a professional developer himself, is particularly vulnerable in this respect; note how possible targets for Sam’s own professional development have been recorded here as opportunities, not as obligations, but their obligatory nature will no doubt be revealed if he fails to meet his allotted targets. Of course, in this imaginary institution academic colleagues in other departments may also be waiting for the e-learning professional development team to arrive, but may not be looking forward to it.
Alternatives to this institutional-wide application of unitary policy do exist. An institution that cherishes diversity of teaching approach has no need for such tactics. Institutions can develop learning and teaching strategies that seek to constantly research the possibilities offered by new technologies and to progressively adopt those that its teachers learn to respect. Such a strategy could itself respect variation in the needs of its teachers, as identified by them, and provide appropriately varied opportunities and incentives to encourage them to engage with e-learning. Notions of team-teaching do not require all teachers to acquire the same skills, but enable different teachers to contribute in different ways. If our imaginary institution addresses its own aspirations for e-learning in this way, and chooses to focus on some balance between its needs and those expressed by its most valuable resource, its staff, a different future exists. Chris and Alex work together, with a wide range of other teachers, to run innovative and varied learning opportunities for the Institution's students. Sam is invited to work with Jade, Max and Jo to develop varied and innovative programmes of professional development for e-learning that succeed in attracting academic colleagues voluntarily, without resorting to the 'opportunities' of targets in their annual appraisals. (Many thought that if Sam was involved in running them, they must be OK and would not force them into using teaching approaches that they were uncomfortable with). This alternative institutional approach almost certainly involves the development of a learning and teaching strategy that is integrated with an academic promotion policy so that the institution can demonstrate that it values, and rewards innovation, evaluation and research into teaching. And it is almost certainly also integrated with an institutional human resources policy that ensures sufficient support is provided to teachers. Most of all this institution has an E-learning Strategy fully integrated with its Learning and Teaching Strategy so that developments in e-learning are never isolated from an ongoing exploration of how to improve student learning.

And what of Les? The institution's learning and teaching strategy rejects all notions of innovation and development without evaluation. As new technologies emerge and are incorporated into teaching programmes, their fitness for purpose is constantly questioned and tested and compared with the more traditional approaches with which they coexist. As they are adapted and re-tested the professional skills of the institution's teachers are constantly challenged. Les has found a new role in ensuring that the skills-base of teaching teams is sufficiently broad to cope with the diversity of teaching provided, and in helping these teams to research their teaching practice.

And what of the students in this imaginary institution? They have come to cherish the diversity of teaching approach and the impact that this has on the knowledge, skills, and values that they develop whilst in tertiary education. They certainly learn IT skills in some classes. Some assignments require them to work collaboratively online. They become confident self-directed learners as their information literacy skills develop. But they also learn how to listen and take notes in lectures. They learn the skills of debate and discussion in tutorials. They learn research approaches in enquiry-based learning classes. They learn professional and practical skills in the workplace. They interact with teachers, tutors and postgraduate students, co-workers and trainers to develop robust notions of role models. Should tertiary education be other than this?
3. Massey findings and framework implementation

While the Otago findings and vignettes have focussed on individual conceptions, the Massey Study has looked specifically to understand how conceptions might be shaped and explained in institutional settings. The Ministry of Education contracted the Massey University team to explore a range of factors related to professional development and e-learning in tertiary education organisations. This discussion provides a synopsis of the key findings of the research listed in Part E of this report (and highlighted in this section in italics) and considers how these might be used to inform e-learning professional development policy and practice. These findings, in combination with the Otago research form the basis of the core principles in Part F as a means of assisting institutions in implementing and interpreting the jointly developed Framework.

The Massey Literature Review (Part C), like the International Environmental Scan (Part B) outlined an array of studies which identify tools and materials that can be used by New Zealand tertiary education organisations to support their teaching staff to inform current e-learning professional development practices. The Massey review outlined the wider context of change in the New Zealand tertiary sector in relation to e-learning, and noted the usefulness of Marshall’s e-learning maturity model (Marshall, 2005) and the ACODE (2006) Benchmarks for assessing current capability. Though outlining a number of specific initiatives the Massey literature review sought to examine the range of factors which constrain, enable and promote sectoral, institutional and individual improvements in e-learning capability through engagement in e-learning professional development. The literature suggested that vision for e-learning and planned intentionality was important with regard to e-learning professional development and that a comprehensive institutional approach is required for both policy development and implementation. The review also suggested practical ways in which engagement might be encouraged by institutions and outlined the factors believed to affect uptake and involvement of staff in e-learning professional development. It also reviewed the literature on best practice in e-learning professional development and the characteristics of effective professional development.

An online survey and semi-structured interviews were undertaken to explore beliefs, preferences, experiences and practices of staff in relation to e-learning and professional development. The key findings which emerged from participants’ responses and narratives are listed in the discussion which follows. These findings are directly related to framework categories (e.g. about need, opportunity, or incentive etc) although they are not exclusive to individual categories. For example how best to address issues of high workloads and time which limit engagement in e-learning can be a matter of identifying need (deciding to make e-learning and e-learning professional development a central workplace activity); providing incentives (work time release, e-learning professional development as part of promotion and appraisal structures); creating opportunities (by setting aside institutional time for workshops or on-line networking); promoting engagement (through changing teaching/research workload balance, altering work cultures) and evaluation (through monitoring staff workloads, and assessing investment of time in professional development). These linkages are made more explicitly in section 4 below where core principles derived
from the findings are linked to framework stages. The more holistic view implied by the findings and framework is also likely to lead to professional development which is less focussed on individual skills which differ significantly, and more orientated toward improving capability whatever the ‘level’ or extent of engagement in e-learning. When attention is focussed on addressing all the differing stages of the framework (identifying the need for professional development, finding incentives, achieving engagement and evaluating success) then the accompanying professional development will both be a reflection of and responsive to the needs of the institution in which it is based.

3.1 Embedding and implementing e-learning professional development in institutional contexts

The Massey research has indicated that it is essential to embed e-learning and its associated professional development within the structure and culture of institutions. Alignment of policy and practice, co-ordination of staff and structures supporting and implementing e-learning professional development, transparency and communication of policy and practices and a vision for e-learning are all essential for effective implementation and uptake of e-learning professional development. Embedding and implementing professional development must include consideration of all framework levels, which include identification of needs, finding appropriate incentives, providing appropriate opportunities, achieving engagement and evaluating the success of professional development for e-learning. In the discussion which follows the central findings of the Massey research are presented in italics:

The distinctive characteristics of institutions and the contexts in which they are located are critical to the development and implementation of policies and practices for e-learning and professional development.

The key finding of the Massey research is the diversity of contextualised experience and institutional context, and hence the need for institutions themselves to determine, and make clear their objectives and actions for engagement in both e-learning and professional development. Given the different definitions of e-learning coupled with the various staff perceptions of it, variance in individual needs and skill levels, rapid technological change, and the variety of e-learning tools and activities which might be most suitable for particular teaching contexts it is impossible to specify the particular package of skills staff need in order to adopt e-learning. As capabilities are likely to be substantially altered as both technology and e-learning pedagogy and practice evolves it would be misleading and inappropriate to recommend a core skill set. There cannot be a ‘one size fits all approach’ to baseline capabilities as staff and institutions are not homogenous groups.

It is, however, possible to emphasise the kinds of strategies and measures that might support improvements in capabilities. These strategies attend to the other aims of the research. These are directed toward reflecting on the implementation requirements needed for adoption of e-learning professional development and to consider the sorts of embedding process which will support teaching staff and contribute to continued
improvement in e-learning professional development capability in New Zealand tertiary education organisations:

Effective e-learning professional development involves addressing institutional and staff attitudes and beliefs as well as addressing the existence of structures and mechanisms.

Institutional commitment to effective professional development in e-learning involves attention to attitudes and beliefs as well as structures and mechanisms. The research revealed that the provision of opportunities for professional development, support structures, and awareness by staff of these opportunities was not in-itself sufficient for achieving engagement. A commitment to effective e-learning professional development involves addressing differing attitudes and beliefs and institutional cultures surrounding research, learning and teaching as well as attention to policy, infrastructure and processes.

Clarity around institutional expectations for and about e-learning and its role in teaching and learning assists staff in making informed decisions about engagement in professional development.

Interview participants were often unsure about institutional policy with regard to e-learning and e-learning professional development along with the kinds of resourcing and support available to engage in it. Confusion over what e-learning was, expectations for involvement and where to get assistance were also sources of frustration for some staff. In addition, staff beliefs about the role and purpose of e-learning, its merits and what professional development could offer them impacted on their decisions to engage. Clearly communicated expectations for and about e-learning and professional development and its role in teaching and learning and institutional structures appears to assist with individuals’ identification of a need for e-learning professional development and to encourage their engagement in it.

Alignment, co-ordination and transparency of pedagogical and technological support and of institutional structures is important for developing capability in e-learning.

The research suggests that attention to the integration of pedagogy and technology in e-learning professional development is a key to improving capability. Capability that is orientated around an individual’s agency in e-learning can be amplified and motivated through professional development which is integrated, aligned, supported and resourced institutionally. The alignment, co-ordination and transparency of pedagogical and technological support and of institutional structures provides clarity for staff and promotes staff awareness of appropriate opportunities and assistance. It also has potential for increasing engagement through linking teaching practice to e-technologies and through demonstrating the value and application of e-learning and associated professional development.

Financial and technological resourcing and support is necessary to promote good management, leadership and staff engagement.

Staff suggested financial provision for e-learning professional development, including time-release; course and conference attendance and funding for technology and...
support would facilitate engagement in e-learning professional development. It would also go a long way to creating a culture which supports the development of new e-learning opportunities, forms of professional development and the development of e-learning leaders. A lack of financial support for teaching release, conferences etc frustrated some managers who wanted their staff to actively engage in e-learning but recognised they were unable to provide incentives. Instead the managers relied on intrinsic motivators and rewards and the consequent involvement of those staff who were personally motivated to engage in e-learning professional development.

Institutional engagement requires involvement from relevant stakeholders – provision and awareness of opportunities may not be sufficient

Focussing on the institutional context in which staff engaged in e-learning professional development, enabled the Massey team to reflect on different institutional actors whose beliefs and practices need to be incorporated in order to provide incentives and opportunities for engagement by teaching staff. Involvement and commitment of support staff, professional developers, ICT experts, and managers at a variety of institutional levels was seen as important for supporting and encouraging continued staff involvement particularly as involvement in e-learning requires staff to prioritise time. As mentioned earlier attitudinal commitments and support may be as important as infrastructural and organisation measures to support e-learning and e-learning professional development, suggesting that institutions should have a demonstrated commitment to involving all stakeholders in the development of a culture which values e-learning and related professional development.

High workload and time constraints limit engagement in e-learning and professional development

Both the online survey and the semi-structured interviews highlighted time as a major constraint on involvement in e-learning and e-learning professional development. Often it was associated more with issues of prioritisation than available time. E-learning professional development tended to be low on the list of priorities if this was not the staff’s area of academic engagement. The pressure to obtain research outputs, cope with existing teaching loads and undertake required administration often meant e-learning professional development was afforded a lower priority. A number of staff felt that the research expectations placed upon them by their institution and direct-line managers as a consequence of the PBRF meant that their research rather than their teaching involvement was what the institution valued and recognised. Staff cited evidence of this in relation to current appraisal and promotion structures which they believed favoured research. In addition, as stated previously, e-learning was seen by some as an addition or alternative to face to face or distance learning, rather than as an integral part of teaching and learning. Addressing these wider contextual factors may encourage staff to take up opportunities for e-learning, promoting engagement in e-learning professional development and improving baseline capabilities.
3.2 Building capability through evaluation and interpretation of professional development individual preferences and practice

The exploration of professional development experiences, practices, beliefs has helped to identify the needs and priorities for e-learning professional development to support their teaching staff. The previous section has highlighted the importance of commitment to, and clarity and co-ordination of policy and strategy, staff and infrastructure, resources and support, implementation. However engagement and evaluation of e-learning professional development opportunities should also include assessments of staff capabilities, experiences, views and priorities. This ‘top down’, ‘bottom-up’ integration should mean strategies and priorities are more responsive and perhaps ultimately more proactive as staff initiatives and innovations are recognised and their ideas and feedback begin to inform future e-learning directions. Embedding e-learning therefore is not simply a matter of getting the structures, or institutional rhetoric right, it is about engagement with key stakeholders (including students whose views are not represented here) and addressing commonalities of interests and competing claims and attitudes.

There are multiple and diverse journeys of e-learning. Assessing the professional development needs, capabilities, and desires of staff and recognising that these will change over time is consequently important.

The survey and interview analysis demonstrates staff have a wide range of e-learning experiences and preferences and e-learning trajectories. Nevertheless it was possible to identify some commonalities of e-learning journeys. Staff that had recently been involved in e-learning attending professional development courses dealing with basic e-learning competencies utilised more informal and self-directed forms of professional development as self-efficacy increased. The diversity of experiences and forms of engagement, the varied preferences for forms of professional development are likely reflect the different beliefs, learning orientations, disciplinary bases and past learning of staff. As needs change over time, evaluations of staffs’ professional development needs and preferences on an ongoing basis is necessary to inform the continual development of institutional policy and practice, and to ensure staff involvement and engagement in e-learning professional development strategy and the opportunities which are derived from it.

Conceptions about e-learning and professional appear to be important in influencing both initial and continued involvement in professional development

The Otago research explored staff conceptions and the significance of these in depth. Interviews with staff as part of the Massey research confirmed that conceptions of e-learning and of e-learning professional development were important in influencing uptake and continued involvement in e-learning professional development opportunities, especially when it comes to staff being involved in e-learning professional development. Beliefs about what e-learning was, how it sat in relation to other teaching modes, its merits and pitfalls, and of the value and usefulness of e-learning professional development (particularly formal opportunities) did appear to play a significant role in uptake and engagement in e-learning and e-learning
professional development. Though the accuracy of some of the assumptions about e-learning and professional development might be questioned, conceptions, beliefs and attitudes were powerful motivators or inhibitors of engagement. Institutional recognition of these conceptions, beliefs and assumptions and debate around these is likely to promote more informed decisions around engagement and need.

The characteristics of effective professional development as identified by staff:
- individualised
- relevant
- situated
- involves learning with/or from others
- flexible
- readily available pedagogical and technical support for learning
- exposure to ideas and examples of good practice
- interaction in small groups or learning communities

The interview findings confirmed those aspects of effective professional development identified in the Massey literature. These characteristics provide a basis for the implementation of formal e-learning opportunities, but also appeared to be characteristic of the informal and spontaneous activities which constitute the majority of e-learning professional development for staff. Professional development which possesses these characteristics tended to be viewed as more effective (even if staff could not say why) and also appeared to promote ongoing engagement in e-learning professional development.

While it is possible to list the characteristics of activities staff believe are effective, evaluating how and why this is so, and what outcomes are likely to result is in need of further research.

While interview staff could comment at length on what worked well with regard to professional development they were less able to articulate why this was so, and to what effect. If institutions are to encourage informal forms of professional development and to evaluate the success of professional development for e-learning as part of implementing the framework outlined in Part F of this report, then knowing how and why engagement in different forms of professional development are effective would be of value. Consequently the development of a mechanism to assess effectiveness which is based around more than self-reported outcomes is in need of further research.

A commonly stated reason for why professional development worked well was the establishment and maintenance of social (interpersonal) relationships with others.

Participants stressed it was the relational aspect of both formal and informal e-learning professional development that was helpful for their learning. Establishing and maintaining interpersonal relationships in and across institutions whereby staff can share experiences, learn from others and ask questions in a supportive context appears to be important. Even in formal courses, continued professional development was often based around relationships established with trainers and facilitators,
suggesting that approachability and enthusiasm of professional developers and e-learning facilitators may be as important as instructional and technological expertise.

Informal forms of professional development are both popular and seen as effective. It is important to understand why, and to consider how institutions might facilitate and encourage this activity. Nevertheless formal professional development is still warranted.

That informal professional development constituted such a significant part of both survey and interview participants’ professional development indicates further research is necessary in order to establish why and how this is seen as effective. It also suggests that institutions may benefit from exploring how staff development policies, structures and training might support and enhance informal and largely spontaneous activity. However interviews and expressed preferences of staff in the survey suggest there is still a necessary role for formal professional development opportunities which should incorporate the characteristics of effective professional development listed previously.

For most, e-learning is about good teaching and learning practices, and the application of e-technology in disciplinary contexts. Staff desire professional development which combines these attributes.

The majority of interview participants stressed a view of e-learning, and of e-learning professional development which involved the integration of pedagogy and technology. Staff wanted professional development which involved the interrelationship between pedagogy and technology, focussing on how this could be applied in real teaching contexts and which linked to and/or was situated within the discipline in which they were based. Professional development which integrates the two, whether in formal or informal activities was viewed as productive and helpful - a means of facilitating staff development and capability and producing better outcomes for students.

Achieving engagement: Professional development has a positive role in overcoming anxieties and scepticism and in motivating individuals

For many staff new to e-learning or reluctantly involved in e-learning, professional development had a role in overcoming fears around coping with technology, anxieties about time involved and scepticism about the value and role of e-learning. An improvement in self-efficacy was expressed by staff after involvement in formal professional development activity but was especially evident with descriptions of the benefit of informal forms of professional development activity, suggesting initial engagement in and experiences of e-learning professional development may impact on continuing professional development and e-learning involvement.

The conceptualisation and institutionalisation of e-learning as a non-core or additional work activity can lead to a lack of prioritisation and engagement by staff.

During interviews staff often referred to the way in which costs and benefits of engaging in e-learning and e-learning professional development were weighed in relation to other work-place priorities. Many staff across all institutions (but
particularly evident in the two universities) expressed the current tertiary environment valued, rewarded and prioritised research over teaching. Consequently e-learning professional development was not accorded a high priority in relation to work-time tasks. This was further complicated in that some staff viewed e-learning as an alternative rather than integral part of learning and teaching, and consequently as a less significant activity. If institutions identify a need for engagement with e-learning as part of their key activities, then a demonstrated commitment to embedding and promoting e-learning as an integral part of teaching and learning, and as a worthwhile and important work-time activity (underpinned by support structures and appropriate resourcing and incentives) could result in greater identification of the need for, prioritisations of, and engagement in e-learning by teachers.
4. Framework implementation, key issues and core principles

The phenomenological perspective taken by the Otago team has produced important insights into the how e-learning and professional development is conceptualised by individuals and what this might mean for institutions when reflecting on the extent, direction and form of professional development. The Massey research informed by post-structural political economy approaches has extended these reflections noting how conceptions, experiences and practices are produced in social and structural contexts. In combination these studies have produced the framework outlined in Part F of this report, a framework which focuses on individual, institution or sector level and which is directed at each of levels towards identification of needs, incentives, opportunities, engagement and evaluation. The framework provides a basis for evaluating current practice and for building sectoral, institutional and individual capability. It also provides a foundation for organisations to better integrate e-learning and associated professional development structurally and culturally.

Otago’s research has shown by use of vignettes the sorts of factors which might be considered in relation to provision of e-learning professional development for individuals in relation to the framework dimensions. The Massey findings point to the significant impact of an institution's culture, and of macro-environmental influences such as government policy and funding arrangements. These have profound effects on the way in which an institution views a particular phenomenon or shapes its core business. At a more micro-level the strategies that an institution employs, which are shaped in relation to the macro influences, has an impact on the conceptions that people hold about e-learning and professional development. The Massey research highlights the complex environment in which conceptions of e-learning and professional development exist and how a range of cultural and structural factors are likely to affect peoples’ conceptions of the concept. For example, a person who believes that the institution undervalues teaching and learning (of which e-learning is a part of) is likely to have a rather negative conception of e-learning as an institutionally supported concept. Another individual may believe that e-learning has the potential to be extremely effective in breaking down distance between staff and students, yet their conception of e-learning may not be supported by the institution.

Simply, a person's conceptions and actions are informed by and productive of the context in which they are situated. As contexts, the various organisational levels identified in the framework influence each other. For example, the instigation of e-learning in New Zealand tertiary education organisations in the 1990s was not required or directed by national political-economic policy at the time, yet in the early 2000s that government policy makers began to intervene and promote e-learning at least in part, as a result of the movements in the institutional context. The formation of the Tertiary E-learning Reference Group (TELRG), and various funding and research opportunities in turn became a source of information, involvement and influence for tertiary education organisations.

The evolution of e-learning within tertiary institutions has had a variety of drivers. The increasing availability of hardware and useful software, the expectations of the
students, the high level of interest and enthusiasm of the earlier adopters within the academic community, the perceptions of institutional managers that e-learning was ‘the next big thing’, and the undoubted successes of many initiatives have all contributed to the growth of e-learning within tertiary education organisations.

Against this background and underpinned by the conceptions of staff, institutions have had to engage with e-learning and to endeavour to meet the challenges of a dynamic and fluid situation. Professional development has been one of the key levers in this environment. However, many institutions have found that providing appropriate professional development has been a challenging business. This research sheds light on why this is so. The research has, unsurprisingly, reinforced what the wider professional development literature tells us about professional development – that the most effective professional development initiatives are context-specific and embedded within an institution’s policies, practices, and culture (Butterfield, Prebble, et al., 2002). More significantly, the findings strongly suggest that there is not a ‘one size fits all’ model for professional development in e-learning, and that flexibility and institutional autonomy is important. It is suggested here that on the evidence of this investigation, staff engagement in professional development for e-learning is not yet matching the aspirations of staff, institutions and stakeholders in the wider tertiary sector with respect to delivering a key goal of the Interim Tertiary Strategy where it states:

*e-Learning has a vital role to play in strengthening New Zealand’s tertiary education system and helping it to better meet the needs of learners. (Ministry of Education 2004, p4)*

The key findings of the Massey research (noted in sections 3.1 and 3.2 in italics) can be stated as a series of key principles which underpin and highlight factors contributing to effective professional development in e-learning within an institutional context. While these principles do not comprise a formal framework, acknowledgement and attention to them in the development an institution’s e-learning professional development policies, practices, and structures will contribute significantly to the interpretation of the professional development framework outlined in Part F of this report. In this process it is important to realise that as well as the key principles, there are a significant number of tools available that will assist and enable the development of an appropriate contextualised institutional framework. These tools include the ACODE Benchmarks (2006), the eMaturity Model (Marshall, 2005), the Effective Practice Exemplars (Ministry of Education website), the e-learning Guidelines (Milne and Dimmock, 2005), the (soon to be completed) eResources Project (Prebble, Higgins and Suddaby), and the ACODE e-learning Benchmarking process.

The research has clearly demonstrated that staff conceptions of e-learning and their level of engagement and expertise as e-teachers is not generated in a vacuum and that context is a critical factor in guiding and shaping the development of staff capability and their attitudes towards e-learning. The findings of this research add to the tools available to institutions through the principles which institutions might employ to raise the standards of e-teaching and e-learning through an effective and relevant professional development strategy and programme for e-learning – one which involves engaging with the conceptions, preferences and practices of staff. While
these principles are aimed primarily at facilitating change at the institutional level of the Framework, they may be relevant for the wider sector level decisions too. In addition, if an institution decides to apply these principles they should contribute to an environment which involves staff and is encouraging and/or facilitative of their engagement. The table below presents those principles. The shaded cells show where they integrate with the elements of the framework.

<table>
<thead>
<tr>
<th>Key Principles</th>
<th>Needs</th>
<th>Incentives</th>
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<td>Institutions should recognise the distinctiveness of their own contexts when developing and implementing policies and practices for professional development in e-learning</td>
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<td>Alignment, co-ordination and transparency of pedagogical and technological support through institutional structures is vital for developing capability in e-learning</td>
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<td>Institutions should promote and support effective leadership and management in e-learning through the provision of financial and technological resourcing</td>
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<td>Continuous development of institutional e-learning policy and practice needs to be informed by the ongoing evaluation of staff’s professional development needs and preferences</td>
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<td>Formal institutionally-based professional development is important and needs to recognise that effective professional development should be;</td>
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<td>• Involve learning with/or from others</td>
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<td>• Interactive through small groups and/or learning communities</td>
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<td>Institutions should recognise the importance and effectiveness of informal professional development in e-learning and address ways in which staff development policies, structures and personnel support and enhance this</td>
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<td>Effective professional development in e-learning involves the interrelationship between pedagogy, technology, and the discipline</td>
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<td>Commitment to involving all stakeholders in the development of a culture which values e-learning and related professional development must be demonstrated</td>
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<td>Institutions should identify, promote, and demonstrate commitment to e-learning as a key activity if they want to ensure that it is prioritised by staff</td>
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<td>The workload and time implications for staff of engagement in e-learning and e-learning professional development must be recognised</td>
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Professional development for e-learning: A framework for the New Zealand tertiary education sector

Part G – Project findings and framework implementation: Discussion, synthesis and core principles for framework implementation
Staff have a variety of conceptions of e-learning opportunities for dialogue and debate about these need to be provided.

Institutions developing leadership and staff engagement with e-learning professional development should recognise and value e-learning as an integral part of good teaching practice.

Institutions should recognise the positive role that e-learning professional development plays in overcoming staff anxiety and scepticism about e-learning.

Institutions should recognise the importance of inter-personal relationships in design and delivery of e-learning professional development.

Institutions should actively engage in researching and evaluating their e-learning professional development practice.

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<td>Staff have a variety of conceptions of e-learning opportunities for dialogue and debate about these need to be provided</td>
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<td>Institutions developing leadership and staff engagement with e-learning professional development should recognise and value e-learning as an integral part of good teaching practice</td>
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<td>Institutions should recognise the positive role that e-learning professional development plays in overcoming staff anxiety and scepticism about e-learning</td>
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<tr>
<td>Institutions should recognise the importance of inter-personal relationships in design and delivery of e-learning professional development</td>
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<tr>
<td>Institutions should actively engage in researching and evaluating their e-learning professional development practice</td>
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References


1. About this survey

The aim of the research project is to develop a framework for the delivery of professional development in relation to e-learning which can be utilized by New Zealand tertiary teaching institutions. The project is concerned with staff delivery/teaching of electronic learning practices and mediums, and the forms of professional development they engage in, or require, in order undertake this.

All responses are anonymous.

The survey will be closed at 3 pm on the 26 May 2007.

If you have any questions or queries about this survey then please don't hesitate to contact...

Thanks, Juliana Mansvelt

2. Institutional and demographic details

The following questions are concerned with obtaining demographic and institutional information.

3. Professional details

1. Please indicate your gender

- Male
- Female

2. Please indicate which age bracket you fall into

- < 20
- 20 - 29
- 30 - 39
- 40 - 49
- 50+

3. Please indicate which ethnicity you most closely identify with
TeLRF e-Learning Professional Development

4. Institutional details

4. I am employed at my institution as

- an Academic staff member (includes staff that are employed in academic administration i.e. Head of Department/School/Institute)
- a General staff member
- Other (please specify)

5. How long have you been employed at your institution?

- less than 1 year
- 1 - 5 years
- 5 - 10 years
- 10 - 15 years
- 15+ years

5. Institutional professional development

The following questions pertain to professional development in general. They are not related to e-Learning professional development.

Professional development is defined as:

Engagement in formal or informal training and/or learning in order to enhance skills, knowledge, and the ability to practise (one's occupation).

6. I believe my institution views professional development for its staff as important.

- I strongly agree
- I agree
- I neither disagree nor agree
- I disagree
- I strongly disagree

7. I believe that professional development is an important part of my job.
8. Please indicate the types of professional development you engage with (select as many as applicable).

- Regular reading of journals and books relevant to my profession
- Sharing knowledge with colleagues
- Acquiring generic transferable skills and competencies related to my job
- Spontaneous learning arising from work or personal activities
- Practising the rules and procedures of my institution
- Learning through informal discussions in the workplace
- Action learning: learning from development projects
- Acquiring knowledge through browsing websites or 'surfing the net'
- Keeping a portfolio record of professional development activities that I have undertaken
- External courses my employer has paid for
- Membership of committees at my place of work; eg quality; health and safety
- Internal training courses
- Learning professional knowledge: e.g professional codes of practice
- Learning that is carefully planned in advance
- Technical training: e.g. courses where I am learning how to use new computer software or technologies
- Undertaking academic study that isn't necessarily related to my job or profession
- Exchanging emails on professional topics with other members within your institution
- Keeping a reflexive diary over an extended period
- Working toward a qualification that is paid by my employer
- Working toward a qualification which I am paying for myself
- Taking part in an online discussion forum relevant to my profession
- Membership of committees relevant my professional development
- Attending conferences, seminars, symposia and or workshops
- Engaging with professional interest groups
- Other (please specify)
6. e-Learning

The next set of questions requires you to indicate if you have or are currently engaged with e-Learning in either a teaching or support capacity.

e-Learning is defined as:

"learning that is enabled or supported by the use of digital tools and content. It typically involves some form of interactivity, which may include online interaction between the learner and their teacher or peers. e-Learning opportunities are usually accessed via the internet, though other technologies such as CD-ROM are also used in e-learning."

Ministry of Education Interim Tertiary e-Learning Framework 1994

9. Have you used, or are you currently using e-Learning in your teaching?

- Yes
- No (i.e. a staff member that supports e-Learning)
- N/A Not Applicable (i.e. a staff member involved in research only activities or does not use e-Learning for teaching purposes)

7. e-Learning in teaching

10. How long have you been involved with e-Learning in teaching?

11. What were the main reasons for your decision to use e-Learning in your teaching (select as many as applicable)

- My School/Department/Institute required me to have an e-Learning presence
- Increased demand from students to have an e-Learning presence
- My colleagues were engaged with e-Learning so I thought I should too
- e-Learning allowed me to do things that I couldn't do using other methods
- Other (please specify)

12. Please indicate the types of e-Learning activities/tools you have used, or are currently using in your teaching (select as many as applicable)

- Discussion boards
Use an LMS (Learning Management System such as Blackboard, Moodle or WebCT)

Providing content online that is in any one of the following types: Word documents, Excel documents, PDF documents, PowerPoint documents

Providing content online that is in HTML (web page) form

Providing content online that is in Flash form

ePortfolios

Wikis

Blogs

Online image databases

Podcasting (Podcasting most commonly entails audio or video content that is delivered via an RSS feed presenting a downloadable or streaming file (e.g. a mp3))

Online audio files (that do not use podcast technology)

Online video files (that do not use podcast technology)

Audio files delivered via CD or DVD

Video files delivered via CD or DVD

Providing clickable links to websites

Providing clickable links to online journal articles (this includes journal articles in a library database)

Online quizzes

Online surveys

Chat rooms

Electronic whiteboards

Electronic assignment submission

Scenarios delivered either online or through a CD or DVD

Web based conferencing (i.e. Breeze, Elluminate, Live Classroom)

Voice over IP (i.e. Skype)

RSS feeds

Social bookmarking websites (e.g. Furl, del.icio.us)

Digital stories

Interactive content delivered via CD or DVD

Other (please specify)
8. Supporting e-Learning

These questions are for staff that support e-Learning.

13. How long have you been involved in supporting e-Learning?

14. Please indicate the types of e-Learning activities/tools you have supported. 'Supported' is used to describe both assistance with and creation of. (Select as many as applicable).

- Discussion boards
- Email
- Use an LMS (Learning Management System such as Blackboard, Moodle, WebCT)
- Providing content online that is in any one of the following types: Word documents, Excel documents, PDF documents, PowerPoint documents
- Providing content online that is in HTML (web page) form
- Providing content online that is in Flash form
- ePortfolios
- Wikis
- Blogs
- Online image databases
- Podcasting (Podcasting most commonly entails audio or video content that is delivered via an RSS feed presenting a downloadable or streaming file (e.g. a mp3))
- Online audio files (that do not use podcast technology)
- Online video files (that do not use podcast technology)
- Audio files delivered via CD or DVD
- Video files delivered via CD or DVD
- Providing clickable links to websites
- Providing clickable links to online journal articles (this includes journal articles in a library database)
- Online quizzes
- Online surveys
- Chat rooms
- Electronic whiteboards
- Electronic assignment submission
- Scenarios delivered either online or through a CD or DVD
- Web based conferencing (i.e. Breeze, Elluminate, Live Classroom)
- Voice over IP (i.e. Skype)
9. Non-use of e-Learning

The following question asks you to describe why you don't use e-Learning in a teaching or support capacity.

15. Why do you not use e-Learning in your job?
10. e-Learning professional development

The following questions pertain to e-Learning professional development at your institution.

Professional development is categorised as being either formal and informal.

**Formal** professional development includes:
Programmes or courses that either have an assessment or attendance requirement in order to obtain credit. Examples include attendance at training courses, study toward a formal qualifications etc.

**Informal** professional development includes:
All activities that you undertake that increase your knowledge in a particular area but which are not formally acknowledged. Examples include discussions with colleagues, reading articles, searching on the internet etc.

16. Are you aware of e-Learning professional development courses run in your institution?

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<th></th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>jn</td>
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</table>

17. Have you participated in any e-Learning professional development within your institution? This includes both formal and informal professional development.

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<thead>
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<th></th>
<th>Yes</th>
<th>No</th>
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<th></th>
<th>Yes</th>
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</table>
11. e-Learning professional development at your institution

The following questions pertain to e-Learning professional development available in your institution.

18. Please choose the examples of e-Learning professional development that you have engaged with, in your institution (select as many as applicable).
   - Courses and/or papers that are run within my institution and that count toward a formal qualification (i.e. a Degree, Diploma, Certificate or some other NZQA approved qualification)
   - Technical training courses run by a central unit within my institution
   - Courses that focus on non-technical skills (i.e pedagogy), and are run by a central unit within my institution
   - e-Learning courses that cover both technical and non-technical skills and are run by a central unit within my institution
   - e-Learning courses/activities run by my School/Department/Institute
   - Attended e-Learning events at my institution (examples include symposia, planning days, conferences, workshops, and/or conferences)
   - Have worked one-to-one or in small groups with e-Learning staff outside of centrally run e-Learning courses
   - Informal professional development (this type of professional development includes all activities that are undertaken outside of formal professional development. This might include discussions with colleagues, or searching out information by oneself).
   - Other (please specify)

19. On a scale of 1 - 4 please indicate the effectiveness of e-Learning professional development on your e-Learning activities.

1 = Extremely effective
4 = Completely ineffective

<table>
<thead>
<tr>
<th>Example</th>
<th>1 Extremely effective</th>
<th>2</th>
<th>3</th>
<th>4 Completely ineffective</th>
<th>N/A Not Applicable</th>
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<tbody>
<tr>
<td>Courses and/or papers that are run within my institution and that count toward a formal qualification</td>
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<td>Technical training courses run by a central unit within my institution</td>
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<tr>
<td>Courses that are focused on non-technical skills (i.e pedagogy), and are run by a central unit within my institution</td>
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<tr>
<td>e-Learning courses that cover both technical and non-technical skills and are run by a central unit within my institution</td>
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<tr>
<td>e-Learning courses/activities run by my School/Department/Institute</td>
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<tr>
<td>Attended e-Learning events at my institution (examples include symposia, planning days, workshops, conferences etc)</td>
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</tbody>
</table>
The following statements are concerned with non-engagement with e-Learning professional development offered in your institution.

20. In relation to your non-engagement with e-Learning professional development (both formal and informal), please indicate the reasons for your non-engagement (select as many as applicable).

- I haven't had the time to engage with e-Learning professional development
- I haven't needed to do any professional development
- I don't want to use or can't see the use for e-Learning and therefore have not engaged with the professional development
- My institution doesn't offer any e-Learning professional development opportunities
- The e-Learning professional development that is on offer is inadequate
- My institution provides inadequate practical support for e-Learning
- I am not rewarded for engaging in e-Learning professional development
- Other (please specify)
13. External e-Learning professional development

21. Have you been an online student?

- Yes
- No

22. Have you ever participated in any e-Learning professional development outside of your institution? This includes both formal and informal professional development.

- Yes
- No

14. External professional development detail

These questions refer to the professional development that you have engaged with outside of your institution.

23. Please choose the examples of e-Learning professional development that you have engaged with, outside of your institution (select as many as applicable).

- Courses and/or papers that count toward a formal qualification (i.e. a Degree, Diploma, Certificate or some other NZQA approved qualification)
- Technical training courses
- Courses that focus on non-technical skills (i.e. pedagogy)
- e-Learning courses that cover both technical and non-technical skills
- e-Learning events (examples include symposia, planning days, conferences, workshops, and/or conferences)
- Informal professional development undertaken in your own time outside of your institution. (Informal professional development includes all activities that are undertaken outside of formal professional development. This might include discussions with peers, or searching out information by oneself).
- Other (please specify)

24. On a scale of 1 - 4 please indicate the effectiveness of e-Learning professional development on your e-Learning activities.
### 15. Non-engagement with external professional development

25. What were your reasons for not engaging in e-Learning professional development offered outside of your institution?

<table>
<thead>
<tr>
<th>Reason</th>
<th>1 = Extremely effective</th>
<th>2</th>
<th>3</th>
<th>4 = Completely Ineffective</th>
<th>N/A Not Applicable</th>
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</thead>
<tbody>
<tr>
<td>Courses and/or papers that count toward a formal qualification (i.e. a Degree, Diploma, Certificate or some other NZQA approved qualification)</td>
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<tr>
<td>Technical training courses</td>
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<td>e-Learning events (examples include symposia, planning days, workshops, conferences etc)</td>
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<tr>
<td>Informal professional development undertaken in your own time outside of your institution. (Informal professional development includes all activities that are undertaken outside of formal professional development. This might include discussions with peers, or searching out information by oneself).</td>
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<td>Other</td>
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16. Future e-Learning professional development

The following questions ask you to identify what you would like in regard to e-Learning professional development.

26. From the following list please indicate the types of e-Learning professional development that you currently don't engage with but would like to.

- Technical courses run by my institution
- Non-technical courses (i.e. courses that focus on pedagogy) run by my institution
- Courses that combine technical and non-technical aspects of e-Learning run by my institution
- Courses/papers that count toward a qualification
- Courses that are run by my School/Department/Institute
- Informal e-Learning professional development
- Technical courses run outside of my institution
- Non-technical courses (i.e. courses that focus on pedagogy) run outside of my institution
- Courses that combine technical and non-technical aspects of e-Learning and are run outside of my institution
- e-Learning events (i.e. conferences, workshops, planning days, symposia)
- Other (please specify)

27. Please indicate which constraints affect your ability to engage with e-Learning professional development. (Select as many as applicable).

- I don't have enough time
- I am not encouraged or rewarded
- There is not enough professional development courses on offer
- I am not interested in e-Learning professional development
- Other (please specify)

28. Please add any comments that you would like to make about undertaking e-Learning professional development.
17. Thank you

Thank you for completing this questionnaire. If you are interested in taking part in a phone interview to discuss the competencies and capabilities staff need in order to engage in e-Learning then please use the email link below to acknowledge your willingness to participate.

You will then be contacted to confirm your selection for participation in the study, and to discuss possible interview times and to arrange for the return of the consent form available on this website.

To acknowledge your willingness to participate please use the clickable email link below. Include in your email message your contact details and a brief 2-3 sentence synopsis of your position and/or experience in relation to e-learning and/or professional development.

Email link

If you want to know more about the interview including consent form, then please follow the links below:

Information sheet on the interview (Word doc 39.5kb)
Consent form (Word doc 31kb. Note you don't need to fill in the consent form until you have been selected for the interview)