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E-Learning – Effective, Engaging, Entertaining (and Earthquake proof)

A thesis presented in partial fulfilment of the requirements of the degree of

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Abstract

This study is concerned with what makes e-learning effective and engaging as a workplace professional development tool. Using the example of a workplace e-learning programme in Christchurch City Libraries, the study considers the whole process from development of the programme to delivery and evaluation and asks what factors impact upon effectiveness and engagement in a workplace e-learning programme. A number of factors including the organisational culture and workplace environment, the development process, the learning environment, learner support, the e-learning environment and specific e-learning activities were examined.

The study itself took place over a unique period of time as Christchurch recovered from several devastating earthquakes. The impact of the disaster and recovery process on the programme and the effectiveness of e-learning in a post-disaster environment is also explored.

This study uses a Participatory Action Research approach with data collected and analysed from a variety of sources including interviews with programme developers, pre- and post-course questionnaires, online activity tracking tools, forum posts, trainee learning logs, the researcher's reflective journal, and a participant focus group.

The findings from the study suggest a number of elements that contribute to effective and engaging e-learning programmes in the workplace: a) workplace support of the programme by team leaders is essential but the trainee also needs to be in a position to negotiate for the actual time and resources required. b) Developing an online programme requires a different approach and skill set than designing and delivering face-to-face training and may best be managed as a product development project. c) The attractiveness and ease of navigation are important factors for trainees' engagement with e-learning. d) Short, locally made videos of real-life workplace scenarios proved to both effective and engaging with

trainees able to transfer skills to the workplace. e) A wide variety of e-learning activities promoted interest and engagement among learners. f) Consideration needs to be given to how workplace e-learning is evaluated to ensure skill transfer to the workplace is taking place.

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1 Introduction

1.1 Rationale for the study

The concept of e-learning within tertiary education, the workplace and even schools is not new or revolutionary. As the world moves increasingly into a digital environment with the internet, social networking, blogging and e-books, learning has moved along too with Learning Management Systems, student developed wikis, forums and e-portfolios. However, along with the successes there have been many quietly forgotten initiatives and a number of spectacular failures (e.g. the “Cool IT” online basic computer skills course run by CPIT in 2003 enrolled nearly 20,000 people by offering books and other inducements. The corporate partner that provided the online programme received over \$13million in government funds, yet 41% of students did not complete the course and many did not even log on (Wilson, 2006)).

The possible advantages of e-learning including the reduction of travel, flexibility of fitting study around work commitments, saving of time and cost of venues coupled with increasing amounts of new information staff are required to know for their roles in a variety of industries, has led to serious consideration of e-learning as a valuable tool for staff professional development.

The research aims to examine the effectiveness of an e-learning programme for professional development within the workplace. It also aims to identify the factors influence both effectiveness and staff engagement with e-learning.

1.2 Definition of Terms

1.2.1 Defining Learning, Training and Education

Throughout the thesis the term *learning* is used as general term to refer to the process of acquiring any knowledge, skills or both in any context. *Training* is used as a verb for the action of teaching knowledge or skills aimed specifically for use in the workplace. It is also used as a noun to refer to a course or programme designed to deliver knowledge or skills aimed for use in the workplace. The term *professional development* is also used interchangeably with training in this sense. *Education* is used as a noun to refer to formal course or programme aimed at improving a learner's skills or knowledge for the benefit of the learner rather than the workplace.

1.2.2 Defining Learner, Participant, Student and Trainee

Throughout the thesis the term *learner* is used as a general term to refer to individuals in *any* context who are engaged in study to gain either skills or knowledge or both. The term *trainee* is used more specifically to describe learners who take part in workplace professional development or training. The term *student* is reserved for discussion of individuals undertaking formal (usually tertiary) education.

The study focuses on individuals in the researcher's own workplace environment undertaking an online programme of Professional Development. Individuals took part in the study in one of two different ways, either by collaborating to develop and deliver the programme or by actually taking the programme as a learner. Both groups of individuals are referred to as *participants* (of the study) when discussing them in relation to the study itself. Those who collaborated to develop and deliver the programme are referred to as both *trainers* and *members of the Participatory Action Research Group* (PARG) throughout the thesis. Those who took part as learners are referred to as both *trainees* and *learners*.

Every effort has been made to keep the terms learner, participant, trainee and student distinct as described here throughout the Thesis. However, in some circumstances when discussing literature where the author has used the terms

differently or when quoting directly from the participants of the study the terms may have a slightly different interpretation which should be clear from the context.

1.2.3 Defining E-Learning

E-learning is a blanket term that has been used to describe learning and teaching delivered through electronic media, including computers, CD-ROMs, the internet, TV, audio and video recordings. Today it is most usual to find e-learning content delivered via the internet and hence the term *online learning* is also often used. Another aspect of e-learning is whether it comprises all or only part of a programme. E-learning may be used to support a face-to-face programme or as an integral part of a programme which includes face-to-face lectures, but also online discussion groups, quizzes or other content delivered on-line. These types of programmes are often referred to as *blended learning*. The programme piloted in this study can be described by all three of these terms, it is delivered electronically, it is online and it contains face-to-face elements. The terms *e-learning* and *online learning* are used interchangeably throughout the thesis and in parts, particularly when also discussing the face-to-face elements of the programme, the term *blended learning* is also used.

1.2.4 Defining Effectiveness, Transference and Success

The research aims to study the *effectiveness* of e-learning for professional development. The term *effectiveness* is used to describe whether a learning programme meets its intended aims i.e. whether learners actually gained the skills and knowledge that the programme set out to teach.

Transference is the ability of the learner to use the skills and knowledge learnt on a learning programme in the workplace environment.

Success is defined as “*the accomplishment of an aim or purpose*” (Oxford University Press, 2013). However, within the context of this study there are a number of contributory factors to what makes a workplace learning programme successful and the appropriate measures of success are explored.

1.3 Background to the study

The research took place within Christchurch City Libraries (CCL) the public library network for residents of Christchurch, New Zealand. E-learning was explored as a method for staff professional development focusing on the development and delivery of an online programme for basic Reference Skills training.

CCL is a network of central and community public libraries including mobile and outreach services. It serves a population of approximately 350,000 consisting largely of European New Zealanders (75%), with a Māori population of around 8 percent, and Pacific and Asian populations at 2.8 and 7.7 percent respectively (Statistics NZ, 2006).

In 2010 CCL was looking to create an on-line learning environment that would encompass a variety of professional development areas for library staff and offer an alternative and/or extension to traditional face to face training. A number of factors (described more fully in chapter 3) had resulted in the need for large amounts of professional development, to be undertaken in a short space of time and with fewer resources available for staff to travel and attend face-to-face training. Online/blended learning appeared to be a solution that would enable many staff at once to undertake professional development at any time, without travelling to a central location and be able to utilise brief periods (< 1 hour) of off-desk time. CCL had already experimented with delivering an online learning course to staff focused on social media skills but wished to build upon this and develop a wider programme using updated technology and methodology.

In late 2010/2011 Christchurch experienced a series of devastating earthquakes that destroyed lives, homes, businesses and city infrastructure. The first earthquake in September 2010 registered 7.1 on the Richter scale with the epicentre focused about 40kms away from Christchurch City centre. It caused significant damage to many, particularly older buildings, however owing to its timing during the night there was no loss of life. Aftershocks continued for five months until on February 22nd 2011 a shallower earthquake registering 6.3 on the Richter scale struck Christchurch directly. This caused significantly more damage

and killed 185 people. The loss of life and destruction of many homes and businesses was immediate and devastating. Aftershocks continued throughout 2011 and into 2012 with two significant events in June 2011 and December 2011 causing further damage.

The research took place in 2012 with the effects of the earthquakes, recovery and rebuild still having an immense impact on the city, the lives of staff and customers, and the organisation and delivery of library services. The effects of the earthquakes and rebuild impacted on the project itself in a variety of both positive and negative ways and these will be discussed within the thesis.

1.4 Choosing the topic

From my researcher's perspective the online learning project was an ideal topic for my master's research. Online learning was new to CCL, but not so new that everything had to be developed from scratch.

Online learning is familiar to staff engaged in tertiary education, and e-learning courses and webinars in areas of interest to library staff are becoming increasingly available through external providers, e.g. ALIA, Library 2.0, etc. In addition, staff at many tertiary libraries in New Zealand now support teaching staff to provide online courses, and in some cases create online courses themselves. Discussion with colleagues at other public libraries in New Zealand revealed that some library organisations are creating online help sheets or videos around specific topics, e.g. using the catalogue, or search techniques, particularly for customers. However, little in the way of online professional development for staff was being developed by the libraries themselves, although many were interested in doing so in the future.

CCL's own experiences with an online social media course CCLlearn (later renamed as Digital Communication) course had been mixed. There were clearly many potential benefits to online learning for the organisation in terms of time savings and room requirements, but the benefits to trainees and their learning process was

less clear. Complicating the feedback from these courses was the subject matter (using online resources) as it was difficult to untangle what trainees thought about “learning” online in particular as opposed to being online in general.

I decided upon Reference Skills as the topic for the pilot programme. The course had been run as five face-to-face sessions focusing on reference interview skills and different resources e.g. The Library Website or Premium Databases. Reference skills are essential for providing library services and a core part of a qualified librarian’s role. The reference skills course was compulsory for new LAs, providing an introduction, and also acted as a refresher for those wanting to brush up their skills. However, increases in the number of resources available, particularly online resources, was making the amount of content needed difficult to cover and a fresh approach might provide a better alternative. Online learning could also enable more to be covered by providing optional lessons for more advanced trainees.

As a trainer with fifteen years experience delivering face-to-face IT courses, I was excited by the opportunity to provide learning activities in a different way, yet concerned that online learning may be isolating, less engaging and ultimately less effective than face-to-face learning. I had always strived to make learning both *entertaining and informative* for my learners; how could online programmes be made the same? What would motivate learners to actually login and work through the programme?

By using a formal research process for the pilot programme I hoped to create greater rigour around the usual feedback processes. This would enable useful conclusions to be drawn that could be used to inform online learning programmes both at CCL and other public libraries.

1.5 Research Aim

This study aims to identify and evaluate factors that affect both the effectiveness of e-learning and the motivation for staff to engage with e-learning for professional development. The primary issue for the study was how to develop effective on-

line/blended learning programmes that are appealing and engaging to library staff with limited resources in terms of budget and technical expertise. The study also considers the effect that the “new normal” environment of a city “post-disaster” has on online professional development.

The primary research question is:

How can an e-learning be made effective and engaging for delivering professional development to library staff in a public library?

with additional secondary questions:

- What are the best ways of working with an in-house team to develop an online programme?
- How can trainee interest and engagement be captured?
- How can trainees remain engaged with the programme?
- What are effective learning activities in the online learning environment?
- What are the learning benefits of learner discussion groups?
- How can e- learning be translated into workplace practices?
- How can “success” be measured?

1.6 Limitations of the study

This research is very much based in the unique experience of the practitioner’s own circumstances; as such it may be limited in terms of its more wider application to the wider world of professional development and learning. It is hoped however, that this study will enable the creation of an effective online learning professional development programme for library staff that can be used as a model for future programmes. By carefully documenting the evidence and describing the practice, this research may well be of use to other practitioners in similar circumstances.

1.7 Overview of the thesis

This thesis details a study set and researched within my own workplace. The study focuses on my own professional practice and is a collaborative effort between myself (both as an employee and as a student) and many of my colleagues. The methodology of the project is Participatory Action Research (Whitehead & McNiff, 2009) and the study itself follows eight “operating” steps (Slater, 2005) which provide structure to the research project.

The thesis itself is organised into six chapters:

Chapter one – Introduction: This seeks to introduce the impetus and context for the research. It sets out the aims of the study and the reasons why this specific topic was chosen. It discusses the limitations of the study and concludes with an overview of the thesis.

Chapter two – Literature Review: A discussion of the relevant research literature that informs this research. It considers six different elements; the function of e-learning as a professional development tool, e-learning in the context of libraries and librarians, doing research into e-learning, learning theories that inform e-Learning, instructional design for e-learning and keeping trainees engaged in e-learning.

Chapter three – Methodology: This details the approach, methodology and methods of the research. It describes the collection methods and also addresses ethical implications that needed to be addressed during the research.

Chapter four – Developing the Programme: This describes the development, creation and implementation of the learning programme by the Participatory Action Research Group. It discusses how and why decisions were made and the effect they had on the study. It also details the process of creating the programme as a group and how the programme was implemented.

Chapter five – Results: This details how the programme was implemented and the reaction of staff taking part. It also presents the results from the different methods of data collection: surveys, focus groups, online tracking tools, discussions and reflections

Chapter Six – Analysis and Conclusions: This synthesises the results from chapter five to provide illumination and discussion of the key research questions in light of the evidence gained from the study. It then goes on to summarise the analysis of the study to provide key learnings and direction for future projects.

2 Literature Review

Although e-learning is a relatively new phenomenon there is already a large literature considering different aspects of this topic. For this research there are a number of different elements to explore:

1. The function of e-learning as a professional development tool as opposed to being used in education
2. Literature around e-learning in the context of libraries and librarians
3. The process of actually doing research with e-learning as a subject
4. How learning theories are used to inform e-learning
5. How instructional design is used for e-learning
6. Methods used to keep learners engaged in e-learning.

2.1 E-learning for Professional Development versus E-learning for Education

For the tertiary education sector e-learning has its roots in distance learning from the late night television programmes of the Open University in the UK in the 1970s to courses delivered totally online today. E-learning is not just limited to distance education, however, and in mainstream tertiary education a blended approach is often used (Littlejohn & Pegler 2007). Here students both attend face-to-face lectures and are able to access online materials or engage in dialog with other students via forums, blogs or collaborative wikis. Within New Zealand a number of tertiary institutions use online learning within courses (including tertiary library qualification programmes). The secondary and even primary sector are also developing online learning environments and products (e.g. Greater Christchurch Schools Network, Literacy Planet, Mathletica) and tools such as MyPortfolio (Kineo Pacific, 2011) enable students to create a digital record of their learning that can be transferred across institutions and into employment.

The effective pedagogy around creating successful blended learning in a tertiary environment has started to be understood and guidelines created e.g. (Garrison & Vaughan, 2008) but particularly as technology continues to change, questions

around student involvement, lecturer reluctance and the effects of online learning for different types of students and learning styles in terms of access, engagement, successful completion and isolation are all areas of research under investigation.

The commercial sector too has embraced blended learning solutions for corporate professional development, and programme development methodologies have become established e.g. (Bersin, 2004). A 2011 survey of UK, US and Indian training professionals estimates that 79% of UK and US businesses use at least some forms of e-learning compared to 66% of Indian businesses. (Chartered Institute of Personnel and Development (CIPD), 2011)

However, only a small amount of learning (between 10 and 20%) is delivered in this way (Chartered Institute of Personnel and Development (CIPD), 2011) with face-to-face training still being the preferred option. Large corporations often deliver to thousands of employees worldwide and training departments are provided with substantial budgets able to afford proprietary software, and professional programmers and actors. For smaller organisations, programmes of this nature are usually designed and delivered by outside agencies – private companies, professional institutes or tertiary education providers delivering vocational qualifications. Often accessed in isolation, the trainee works through “off the shelf” materials on their own with no interaction with peers or others within their organisation. Even when online learning is managed “in-house” it may not include interaction with peers.

Sinclair (Talk at MoodleMoot 2010) discussed how online individual learning plans are deployed by the NZ Inland Revenue. In this national learning platform individuals are directed towards learning programmes based on the competencies required by their role and they and their managers can monitor their progress. However, the focus is on the individual – there are no forums for people in similar roles to discuss their learning for example. Overall the majority of e-learning programmes for professional development are solely self-paced with ASTD American Society for Training and Development (2007) reporting that 80% of online learning is delivered in this way.

In contrast, e-learning delivered via educational institutions, at least notionally, tends to favour a more collaborative approach, embracing technologies such as wikis, and forums. This tendency derives from the way education is traditionally organised as teaching a class or cohort, although it may also be due to social constructionist approaches to learning and teaching. Within New Zealand the learning management system used by most universities – Moodle – explicitly states its goal as a “*global development project designed to support a social constructionist framework of education.*” (Moodle, 2011) Yet, despite this philosophy, as Kirkwood (2009) points out “*to date much e-learning has tended to replicate or supplement existing academic practices*” and consists of little more than posting podcasts of lectures or lecture notes up on the web for students unable to attend a face-to-face lecture.

The drivers towards e-learning for businesses are largely economic; the Chartered Institute for Professional Development (UK) (2011) reports that e-learning is seen as “value for money”. The idea is to cut back on the costs of hiring trainers, venues, and travel and save time by cutting down on travelling. Indeed, Solomon (2010) states that “*estimates of online training costs put it as low as one fifth that of offline training*”. However, the CIPD (2011) survey also reports that less than 25% of e-learning programmes had a majority of employees completing the programme. Frankola (2001) calls these high dropout rates “*e-learning’s embarrassing secret*” and points out that

“corporate e-learning is particularly susceptible to high drop out rates. A student who voluntarily enrolls in an online course because she’s hoping an advanced degree will land her a better job is much different learner than someone who is told to take an online course at work. If a corporate e-learner isn’t internally motivated, a company will have to step in.”

(Frankola, 2001, p. 54)

Within-education progress with an e-learning programme can be monitored by the teacher and appropriate support given. In the workplace there are additional challenges for online learning to those in tertiary education. With training often undertaken at the work desk there is the dichotomy of roles – Worker or Learner? – and the challenge of allocating appropriate time to both (Oiry, 2009). Even if online learning is seen as institutionally important, in practice finding the time and space away from disturbances can be difficult. As Hoyle (2010) points out, many businesses:

...set themselves up for immediate failure by spending time thinking about the content of the learning programme and not enough time on supporting and nurturing a learning culture for the individuals expected to complete it.

(Hoyle, 2010, p. 41)

Frankola (2001) reporting on a GE Capital online orientation course suggests that “the difference (between those who finished and those who didn’t) had nothing to do with technology or instructional design...it all had to do with how much motivation the employees got from management” (Frankola, 2001, p. 54)

Mitchell and Honore (2007) discuss blended learning offered as part of a business school professional development programme for individuals working at multinational companies from Europe. Although considered professional development rather than education this programme was traditionally offered in a residential campus face-to-face setting only. The authors highlight the difficulties in setting up the online programme to be primarily ones of “Human Factors” regarding attitude and motivation rather than technical challenges.

Within education the overall goal is for the student to pass their courses and gain a qualification. The teacher and the examiner are often one and the same. Completion rates and/or pass rates are the primary measures of success for both the student and the teacher. Within business the trainer of a course is rarely the manager of the employee, or even in the same department, and often (in the case of

third-party training) from a different organisation altogether. For the employee, there is generally little point in “impressing teacher”.

Within business the overall indicators of success are not whether a course is completed or passed, but whether skills are transferred to the workplace, and ultimately whether these lead to more efficient business practices. From a human resources/professional development framework, standard practices of evaluating workplace training and learning often focus on Kirkpatrick’s (2007) four levels:

1. **Reaction** – immediate post-course response by students on the effectiveness (and enjoyableness) of the learning event, usually undertaken by a survey.
2. **Learning** – did the students learn what was intended? This is usually measured by a test or interview and it is far easier to measure technical skills than attitudinal ones.
3. **Behaviour** – did the students apply the learning back in the workplace and make changes to their workplace practices? This usually focuses on interviews with students, supervisors, and colleagues often taking place several months after the learning event.
4. **Results** – did the changes in workplace practices improve the results of organisation? “The acid test” is improved Key Performance Indicators (KPIs), including improved quality, less staff turnover, improved volumes, repeat business, profits.

(Kirkpatrick & Kirkpatrick, 2007)

These differences in objective; being able to pass the course, or being able to apply learning to work more efficiently, have also resulted in different types of e-learning. Workplace e-learning tends to be in short standalone modules that can be completed in a few hours and are largely scenario-based, focusing on real business examples. Organisations with large budgets for e-learning often use highly designed interactive software options or simulations that replicate the real world. Game-like, the learner may also be tested by the software, receiving immediate

feedback and further instruction until competence is gained. However, there is often no interaction with the instructor or other learners.

Online education courses usually provide resources over a whole semester. These are often videos, podcasts, or lecture notes available for consumption at the learner's convenience. They are not generally interactive in themselves excepting online quizzes. However, chat or discussion boards may provide opportunities for interaction with others including the instructor. These courses tend use lower tech options in that they do not have highly designed graphical interfaces but often use a Learning Management System (LMS) so that several courses can be delivered to the learner from the same environment and progress monitored across all.

Another consideration for workplace learning is "Return on Investment", sometimes called the 5th level this attempts to create a measure of the effectiveness of the training as a function of its cost (time, trainer's fees, materials etc.) relative to the monetary value of its benefits (profits, reduced staff turnover, reduced costs etc.) (Kearns, 2005)

Within this framework completing (or not completing) an online course can make little difference to the individual student unless the course can be shown to improve performance to a level that gains favour with managers. Of course the same criticisms can be made of any workplace training programme whether online or not. However, many staff openly welcome face-to-face training as an opportunity to take a break from the normal day to day activities, interact with colleagues from other areas, engage in thought provoking dialogue and get a free lunch. E-learning is generally seen as a poor substitute and online training in the workplace faces additional challenges. Frankola (2001) also identifies:

- Frequent distractions from co-workers
- Lack of time
- Inability to access course materials from home
- Problems with technology
- Isolation (lack of social interaction)

Technological issues are not only confined to the robustness of the training software but can also relate to getting access to computers within the organisation

and a trainees own abilities to manipulate the online environment. This last factor is particularly pertinent to workplace training as employees may be expected or assumed to already have these skills. Admitting lack of knowledge may be embarrassing, particularly if workers and managers are enrolled into the same programme, or even viewed as incompetence.

The problems of online programme management do not exist within education in quite the same way, however online components of a course can also suffer from a lack of motivation by students. Kirkwood (2009) points out that:

“learners often apply a form of cost-benefit analysis when deciding how to go about their studies ... As far as e-learning activities are concerned, those aspects that are not perceived by the students as being linked to assessment will receive little or no attention”

(Kirkwood, 2009 p.115)

Thus, just like their corporate counterparts, student learners need to be cajoled into seeing e-learning as an attractive option over more traditional alternatives. The question for students who are able to attend traditional on campus lectures and tutorials is why should they use e-learning? Laurillard (2008) explains it as two problems – the first is that of trying to obtain better student outcomes, the second is how best to use new technologies to support education:

But the solutions technology brings are solutions to problems education does not have. The current vogue for podcasting is a good example....It is an excellent solution to the problem of providing personalised mobile auditory wallpaper. However, no one ever suggested that the reason why education is failing is that learners do not have enough access to people talking to them.

(Laurillard 2008, p.139)

The agenda for tertiary education in adopting e-learning is thus unclear to students. Garrison and Anderson (2003) suggest that technology has the potential

to transform tertiary education and make possible collaborative learning activities and benefits for the learner that traditional teaching is unable to attempt. However, the lack of innovative e-learning to date as described by Kirkwood (2009) suggests mainly financial benefits for education institutions; being able to increase student numbers without additional expenditure, or being able to sell education to students overseas.

Within the workplace suggestions to improve employee motivation for online learning include:

- *Internal competition (e.g. time scores)*
- *Holding managers accountable for staff success*
- *Providing formal rewards*
- *Holding team competitions for course completion*
- *Creating a social dimension – e.g. perks like a free lunch to participants*

(Frankola, 2001)

And:

- *Spelling out the personal benefits*
- *Providing personal coaches*
- *Offering a blended (i.e. some face-to-face components) approach*

(Hoyle, 2010)

Thus online training itself is seen as something to be endured, with sweeteners to act as bribes or sticks to coerce staff into complying.

Within both education and the workforce e-learning is becoming increasingly prevalent. The focus on workplace learning is usually on self-paced learning, to save on the costs of providing face-to-face training and enabling employees to undergo specific learning relevant to their role. The challenge for organisations is seen as how to manage e-learning programmes to motivate staff and ensure staff participation. In education the focus, theoretically, has been more on collaborative learning across a class, although in practice e-learning is often relegated to providing online resources. The benefits of engaging in online learning (except,

perhaps in the case of distance students) are often unclear to students and frequently they do not use online learning unless it directly relates to assessment.

E-learning in both contexts then is often seen as the “poor cousin” of learning, a substitute for face-to-face teaching and something that needs coercion or bribes. However, Michael Allen (2007) in his book subtitled “*Forget what you know about instructional design and do something interesting*” suggests that much corporate e-learning following traditional instructional design rules results in programmes that are simply boring and tedious. He favours an approach to online training that focuses on making programmes intrinsically engaging, and it would appear that this line of attack may provide benefits in both education and the workplace.

2.2 Researching E-Learning

Much of the focus of e-learning research has been on its effectiveness in comparison to more traditional forms of learning. However, this has led to many largely uninformative studies finding little difference in outcomes. Known as the “no significant difference phenomenon” (T. Russell, 2001), T. Russell has also created a website (2010) to document studies showing both significant differences and no significant differences in e-learning versus face-to-face learning. These studies date back decades to the beginnings of technology assisted distance education and show conclusions to be conflicting, and overall learning outcomes to be largely independent of delivery methods. However, a more recent large meta-analysis of studies undertaken by the U.S. Department of Education (2009) has concluded that e-learning can in fact provide a slight advantage over face-to-face learning, particularly when comparing blended learning with face-to-face learning. The meta-analysis only considers research that compares an e-learning programme (or blended programme) with a control face-to-face programme. However, it also notes that, particularly in blended learning programmes, additional time and resources employed by the e-learning programme are not given to participants in the control group and “*this finding suggests that the positive effects associated with blended learning should not be attributed to the media, per se* (U.S. Department of Education & Office of Planning, 2009, p. ix)” Another aspect of

this meta analysis compared different formats of media in the online learning, concluding that:

- *Elements such as video or online quizzes do not appear to influence the amount that students learn in online classes. The research does not support the use of some frequently recommended online learning practices. Inclusion of more media in an online application does not appear to enhance learning. The practice of providing online quizzes does not seem to be more effective than other tactics such as assigning homework.*
- *Online learning can be enhanced by giving learners control of their interactions with media and prompting learner reflection. Studies indicate that manipulations that trigger learner activity or learner reflection and self-monitoring of understanding are effective when students pursue online learning as individuals.*

(U.S. Department of Education & Office of Planning, 2009, p. xvi)

Thus overall, it would appear that this study provides little in the way of conclusive evidence for the effectiveness of e-learning or guidance as to how to create effective e-learning programmes. Instead the study appears to come to the unsurprising conclusion that learners who spend more time on their learning and reflect upon what they learn are more successful.

Baudoin (2010) points out that although research has been done into whether people can learn effectively through e-learning and generally concluded that they can, exactly *what* is learned is not always considered. Baudoin's examination of several self-study e-learning programmes undertaken in the workplace found a variety of different self-reported learnings from the same programme. Within the workplace, performance on an assessment, although a gauge of learning, is not ultimately the outcome of interest. What really matters is the application of learning and so *what* is learned is as important as whether it is learned or not.

Friesen (2009) also discusses the true value of traditional natural-scientific studies within e-learning. He concludes that it is the contextual nature of learning and the impracticality of the large sample sizes needed to find a statistically significant difference that leads to no difference between teaching methods or technologies being found. Yet at the same time large amounts of tacit knowledge that teachers already hold is ignored. He suggests a more qualitative approach focusing on improving teachers' practice and using narrative as illustration.

Laurillard (2008) also suggests the teacher as action researcher approach using her "conversational framework" (Laurillard, 2002) to create and test optimal learning experiences. She then goes on to suggest that by using a Learning Activities Management System such as LAMS (LAMS International, 2010) teachers can create a lesson as a sequence of activities, tasks, resources and assessments. Making these lesson sequences available to other teachers allows collaboration over lesson structure (regardless of subject and context) and can be measured against the "conversational framework". This would enable a community of "pedagogic practice" to develop. However, Laurillard also notes that the creation of digital repositories to share teaching resources has been largely unsuccessful, with use by teachers and academics low. In this context it seems unlikely that a repository of generic learning designs would perform any better.

Levy (2006), looking at e-learning within a library environment, also takes an action research approach to studying improvements that can be made to an e-learning programme. Her focus is about support for the processes of e-learning, e.g. how learners learn to navigate an e-learning environment and learn within it. The action research approach means that her research is fully centred on her actual development of the e-learning environment, with each cohort undertaking the learning informing the next iteration of the course. Coghlan and Brannick (2010) discuss doing action research within your own organisation and warn that this type of "insider" research, although benefitting from the researcher's "pre-understanding", also faces additional hurdles with respect to relationships and politics within the organisation. They also point out that:

“Doing action research in your own organisation is opportunistic, that is, you may be selecting an issue for research which is occurring anyway, irrespective of whether or not your inquiry takes place”.

(Coghlan & Brannick, 2010, p. 102)

They label these as the “core” action research project and the “thesis” action research project and point out that there are different responsibilities to each. In the **core** action research project the outcome of the research is judged by the success of the project to the organisation. In the **thesis** action research project however the research is judged by the quality and rigour of the inquiry. Keeping these two responsibilities separate is a challenge for the researcher.

2.3 Learning Theories and E-Learning

Mayes and de Freitas (2004) in their review of e-learning theories identify three broad perspectives:

The associationist/empiricist perspective (learning as activity)

The cognitive perspective (learning as achieving understanding)

The situative perspective (learning as social practice)

(Mayes & de Freitas, 2004, p. 7)

These perspectives provide a useful framework for thinking about learning theories as applied to the design of e-learning. They can be summarised as:

The associative view emphasises

- *Routines of organised activity*
- *Clear goals and feedback*
- *Individualised pathways and routines – matched to the individual’s prior performance*

The cognitive view emphasises

- *Interactive environments for construction of understanding*
- *TAs (teaching and learning activities) that encourage experimentation and the discovery of broad principles*
- *Support for reflection*

The situative view emphasises

- *Environments of participation in social practices of enquiry and learning*
- *Support for development of identities as capable and confident learners*
- *Dialogue that facilitates the development of learning relationships*

(Mayes & de Freitas, 2004, p. 13)

Thus, broadly speaking, the associative view reflects that of most workplace e-learning programmes focusing on building workplace competencies in a clearly structured manner with clearly defined learning objectives and assessments. This type of e-learning programme has however been criticised by Allen (2007) as creating programmes that are boring and unengaging. His philosophy for creating e-learning programmes is to present information as challenging problems to be solved, creating intrigue and drawing the learner in. Comparing learning to a mystery novel he says of learning objectives – why would you tell the reader on page one who did it? His views coincide more with the cognitive view of encouraging experimentation and discovery. However, he sees no need for a focus on shared or social learning. The situative view sits closely with the social constructivist theories of education in social studies and also with the views of libraries supporting lifelong learning (National Library of New Zealand et al., 2006) and librarians becoming self directed learners.

Indeed Levy (2005) discusses how librarians who have a role as instructors need to shift from a ‘transmission’ style pedagogy to a “task faced” pedagogy focused on learners and engaging them with “*dialogue, feedback, reflection, collaboration and participation in learning communities*” (P. Levy, 2005, p. 24)

2.4 Instructional Design for E-learning

Theories about how learning does or should take place become translated into the instructional design of an e-learning programme and the type of activities included, but how do learners perceive different designs? Booth et al. (2009) performed a systematic review of workplace e-learning in the health field. From this five broad themes were identified: peer communication, flexibility, support, knowledge validation and course presentation and design. They found that learners preferred e-learning programmes with: attractive materials, workplace scenarios, flexibility, technology that is easy to use and access, and prompt responses to questions. Considering the interaction of learners they found that learners were reluctant to use forums and that for forums to be effective the facilitator had to be able to weave information from different people to come up with a coherent story.

Laurillard (2002) has suggested a “conversational framework” for e-learning design. This is essentially a model of learning design incorporating the experiential (where learners actually do something – e.g. solve problems or perform an experiment), and the discursive – where teacher and learners share idea – through listening, reading or writing etc. Both teacher and learner then go through levels of reflection and adaptation each reflecting on their actions and discussions and making adaptations in relation to the feedback of each other.

Another aspect of instructional design is consideration of how activities can be designed to be effective in an e-learning environment. Clark and Mayer (2011) consider e-learning from a psychological perspective and provide evidence from a range of studies about learning recall. Citing evidence from a number of lab-based studies they present several principles of design that can increase retention of information and reduce cognitive load. An example of this is the “Coherence Principle”, Clark and Mayer advocate for keeping learning materials simple and using illustration only when necessary, arguing that adding extraneous images harms learning. A related “Redundancy Principle” extends to multimedia materials so that, for example, a diagram should have a text description *or* a narration but not both, to increase the amount of information retained by the learner.

2.5 E-learning and Engagement

Research from previous studies (e.g. (U.S. Department of Education & Office of Planning, 2009)) suggests that online learning can be as effective as face-to-face learning, as long as time is *actually* spent using the software and reflecting on activities. The method of delivery of the online programme also appears to make little difference. Yet at the same time, high dropout rates (Frankola, 2001) in workplace e-learning programmes mean that many learners are not engaging with the programme sufficiently for the e-learning to be effective. The problem appears to be largely one of engagement and motivation.

Kim (2009) discusses motivational factors for twelve learners taking self directed online learning that had no instructor or peer interaction in either academic or workplace settings. He identified six factors that had an impact on motivation: Interactivity of the course content, learner control, application and integration of content by the learner, absence of human interaction, psychological influences and lack of external motivators. He found that interactive elements such as animations, simulations, and drag and drop quizzes were positive factors for engaging in online learning, as was the ability for the learner to be able to control their own pace and integrate what they had learned into real life practice. Interestingly, the absence of human interaction was viewed both positively and negatively with a difference between the workplace and the educational settings. Learners in the educational setting expressed a desire to have interaction with an instructor, but in the workplace setting half the learners actively preferred the self-directed format over an instructor-led programme because it gave more opportunity for flexibility. None of the learners taking part in the study mentioned possible interaction with peers.

Psychologically the fact that learning could be done “in your own home” and without “someone staring over your shoulder” created a positive learning environment with a lack of pressure. Conversely however, the lack of external motivators was a challenge for some students who didn’t complete the programme as they became busy with other things and had no instructor to provide external motivation.

This study throws up a number of interesting points; firstly, that differences in instructional design can have an impact on learner motivation, even if they don't (as other authors suggest) have a bearing on the effectiveness of the online learning. Secondly, that for some learners, online training is seen as preferable to face-to-face training as trainees have more control over the time, place and pace of their learning and feel more comfortable in an environment away from the pressures of the classroom. Thirdly, that for learners, interaction with peers and even instructors is not always seen as beneficial or necessary. This last point in particular would appear to go against the theories of learning as a social activity. Within the study most of the participants were engaged in e-learning courses about programming or desktop applications and these highly technical subjects could account for the lack of desire for more social interaction. However, two of the respondents were taking part in "soft skills" training, which in a traditional face-to-face setting would surely make much use of learner interaction and collaboration.

Gee (2003) in his book *"What video games have to teach us about learning and literacy"* discusses how video games are actually new forms of literacy and that learning a new video game is both frustrating and life enhancing in a way that all learning should be. As Gee points out, becoming successful at a video game is difficult and time consuming yet as video gaming is the largest entertainment industry in the world, millions of people are motivated enough to dedicate hours upon hours to essentially learning how to improve their performance. How then to capture the strategies employed by video game designers that make this form of learning so enticing? Gee (2003) identifies thirty-six "learning principles" that he claims form the basis of both good game and learning design.

The idea of video games being effective ways of learning has also created an industry of "serious games" (e.g. Aldrich, 2009, Ritterfeld, Cody, & Vorderer, 2009) and simulations. Perhaps the best known examples of these are flight simulators and army strategy games – usually visually appealing with complex scenarios these interactive games attempt to mimic real world situations.

However, leading on from serious games is the relatively new concept of “gamification” (Deterding, Sicart, Nacke, O’Hara, & Dixon, 2011). Here learning is turned into a game by adding competitive elements for achievements. These could take the form of tests created in a Jeopardy (an American TV game show) format or badges/medals acquired by completing learning activities. It could also relate to elements such as leader boards where scores are kept and compared. However, gamification has not only been applied to learning but also to marketing activities where customers are awarded points or badges for purchases, referrals, or taking part in surveys; these points can then be exchanged for various rewards or accolades. The advantages of gamification are increased engagement and use of the learning programme (or product). There is certainly evidence that gamification increases engagement (e.g. Muntean, 2011). Yet do learners actually learn through these methods often termed “chocolate covered broccoli” (Bruckman, 1999)? The evidence is somewhat mixed for gamification tapped on the end of a learning programme. Games where learning is an intrinsic part of the game, e.g. “Zombie Divison” (Habgood, 2007) have shown positive learning outcomes for children, however, as Habgood points out it took a skilled game developer several months to create, it only covers a very small part of the curriculum, and it works best in combination with face-to-face teaching anyway. The effort required may be far greater than the benefits gained.

Another alternative that requires less technical expertise is a “Maze” type puzzle (e.g. Moore, 2010) where a scenario is presented and a choice of actions are provided as possible answers. Rather than simply saying “well done” or “try again” each choice goes to a different webpage where the scenario is expanded and further choices are presented. The learner navigates through the scenario making choices at each decision point. At the end point the learner either completes the scenario successfully or fails the scenario and may have another attempt. The format is similar to that of a text-based adventure game or “Choose your own adventure” book. The scenarios are based on real world examples and the feedback for each choice presented as a realistic consequence if the action were taken. Images and video can also be added to create a more visually appealing lesson. This type of puzzle would still provide a “game-like” environment but

would not require the technical expertise and time commitments of creating a more complex computer game. However, even using this relatively simple process, Moore (2010) suggests that writing and plotting a scenario can take 20-40 hours alone.

2.6 *E-learning and Libraries*

The growth and pervasive influence of information and communication technology presents one of the greatest challenges for the library community, while also creating enormous opportunities for development. Public libraries must embrace the opportunities and transformational changes that the internet and other technologies are bringing if they are to continue to deliver full value to their communities.

(National Libraries Strategic Framework 2006-2016: National Library of New Zealand, LIANZA, & Local Government New Zealand, 2006, p. 33)

For many librarians the emergence of new digital technologies has them conflicted. The ever increasing availability of electronic information is both exciting and threatening. Their traditional role of “gate-keepers” to reference materials is obsolete, yet at the same time they are expected to act as a guide for patrons through the ever increasing labyrinth of digital information. For senior library staff, to put in bluntly, it wasn’t the job they signed up for! In addition, the definition of literacy has changed so that as well as traditional literacy skills:

Libraries are extending their support for literacy to include information and digital literacies. Information literacy is a term used to describe the skill of searching for digital information across a range of databases and the internet, assessing the value of that information to the need, and using and applying the information in a learning context. Digital literacy applies to the skills needed to

use the technology, whether that is a computer, a handheld device or some other technology.

(National Library of New Zealand et al., 2006, p. 33)

Not only are library staff expected to accept technology as it changes their role in the workplace. They are also expected to lead and support it for others too. With regards to e-learning, technology and the internet have provided access so that libraries, and tertiary libraries in particular, are often also tasked with teaching and helping customers to use online learning materials. In addition to increasing IT skills, public libraries are also positioning themselves as leaders in non-formal education with a:

focus on independent lifelong learning, libraries will need to ensure that staff members have the skills and knowledge to guide customers with their learning needs. Understanding how people learn, having the techniques to guide from the side, creating a non-threatening learning environment and tailoring courses to meet particular needs may mean retraining of staff

(National Library of New Zealand et al., 2006, p. 42)

These two foci of IT and education have created the situation of library staff sometimes being creators of online learning materials. Librarians working in tertiary libraries are often tasked with creating e-learning for students and Ritchie (2011) discusses another example of librarians in a health department creating e-learning courses for medical professionals. This can lead to the situation Boden & Stubbings (2008) describe of library staff creating e-learning materials despite having never actually experienced online learning for themselves.

Internationally, however, a large number of online learning, e-learning and blended learning programmes have been created to address the professional development needs of library staff in a variety of different library sectors.

A number of library programmes have focussed on the development of web 2.0 skills and knowledge and have had very similar content. These programmes include *23 Things* (Blowers, 2006), *POP-I* (Boden & Stubbings, 2008), and *A Taste of Web 2.0* (MacKenzie, 2008).

23 Things (Blowers, 2006) is of particular relevance to CCL as a version of this programme was launched in 2009. The programme, which largely consists of individuals trying out web 2.0 tasks for themselves (such as creating a blog, or joining a social networking site), comes from a philosophy of lifelong and self-directed learning. It has been viewed as having a large impact not only on librarians' confidence with IT but also "an emphasis on personal change, openness to emerging technologies, and a willingness to explore" (Stephens & Cheetham, 2011, p. 31). CCL's experiences however were more mixed and along with the success stories the programme suffered from high rates of incompleteness, technical difficulties, lack of engagement, and for some individuals a vehement dislike. This later experience was also reported in Stephens & Cheetham (2011) with one learner expressing:

Many of the program's modules required us to write about how we 'felt' about this or that technology, and I found this repetitive and annoying. I also felt resistant to registering online to sites like Facebook or MySpace because of concerns for personal security. The program seemed to labour its point – I need to be aware that many of these new and emerging technologies exist, but I don't need to know precisely how each step is done or to practice each step. I doubt the relevance of say 30% of the materials that was included in the program – technologies or applications that seem not fully developed or otherwise underwhelming.

(Stephens & Cheetham, 2011, p.43)

Similar comments to this were also found in the CCL feedback experience. Although a minority view both in Stephens & Cheetham's research and the CCL programme, what is surprising is the degree of dislike and frequency of these types

of comments. No training course can please all the people all the time, but feedback from traditional training rarely provokes such extremely negative responses, particularly when the majority of feedback is largely neutral or favourable. This suggests that any online training programme may encounter a core of trainees who are extremely resistant to this form of training. If e-learning is to be a long-term solution to organisational training then these issues need to be addressed.

Library focused online learning programmes have also been provided in other areas such as cataloguing (Chen, 2008), readers' advisory (Opening the Book, 2010) and copyright (Pollack, 2005).

For public libraries (particularly those in a rural setting) online learning would seem to be an ideal way to combat the costs of travelling to attend classroom training, and theoretically, once programmes have been set up should be a low cost option for smaller libraries with low budgets. But, as Mason, Cheesmore, & Noord (2006) in the US point out, collaboration across libraries could be the key to managing high initial development costs. However this can be difficult as *"there's no easy way to find out what other organizations are doing... that means basics get covered over and over again"* (Mason et al., 2006, p. 43).

In the US, the organisation WebJunction, funded largely by the Gates Foundation, set up ways to cultivate collaboration in this area for US libraries by commissioning a 2005 survey (WebJunction, 2006). Their survey focused on whether e-learning was offered, in what topics, and whether the type of library or library budget was a consideration. The findings showed that at the time 16% of American public libraries were developing their own online staff training, 26% were purchasing online training, and a further 24% were considering using online training in the next three years.

This survey has not been repeated and today WebJunction, for a fee, offers its own online training courses for member libraries. Other organisations, e.g. the American Library Association (ALA) and the Australian Library and Information

Association (ALIA), also offer off-the-shelf online training courses that can be purchased on an individual basis. A number of these courses were created by university departments or organisations associated with universities (e.g. Lifelong Education @ Desktop, FOILOZ).

Internationally the majority of online training for librarians could be described as off the shelf. Using these types of programmes, particularly for a one-off course, is cheaper and easier than in-house development. Yet this type of self-study one-off course, usually undertaken without instructor support is largely ineffective (Dalston & Turner, 2011) and as discussed above, this approach often leads to poor completion rates and engagement.

One way of improving the uptake and completion rates of off-the-shelf training may be to provide in-house facilitation in addition to access to online materials. Dalston and Turner (2011) considered an on-line training course “Dealing with Challenging Customers” and provided different levels of in-house facilitation within a public library environment. They tested for short- and long-term knowledge acquisition, self-efficacy and job performance after completing an online training course. They discovered that solo, self-paced “canned” training provided no long term improvement in knowledge, and that while any level of facilitated online learning provided long-term knowledge acquisition it actually had a negative effect on long term self-efficacy (self confidence in performing the task). The thing that seemed to have the most benefit was being able to put the skills into practice after the training. Since bigger libraries had more opportunities to do this, staff from bigger libraries reported more self-efficacy after completing the course. This course may have been a particularly ineffective choice for online learning but it does suggest the importance of considering how an artificial online environment can provide meaningful practice for real world challenges. This problem, of course, is not limited to the online learning environment – face-to-face training provides similar challenges – but an online learning environment provides fewer options for interventions such as role play that may be helpful in building confidence and interpersonal skills.

As well as the need for collaboration to make online learning more affordable, there is also a need to establish what forms of e-learning are actually effective and enjoyable for librarians. Haley (2008) looked at what demographic factors influenced librarians' preferences for online versus face-to-face training and found that factors such as age or ethnicity had little influence on their preferences, but that librarians largely prefer face-to-face training.

This is reflected at CCL where online courses are offered through Microsoft for IT desktop packages, yet despite staff identifying this training as a need and actually signing up for the courses, few actually do them. In contrast, a face-to-face "Wizzy Word" course will always be oversubscribed.

The trick of course is developing an online programme that has the same appeal as a face-to-face offering and is at least as effective. Professional development within a library environment has always had to straddle two different approaches; both education and workplace.

Philosophically, libraries with their focus on lifelong learning tend towards educational values of collaborative and self-directed learning, and for librarians *"Zest for learning is an attribute central to one's professional life"* (Varlejs, 1999). Yet, the library is also a workplace and professional development must address the needs of the organisation whether they fit with the desires of the individual or not. These two approaches can create conflict and confusion between what is training (demanded by the business) and what is learning (desired by the individual). Training and learning objectives often coincide, but not always, and sometimes within libraries there is a cultural expectation that library staff "should want" to learn, for personal reasons, the material that the library demands they must learn for business reasons.

From an e-learning perspective this conflict also has implications for design. Whether to follow the workplace approach – short modules of scenario-based interactive self-paced learning; an education approach – longer term-learning with access to resources and focus on discussion and collaborative learning; or some

combination of these two is an important consideration. At the same time the budgetary and practical constraints of being a public library rather than an international corporation need to be taken into account.

2.7 Learning from the Literature

The literature provided a number of insights into how my own research and e-learning programme could be developed. Literature is one of the Brookfield's (1995) four "lenses" used in this study to analyse the background data. The other three lenses – "self lens", "collegial lens" and "learner lens" are analysed in chapter 4 of this thesis where evidence from all four lenses are also synthesised.

3 Methodology and Methods

The project took place within the real world context of a Christchurch City Libraries: a large public library with many branches and over 350 staff spread across a city. Both the library and city are currently undergoing large-scale change as they rebuild after experiencing major earthquakes. The futures of both are uncertain, and plans are continually changing. Within this unique place and time the research focuses on a new online professional development programme for library staff.

3.1 Research Setting

The services that libraries provide are set out in the Christchurch City Council's Long Term Plan (LTP) which is required by law and is reviewed every three years. Currently the services provided by CCL are:

- *Print and digital collections and content readily available for loan, for use in libraries and via the Library's website.*
- *Community spaces through a comprehensive network of libraries, the mobile service and digitally.*
- *Equitable access to relevant, timely information and professional services.*
- *Programmes and events designed to meet customers' diverse lifelong learning needs.*

(Christchurch City Council, 2012)

These services are designed to promote the following outcomes for city residents:

- *To promote reading and multi literacies through providing access to collections of recreational reading, listening and viewing materials and facilitating access to digital content.*
- *To provide opportunities for information democracy, social inclusion and lifelong learning.*

- *To promote and encourage community identity and local heritage.*
- *To provide community spaces where people can engage and receive guidance and expertise through the presence of a network of libraries.*

(Christchurch City Council, 2012)

The Activity Management Plan for libraries sets out the performance standards for libraries to meet the LTP which are benchmarked against other New Zealand and International urban library networks. In order to deliver on these performance standards CCL operates physical central city and community libraries, two mobile vans, online services and outreach services to pre-schools, schools and rest homes. It maintains physical and online collections, and currently employs approximately 360 staff distributed over 20 locations across the city. As part of Christchurch City Council, most internal support services (for example Human Resources and Finance are provided centrally across the council as part of a matrix structure). CCL is also organised on a matrix structure (fig. 3.1) with teams providing services directly to the public supported by internally focused teams.

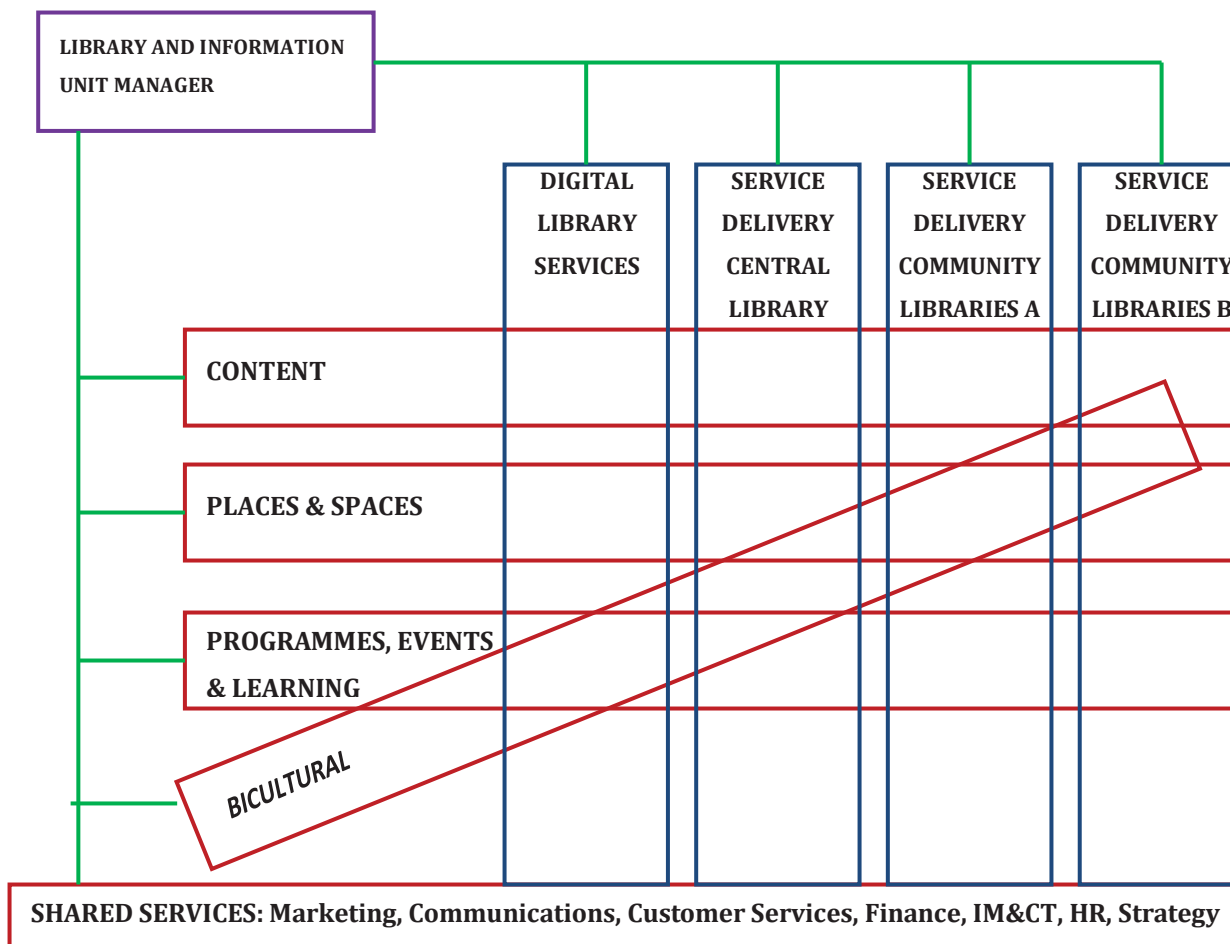


Figure 3-1 Matrix Structure at Christchurch City Libraries

Community libraries offer borrowing services, access to online resources, reference services, access to computers and community programmes and events. The community libraries are organised into two groups (A and B) with a Community Libraries Manager responsible for each group. Each facility is managed directly by a Team Leader (TL). The Team Leader provides leadership to the library team and is also accountable for the delivery of services from the library. They are supported by an Assistant Team Leader (ATL).

Smaller libraries have an ATL to manage day to day running reporting directly to a TL at a larger library. Each library also employs a small number of Community Learning Librarians (CLLs). The CLL role is a qualified one (requiring qualifications in Information Science) and was established just prior to the

earthquakes. Two previous roles, Childrens' and Young Adult Librarian and Information Librarian were merged to form one – however, although the job description is the same, each CLL may have a children's or an information focus. CLLs develop, promote and deliver programmes, events and services to a range of customers as well as providing support to their teams through leadership and expertise. The remainder of staff at each library are Library Assistants (LAs). This is a non-qualified role and LAs provide circulation and information services to customers of the library. This includes joining new members, collecting payments and responding to customer enquiries.

Particularly affected by the earthquakes was the Christchurch Central Library which remains closed. In addition to providing borrowing services, the Central Library housed reference collections of specialised and New Zealand and Christchurch archival material. These included newspapers, photographs, microfiche, ephemera and the Ngai Tahu Claim documentation. The Central Library also provided more in depth reference services and specialised support and training for the library network. It operated differently to the community libraries and had a larger proportion of library-qualified staff.

A Central Library Manger held overall responsibility for library operations within the central building, with different teams providing services for different library collections. Consisting of mainly qualified library staff (Information Librarians or more senior Information Specialists) each team also had its own TL and ATL. The main teams were:

- Aotearoa New Zealand Collection (ANZC) - worked with local and family history collections
- Information - worked with non-fiction collections
- Popular - worked with fiction and music
- Centre for the Child - worked with the children's collection.
- Customer Welcome - provided the majority of circulation services including issues and membership and was staffed largely with non-library qualified Library Assistants.

Aside from the community and central library teams, there are also a number of library support teams that fall into four areas:

Places and Spaces

This team is responsible for the planning and maintenance of library buildings. The team leader is also a manager on the Library Leadership Team. As a result of the earthquakes and the necessity to manage repair and rebuild programmes the Places and Spaces team has expanded.

Digital Library Services

This is a group of teams, each with a TL under the (Information Technology) IT manager. They are responsible for delivering IT services to the library. They plan, develop and install IT systems, manage online databases, operate a helpdesk and also create and develop the library website (<http://christchurchcitylibraries.com/>) with over 17,000 pages of content. The libraries' Call Centre (Fingertip Library) which provides advice (opening hours etc.) to customers and as well as Reference services is also in this group. Team members are usually either qualified librarians and/or have a background in delivering IT services.

Content

This is made up of five teams each with a TL under the content manager. Their main focus is providing content for the network's collection. They look after the selection, cataloguing, invoicing and processing of new items for the network in a variety of formats including books, magazines, and electronic resource. They provide support for the deselection, retention and preservation of stock in the network, create digital copies of library material and items loaned to the library, compile statistical data on the collection, and are involved in policy review. Team members within this group are usually qualified librarians, often with extensive cataloguing skills.

Programmes, Events and Learning (PEL) Te Rōpū Poutama

This is a collection of small teams (each with a TL) under the PEL manager. Programmes, Events and Learning has the role of designing, developing, leading, delivering, co-ordinating, monitoring and evaluating life-long learning programmes and events for customers and staff. Te Rōpū Poutama comprises:

the Maori Services team, the Outreach and Learning team, the Programmes Design and Delivery team, and the Professional Development and Learning coordinator (my own role). The team provides support and training for other customer-facing teams across the network but also delivers directly to the public through library wide-events and three learning centres (equipped with computers). It provides a range of IT programmes to the community, school programmes and holiday programmes. Team members in this area are generally qualified in teaching rather than librarianship, although some are qualified librarians and some hold qualifications in both.

3.1.1 Changes to the organisation as a result of the 2010/2011 earthquakes

The 2010/2011 earthquakes had devastating short term and long term effects on Christchurch. The city centre including the Central Christchurch City Library was closed to the public after the February 2011 earthquake and remains closed two years later. Demolition of buildings within the central city continues.

Elsewhere in the city all community libraries were closed after the February 2011 earthquake, with many taking several months to reopen. This was due to a combination of repairs being needed and other areas of the council needing the libraries for office space while repairs were made to other council facilities. Some libraries remain closed and continuing Detailed Engineering Evaluation (DEE) checks of buildings have seen previously open facilities close. Fig 3.2 below shows the libraries closure over the year as a percentage of total library space available prior to the earthquakes.

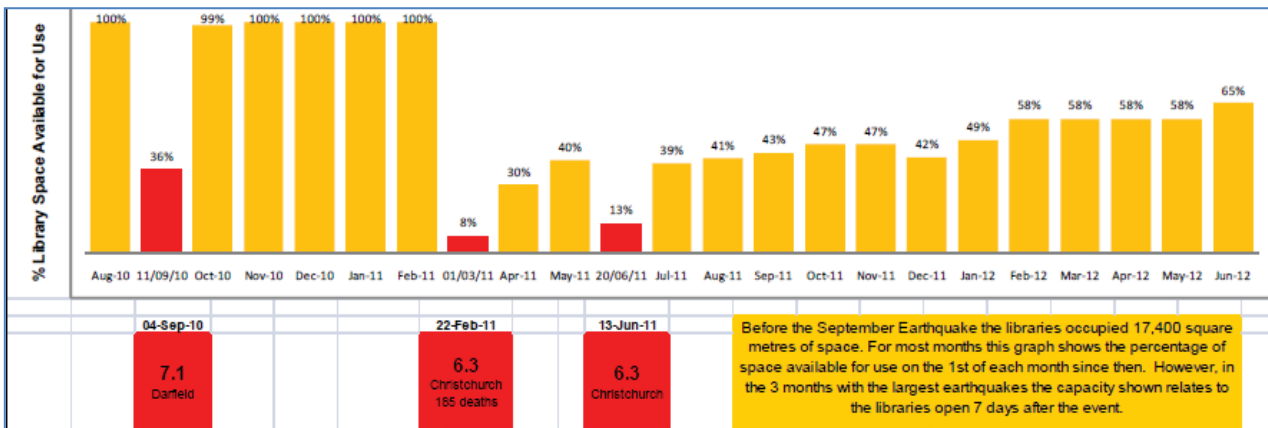


Figure 3-2 Chart Showing Library Space Available for use as a result of library closures

(from Mansell et. al, 2012, p.3)

As recently as July 2012 one of the largest community libraries in the south of the city was declared as not meeting the stringent codes and was closed, although it reopened in December 2012 after strengthening work.

In response to closures, temporary libraries were set up. Currently the centre of Christchurch has two long-term temporary central libraries and a third “mini” temporary library in the suburb of Linwood replacing the community library that was there. Mobile library services have been increased and those libraries that are open are busier, with some offering extended opening times. As repairs are made, libraries are closed and reopened. Staff have been redeployed from closed libraries to other libraries around the network.

To maintain library services in the central city two temporary facilities (Peterborough Street to the North and Tuam Street to the South) have been opened. The specialised collections are shared between them with some collections remaining in storage. The specialised central library teams have disbanded and the two central libraries now operate in a similar fashion to community libraries. Each has one TL and one ATL and staff are required to provide circulation services as well as answering reference queries and managing the collections.

Staff from the Central library are now employed either at one of the two central libraries, elsewhere around the network, or have left CCL. One of the consequences of how the new temporary central libraries were set up is that although they operate on similar lines to community libraries they have some special collections and a higher proportion of library-qualified staff.

Additionally, the earthquakes have caused constraints on budgets and recruitment with a number of staff choosing to move away. In terms of the working environment they have and continue to create uncertainty over both the immediate and long term future of buildings, staffing and programmes, most notably for staff in the affected closed facilities. Staff's emotional and psychological wellbeing are compromised and the situation is subject to change dramatically with each large aftershock, political decision or building assessment.

To provide support for staff, group professional development sessions around resiliency and supporting customers and staff through emotional trauma were provided in 2011. Individual coaching and counselling sessions were also provided by professional counsellors if requested by staff.

Libraries have an important role for many Christchurch residents and have been particularly valued over the last two years (Mansell et. al 2012). When the February 2011 earthquake hit, the library web team were able to provide valuable community information via the library Website, Facebook and Twitter. Children's services team members delivered storytime sessions to children at welfare facilities and, as libraries were able to open, they provided a valuable oasis of normalcy:-

I can't begin to describe how important the library was to me post-Feb 2011 and having a place to go + interact with others when the city all around us was in disarray! The South Library felt like a haven, and I studied here frequently with my classmates (we got an A+ in statistics!)

The library is the heart of the community, especially since the earthquakes, my library, south, was open very soon and it gave me hope, and obviously did the same for many others, the library is for everyone, it's a place to sit and have quiet time or meet people, the staff are friendly and helpful, it was lovely to walk in when it had reopened and be called by name and asked how I was. I love the access to information, the special events, and most of all the books, the library is the only place that always satisfies my expectations.

(Customer statements, Mansell et al, 2012, p.10)

3.1.2 Continuous Change

One constant element of the post-earthquake environment is rapid change:- buildings are closed or reopened sometimes with only hours notice, staff resign or are redeployed, and are undergoing their own personal negotiations with insurance companies, Earthquake Commission (EQC) and home repairs.

In addition to earthquake related changes, CCL is also undergoing a change to its service delivery model. Starting in 2010 CCL had embarked upon a four year process to eventually update all libraries to a “self service” transaction model using Radio Frequency IDentification (RFID) technology. RFID stations can instantly read all the unique RFID tags within a pile of up to five books (or other items) and issue them to the borrower. By installing RFID issuing stations within libraries customers can issue items- and pay any fees using EFTPOS without directly engaging with a librarian.

Before the earthquakes, preparation for RFID had taken place but the technology had not been installed in any library. Starting from November 2011, RFID technology was installed in libraries as they opened (or reopened after repairs), with a schedule for all libraries to be updated over time.

The move to this model of service delivery has had a significant impact on the focus of the LA role. Instead of standing behind a desk issuing stock, LAs are now expected to directly engage the customer within the library providing assistance

and promoting library services. The expectation was not to lose staff by this change in service model but instead to increase the number and range of additional services that the library can offer.

Called “Proactive Customer Service and Roving”, in this service delivery model, staff “rove” (or walk about) the library, engaging with customers, identifying customer queries at the point of need and delivering tutorials and events for customers. The recommended model for roving (MAPHAT™ (Mentor Group Training, 2010)) is based on a series of customer service steps and so face-to-face training was provided for staff at each library as the RFID systems went live. In addition to RFID other new technologies including a new catalogue and access to e-books had been introduced shortly before the February 2011 quake. Again these had an impact on how services were delivered by staff and created an additional training requirement.

Staff have had to move frequently to different libraries and different roles as libraries have closed or colleagues moved away. This has had positive benefits as colleagues have built new relationships across the network and learnt new skills. From a practical point of view this has resulted in new services being delivered across the network. For example, some displaced staff spent time assisting the delivery of computer programmes at the South Learning Centre – on returning to their own libraries these staff were able to set up mini computer learning sessions to help customers at their own libraries. As a consequence of constant change some elements of the CCL culture are changing – staff are more willing to “try out” new ideas and take initiative.

3.1.3 Professional Development at Christchurch City Libraries

Staff employed at CCL have a number of professional development opportunities both internally and externally. Christchurch City Council HR team provide a number of courses to staff council-wide in areas such as induction and council culture, health and safety, leadership development, career development and computers. Library-specific professional development is organised by the

Professional Development and Learning Coordinator and her manager. The opportunities available to staff include attendance at external conferences and seminars, reimbursement of tertiary study fees, and attendance at internally designed and delivered events. These in-house sessions are usually delivered by library colleagues and include the following:

Service Delivery Skills – a three week programme for new staff in customer-facing roles – usually LAs and CLLs - delivered both in the classroom and one-on-one in the workplace by experienced LAs acting as trainers.

Reference Skills – a group of key librarianship skills including reference interview skills, which describes the information gathering techniques librarians use to establish customers' requirements, and how to locate and search resources. Previously this entailed five classroom delivered three hour sessions for new staff (with between three to six months experience) in customer-facing roles, These sessions were delivered by staff in CLL or Information Specialist roles acting as trainers. Developing a new e-learning reference skills programme is the subject of this research and the new online programme will replace the classroom delivered sessions.

Additional Skills Workshops – covering a range of library-relevant skills, usually delivered in one or two classroom-based sessions with staff (usually CLLs or Information Specialists) as trainers. Workshops include: reader's advisory, Māori resources, Microsoft Office skills, information sessions about new resources, collection weeding, book repairs, various online resources organised by topic e.g. family health, family history, etc.

Team-Based Training –delivered to a whole team, often at a team meeting and usually fairly short in length. This may be led by the TL, another staff member, or an external presenter. This includes “roving” training for new RFID libraries, and new technology, e.g. (new catalogue presentation.)

Digital Communication – a six week online learning programme redeveloped from a previous programme run by CCL called CCLlearn. The original programme was similar to the “23 things” programme developed by Helen Bowers (2006) and focused on improving digital literacy and Web 2.0 skills. A number of improvements and changes were identified and recommendations including a change to the Learning Management Software were implemented in November 2011. Trainees taking the programme use the learning management software (Moodle) to access a weekly list of web-based tasks, e.g. setting up a blog or contributing to a wiki. Trainees also meet with a facilitator (another staff member) at various times during the programme.

The majority of library-based professional development at CCL is face-to-face, however, CCL wanted to explore the possibilities of rolling out further online learning programmes to staff, and possibly customers, using the experiences of implementing the CCLlearn programme as a basis.

3.1.4 Rationale for developing a new e-learning programme

Prior to the earthquakes in 2010 CCL was looking to create an on-line learning environment that would encompass a variety of professional development areas for library staff and offer an alternative and/or extension to traditional face to face training.

The need for developing a new approach to professional development was driven by a number of factors:

Increasing numbers of new IT and digital resources available to customers

As well as providing physical resources to its customers Christchurch CCL also provides an increasing range of digital resources. These include free access to premium (pay for) websites that provide journal articles, current and historical newspapers, encyclopaedias and digitised historical archives (e.g. ancestry.com) that provide access to birth and death records. As well as many of these more main stream premium sites, CCL also provides access to specialised databases in areas such as motor mechanics, fashion design and culinary arts.

In 2009 CCL began to provide free internet access via bookable PCs within the libraries and free WiFi for customers with their own laptops or devices. In 2010, CCL purchased digital audio books and “e-books” that could be borrowed and downloaded to customers’ own computers, e-readers, MP3 players, iPods, tablets and phones.

At the end of 2010, CCL also changed its catalogue system. Called Bibliocommons, this new system includes elements of social media and enables customers to perform “Google-like” searches of the catalogue, create and view lists of favourite books, and give ratings and reviews of books, music and DVDs. Some types of searches however (e.g. music scores,) are very different from the old system and staff need training to use the catalogue effectively, master its new features and demonstrate its benefits to customers.

CCL has also created, maintains and continually adds to its own website of over 17,000 pages with much unique local-interest material. It also has an active Twitter account, Blog and Facebook presence, which are all managed by an in house “web team”.

This move into the digital sphere has required staff to continually update their skills and knowledge to provide support and assistance to customers using these resources. Simply being able to keep up what is available to customers requires diligence. However, staff also need to know how to access and search each resource and demonstrate this for their customers. In addition, customers also expect staff to be able to assist in accessing CCL resources through the customers’ own varied and regularly updated electronic devices.

The New Zealand strategic framework requirement for public libraries to support lifelong learning

The New Zealand strategic framework document of 2006 (National Library of New Zealand et al., 2006) sets out the future direction for public libraries to support not just literacy but also information literacy and digital literacy. Information literacy is the ability to search for information, assess its significance and use the

information in appropriate ways. Digital literacy is the ability to effectively use computers and other technologies to support learning and research. The strategic framework goes on to say:

...libraries will need to ensure that staff members have the skills and knowledge to guide customers with their learning needs. Understanding how people learn, having the techniques to guide from the side, creating a non-threatening learning environment and tailoring courses to meet particular needs may mean retraining of staff

(National Library of New Zealand et al., 2006, p. 42)

This goal demands that staff undergo a large amount of professional development to be able to assist customers with their information needs, and provide support for information and digital literacies in an environment where technology is rapidly changing.

The need to improve efficiency and have good fiscal responsibility

As an organisation funded by ratepayers CCL has a duty to continuously strive for improved efficiencies of time and resources. E-learning represented an opportunity to potentially achieve this whilst not compromising on the desired outcomes. In the wake of the earthquakes budget constraints and considerations are even more important.

The impending implementation of (RFID)

The move to this technology was expected to have significant impact on of service delivery and the focus of the LA role. It also has a number of professional development implications. Staff would be required to learn the new MAPHAT™ (Mentor Group Training, 2010) service delivery model, improve customer service skills, and develop greater “stock knowledge” to enable them to answer the wider range of customer enquiries that this model of service delivery brings. In combination with increasing and ever changing technology resources this would

require LAs in particular to gain a broader knowledge of the services CCL provides and to develop more advanced reference interview skills.

The increase in public programming and events taking place in Christchurch City Libraries

As part of the change to the new RFID library model there was an expectation that LA time would be freed up to provide a wider range of additional services. A number of these possible services could include an extension to already existing programming and events, some examples of which are provided below.

Community computer skills programmes had already been delivered for a number of years through the libraries' three learning centres which housed computer labs. These were primarily taught by a number of staff with specific learning-specialist roles. However, there was a demand to provide more of this type of programme within other libraries and a broader range of staff were expected to deliver them.

In addition to the after-school and holiday programmes delivered by the learning centres a number of libraries had begun to provide free craft and gaming sessions to youth, particularly in the school holidays, as a way of engaging youth and managing youth behaviour. Again it was hoped this provision could be extended to other libraries. CCL already had a programme of popular events including supporting NZ book month, music month, summertime reading programmes, preschool programmes, and outreach programmes into schools, preschools and attendance at community festivals and galas. With the change in service model it was hoped that more events could be run or attended.

The need for public libraries to remain relevant to the New Zealand public

During 2009 and 2010 we learnt the sad news of a large number of library closures and cutbacks across the US and UK (e.g. Martelle, 2010 and Page, 2010). The direct reasons for these were varied; the crash of the financial markets in 2008, recession, austerity measures, and political agendas. However, at the heart of all these problems was the increasing lack of relevancy of public libraries to their

citizens. In an age where the latest news is available at the click of a mouse, where Google and Wikipedia are the encyclopaedias of the masses, where the latest paperback can be bought at the grocery store for less than a fiver or even delivered to your door, and a thousand digital books downloaded and carried on your e-reader for a fraction of the cost of the hard copies then a traditional public library can begin to look like a dinosaur.

Libraries need to change to remain relevant and provide the types of services that their customers want. For CCL this has included a number of changes over the years such as Sunday opening, cafés in libraries, online access, “Google like” catalogues, community computer classes, free computers and WiFi, online newspapers and e-books. Libraries are focusing on what makes them unique; the professional expertise, the community space, the local archives, and universal access to information and learning. Positioning themselves as “information navigators” library staff are able not just to help customers find information but also to help them evaluate it and hone in to what is most relevant to their needs and interests.

3.1.5 New Directions – New Learning

All of the above had resulted in the need for large amounts of professional development, to be undertaken in a short space of time and with fewer resources available for staff to travel and attend face-to-face training. Online/blended learning appeared to be a solution that would enable many staff at once to undertake professional development at any time, without travelling to a central location and be able to utilise brief periods (< 1 hour) of off-desk time.

All these factors, however, paled into insignificance when compared to the effects of the Canterbury earthquakes and the continuing aftershocks of 2010/2011.

In terms of professional development, the loss of training venues and added difficulties in travelling around the city have given further imperative to put in place a learning initiative that can be undertaken in the learner’s own workplace.

The physical and emotional pressure of the situation has created huge barriers to staff learning. Many staff feel reluctant to travel with major road and infrastructure repairs causing delays and some fearful that another aftershock could leave them stranded on the wrong side of the city. Common for when living through a disaster staff are also reporting lack of concentration, tiredness and sleeplessness, none of which is conducive to learning.

With this in mind, permission was granted by CCL management to go ahead with the original plan to develop an online learning environment for staff. However, circumstances dictated that it was to be in a pilot form only and technical support would be limited to what existing technical staff could accommodate with space on a low cost “cloud server” being rented rather than setting up a new dedicated local server. Moodle was chosen as the new Learning Management System as it is free, well supported by user groups and currently used by several New Zealand education providers. Most of the site administration would be done by me, with limited technical support.

The learnings from the pilot would be used to inform and develop online professional development programmes for staff in the future.

3.2 Methodology

As Professional Development and Learning Coordinator at CCL, this research focuses on my own professional practice. By reflecting upon and improving in an area that is relatively new to me and my workplace, and in an environment that provides unique constraints and challenges, my hope is that this research will provide long-term future benefits to the library. Since the research is embedded in my own practice of teaching, my own beliefs about the nature of learning serve to inform the methodology of the research. Of the established theories, I lean towards the cognitive, and in particular psychological constructivist ideas (e.g. Richardson (2003)).

I see knowledge as being individually constructed by a process of amalgamating the new with existing beliefs and ideas. This is a theory about learning rather than teaching, with learners being the active participants. For example, I often tell delegates at the beginning of a face-to-face training session that they will be the ones doing “all the work”. My belief that knowledge is individually constructed leads me first to ask questions and promote discussion about what students already know and the contexts in which they work, then to provide opportunities to experience the new and “figure things out for themselves”, and finally to encourage students to consider for themselves where this new information fits with their existing schema. These beliefs fit closely with Arsenau & Rodenburg’s (1998) “developmental perspective” and also Elias & Merriam’s (2005) “progressive”, or education for “practical problem solving”, category.

This research sits within the Pragmatic Research Paradigm (Phillips, McNaught & Kennedy, 2012). In this paradigm, ontological reality exists as a real world of which observations can be made, however knowledge itself is socially, historically and individually constructed. Within this paradigm the methodological approach uses a variety of methods as best fits the context as; “*Its focus is on practical problems rather than on issues of reality and theories of society*” (Phillips, McNaught & Kennedy, 2012 p.78).

This research also takes on a “practical problem solving” pattern. First examining what is already known about the practice and the context, then developing an opportunity to try out something new and finally evaluating and considering how this knowledge fits in or challenges what is already known. My practice as trainer does not take place in a vacuum.

My library colleagues are also at varying times my co-trainers, collaborators, and also my trainees. An effective research approach needs to work with these existing relationships and the collaborative relationship itself forms part of the research question – what factors create effective working relationships between collaborating teachers?

Participatory Action Research (PAR) has been described as the “living” theory of professional practice (Whitehead & McNiff, 2009). PAR provides a methodology that enables study of a real world dynamic context to take place with the researcher’s own practice being part of the system that is being researched. It is a means of exploring, reflecting and critically examining existing practices to gain new insights for future improvements and to guide ongoing practice, which can again be examined for future developments. This process is essentially cyclical, with each iteration of reflection, practice and evaluation informing the next.

Another aspect of Participatory Action Research is the focus on the community rather than the individual. The researcher does not act alone as a detached observer but is part of a community in which the research and action takes place having existing and changing partnerships, relationships and collaborations with co-practitioners, learners and managers within the organisation. As such the community is not “researched on” but is “researched with” and decisions about practice and the direction of the research itself are not taken by the researcher alone but by the collaborating group (Kemmis & McTaggart, 1982) .

This study uses an action research methodology with the researcher working as part of the library staff community or ‘collaborating group’ to develop and improve professional development delivered for staff in the future, using e-learning. The collaborating group consists of colleagues who are engaged in developing and delivering professional development for other staff and also colleagues who were “trainees” for the programmes.

In order to provide structure to the research, the steps described in Slater (2005) were followed:

- Step one – Identify the issue
- Step two – Investigate the issue
- Step three – Analyse the data
- Step four – Plan action
- Step five – Act
- Step six – Evaluate

- Step seven – Reflect, revise and draw conclusions
- Step eight – Disseminate

This provided a logical -step-by-step process for developing and evaluating the research, although steps could overlap or be revisited several times. In addition, to guide the process of critical reflection, and to ensure that the research was considered through different viewpoints, the concept of Brookfield’s “Four critically reflective lenses” (Brookfield, 1995) was employed. These lenses are:

- *Our autobiographies as teachers and learners*
- *Our students’ eyes*
- *Our colleagues’ experiences*
- *Theoretical literature*

(Brookfield, 1995, p. 29)

These lenses enable the researcher to view problems from different perspectives to gain a more complete picture of the issues and possible solutions.

The **autobiographical lens** enables the teacher/researcher to acknowledge and critically reflect upon her own background and experiences and how these may affect her own prejudices and assumptions about her practice. It enables her to challenge what she “knows” for validity and truth.

The “student’s eyes” lens or **learner lens** enables the researcher to view her practice as others see it. Is what is delivered received in the way it was intended? What is the experience of being a learner in her programme?

The colleagues’ experiences lens or **collegial lens** enables the researcher to review her practice through other professional eyes. Are her issues unique to her practice or more ubiquitous, what can others observe about her practice that is normally hidden?

The theoretical **literature lens** enables the researcher “to view a situation from many different perspectives and to “name” our practice by illuminating the general elements of what we think are idiosyncratic experiences” (Brookfield, 1995, p. 36)

By considering evidence from multiple perspectives, Brookfield’s method is a “triangulation” system that is intended to give both a broader picture of the problem and increase the reliability of the data and its interpretation. Each source of data adds another element to the study, which sheds more light on the previous sources confirming previous evidence, or questioning it, offering alternative explanations and different aspects to explore. This “layering” approach enables a rich, multi-dimensional analysis of the issue leading to a more complete picture of the problem (see fig. 3.3).

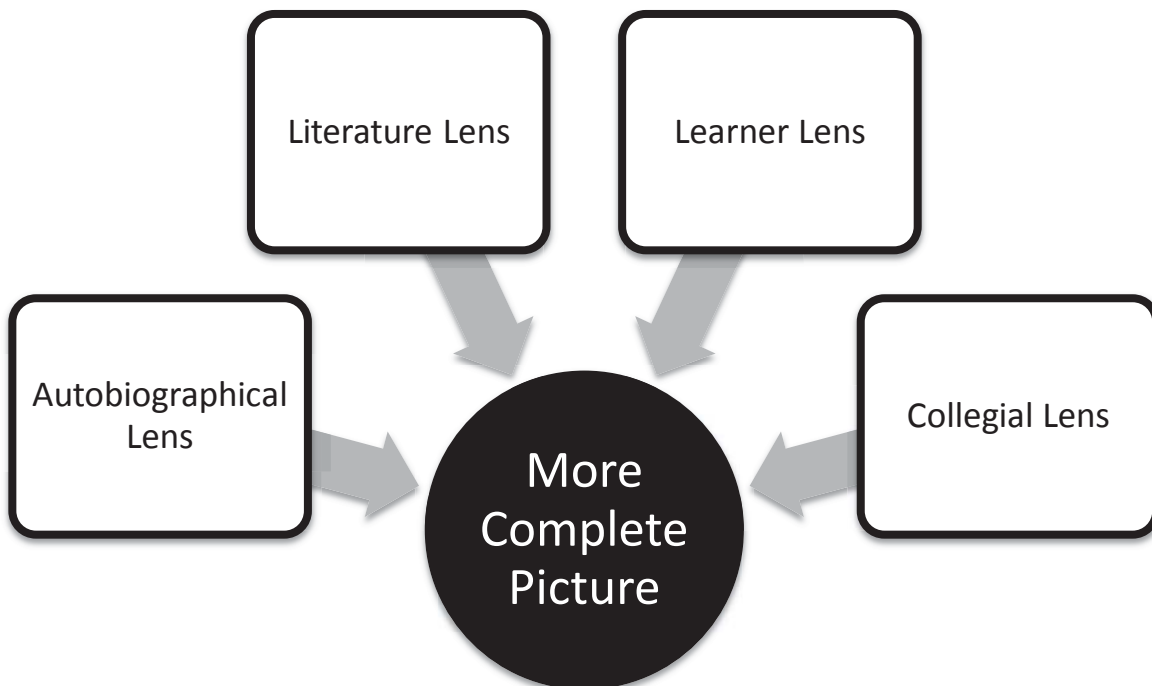


Figure 3-3 The Critical Reflection Process Adapted from Brookfield (1995) p. 30

Slater’s (2005) step-by-step action research process enables data from multiple perspectives to be managed in a logical and consistent manner so that each perspective can be analysed in isolation but can also be merged to create a richer, more comprehensive analysis. Putting these two investigative frameworks together created an outline of the method for the study.

3.3 Outline of the method

Step 1: Identifying the issue

I examined my current practice and identified online learning as an area for development. This is something relatively new to my experience, and to the

organisation, and one that has had mixed feedback from the previous Web 2.0 online programmes CCL has run in the past. It is also a tool that is likely to be used more frequently with the potential for online learning to be rolled out to customers in the future. My chief concern is how to make e-learning effective in the library workplace, particularly within the post-earthquake environment. Reflecting on previous course feedback and on my own experiences of e-learning led me to a particular interest in the motivation for staff to want to actually engage with e-learning, for without engagement e-learning is doomed to be ineffective.

Step 2: Investigating the issue

Following from Brookfield's four lenses approach the issue was investigated by collecting evidence from different sources:

- Existing evidence regarding current best practice in e-learning from previous studies was collated and analysed and used to inform the development and design of the programme. LITERATURE LENS
- I examined and reflected upon previous experience, evaluations and other documentary evidence of past PD in the Libraries. AUTOBIOGRAPHICAL LENS
- Learner feedback from a previous online PD programme undertaken by staff at CCL and results from the 2011 staff training needs questionnaire were examined and analysed to inform the development and design of the programme. LEARNER LENS
- I undertook interviews with participants of the project involved in developing the e-learning pilot programme to gain their feedback about e-learning and the process of developing the online materials. COLLEGIAL LENS

Step 3: Analysing the existing (background) data

The data collected from step 2 were analysed with the 'collaborating group' of participants to inform possible solutions. Questionnaires and other data collecting tools used later in the project were also discussed and developed at this stage by the collaborating group of participants as part of the action research.

Step 4: Planning the action

The analysis of the background data (step 3) was used to inform the action – in this case designing and developing the online learning programme with the “collaborating group” of participants.

Step 5: Trialling the action(s)

The online learning programme was trialled with a pilot group of library staff.

Step 6: Evaluating the action(s)

The programme was evaluated using a number of different methods to gain as complete a picture as possible.

These different methods together enable the results to be looked at from many perspectives and include qualitative and quantitative data. By triangulating the data in this way a more robust evaluation can be achieved.

Data were collected in the following ways:

- Pre- and post- course surveys
- Focus group of course participants
- Learning Logs completed by participants
- Online activity tracking logs from the Moodle learning management system
- Online forum entries
- Researcher’s reflective journal

Information from all of these methods contributes to the full picture of the research results.

Step 7: Analysing the results

Step 6 produced a wide range of different types of data including reflections, interview responses, survey data and programme tracking data. These data were analysed using qualitative and quantitative methods as appropriate.

Step 8: Disseminating the Findings

The results were summarised and conclusions reached about future directions for online learning programmes at CCL. The findings were disseminated by this thesis

although further journal and conference papers may also be written up later. Participants will also receive a report of the findings.

3.4 Description of the Sources of Data

Interviews

Interviews with members of the Participatory Action Research Group (PARG) (See Appendix G) were undertaken at the beginning stages of the study to gain a collegial perspective on the process of developing and designing e-learning programmes.

Pre- and Post-Course Surveys

Pre- and post-course surveys were presented to the trainees in the online environment (See Appendix H and Appendix I). All trainees completed both surveys. The surveys considered a number of areas and collected both textual and numerical data. Both surveys were developed in conjunction with the PARG. The surveys were not identical as the pre-course questionnaires related to the trainees' previous experiences whilst the post-course survey dealt with the content of the course. However, trainees rated their confidence with the various topics covered by the course before and after using an interval scale and these are compared across the surveys.

Pre-course Survey

The aim of the pre-course survey was to establish information about previous online learning experiences and confidence with the course topics. The survey also asked trainees what they hoped to learn from the course and how they thought the course could be made interesting and engaging. Time was provided for completing the survey during the first face-to-face session

Post-course Survey

The post-course survey was longer than the pre-course survey and consisted of four sections – the first asked questions about where and when trainees accessed the online course, the second asked trainees how effective they thought the

programme was and to rate their confidence with the different topic areas, the third section asked trainees how engaging and entertaining they found the programme, and the fourth section asked trainees to provide any additional comments. The survey was made available online after completion of the face-to-face session. Time pressures, however, meant that the posting up of the survey was delayed and as a consequence not all trainees completed the survey until after the focus group session (see below).

Focus Group

One week after the programme ended with the final face-to-face session, the trainees met again for the focus group session. The two hour session was facilitated by myself, recorded and then transcribed. Discussion questions (Appendix J) were designed as discussion starters allowing for the exploration of relevant themes as they developed. Although questions were devised rather than simply using topic areas, the session was run as an informal natural conversation with all participants including myself as a facilitator taking part in the discussion.

Learning Logs Completed by Trainees

The learning log was a paper booklet intended to be used by the trainees as a way of monitoring their own progress and noting any particular difficulties they had such as specific technical problems (e.g. particular videos not loading, or spelling errors in quizzes), or anything they particularly liked about the course (see sample Appendix K). It contained information about the administration of the course – email addresses, timings etc. – as well as a page for entering information about each module. The learning logs were added to the programme as an afterthought as the PARG were concerned that otherwise the trainees had nothing to “take-away” to make the course seem “real”, and nothing to refer to. Not all of the trainees used the learning logs; some preferred to add comments to the online forum. Three of the trainees however, completed the paper learning logs and returned them to me with permission to use them as additional data.

Online Activity Tracking Logs

As well as hosting learning materials, the Moodle learning environment can also track usage of the system. In particular, every login and page view by each trainee is recorded. This makes it possible to know when a trainee accessed each page of the site and calculations can be made of how long they spent on the site and for how long they viewed each page. These data must to be handled with caution however; although it is possible to calculate “Time Spent” by considering the difference between the log out and the login times this does not mean that the trainee was actually looking at the page or reading information. On some occasions trainees did not actually log out of the site, but left the site in other ways; closing down their computer, or experiencing a browser crash for example.

Despite these restrictions it is still possible to gain a reasonable estimate of how long trainees spent on the site and what they were looking at.

Online Forum Entries

The forum was intended to be the main vehicle by which trainees could contact the tutors and each other, share concerns, and discuss answers to various problems each week. The forum was used far less than anticipated but it did become a space where trainees posted comments and feedback about the course itself, particularly technical issues. Posts from the forum also provided valuable feedback about the programme.

Researcher’s Reflective Journal

During the project I kept a reflective journal to record of my own observations, thoughts and reflections about the project and its progress. I also used the journal to record notes about informal discussions I had with the PARG, trainees and other colleagues. This provides another source of evidence, from a different perspective, about the implementation of the project, its effectiveness and impact.

3.5 Consideration of the Levels of Analysis

The programme itself can be considered at a number of different levels, with each level having an impact on the other levels and on the success of the overall programme. Since this research aims to discover:

How can e-learning be made effective and engaging for delivering professional development to library staff in a public library?

All of these levels are addressed in varying depths at different stages of the study. These levels are represented in Fig. 3.4, and described below.

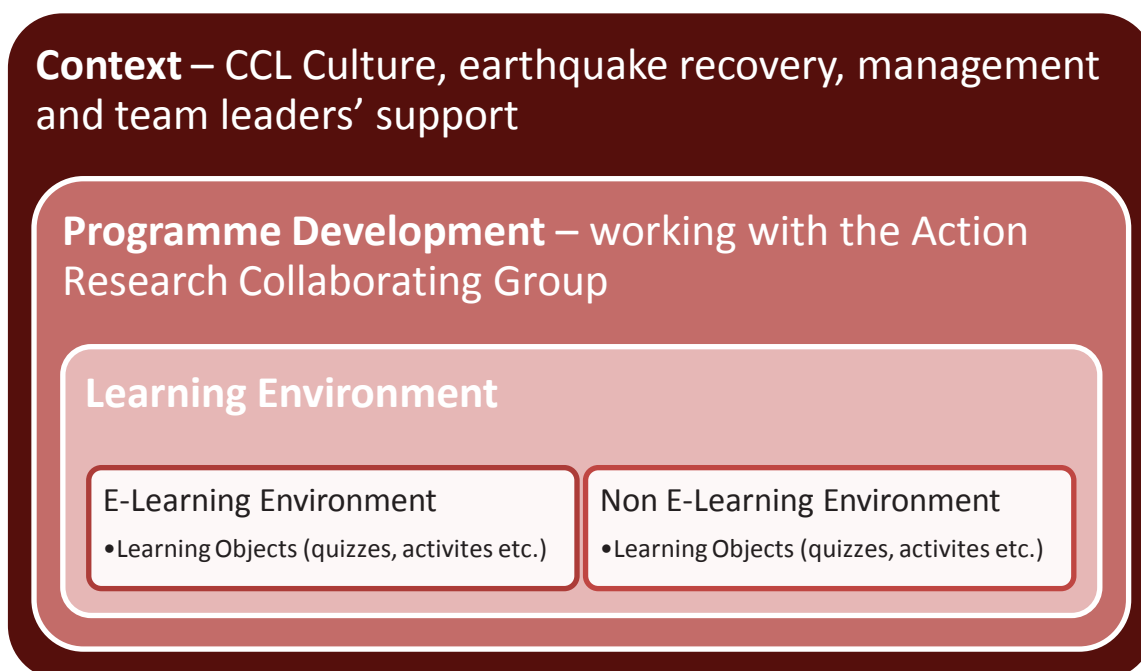


Figure 3-4 Different levels of consideration that impact on the outcome of an e-learning programme

Context: the context of the study, including the culture within the organisation, management's and team leader's support of the programme, as well as the impact of living and working in a devastated city undergoing recovery all have an impact on the implementation and success of the programme.

Programme Development: the process of developing, designing and delivering the programme, including the working practices and working relationships between collaborators, impacts on the effectiveness of the programme delivery.

Learning Environment: the learning environment provided by the programme deliverers, including the scheduling of the courses, the time frame, and the amount and type of support provided all impact on the trainee's ability to take part in the programme and successfully complete it.

E-Learning Environment: the online environment itself, how easy it is to access and navigate, how welcoming it is to trainees and how well the technology performs all impact on the learner's ability to use the programme and learn from it.

Non E-Learning Environment: for a blended learning course, the face-to-face components also impact on the effectiveness of the programme, including how welcoming and accessible the location and trainers are.

Learning objects: Within both the e-learning and face-to-face components of programme individual elements, such as classroom activities, readings, quizzes etc. all impact on its overall effectiveness. Each individual learning object, or type of object, may make the overall programme either more or less effective or engaging.

By using a real world example the different levels interact in unique yet unpredictable ways, however, where possible, this research endeavours to isolate these factors to provide more universally applicable findings.

3.6 Ethical Considerations

This study addressed the following ethical considerations.

Permission to use a work-based project as a basis for the study and permission to invite staff to take part in the research was sought (Appendix A) and approved by the Library Manager of CCL.

Potential conflict of interest existed for the researcher as she was a colleague of both the collaborators who worked on the development of the programme and the participants who acted as trainees in the programme. In order to minimise this conflict of interest the following steps were taken:

- Trainees for the programme were not chosen from staff with whom the researcher had a direct working relationship (i.e. in the same team)
- Staff who wanted to take part in the learning programme, but not to be part of the research, were offered the programme at a later date
- Participants in the collaborating group comprised trainers whose usual role is to develop professional development programmes. The trainers helped develop the programme as part of their normal work, however they were invited to take part in the research only if they chose to. The identities of participants in the research were known only by the researcher so as not to bias participants versus non-participants in group discussions about the work. To maintain this anonymity colleagues in the collaborating group were interviewed separately and pseudonyms used.

Due to this conflict of interest, this study underwent a full ethics committee review by Massey University Human Ethics Committee (MUHEC) (11/71)

Informed Consent: All participants, both collaborators and trainees, were sent an information sheet outlining the purpose of the study and their role in it (Appendices B and C).

Collaborators were required to develop the programme as part of their normal work and take part in an interview about their experiences.

Trainees were required to complete online pre- and post-course surveys, take part in the pilot online training programme and attend a focus group on completion of the programme. Data was also collected electronically by the Learning Management System including forum discussions and monitoring of the course elements that the trainees completed online through a tracking tool. Trainees were also able to record their progress and reflections using a paper learning log, the contents of which were provided for analysis.

Both trainees and collaborators were potentially involved in collegial discussions, initiated by the researcher or the participants themselves. Insights from some of these discussions were recorded in the researcher's reflective journal and used for analysis. Participants were made aware of this possibility and given the opportunity to ask for any conversation to be excluded from the analysis.

All colleagues who were involved in reference training at the time were invited by email to take part in the research as collaborators. Trainees for the programme and focus group were recruited via an email to all library staff. (Appendix D). Staff who wanted to take part in the programme, but did not want to be part of the research, were invited to take part at a later date.

Before the start of the study, participants were required to sign a consent form (Appendix E). Participants also had an opportunity to view and correct the transcript of the interviews and focus group before the data were analysed.

Confidentiality: Both collaborators and trainees on the programme were given pseudonyms and every effort was made to keep the identity of individual participants anonymous within the thesis. However, due to the nature of the background of the study (i.e. a large multi-site public library in New Zealand rebuilding after the effects of earthquakes) the organisation is identifiable. All participants were made aware of this fact and no attempt was made to conceal the identity of CCL.

Transcription of the collaborators' interviews was undertaken by a professional transcriber. The participants were made aware of this and the transcriber was required to sign a confidentiality form (Appendix F).

Data security: All electronic data were kept on the researcher's computer, accessible only to the researcher by password. Hard-copy data and completed consent forms were kept in a locked filing cabinet in the researcher's home. All electronic data, hard copy data and completed consent forms will be destroyed after 5 years.

4 Developing the Programme

This chapter describes the development, creation and implementation of the pilot learning programme by the Participatory Action Research Group (PARG). It discusses how and why decisions were made and the effect they had on the study. It also details the process of creating the programme as a group and how the programme was implemented. Following the structure of the research it discusses the following steps:

- Step two – Investigate the issue
- Step three – Analyse the background data
- Step four – Plan the Action
- Step five – Trial the Action

(Slater, 2005)

4.1 *Investigate the Issue*

Step two, investigate the issue considers what is already known about online learning and professional development, professional development in libraries, and CCL's own experiences of online learning in order to inform the programme development. Following the method described in chapter three, Brookfield's four lenses (Self Lens, Learner Lens, Collegial Lens and Literature Lens) (Brookfield, 1995) were used as a framework. The literature pertinent to the research has already been discussed in chapter two and the three other lenses are discussed here.

4.1.1 Self Lens

Background of the researcher

Using Brookfield's Self Lens requires a reflective analysis, with my own critical reflections seen through the lens of my own culture, upbringing and personal biases. As a researcher my role is to acknowledge and critically examine these

biases in light of the research. However, explicitly stating my background also enables the reader to make a more informed reading of my work.

I am a white, female in her early forties, married with two young daughters. Originally from the UK, I emigrated to New Zealand in 2002 and have been living as a permanent resident for ten years, my husband is also British and works as a biology lecturer at a NZ university.

As part of generation X, I have been working with computers since high school. My first degree is in mathematics, and I have a master's degree (gained part-time) in statistics. Initially working as a statistician, I started, but did not complete, a PhD in mathematical biology in 1995 and then worked in training and teaching adults (primarily in computer skills) for 15 years. Most of my employment has been in the public sector; museum, universities, a district health board and a public library, but I have also worked for private IT training companies.

I have been in my current role as the Professional Development and Learning Coordinator of CCL for five years. My responsibilities include designing, developing, delivering and administrating professional development opportunities for staff in the library, working with external and internal trainers.

E-learning a Personal Story (Lens)

My thoughts around e-learning are somewhat ambivalent. Much of my career has been spent organising and delivering face-to-face training and teaching – it is an area I find personally rewarding as I watch learners conquer a new skill for the first time or engage with them in discussions about new approaches and ideas. If contact with learners defines my role as a teacher how does e-learning redefine it?

My experiences with e-learning focus on three main situations: working as a staff IT trainer at a UK University, being a student at Massey University and both taking part in and facilitating an online learning programme about Web 2.0 at CCL.

Microsoft training at a UK University

My initial introduction to e-learning was through CD-based instructional materials for learning Microsoft Office in the late 1990s. When I first started my role as a staff IT trainer at a UK University, the programmes in place were self-paced CD-based learning. The CD-based programme consisted of a PDF file (printed to create a book) of activities to follow, and included files to work with. The learners (staff at the university) worked through the books using the files with a tutor on hand to help if necessary. These programmes were somewhat unpopular and often cancelled due to lack of numbers.

Since my own background was with tutor-led training I introduced this style of learning. Within 3 months sessions were oversubscribed and over a year nearly ten times as many individuals took part than in the previous year. Attending a tutor-led programme seemed to be a much preferred option, and for me as a tutor they felt “more enjoyable” and “more rewarding”. Theoretically the e-learning should have enabled learners to work at a pace that suited them and focus on topics that they were interested in. In practice it seemed that learners preferred to be led through a programme at a pace set by the group as a whole and focussing on topics chosen by the tutor.

Reflections

With the CD-based courses, learners were physically in the same room, but mostly worked in silence and alone, occasionally asking the tutor for support. With the tutor-led programme there was much discussion between tutor and learners and among learners themselves. Thus the social aspect of learning was missing for learners in the CD-based courses.

Another thing I observed was that although in theory learners using the CD courses had a totally flexible course where they could “pick and choose” the parts they wanted to learn, in practice, most just worked through the topics in the order they were presented. In the “tutor-led” course the learners moved through the material selected by the trainer, which would seem less flexible, however trainers were able to react to learners’ needs for a different topic or context.

For each topic presented in the workbook there were sections to read through, examples to look at and then exercises to complete. What surprised me was the number of learners who after completing the readings did not actually attempt to practice the exercises for themselves (despite being in a hands-on environment), and on the quiz materials they would often “cheat” and look the answers up at the back. There was an overall desire to get the training “over and done with”.

Being a distance student through Massey University

During my Master of Education studies at Massey starting in 2006 I have undertaken five separate taught courses. Despite all of the courses being taught by distance learning, little attempt was made by either students or lecturers to use the available e-learning tools such as online forums or wikis. In all cases, forums or wikis were started and then abandoned only weeks into the course. In only one course did the lecturer use the online forum for anything other than introductions or discussion of the upcoming contact course. In one other course run through the Business School the lecturer added resources to the course site that could be downloaded. I expected that perhaps there would be more use made of forums after the contact course once students had had the chance to meet face-to-face, but in all cases the forum was completely abandoned soon after the contact course.

Reflections

For me, this was very disappointing. I would enthusiastically contribute in the initial stages only to discover very few students or even lecturers felt comfortable using the forum as a tool at all and would post little after their first “*Hello, wow I have managed to post on a forum*” message.

However, conversations with other students and the lecturers revealed a lack of knowledge and a reluctance to engage with an online learning environment; there was not enough time, it was too difficult, the forums were not graded, they could not be bothered. I think I was most surprised by this total lack of interest in the forums – my classmates and tutors were supposed to have an interest in adult

education, why then were they completely dismissive of the environment, unwilling to even experiment with its potential as a learning and teaching tool?

Could it be that since this was a postgraduate programme all of the students were older than a typical undergraduate student and felt too old to engage with the digital environment? Since the programme was about adult education most of the students were already engaged in teaching adults in a face-to-face environment; could e-learning be seen as a threat to this way of working? Is it simply an irrelevance?

Web 2.0 online learning at Christchurch City Libraries

In 2009 CCL employed an outside contractor to develop a blended learning programme focusing on Web 2.0 tools. The six week programme was called CCLlearn and was delivered via a learning management system called LAMS. It comprised of one-hour weekly facilitator-led sessions with a small group (six people) and four hours weekly of online learning. The programme was based on exploration and trying out new tools for yourself.

CCLlearn also included activities for learners to “pass on” their new knowledge by teaching others. My role was both as administrator of this training and as one of the group facilitators. Before I embarked on these roles however, I had to undertake the training myself.

The CCLlearn programme focused on a number of different Web 2.0 tools. Each week you tried things out for yourself – for example creating a blog – and reported back to the group (and also posted to the blog) your experiences. Aside from examples and general readings, the instruction for how to actually do these tasks was to use the sites’ help features. This was a purposeful part of the programme to encourage users to find things out for themselves, be “self-directed” and also a recognition that the technology and “how to” is constantly changing.

I found doing the tasks to be full of trial and error and time consuming although I usually managed the task eventually. I also found the process frustrating and

struggled with being self-directed. If someone had actually gone through the steps with me it would have taken far less time and even with a dull presenter, at least the session would have been over at the prescribed time and I could have grumbled about it with my fellow learners. And yes, I could technically create a blog, but why would I want to? Who was actually reading it? What would I write?

After the novelty of the online environment training had worn off, I found sitting at a computer by myself, inching frustratingly along to the desired outcome until I could “tick off” my achievement, somewhat boring and isolating. The face-to-face groups were largely discussions about what we had or had not done – our highlights and lowlights of the week. During these I tried to remain positive, always aware that the programme would be rolled out to the wider staff in only a few weeks.

Re-reading my blog (<http://babygrem.wordpress.com/>) from two years ago, my unhappiness with the programme and sense of isolation is very clear describing my blog as “*hovering forlornly around the edges of the playground just waiting for someone else to ask them to “come play”?*”

Despite my reservations about the programme and never even completing it, I then found myself not only a facilitator of the programme but also the main administrator and advocate for it.

Despite my concerns, the CCLearn progressed better than I had feared. Several “waves” of learners took the programme over the year. Although few people completed the whole programme, most individuals felt they had learned some valuable skills, and confidence levels with IT improved. Technical issues also bugged the programme with the Learning Environment frequently crashing and being unavailable.

Reflections

For me as a learner, I realised that one of the biggest challenges for e-learning is overcoming isolation and finding the motivation to initially engage with the

programme and stay engaged. Yet the issue was not about the environment itself. As a user of computers for 30 years, it is an environment that I enjoy and can spend hours in – playing computer games, surfing the internet or emailing friends. Yet, I found the online learning programme frustrating and dull.

Compared to a simple computer game, such as a repetitive “shoot ‘em up” or “hunt the hidden object”, the online learning programme had far more depth and opportunities to engage with different tasks. Yet the game felt far more engaging and enticing.

As a facilitator I was most struck by was the wide range of individual emotional responses to the course. A few individuals actively hated the programme, some really enjoyed it, but many seemed to view it as a “chore” that they had to do. Similar to exercise, it would be put off but sometimes actually enjoyed once started. Lack of time and appropriate space to complete the modules were barriers for people, but also possibly provided convenient excuses for not engaging.

Since the learning was about digital technologies and the delivery method a digital technology itself, it was hard to disentangle the two. A non-technological content example may provide clearer information as to whether e-learning is more generally an effective method for library staff to learn.

Overall Reflections and conclusions from the Self Lens

From my own personal reflections on e-learning there are a number of issues I wanted to explore:

- Motivation to actually engage in the e-learning seems to be a major hurdle – what can be done to encourage learners to *want* to learn?
- Not wanting to learn via computer is not just about feeling unfamiliar with the technology. Perfectly competent computer users (e.g. me) can feel uninspired by the delivery method.

- How much of the lack of motivation is actually down to how the material is delivered as opposed to the delivery method? (A lecture can be riveting or exceptionally tedious – can the same be said of e-learning?)
- What are the instructional design features that will engage learners?
- Do online learners need to feel a sense of success and progression? Can this be achieved within an e-learning environment?
- What external structures can be put in place to help with e-learning?
- The social side of learning can be a big motivator for individuals to attend face-to-face courses – can this be replicated in any way in the e-learning environment?

4.1.2 The Learner Lens

Using the 2nd Brookfield Lens this section looks at the view of e-learning from the library staff themselves. Although, the aim of the research is to create a new learning environment for staff to learn reference skills, e-learning programmes focusing on Web 2.0 skills have been trialled and rolled out to library staff in the past. The feedback from these programmes is an important indication of how CCL Staff view e-learning and the perceived benefits and barriers to learning. This can provide guidance for the development of future e-learning programmes. Another useful set of data is that received from a Training Needs Analysis (TNA) survey sent out to staff at the end of 2011. As well as asking about the training needs in particular areas, the survey also asked staff for their preferences and opinions around training delivery methods. This survey provides a useful indication of the learner viewpoint in relation to existing feelings around e-learning.

Feedback from Previous E-learning Programmes

Since 2009, CCL staff have taken part in various iterations of an online Web 2.0 course based on the 23 things initiative (Blowers, 2006). The course focused on digital and social communication media such as blogging and Facebook aiming for learners to gain a greater understanding of these tools. Feedback was obtained from these courses via online surveys and focus groups and although a large amount of the feedback was about the topics of the course itself, feedback was also

given about more general aspects of the delivery method and the associated benefits and barriers to e-learning in the workplace.

Comfort levels with e-learning

Trainees were asked at the start and end of the programme to rate their comfort levels with online learning on a scale of 1 to 10.

Overall the comfort levels with e-learning increased, with most trainees' comfort levels staying the same or increasing. A small minority of trainees appeared to become less comfortable and take a strong, even vehement dislike to e-learning. This may have been in part to do with the "self discovery" focus of the web 2.0 course as Stephens & Cheetham (2011) discovered in feedback from a similar programme, and may indicate that a more structured approach would be beneficial with e-learning provision.

Barriers to learning - Resources

The most identified barriers were to do with resources: time, adequate computers and place (without distraction). Although time was agreed with team leaders, in practice it appeared difficult to actually take. Slow computers and technical problems magnified these difficulties as the little time available became wasted with waiting for files to download.

Workplace distractions also played a part as most staff computers are located in busy workrooms where other activities may have been taking place. In some workrooms, computers may also be a scarce resource and difficulties arise if one individual needs a PC for a sustained length of time.

The feedback from the trainees showed that although there is a commitment from TMs to provide adequate resources, and that this was emphasised to them both before and during the course, the practicalities of providing the appropriate time and place may be more difficult to achieve. One of the aims of delivering training via e-learning is to cut down on the travel time and costs of attending training. Yet

by blocking out time on a roster and attending training in a different location, the individual is guaranteeing sufficient time to attend. If an individual blocks out the same two-hour time slot on roster, yet stays within the workroom, they are in danger of losing this time to other workplace demands.

Barriers to learning - Personal Motivation

This was usually expressed as “other concerns having priority” or e-learning being “easy to put off”. Essentially, even if “off-desk” time was available, staff chose to do other activities rather than e-learning. In some cases individuals referred to themselves as being “lazy” for not completing the modules. Part of this could be explained by the lack of urgency over actually completing the weekly tasks. Although trainees were supposed to discuss their learning each week (either during a face-to-face session or through a forum), there was no penalty for not doing so. And although individuals enjoyed contributing to the forum, reading contributions and commenting on others’ contributions, no specific reward was given. The programme was not assessed and the main objective of the course was for staff to gain confidence with digital communication technology in order to be able to assist customers and have a clearer understanding of the digital future that libraries are moving into. Most trainees did claim to feel more confident in this area when compared to their pre-course confidence levels and so in this respect the course could be seen to have been successful. However, it was clear that the structure of the course did not lead to trainees always having the motivation to complete the modules. To combat this lack of motivation trainees suggested that more quizzes, more use of the forum, and buddying up with others on the course might help create the necessary sense of pressure to complete the modules.

Interestingly, trainees tended to ascribe the reason for this lack of motivation to themselves rather than the programme. Trainees felt the problem lay with their own laziness rather than the programme’s lack of appeal.

Barriers to learning - Skill Level

For some, the computer skill level needed for the course in terms of navigating the course, accessing information, and attempting the exercises was too high. To a

certain extent this had been anticipated and considerable time was spent in the initial face-to-face session familiarising people with the online environment and the basic skills they would need to master in order to engage with the programme. However, this was clearly insufficient for some, and points to a need to reconsider the navigation and visual aspects of the programme and the amount of time devoted to familiarisation of the environment. This barrier affected only a small number of trainees but they needed considerable extra help.

Things that helped learning/enjoyment

Trainees were asked to describe the parts of the programme that helped their learning or enjoyment. Comments about things that increased learning or enjoyment mentioned clear presentation and the “look” of the site often. Another thing often mentioned was the style of the programme with its relaxed and informal approach creating an unpressurised environment that focused on personal empowerment. Specific elements of the course mentioned were the forum, videos, quizzes and the overall mix of resources.

The forum was particularly interesting as in later iterations of the course it served as both the main way of connecting with the tutor and others on the course and the main way of individuals demonstrating what they had learnt. Trainees liked being able to connect with others and being able to use the forum to “gauge where they were in relation to others”. This showed that some trainees viewed the programme almost competitively. With quite a wide range of abilities of trainees on the programme this was not the intent. Throughout, the course emphasised the need for the individual to try out and learn something new regardless of what their initial skill level may have been. However, given that this behaviour emerged the question of how to usefully channel it remains.

Flexibility of time and place, and the ability to go back over things at their own pace was also something a number of trainees mentioned as an advantage to the programme. This could in fact be seen as the major benefit for trainees themselves. Many of the benefits of e-learning, such as the reduction in cost or

savings in travel time, provide nothing for the trainee and may possibly be seen to “cheapen” the training.

Ways to improve the programme

An additional question asked trainees how they would improve the programme. Somewhat concerningly given that one of the aims of creating an online programme is to reduce the need for face-to-face sessions, the thing that most trainees would do to improve the programme was run more face-to-face sessions!

Indeed, most of the responses to this question seemed to indicate the need for either more interaction with other trainees or more interaction with the programme itself (more use of quizzes). This suggests that library staff prefer to learn in a social environment, and also gives an indication of the importance of ensuring that there are opportunities for social learning in the programme.

Training Needs Analysis

Part of the Training Needs Analysis conducted at the end of 2011 was to identify preferred modes of delivery. Previous to 2011 most staff training had been conducted in a face-to-face classroom environment with some smaller training sessions taking place within team meetings. Online training had been limited to the Web 2.0 programme and some web-based tutorials for IT applications.

As a result of the 2010/2011 Canterbury earthquakes the opportunities to deliver face-to-face training were greatly reduced due to loss of training venues, longer travelling times across the city and a reduction in the number of discretionary hours available for training as budgets were stretched to accommodate earthquake costs. In this environment staff were asked to consider alternatives to face-to-face training and asked to indicate which options they believed to be worthwhile via an online survey.

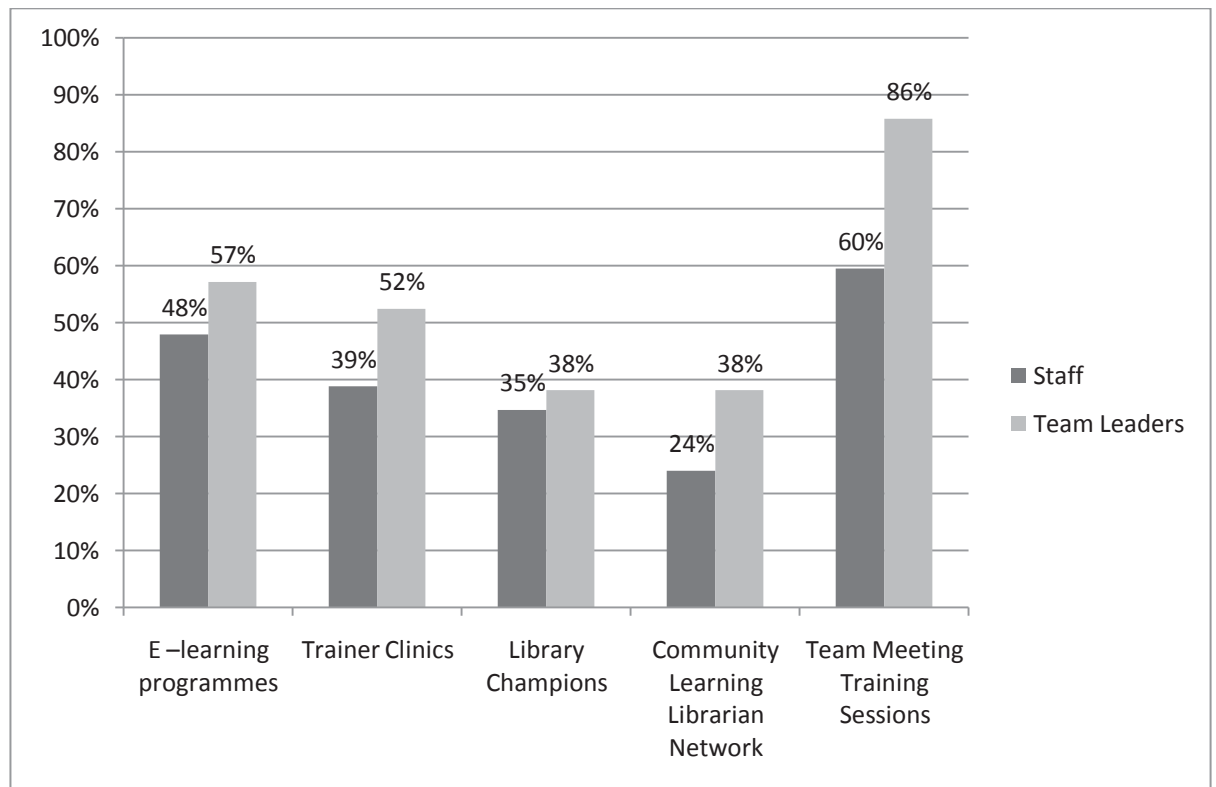


Figure 4-1: Histogram to show the support for different alternative training methods

The results showed that TLs were more likely to think a method would be successful than other staff. Although less than 50% of non-TLs thought that e-learning was likely to be an effective method, it was the second most popular option after team meeting training sessions. Staff comments also provided further insights as to the trainee view of e-learning for staff development.

E-learning is suitable for some topics more than others

One of the clear messages from trainees was that some topics would be more suitable for e-learning than others. The topics considered suitable for e-learning were largely computer-based; databases, catalogue searching, website searching, etc. Topics not considered suitable for e-learning were interpersonal skills, reference interview, cultural training and induction training. In general group learning was considered to be more appropriate than e-learning when the learning requires an element of reflection, discussion, and sharing of ideas. Team meetings were also considered as a faster way of disseminating new skills that needed to be learned quickly, with e-learning being useful for important skills that were not urgent.

E-learning was also thought useful for things that could be delivered in a short “snappy” module, or for quick refreshers. Another view was that longer e-learning programmes could be a way of gaining more practice in technical skills and building up expertise over time. They also pointed out that learning that needs a lot of time could not be done in a face-to-face environment due to staffing constraints, and e-learning could be a solution.

E-learning needs to be accountable

Trainees expressed a need for e-learning to be accountable, with deadlines and face-to-face discussions to encourage completion. Some expressed the view that without accountability it would be too easy to procrastinate. Clear expected outcomes and follow up to ensure goals were met was also expressed as desirable.

E-learning needs to be given time and resources

A number of trainees expressed concern that they would not receive enough time or have enough access to fast computers to be able to complete an e-learning programme. There was concern that they may be expected to complete e-learning at home or to squeeze e-learning into snatches of off-desk time. Some went as far as saying that difficulties in finding enough off-desk time and access to a PC would make e-learning impossible. Having a dedicated time with a trainer was thought to work better than trying to find off-desk time to complete e-learning. Scarcity of available computers to access online learning in some libraries was also mentioned.

E-learning needs the support of an e-tutor/facilitator

Many trainees expressed the fear that they would be on their own when taking part in an e-learning programme and needed access to someone to turn to in case of difficulty. The main suggestion was that the programme should include some face-to-face components, i.e. blended learning. Some trainees suggested that this facilitation could be within their own team by a colleague with more expertise in the area.

E-learning reduces social interaction

Some individuals felt that face-to-face training had an important function of promoting the sharing of ideas and development of collegial relationships across the library network. So that although e-learning has its place, it cannot take the place of real people getting together and sharing information. They expressed that the feeling of community is special to CCL and that this could not be replicated in an online environment.

E-learning is boring

Trainees expressed the opinion that learning in groups is more fun than learning by oneself at a computer. Some felt that e-learning can seem impersonal and tedious and others suggested using incentives such as edible prizes or vouchers to entice people to participate in e-learning.

E-learning has benefits

Many recognized the practicalities of e-learning in terms of “saving money”, reducing travel time and the costs associated with getting cover for staff on training. Some also thought that e-learning would also allow for more flexibility in time, place, topic, and skill level, enabling learning to be done at their own pace.

Conclusions from the learner lens

From the Training Needs Analysis and feedback from the digital communication course, a number of common themes emerged as factors to be considered in the development of the online reference training course:

- The unstructured “discovery learning” approach seemed to hamper the Web 2.0 programme – is structure more important in an e-learning environment than face-to-face?
- The programme would need to be adequately resourced with TLs providing support by enabling staff to have off-desk time, access to computers, and a suitable learning environment.

- Learning in a social environment is important for library staff and the programme would need to ensure that this is addressed. Making more use of a forum could be one way of doing this.
- The learning environment would need to be clear, easy to navigate and attractive.
- Some learning would still need to be face-to-face.
- The advantages to the learner in terms of flexibility, and being able to go back over things, would need to be promoted.
- Time would need to be taken for familiarisation with the learning environment.
- A relaxed style would be important yet at the same time trainees would need to feel “accountable” in order to remain motivated to continue and complete the programme.

4.1.3 The Collegial Lens

The programme that is the subject of this thesis – Reference Skills – is not an area of my own personal expertise. The online learning programme was designed and created alongside content experts within the organisation. Traditionally, within CCL, Reference Skills has been delivered to staff in a face-to-face classroom context with more senior library staff taking the role of trainers. Part of my responsibility is to support this group of twelve trainers, provide advice on classroom delivery, and organise and schedule the classroom sessions. It is these trainers with whom I worked to form the PARG and develop the online programme. They provided most of the content for the course and the group worked together to develop the structure and resources for the course.

The Canterbury 2010/2011 earthquakes created a loss of training facilities and a lack of recruitment which resulted in no face-to-face reference training being organised for over a year. Creating the collaborating group itself also presented a number of challenges:

- Many of the pre-existing trainers were now in different roles at different libraries

- In the new environment, staff received less off-desk time to work on projects such as training
- Training staff were no longer “used” to being trainers
- Training staff do not report to me and often needed to prioritise their time elsewhere to support their own team
- The trainers themselves had different skills and abilities, both in their own content area and in their training skills
- Only one of the trainers already had the technical skills to create the online programme

Some of these challenges were not unique to developing an online programme over a face-to-face one. However, there was one major difference –trainers would often be very proactive in developing materials that they themselves would be presenting as it would be them facing an audience unprepared if they did not do so. Without this added incentive it was possible that good intentions to work on the project could be squeezed out by other priorities.

One of the areas of interest for this research was how to effectively collaborate with staff in this position in order to develop the programme before it can be delivered.

The trainers themselves of course were a rich source of information and ideas. The main group of trainers consisted of 12 individuals in total and as the project progressed some played a lesser or greater role in the development of the online programme. This was largely due to differing time constraints and interests. Five of these trainers agreed to be part of this research project and were interviewed in the early stages of the project. This enabled me to gain a good insight into my colleagues’ views and experiences of e-learning and also provided feedback about the process around working with the group, which are discussed in a later chapter.

Evidence provided by colleagues

All trainers taking part in developing the online learning programme were invited to be interviewed as part of the research project. Each individual who agreed to be part of the research project was interviewed separately. Interviews were scheduled for up to one hour, but most were 20-30 minutes in total. To ensure that there was no advantage or disadvantage to an individual to either taking part in the research or not, those who did take part in the research were not identified to the rest of the group or each other and pseudonyms are given in the analysis.

The interview participants (see table 4.1) were all NZ European or European and mainly female with ages ranging from mid 30s to mid 50s – however, this is fairly representative of the population of library staff at CCL and of the trainers in particular. The interviews focused on five main areas (the full interview schedule is provided Appendix G):

- Previous understanding and experience of e-learning
- What areas of content to cover in the course
- Elements they felt would be important to consider in the design of the programme
- How the programme could be made entertaining and engaging
- How they and the collaborating group could best work together to create the programme

The first four of these will be discussed in this chapter as they relate directly to the creation of the e-learning programmes; the fifth will be discussed in Chapter Four – Developing the programme.

Table 4-1 Overview of interview participants

	Simon	Angela	Yvonne	Belinda	Fiona
Gender	M	F	F	F	F
Role	Information Librarian	Community Learning Librarian	Community Learning Librarian	Information Librarian	Catalogue and Access Librarian
Age	Mid forties	53	36	Mid fifties	48
Length of time at CCL	23 years	10 years	18 years	9 years	21 years
Previous Experience with e-learning	Participated and was a facilitator for CCLlearn	Distance courses through CPIT and Victoria University with online components	Participated in CCLlearn online modules through CPIT	Participated in CCLlearn	None

Previous Understanding and Experience of E-learning

Of the group, four had been a participant in at least one e-learning programme. Three had taken part in the online CCLlearn programme with one being a facilitator for the programme. All trainers were largely positive about their previous online experiences and often described it as an “exciting” way to learn.

Yvonne in particular was most enthusiastic:

I specifically chose to do the modules that were on line because it just suited my learning style... I am a bit of a gadget girl, I love playing around on computers and stuff like that so it just fitted with, you know, I could just kind of breeze in and out of it. I didn't have to sit down with all of the books and, you know, have a big session. I could just go in and do a bit

here 'oh, what was that I read' and just sort of duck back in and find it.

Her familiarity with computers enabled e-learning to fit in simply with her existing lifestyle, but it also enabled her to have far greater control over when, how and where she learnt.

For most of the other trainers, E-learning was considered an effective alternative if face-to-face learning was not possible, and they all cited the benefits of not needing to travel to a central location. Other trainee benefits mentioned were flexibility of learning, not needing to turn up to a location at a specific time, and having access to the programme at any time. All of the trainers were positive about the move to an online Reference Skills programme for CCL, particularly given the post earthquake environment:

I love it, I think it's great. It's so much more adaptable especially in our current circumstances with lack of facilities. You can actually get the information where and when you want it. (Yvonne)

I think it's really good, and definitely something we need, especially since the earthquakes, because we've had all these problems. We don't have a classroom anymore and, well, we haven't had a new intake of people for a long time, and I think it's a great way of learning, so we definitely should be using it. (Angela)

I think the online environment provides considerable flexibility for the trainee. (Simon)

Oh, I thought it was really exciting because I think the old way that we were doing the reference training had got very tired

and a little bit tedious for people. So I thought it was a really good move. (Belinda)

e-learning I now know it's going to be great because you don't have to worry about access, getting around the city with problems we have at the moment with all the traffic, you can pick it up when you want to decide you want to do it. (Fiona)

However, trainers also had a number of concerns and felt in two minds about the training:

Isolation

Three of the trainers mentioned e-learning as being isolating (*"it's quite a sort of lonely way of learning"* - Fiona), and suggested that the course shouldn't be just online but include face-to-face elements. Another concern about the isolation of e-learning was not being able to instantly access help when needed and wasting time trying to find that help.

Distraction

Three trainers also mentioned the dangers of distraction while learning online and the discipline needed to remain focused on learning in a non-classroom environment.

I think one of the pitfalls is that it's quite easy to become quite distracted. So you can be proceeding with the online course, but you can think about kind of just doing your own thing, such as just checking out news websites or going onto FaceBook, or something which is quite divorced from e-learning. Whereas, I think within a classroom based environment, the focus is much more on the learning. (Simon)

Technology

Two trainers mentioned technical issues as a concern when trying to learn online.

The platform for the learning was, well, it was quite frustrating. Often, you couldn't connect and there were all sorts of different sort of technical issues, which was quite off putting. (Simon)

There was a clear feeling that it would be important for the e-learning programme to be hosted in a stable IT environment.

Not being a trainer anymore

Angela expressed the concern that although she thought the online course would be a fantastic opportunity for CCL, she didn't want to:

put myself out of a job as a reference trainer by putting everything online and not being a reference trainer anymore

It was clear that trainers enjoyed their training role within the organisation – being able to pass on their skills and knowledge and meet with the new trainees.

Although there would still be a need for trainers to facilitate the online programme their role would clearly be different, but the question still needed to be asked of what the new role would look like.

What areas of content to cover in the course

Since I am not an expert in Reference Skills, the PARG were instrumental in deciding upon the topics that needed to be included as well as developing and creating the content. The face-to-face Reference Skills modules, although regularly updated to maintain currency, had run for many years in essentially the same format. The existing programme consisted of five three-hour sessions focusing on different topics: the library website, the internet, Dewey and MARC records,

premium sites and reference interview. With an opportunity to start from scratch, what would be considered the most important topics to include?

The Reference Interview is the basis for all the rest

Although previously, the reference interview had only been one of the five modules, three of the trainers identified Reference Interview as the most important topic. Reference Interview is the process by which library staff can accurately identify a customer's needs in order to provide them with the most appropriate resources. Trainers not only identified Reference Interview as being the most important topic but as the core component of reference skills:

the idea behind the reference interview - - - is the basis for all the rest. Once you understand that, then you understand what you're, why you're learning everything that you're learning.
(Angela)

the most important topic which really goes throughout everything is the reference interview because if you don't have the right information you can't start searching in the right places and then I think, with that sort of interweaved throughout then it's the most common resources (Belinda)

Reference interview is probably the big thing that differentiates librarians from other information professions. It's the one thing that it's crucial to every inquiry so we need to get that right. And then it's sort of searching skills but yeah, reference interview kind of underpins everything. If you don't get that right in your searching, it doesn't matter how good you are at searching if you don't know what you are searching for. (Yvonne)

The most common resources

Apart from the reference interview, the trainers mentioned that the programme needed to cover the “*most general resources that people are going to use all the time*” (Belinda). Specifically these included things such as Press Display, Bibliocommons, the CCL website, Te Puna, Te Ara, Dewey, and “*the heritage part of the website like the street index and the cemeteries database*” (Belinda) .

However, as well focusing on specific resources, Fiona noted that trainees needed to know:

“all the databases that we use, just know what’s there, perhaps how to use three or four of them because once you know how to use one you can sort of work out how to use the others”.

Simon also thought that

there needs to be emphasis on resources that are quite heavily promoted by Christchurch City Libraries...the library does invest quite a lot of, in terms of promotion, of those resources, and that stimulates customer demand and questions about those resources, so I think it’s important that staff are equipped to answer questions about those resources.

Although CCL has a very large range of resources and subscribes to over one hundred electronic databases, the trainers’ views were largely that the reference interview was the most important aspect to be taught. However there was also the observation that in order to teach Reference Interview skills effectively practice was equally important and not easily delivered in the online environment.

[e-learning] can definitely do the theory really, really well. Practice, yeah it’s a bit harder. I think it is probably something you really need to do to fully understand but I think

e-learning can deliver the theory and get that through really well. (Yvonne)

Elements that would be important to consider in the design of the programme

As well as considering the content of the programme, how the content would be delivered and what the online programme should look and feel like was also an important consideration. I was interested to learn what trainers had thought about previous online programmes – what elements should be included or left out, what new features we should try to include. At the time of the interviews with specific trainers the wider PARG had already met a couple of times to discuss the project and ideas around it, including the concept of developing and filming scenarios. These wider design ideas were also discussed in the interviews.

The importance of having Team Leader and managerial support

All of the trainers spoke about the importance of ensuring that the programme had support from both TLs and managers in order for it to be successful:

We need to get buy in from the team leaders to make sure the staff doing it have the time and the freedom to actually do it properly.

It's really easy to say that 'yep, its great we all need training' but actually having it done when you've got the pressures of day to day customers coming through the door having to, you know, man the decks it's different. So I guess it's just making it a priority (Yvonne)

Well, I think everybody has to be behind it, which is really important; the whole library has to be behind it. (Angela)

Having it accepted throughout the organisation as a really important learning tool. So that people are given the

encouragement and time to take part. So it really needs to be sold to team leaders. And even management as a pivotal part of training - for new library staff...

...standing alongside maybe other aspects like the Symphony training and customer service, this would be just another component of that, as an essential part of the training for new people who start. (Belinda)

The programme needed to be seen as a core component of LA training to ensure that staff would be enabled to actually do the course and be given the necessary resources in terms of time, access to computers and encouragement from their colleagues.

one of the big issues that needs to be resolved is just the need for people doing the course to be able to find a quiet, secure environment to do the course. It's very difficult for people to spend an hour or two on the course in a worker environment where their colleagues are doing work around them. And it might just give the perception that what this person is doing isn't of any great value, that they should - doing some of the more physical tasks. (Simon)

We have to ensure that there's the time for them to sit down and do the e-learning. That perhaps there's a definite rostered off time slot where they can do it. (Fiona)

The time that people will have to do the course and the opportunities they'll have to use the computer and be able to sit down and actually focus on it without being interrupted. I think that's probably a big issue for a lot of people. (Belinda)

So staff need not only to be given these resources, but spending time on the programme needs to be seen by all as being valuable.

Providing Support

The importance of trainees feeling supported and knowing where to turn if they had difficulties was also raised.

[We need] to be there to help if they are having difficulties or things they are not quite understanding something, that they know who they can go and talk to about it just to get their assistance and then 'okay, I've got that and then they can move on to the next bit'. If you are sort of floundering around trying to think what does that mean or I'm not quite sure of that you don't tend to want to go back and continue on learning. Just having that support is really important. (Fiona)

This included ensuring that staff know how to use the Moodle site itself:

be aware that people know what they are doing really. How to do a module, how to access on-line training programmes so they feel comfortable at getting logged on and getting in to it, yeah. (Fiona)

Relevant, Real life Situations

The need for the training to be relevant to the everyday workplace was emphasised as being one of the most important factors to consider:

I think probably the most important things would be that the course must be relevant to the people doing the course. So we need to choose the topics, the resources that we're covering carefully. I think it's quite easy to fall into the trap of thinking that we use the course as a vehicle for promoting resources and tools that don't get much of an uptake amongst customers that come in through the door. (Simon)

That whole relevance because it's using that real life scenario thing makes it relevant to what we are doing, I think that is really important. (Yvonne)

I like that mixture of video, yeah, people talking, it makes it more real. And the real life situations, the real questions. (Belinda)

The first CCL online programme, CCLlearn, had been dismissed by some as covering topics with little relevance to everyday library work. It was important therefore that the online Reference Skills programme reflected what actually happened in the day-to-day library environment and provided learning to address everyday problems. The PARG had already discussed the idea of using everyday “real life scenarios” as a basis for the reference skills programme and this was seen as a way of helping to ensure that the programme was seen as relevant.

Not Just Online

Despite the programme being designed to be online there was also the feeling that there needed to be face-to-face components too. There seemed to be a number of different reasons for this. From a training point of view these were explained as the difficulty in providing online training for some more practical topics, ensuring trainees were comfortable with the online environment before they started, the need for trainees to discuss their learning with each other in order to learn, to help maintain self discipline, and the need to have face-to-face contact with a tutor to check progress and receive feedback. However, Fiona also identified some more social issues –prevention of the feeling of isolation, encouragement to trainees to carry on, and simply increased enjoyment.

[we] have to be careful that it's not so good for those who are not so self-disciplined perhaps and for those that are not very confident perhaps working with, you know the programme. So there has to be a balance between face to face and e-

learning and that also encourages people to carry on and gets them a bit of I'm not just isolated and doing it on my own, there's others doing the same thing, so it's good to, you know, so they have to meet I think. Regularly to keep up, you know keep in contact with one another and just to see how things are going. Yeah, so that's, it's important not to just solely rely on the e-learning and that's it.... it's all very well doing it all on-line but you have to meet, you have to have some face to face contact at some stage and to make sure that it's not too big a gap between getting face to face again with the person and just having a bit of a fun hour or so discussing the learning" (Fiona)

Fiona had had the least experience with e-learning, however she identified a number of issues that she thought would be of concern to trainees. She also thought that there would be difficulty in translating her particular area of expertise – cataloguing and Dewey – into an online programme:

It would be quite nice to have something in there but having said that it's quite difficult to explain that too during on an on-line module.

Since Dewey is a fairly abstract area of library work, dealing with concepts rather than people, I was initially surprised at this concern; I had up to then been more worried about how we were going to train the “soft skills” of reference interview online. However, I realised that the challenge was going to be about how to effectively deliver a dry subject without the opportunity to use a face-to-face discussion to make it more interesting.

Technical

Another aspect of the programme design that the trainers all agreed on was the need for the online environment to be stable and free of technical glitches. They also expressed the need for fast internet access:

I think the platform has to be really stable and I think we've got that with Moodle, I think it's a lot better than what we had with lams which was just awful because it was constantly difficult. So I think that the technology has to be solid and reliable. (Yvonne)

you have to have good quick internet well, you know, computer access like if things are slow the system, the programmes not responding that can put people off as well so you could get a bit frustrated. (Fiona)

The previous CCLlearn programme had been plagued by technical problems, with users often unable to log in to their accounts. The Moodle environment and the cloud server where the programme would be hosted appeared to be more stable. However, with only limited access to technical expertise, and no control over connectivity, this would be something that we would not be able to address in the pilot programme.

Keeping it current

Two of the trainers in particular were looking beyond the pilot to the success of the programme long-term. They saw the need to future-proof the programme so that it could be continually refreshed and remain current.

I think we need to be able to adapt it all the time. It can't be just a stagnant, we can't just produce e-learning and leave it. It has to be adapted and changed all the time to make it successful, or to keep it successful. I think it needs, so it's going to need people to be checking on that as well, once it's, once we've developed it. It's going to, we can't just leave it, it's going to have to be, gonna have to develop some kind of tools to make sure that it is working at the best it is. (Angela)

I guess that is also a challenge in keeping all that current. So, while a question might be topical this year, you know, next year it might be old hat sort of. So that will be a challenge, I think, keeping so that the things don't get, you know, not dragging out the same old videos year after year. (Belinda)

How the programme could be made entertaining and engaging

As well as asking about important elements in the design of the programme I also asked how the programme could be made “entertaining and engaging”. This section has a number of overlaps with the previous one; however, it focuses specifically on features that encourage engagement rather than learning.

Attractive

The trainers were keen that the course would look visually appealing and professional. This they thought, would encourage people to want to do the programme.

*if it looks professional and works really well you do get that buy in.
(Yvonne)*

I think if we make the course attractive, then they will want to do it. (Angela)

Variety

One of the most important ways of making the course entertaining and engaging was thought to be variety:

I thought the video where someone is talking and explaining how to use, for example, Papers Past, I thought that was really good. Because you've got the listening, the reading, and then...then afterwards the doing, with a quiz. Yeah, so I think that kind of thing is more appealing than just having to read and do or even

*just listen They're kind of covering a lot of learning styles there.
(Belinda)*

We just need a variety of different forms, I think. It can't just be all monotonous exercises or watching a screen and not participating. I think it needs, it's going to need some sort of, it needs a variety of different genres on there really, of different things, like video, quizzes, exercises, some face to face (Angela)

Use a variety of different online - tools for informing, educating. So that would include, videos and maybe games. I think variety counts quite highly. (Simon)

The Moodle environment would enable a number of different types of resources to be accessed including videos, quizzes and presentations. It would also enable the hosting of a forum where trainees could keep in touch and post their thoughts and learning. Yvonne, who had used forums previously, felt that they were a good place to check out what everyone else had done and be reassured that all the trainees were in the same boat. A number of the trainers also mentioned appealing to different learning styles. The previous online CCLearn programme had been criticised as being very wordy – lots to read and then to write about in a blog – and trainers wanted to move away from the emphasis on text.

Tone

Another important aspect was considered to be the tone of the programme. Although this is a difficult concept to express, it was felt that the language and the appearance of the environment should be light, warm, friendly and encouraging:

it'll need to appeal to the people who are taking the course, so, and it needs to be, I think it needs to be – it's hard work, but somehow we need to make it slightly fun at the same time, so we have to find a balance between getting the information across to the people

taking the course – and not having it too dry or too difficult, or too easy, or too boring. (Angela)

I think also we need to keep it reasonably light and engaging... Yeah, I think the tone's quite important. (Simon)

Assessment and reward

Although courses are evaluated using feedback forms, individuals taking part in professional development at CCL are not usually tested or directly assessed after completing a course. Instead it is expected that improvements will be seen in their workplace practices and these are monitored by regular performance reviews and coaching sessions undertaken by TLs. However, some of the trainers thought that a system of assessments and rewards could encourage engagement:

Perhaps something along the lines of you complete one module then you get so much, so many points or something and at the end of when you've completed everything if you get such and such then there might be a little, I don't know, some little reward system or even at the end of it, you know, like a certificate sort of thing (Fiona)

However, Fiona was also aware that this might backfire and put off other trainees:

But then you've got to be careful if you do that sort of thing too because some others might not find that appropriate either, they might be a bit offended if they didn't get a reward or something. I don't know, it's a little bit difficult but some people like to get really good feedback like that and encouragement and whereas others would rather just get on with the job and they're not in to all that (Fiona)

Others however, saw assessment less as a motivational tool and more of a way of helping trainees continue to learn

I don't think the assessment needs to be quantitative right down to the last – I just think there does need to be ...some kind of checklist that you can go through at the end, so that if you feel you have gaps - you've got somebody there that can help you fill those gaps - afterwards. (Angela)

Conclusions from the Collegial Lens

Overall, members of the PARG were positive and enthusiastic about the project and could see a large number of benefits around being able to learn flexibly. There were several important factors that emerged from the interviews and discussions:

- Isolation and the challenge of not becoming distracted were seen as two main disadvantages to online learning
- The programme would have to have support throughout the CCL network from managers, TLs and all staff, with adequate resources in terms of time, space and computers provided
- The online environment would have to be technically stable and fast
- Learning support would have to be provided for both using the learning environment and the course content
- The key concept of the Reference Skills course is Reference Interview and would have to be the focus of the programme
- The content would have to be directly relevant to the workplace, offer solutions to everyday problems, and use the most common resources. Scenarios could be a good way of achieving this
- There would have to be some face-to-face components, to provide support, encouragement and also enjoyment
- The programme would have to have a professional “look” and welcoming tone, with lots of variety to encourage engagement

- Some form of assessment for trainees would be desirable to encourage engagement and feedback about progress
- Consideration should be given to keeping the programme up to date

4.2 *Analysing the Background Data*

Brookfield's four lenses enabled a systematic analysis of the problem of making e-learning effective, entertaining and engaging, from four different angles. The PARG used the background evidence from the four lenses to help develop the learning programme. Although the majority of the analysis was undertaken by me, the whole PARG was instrumental in helping to place the analysis into the appropriate context and providing insights into its interpretation.

The data from the four reflective lenses could be categorised into three broad categories – organisational commitment to the programme, programme structure and support, and programme content and design.

4.2.1 Organisational commitment

"...the difference (between those who finished and those who didn't) had nothing to do with technology or instructional design...it all had to do with how much motivation the employees got from management"

(Frankola, 2001, p. 54)

The importance of organisational support for the programme was one of the strongest points made by three of the lenses – learner, collegial and literature. This support needs not only to be stated but to be practically given too, so that time and resources are made available and the learning is seen to be as valuable as performing other tasks in the library. The practical challenge of providing access to a quiet space with a computer and time off-desk when the learner can work undisturbed can be difficult in a small and/or busy library.

Another consideration when offering a learning opportunity to staff is whether its primary purpose is in fact as educational (learner-focussed) or training (organisation-focussed). The assumptions around responsibility for learning and attendance are different for each. If the learning opportunity is viewed as training, and of benefit to the business, then a staff member can legitimately expect to be given adequate time to attend and consolidate the training. If the learning opportunity is primarily of benefit to the individual learner and viewed as educational, then a manager can legitimately expect the learning to be done wholly or partly in the individual's own time, with support provided by the organisation if possible.

Of course each opportunity is neither black nor white and could be considered differently by different staff members. An individual who is already a full-time university student but works 15 hours for the library may view all library learning opportunities as training; while a newly appointed LA who is seeking to make a career of librarianship may see all learning opportunities as education.

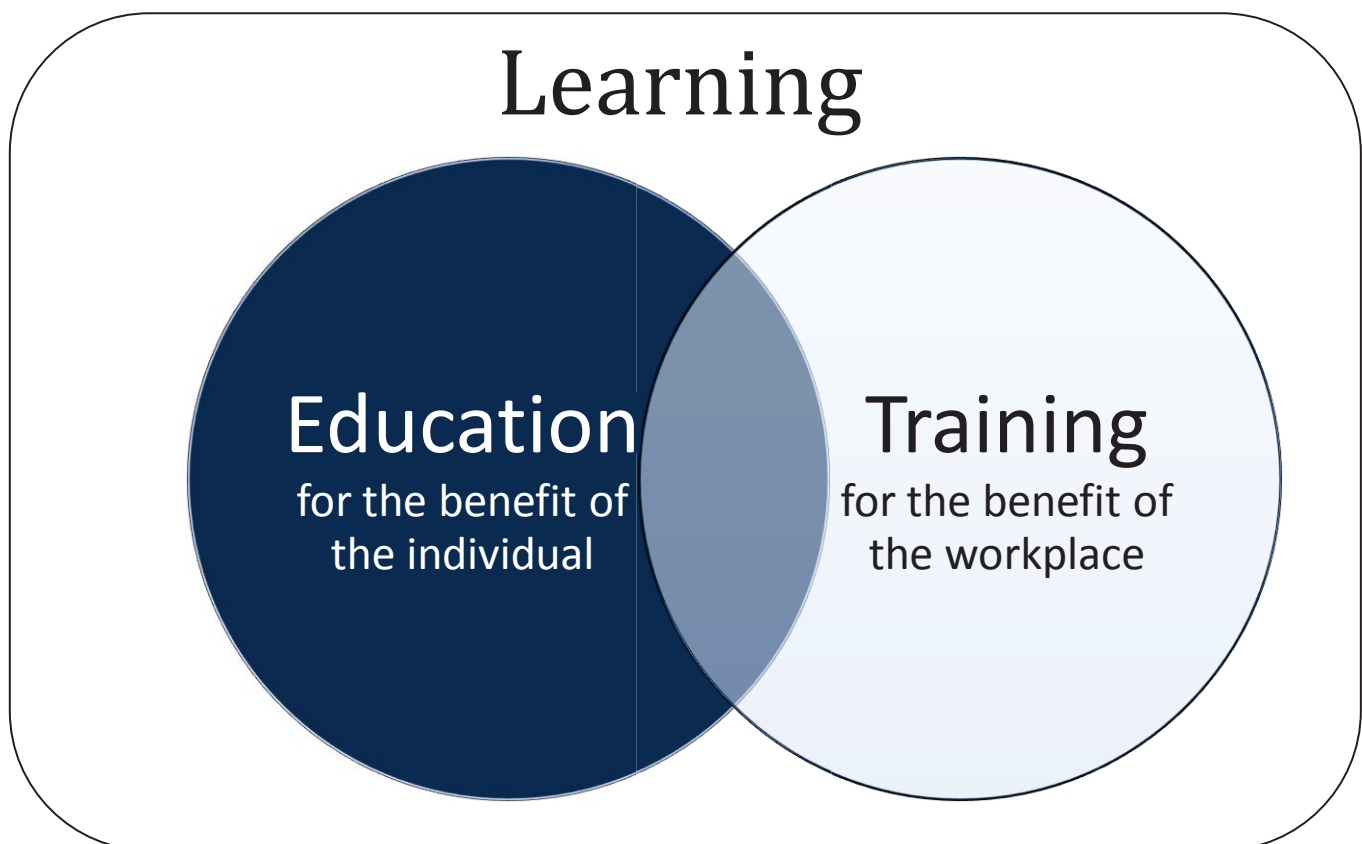


Figure 4-2 Workplace Learning - the overlap between education and training

This dichotomy is true for all training – online or not – however in a traditional face-to-face environment a set amount of time is given to attend a course in a specific place and at a specific time; if it is training then these hours are paid or other time given in lieu. With an online environment, learning can be done “at any time” and “in any place” and so no specific time or place needs to be given, which may equate to no time or place at all.

The expectation may be on the learner to organise or negotiate the time and place for themselves and to “fit it around” their day-to-day work. In this sense, despite the need for travelling to another location and the lack of flexibility over time and space, face-to-face learning is seen as easier; it requires less effort on behalf of the learner. For a learning opportunity that is perceived as education, the learner can be expected to take responsibility.

If however, if the opportunity is seen by the learner as training and, in addition, e-learning is also initially harder for staff for other reasons (e.g. in terms of getting to grips with technology or feeling isolated) then organisation of time, space and online attendance needs to be more closely managed by TLs than face-to-face training or it simply will not happen. In summary, e-learning must be made easy and seen as worthwhile by both staff and TLs.

Although the pilot was supported by the Libraries Leadership Team and TLs were willing to give their support, the trainees of the pilot programme would be, by necessity, volunteers who are not compelled to attend this training as an identified need. In this sense, the volunteers who take part in the pilot are likely to be approaching the programme from an education perspective as well as a training one. When the programme is rolled out to the wider staff this is unlikely to be the case. Thus, although organisational commitment to ensure staff complete required learning is an important aspect of the e-learning programme, it is not one that can be comprehensively addressed by this study.

Another aspect of organisational support is ensuring that staff themselves are aware of the benefits of e-learning. Although most staff were aware that online

learning could save the library money, the advantages to staff were not necessarily so apparent. Staff and trainers interviewed for the collegial lens identified that e-learning enabled flexibility of time and place; as much or as little could be done at one time from a comfortable environment such as their own settee, and at a time that suited the learner. They also identified as beneficial the ability to go back over things at their own pace without holding up others or appearing stupid and the ability to have a quick “refresher” when they needed it. This suggests that the benefits of the online environment could be promoted as well as the content of the course itself. Hoyle (2010) also suggests this as a way of encouraging online course completion.

4.2.2 Programme Structure and Support

All four of the lenses provided evidence that the e-learning programme should not just be online but also encompass face-to-face components. There were a number of elements to this – the high dropout rates of purely online learning (e.g. Chartered Institute for Professional Development (UK), 2011), the perceived need to ensure learners are familiarised with the learning environment and have sufficient technical skills, the need to prevent isolation, the “fun” of getting together, the need for library staff to learn in a social environment, and the need to provide direct learning support. Learners also expressed the view that some things were better learnt face-to-face. One of the topics mentioned, reference interview, would be a large content component of the programme and so including time to practice reference interview skills face-to-face was another factor to consider.

The need to learn in a social environment, and the lack of opportunity for this provided in the online environment, was one of my own major concerns (self lens). However, views from both the learner lens and the collegial lens seemed very mixed on this; one of the trainers for example stated that it was her preferred style of learning while some learners from previous e-learning programmes were adamant that the best way to improve the online course was for it to be more face-to-face. A potential tool for addressing some of the need for social interaction was

a forum, where learners could ask questions and post responses. Another suggestion was for learners to be “buddied up” to provide support and motivation.

The problems of motivation, procrastination and distraction by other tasks were identified by all four lenses as being a challenge for e-learning. Learners thought that more quizzes, more use of the forum and buddying up with others could help with these issues. From the literature review a variety of individual and team competitions were mentioned as a way of maintaining focus on the programme, as were more regulatory measures such as holding managers accountable for staff success and providing formal rewards (Frankola, 2001). The need for assessment and monitoring of progress was also discussed by the trainers in the collegial lens – they mentioned ideas such as checklists, points and other reward systems. However, there was disagreement about the place and value of rewards such as certificates for course completion. There were also concerns that a formal assessment would be too restrictive and that the focus should be more on identifying gaps where further support could be offered, rather than a way of “grading” colleagues.

Although both the collegial and the learner lenses mentioned a need for trainees to be held accountable to encourage participation, the restrictions of the pilot programme would necessarily make this difficult as the trainees would be volunteers who could drop out of the study at any point. No consequences for non-completion or “payment” for completion could be considered.

Both the collegial and learner lenses also mentioned that a well structured course would make it easier to stay on track. There were a number of elements to this – a clear map of what needed to be completed and by when, but also a schedule that would enable the programme to be manageable in terms of the time commitment for the individual and organisation. This needed to be balanced with a timeframe that would enable the programme to maintain momentum. During the first online programme at CCL (CCLlearn), the time requirements were expected to be four hours online time and a one hour face-to-face facilitated meeting per week, including travelling time. This meant that approximately six to seven hours per

week would be spent on the course. For a part-time staff member who may only work 15 hours per week nearly 50% of their work time over a 6 week period could be taken up and this level of commitment proved difficult to sustain.

Learners also mentioned the importance of being able to access help when they needed it and the frustration of not being able to obtain it quickly. This presents a dilemma for the delivery of online learning – although a trainer does not need to be present (and paid for) at a certain time and place – they do need to be contactable when needed. For a course accessible anytime this could potentially be all the time. Ideas such as promoting the use of “help” pages, creating buddies amongst the trainees to be the first point of call, promoting use of a forum and encouraging contacting of tutors by email or phone message were suggested by learners and the collegial group. Although none of these would address the immediate problems for a “night owl” needing help at 2am in the morning, ensuring that there is a clear procedure for obtaining help would eliminate some frustrations.

4.2.3 Programme Content and Design

The third section of the analysis was around the actual content and design of the programme. For the pilot this would be the area in which the most direct control could be exercised. There were a number of considerations that arose from the four lenses.

Looking Good

One of the views from both the collegial and learner lenses was that the programme environment should look attractive and have a clear, uncomplicated, professional design. Elements of previous programmes, which were visually unappealing, proved unpopular and trainers thought that being visually attractive created buy-in and encouraged people to want to participate. Clark and Mayer (2011) however advocate against adding non-essential images to make a page visually appealing and using illustration only when necessary, so as to reduce the mental processing required by the learner and increase retention. Thus a balance needs to be sought between creating effective e-learning materials and creating

materials that are attractive and engaging enough for individuals to want to use them.

Tone

Learners commented that a relaxed and informal tone was important for promoting an unpressurised environment that encouraged learning and engagement. The trainers in the collegial group also thought that the tone should be light and engaging and have a sense of fun. The evidence from the literature lens also supports an informal approach. Clark and Mayer (2011) discuss the style and tone of e-learning arguing that a “conversational” style over a formal style helps personalise the learning and actually enables learners to better retain information. From my own personal lens, creating a warm, supportive environment for learning has always been one of my goals. In a face-to-face setting this tone would include flowers on the desk, puzzles and quirky toys on the table, bright pens and post-it notes, and a plentiful supply of lollies. In an online setting, the language used, examples chosen and problems presented would need to convey the same supportive environment.

Keeping it relevant

From the learner lens, one of the criticisms of the online CCLlearn course was its lack of perceived relevancy to both the learners and their role within the library. Trainers also felt that one of the most important aspects of the programme would be to make the content relevant. They identified the reference interview as a core theme that would run throughout the programme and felt that the programme should focus on the core resources that were used on a daily basis. With an increasing number of digital databases and other resources available this would also help new staff focus on the most essential parts of their role. Clark and Mayer (2011) from the literature lens also agree with this principle of keeping the content directly relevant to what needs to be learnt. They advise against including extra information just for interest’s sake focusing purely on what is essential to maximise the amount of understanding and recall.

Finding online learning “boring” and “irrelevant” was something that I had identified from my own self lens of personal experience during the CCLlearn

course. Reading about a topic, completing a task and then blogging about it, I realised, focused the learning on being about a given topic without any real life context as to why the topic was important for *me*. In other words, it provided a solution to a problem that for me did not exist. Introducing topics by focusing on a real life problem or task that needed to be completed rather than on the tools, resources and skills needed to complete them could provide a more engaging learning experience.

Using Scenarios

The use of scenarios for workplace online training was advocated strongly in the literature. Allen (2007) suggests it as a way of stimulating interest, creating problem-based learning and focusing more directly on realistic workplace situations. Using realistic scenarios would also ensure that the programme was directly relevant to the role and illustrate situations in which appropriate resources could be used. Clark and Mayer (2011) also describe how job-specific skills training, as opposed to more general skills training, enables easier transfer to the workplace.

Another aspect of using scenarios would be the possibility of presenting a reference interview situation as a “worked example”. Within various fields “worked examples” have been shown to be an effective method of teaching (Clark and Mayer 2011), compared with simply presenting problems for learners to work through on their own even though this would provide the learner with more practice. The results from the collegial lens also showed that trainers considered scenarios to be a potentially effective form of delivering the programme content. It was also a method that had the potential to provide engagement (Allen 2007).

Technology

One of the areas that both learners and trainers identified as being of concern was the stability of the technology. The previous e-learning course at CCL had suffered from a number of technical glitches and these were identified as a barrier to learning, particularly when slow internet connections prevented access to the programme or wasted considerable learning time in waiting for pages to load. Although the new programme would be hosted on a cloud server and therefore be

directly accessible from anywhere, not just within the library, there would be limited access to technical expertise during the pilot. Thus, there would be little that could be directly managed during the implementation of pilot programme if problems did arise. However, this was something that would be monitored during the programme and feedback sought.

Variety

The collegial lens provided evidence for the opinion that a variety of different activities in the programme would make it more engaging and appealing to the learner. This was echoed by evidence from the learner lens, which considered that having a mix of resources facilitated learning. Another aspect identified by both learner and collegial lenses was that a variety of approaches would appeal to a wider range of learning styles and so provide an effective learning experience for more learners. The learning environment would need to encompass a variety of different methods.

4.2.4 Conclusions of the analysis of the background data

Evidence from the four lenses; Self, Learner, Collegial and Literature provided a number of considerations for how to develop the pilot e-learning reference skills programme. There were some aspects, such as organisational commitment, that the pilot study would not be able to address directly (although evidence could still be gathered) and some, particularly with regards to the structure, content and design, which could be directly included in the study. After analysing the background data, the issue of how to interpret the learning into the actual design of the programme still remained.

4.3 *Planning the Action*

The new online Reference Skills course would be a much larger online project than had been attempted by CCL before, and would be replacing the existing face-to-face course. A lot of content would need to be created from scratch and a large group of existing trainers would need to work together to create the new programme. These trainers would also form the PARC.

The Moodle learning management system enables an online learning environment to be created in a web environment by creating content, embedding images, video and audio, and creating web links to other content. The environment also enables the creation of multiple choice quizzes, lessons, and forums. Checklists of tasks can be created for learners to tick off and learner participation and performance can be tracked by course facilitators.

The Moodle editing tools are fairly straightforward and similar to most other web page creation sites. I and one of the other PARG members were self taught in using the site and creating Moodle courses. However, although some of the other members of the group had been students on Moodle courses, no one else had been involved in creating a course using Moodle.

A significant part of the programme would be teaching trainees how to locate and use online resources. A colleague (unrelated to the project) had used screencasting software – which enables a recording of computer actions to made and narrated – for training purposes in a previous role. This appeared to be an ideal solution to online training and licences for the software programme Camtasia (<http://www.camtasia.com/>) were purchased. This software not only allows recording of the action on the screen but also enables zooming into a particular area and highlighting particular features. Video and audio from other sources could also be incorporated into the screencast and the software also has some basic video and audio editing facilities.

4.3.1 Getting Together

The first meeting of the PARG took place in March 2012. At this point the face-to-face reference skills programme had not taken place for over 12 months, with the earthquakes causing a freeze on recruitment and limited training space. A huge amount of earthquake-related change had taken place with closed libraries, new temporary libraries, staff resignations and redeployments. Large amounts of technical change had also taken place with a new catalogue, RFID technology in

some libraries, a new “Roving” model of service delivery, e-books and changes to the online databases that CCL provides access to. This was also the first time the trainers had met together for several months. Most of them were now working in different locations and for some the focus of their role had changed considerably.

The group were enthusiastic to be doing something new and keen to contribute. I spoke about some of the evidence from the four Brookfield lenses – the feedback from the digital communication course and the Training Needs Analysis from the learner lens, and some of instructional design elements for online learning from the literature lens particularly Allen (2007) and Clark and Mayer (2011). I spoke about how from my own experience (self lens) I felt that the training needed to be fun and directly relevant to the everyday work that library staff do. I also demonstrated the Moodle site and how Camtasia could create an instant learning resource.

Then I asked the group to work together in smaller groups to come up with ideas about what would be the most important content, what were the most common types of reference question asked in libraries that new staff would need to answer, and how the course should be put together? From those trainers interviewed, and the wider group, the concept of the reference interview as being core to the librarian role and therefore needing to be core to the Reference Skills programme emerged. Indeed the group went further, suggesting that reference interview was really just another way of saying “customer service” and perhaps this is what the programme should be called.

Considering the wider professional development programme taking place at CCL this was an interesting observation. As RFID technology was installed in more and more libraries throughout the network it had gone hand in hand with the rollout of training for a service delivery model called “Proactive Customer Service and Roving”. The RFID technology would enable customers to be more self-sufficient in returning, issuing and (when necessary) paying for their own items. Staff would no longer need to be confined behind a desk simply issuing stock, taking payments, and answering questions when asked. Instead they could be out “Roving” in the

library, engaging with customers, identifying customer queries at point of need and delivering tutorials and events. The recommended model for roving was based on a number of customer service steps referred to as MAPHAT™ (Mentor Group Training, 2010). The trainers pointed out that the established steps of reference interview (Ross, Nilsen, & Radford, 2009) dovetailed perfectly into this roving model and that customer service and reference interview could be viewed as the same thing.

For me, this provided an insight into the way that the two different programmes – the existing face-to-face customer service programme and online Reference Skills could reinforce each other. It also suggested that the Reference Skills programme could be made directly relevant to the everyday workplace by focusing on typical customer service interactions as a basis for the programme. These scenarios could be filmed and then “solved” as “worked through examples” using the screen capture software to provide instruction on how to locate appropriate resources.

The idea of using video to record the reference interview process was not new – various libraries from around the world have posted “reference interview” videos on YouTube. Most of these however are spoofs of “the worst reference interview ever” variety and although some do demonstrate best reference interview practice, none went on to show how the librarian actually identified the best resource and searched for the requested information.

When new electronic databases are purchased by the library, vendors often deliver “show and tell” type training sessions to library staff demonstrating every available feature. CCL’s previous face-to-face reference skills course seemed to echo these. They focused primarily on the resources themselves, how to search them and how to use the different features available, rather than how to solve a problem using the resources.

Yet, a LA at CCL does not need to know three different ways of creating queries in Proquest. They need to know how to answer a customer’s query about finding information on the ecology of the Brazilian Rain Forest. They need to know how to

discover what a customer's query actually is and how to teach them to find the relevant resources by themselves in the future.

The realisation that the customer and their needs are central to the whole reference skills process became the starting point for the new reference skills programme. The focus changed from learning about the resources that can be provided, to learning about the queries that can be answered. Thus, the opportunity to create something new also enabled the opportunity to create something different.

The PARG also discussed the different types of common customer enquiries. For example, students may be looking for resources to complete a homework project, some customers may be looking for help with a DIY project or craft, some may be interested in finding out information about their family history, and some may want a particular title, while others are just looking for a "good book" to read. These different types of requests lead to different resources both physical and online. Although there was some disagreement among the group over the best resource to use in each case, there was a broad consensus over the most heavily used and useful resources that new staff should learn about. Trainers therefore thought that there were some resources that *must* be demonstrated within the course while others were less important and simply having an awareness of where to find them was sufficient.

The trainers also thought that as well as knowing about resources there were certain key skills that new staff should learn to master. The most important of these were reference interview skills – how to use questions to establish exactly what a customer is looking for regardless of how well the request has been formulated. But other skills, such as database search skills, being able to complete an interloan request, verifying the accuracy of online information and passing on an enquiry to other colleagues were also identified as important.

Another skill identified was "how to think like a librarian." The PARG found this a difficult concept to define precisely but agreed that it was a quality possessed by

experienced staff members who would just “know” the best approach to take, questions to ask etc. This idea seems to relate to the description Dreyfus & Dreyfus (1986) give of an expert practitioner as one who has a “tacit understanding” of their subject and does not usually undergo great deliberation but simply “does what usually works.” Clark and Mayer (2011) suggest that one of the best ways to help learners acquire these sorts of skills is for them to observe not only what a skilled practitioner does but also to be privy to the thought processes behind it, including initial mistakes and back tracking.

From these discussions with the trainers it became apparent that the programme would need to include three basic elements; typical scenarios and questions that staff would encounter, resources that staff need to know about, and skills that staff would need to learn. Using these elements, examples and demonstrations of best practice would be shown and narrations provided to explicitly make apparent the thought processes behind “thinking like a librarian”. From these elements the course structure would be created.

4.3.2 Creating a Structure

The new online training course would be subject to certain constraints. It would need to deliver the same learning outcomes as the face-to-face course and additional learning outcomes to cover recent increases in the number of library resources available. It would also need to allow time for learners to become familiar with the online environment, yet the overall time needed to complete the new programme could not be significantly longer, as libraries had to be able to manage the time demands on their staff.

The face-to-face programme that the online course would replace consisted of five three-hour modules:

- CCL Library Website
- Web Searching Skills
- Dewey and MARC records
- Reference Interview
- Premium Websites/Databases

Delivering the online programme over six weeks with two hours of online learning per week seemed a realistic and manageable expectation. The analysis of the background data from all lenses suggested that the online programme needed to include some face-to-face sessions. Providing an introduction and support for the online environment itself was also considered important and so it was decided that the programme should be launched with an initial face-to-face session. A final face-to-face session to wrap up the programme and possibly include assessment of the learners was also planned.

The change from focusing on resources to focusing on the queries was reflected in the names of the programme modules themselves. Each module was labelled by a type of role library staff members perform, e.g. helping with homework or navigating information. The skeleton structure of the programme was developed as below:

- Introduction – face-to-face session – three hours
- Getting started with Reference Skills – online module completed during face-to-face session
- Information Navigator – online module – two hours
- Homework Helper – online module – two hours
- Local Legend – online module – two hours
- Reader’s Advisor – online module – two hours
- History Guide – online module – two hours
- Final Fling – online module – two hours
- Wrap up – face-to-face session – three hours

Overall the time spent on learning was longer – eighteen hours as opposed to fifteen, however with only two face-to-face sessions as opposed to five the travel time (averaging one hour per person per session) was saved, enabling more time to be spent on learning rather than travelling.

Once the outline structure of the programme was determined it was then a case of deciding on the possible scenarios and questions that matched each category and

what resources could be used to illustrate solving them. Essentially this could be thought of as “what are the main types of questions we get asked?” and “what are our key resources for answering them?” Underpinning all this were the reference interview techniques of “how do we deliver this to our customers?”

To visually organise this while working as a group we used different colour post-it notes to represent scenarios, skills and resources. These were added to flip charts for each of the different modules (see fig 4.3). These could be reorganised and added to as the programme developed.



Figure 4-3 Visually organising the programme structure

4.3.3 Working together

My own background is not in library skills, and so the trainers in the PARG would need to provide and develop the actual content for the course. All members of the group had different areas of specialisation, but all were expert in basic reference skills.

My expectations before starting the project were that the trainers would provide the content of the programme and my role would be to organise and structure the content to create a coherent programme in Moodle. However, from interviews with members of the PARG it appeared that providing content was not where all trainers saw that their contribution could be made:

I think for me I'm, I like playing around with computer programme and applications and all that sort of stuff... So, yeah the sort of editing stuff, the uploading finding stuff. I can create content but I do find that a little bit harder so I would rather actually do the nuts and bolts technical stuff. I can probably do that a lot faster and easier than I can do the creating the content. Yvonne

But I think, yeah, I'm quite keen to be involved in basically compiling the videos with the face to face classroom, when possible. And developing quizzes. Yeah, I think those would be the key things, yep. Simon

The project was initially slow to take off. We had discussions and planning meetings to develop the structure of the programme, considered the resources to include and how we planned to develop and create scenarios around which to base most of the learning. The next stage was to write the scenarios so that they were ready for filming, the idea being to base these on real life experiences. Yet, between meetings little actual work seemed to be getting done. Sketchy ideas were presented but few concrete scenarios, let alone possible solutions, were developed.

The breakthrough came with a meeting designated as a "Working Bee" where pairs of trainers were randomly allocated to a module and asked to write the actual introduction segment in Moodle. The PARG were able to create content in the Moodle environment with just a small amount of guidance from me. This "getting hands dirty" approach seemed to create the push necessary to get the project started. Although the trainers had been randomly assigned to a module, the process of actually creating something appeared to make them take ownership of

“their” module and they continued to develop it; writing content, adding images and developing quizzes. Time was also a factor. Regular working bees enabled the group to schedule time away from their libraries to focus on the programme, which was easier than trying to fit it around their everyday tasks.

The bulk of the scenario filming took place on two separate occasions outside of work hours when libraries were closed. Members of the PARG (and their families) became actors and film directors attempting to film customer-librarian interactions as “real to life” as possible. For each scenario no scripts were provided, the actors simply presented the enquiry and took their cues from each other to create a natural dialogue. Using this method only two or three takes were needed for each scenario.

Additional video using the screencasting software Camtasia was made to demonstrate using the catalogue and other online resources. The library footage and screencasting videos were then edited together (also using Camtasia) to make a single movie switching between customer and screen views as required. The videos were uploaded to a video streaming site and embedded within pages on the Moodle site. Trainers took part in the film making in different ways; some were actors, some created and narrated the screen capture videos, some developed scenarios, and some edited the movies. My own role was to do all these things, keep the development moving along, and provide support and technical advice.

4.3.4 Creating the course

The PARG seemed to enjoy the challenge of working on something different, learning new technical skills and thinking about their profession in a different light. They were also keener to work within the Moodle environment than I had envisaged and eager to create videos and quizzes etc. by themselves. It was regular practice for some trainers to come along to a working bee, share an idea, ask for some particular piece of help or advice and then disappear off to create their own resource. In my own reflective journal I noted that this was having some impacts on how the course was taking shape. Firstly, through experimentation

trainers devised new ways of creating such as using cartoons instead of film footage. Secondly, although we had discussed that videos should be scenario-based, one or two trainers were creating resources that listed features rather than solving problems.

I was in turn exhilarated by the creativity and passion displayed by the PARG and surprised and concerned by the desire to maintain independence over their work in ways that opposed what I considered one of the primary directions of the programme. My role as training coordinator means that I work alongside trainers rather than managing them. In the past when training was delivered face-to-face I provided advice, training and support for trainers, in the form of suggestions rather than directions, which could be disregarded if chosen. The Online Reference Programme was similar. The programme was a collaborative effort between the whole PARG, and for me it was important that all the trainers felt that they had ownership of the project rather than simply being “told” what to do. Although the group had discussed and agreed to create modules around scenarios rather than features this appeared to be considered to be merely a “suggestion” rather than a “rule.” The resources themselves were slick and technically very professional, representing many hours of work, and time was constrained. Although I had some misgivings, refusing to include these resources in the programme, or forcing them to be changed, seemed counterproductive and would damage relationships within the PARG. I decided that these resources could work well as additional “overviews” within the programme, and would provide variety and so as such they should be included. The programme after all was a pilot and one for which there would be considerable feedback.

As well as watching videos, trainees would also be required to try things out for themselves. Again using scenarios as a basis, multiple choice quizzes and longer lessons using the features in Moodle were created. Six core members of the PARG developed most of the interactive quizzes and lessons and we became aware that actually creating effective and useful interactive lessons was harder than we had expected. In particular, we wanted to create a process that could provide feedback automatically. This would ensure that there would be no need for a trainer to

constantly monitor the programme and provide the same feedback to each trainee. For multiple choice questions this was relatively easy as the Moodle environment enables specific feedback to be created for each response.

However, even with a simple one-word response the problem becomes harder. For example, to the question “What is the capital city of France?” a learner may respond “Paris”, “paris” “PARIS” “The answer is Paris” or even “Paaris” and expect their answer to be marked as correct. Programming the Moodle environment to accept all these responses as correct requires each possible answer to be separately coded as correct, and even then errors may still occur (e.g. the response “London or Paris or Rome or Wellington” could be given full marks). Longer responses to questions would need to be read by a human to make sense of them.

Our solution to this problem was to require trainees to post their answers to a forum; in this way the trainees could see each other’s answers and the trainer would only need to post a “correct” or “model’ answer once. The forum would be a place for trainees to answer the “questions of the week”, discuss their learning with others and pose any questions they may have themselves. The forum was designed to be a core part of the course. Feedback from the previous Digital Communication course (discussed under the “learner lens” above) also suggested that the forum would be a popular component.

The multiple choice lesson option in Moodle however enabled a branching scenario or “Maze” to be created. Evidence from the literature lens suggested that this could be a simple way to create a game-like activity. A very simple reference interview maze was developed to test this idea and an actor was filmed as if responding to the different actions. Although this created an interesting and entertaining game-like lesson, it still required considerable time to design and programme. Although the lesson maze appeared to be an effective learning tool, the time restraints and challenge of writing a simple yet testing branching scenario restricted our use of this approach.

Time continued to be a challenge for all concerned. The PARG had other projects and day to day work activities and some of the most enthusiastic group members of the group found that these other constraints compromised their ability to help create the course. Slowly however, the programme took shape.

The start date for the programme was set for June 2012. Setting a date encouraged the PARG to concentrate their efforts on completing the programme focusing in particular on the first three modules, which would need to be ready at the beginning of the programme. In addition to the online modules, the face-to-face sessions also had to be planned and prepared. The initial face-to-face session would provide an introduction to the online environment as well as an introduction to the topic of Reference Skills. The final session would enable trainees to practice their skills through role-play, and facilitate face to face discussion. Three members of the group were keen to facilitate the face-to-face sessions and be tutors for the online programme, answering emails and queries from trainees.

As the start date drew nearer it became apparent that the later modules of the programme would not be complete by then. The programme and the development of the programme would need to take place concurrently with one module being delivered while later ones were still being created. This was not the ideal situation but it would enable us to respond and adapt more quickly to trainee's needs.

4.3.5 Trialling the Action

All CCL staff were sent an email (Appendix D) inviting them to participate in the pilot online reference skills programme. The programme's primary intended audience was new staff (less than one year's service) although it was also hoped that the programme would serve as a refresher for existing staff in the LA role.

Eight people responded to the invitation and all were enrolled in the pilot programme (see table 4.2). Details of the participants are given below although names have been changed to preserve anonymity as far as possible. Similarly,

trainees in roles other than LA have simply been identified as being in a library-qualified role as some roles are unique within the organisation.

Table 4-2 Overview of Trainees

	Age	Role	Previous Online Learning Experience
Nadia	50	Qualified Role	Yes
Emma	31	LA	Yes
Sarah	40	LA	Yes
Tasmin	39	Qualified Role	Yes
Eve	55	LA	None
Zoe	40	Qualified Role	Yes
Catherine	42	LA	Yes
Lauren	35	LA	Yes

Although the programme was aimed at staff in roles that do not require library qualifications, three of the trainees were in more senior roles. I was concerned that this might change the dynamics of the learner group and could be intimidating for those in non-qualified roles, however the invitation had been made to all staff and the qualified staff would be able to provide a different perspective on the programme. All of the trainees were female, NZ European and the age range was 24 years. Although this group does not reflect the full diversity of staff at CCL it is indicative of a large proportion.

Seven of the eight trainees attended the first session, with the eighth attending a one-on-one catch up session a few days later. The first session was a face-to-face orientation session, introducing reference skills and familiarising trainees with the e-learning environment. Much of this session involved trainees logging in and using the online environment. The trainees also completed the pre-course survey (Appendix H) online.

The session took place in the afternoon using a suite of laptops connected to the internet via the library's wireless system. This set-up had been used previously by

the PARG to create content. However, the traffic across the network at this time of day was heavy, web pages refused to load and videos were unable to play. Despite this the trainees were largely unfazed; all had experienced network issues before and all trainees were able to log in to the site and experience and practice some aspects of the navigation.

The trainees were paired into buddies with the intention that they could provide support and encouragement for each other. Two sets of buddies worked at the same library as each other and two sets did not.

Trainees were also provided with a paper-based learning log booklet (see sample Appendix K). This was intended for use by the trainees as a way of monitoring their own progress and noting down any particular difficulties they had or specific technical problems.

At the end of the introductory session trainees appeared confident to continue with the online programme on their own. Each week an additional online module was made available. All modules continued to remain available once released. Trainees were able to do the activities, post on the forum and contact either me or the other key trainers via email.

Four weeks into the course however, one of the largest community libraries in the south of the city, which had been open for most of the preceding 18 months, failed its Detailed Engineering Evaluation (DEE) and was closed immediately. Staff, including me, were relocated to other libraries around the city with uncertainty over whether our workplace would be repaired or demolished. This directly affected two participants on the pilot group and several members of the PARG. There was a slight delay in the release date of the last two programme modules as time was lost in relocating office space and minimising the impact of the closure on other projects.

However, the final face-to-face session went ahead as scheduled, and the post-course survey (Appendix I) was also made available for trainees to complete online.

The final session was intended to cement trainees' skills, provide practice, and give an opportunity to trial an assessment activity. The face-to-face session included a group activity in which trainees were asked to create a checklist of successful reference interview factors based on what they had learned during the programme. This checklist was then used in a role-play exercise. In the role-play exercise trainees were paired up and one of the pair presented with a customer role to play, e.g. middle-aged woman who likes detective stories searching for a "good read", with the other member of the pair playing the role the library staff member conducting the reference interview. The pairs were observed by a reference skills trainer and "scored" according to the checklist they themselves had developed.

One week later, all eight trainees attended the focus group session to provide feedback about their experiences of taking part in the programme (see question schedule – Appendix J).

4.4 Conclusion of Developing the Programme

This chapter described the development, creation and implementation of the pilot learning programme by the PARG. It provided an analysis of the background data to the study and how this impacted on the development decisions made. It also detailed the process of creating the programme as a group and described how the programme was implemented.

5 Results

Following the structure of the research outlined in chapter three, this chapter discusses Step six – Evaluate the Action (Slater, 2005). In the chapter I present the results from the different methods of data collection. These different methods together enable the results to be looked at from many perspectives and include both qualitative and quantitative data. By triangulating the data in this way a more robust evaluation can be achieved. Data was collected in the following ways:

- Pre- and Post-Course Surveys
- Focus Group of Course Participants
- Learning Logs Completed by Participants
- Online Activity Tracking Logs
- Online Forum Entries
- Researcher’s Reflective Journal

Information from all of them contributes to the full picture of the research results.

5.1 *Main Themes of the Evaluation*

Considering the combination of data from these six different sources, and bearing in mind the primary research question of *“How can e-learning be made effective and engaging for delivering professional development to staff in a public library?”* several main themes emerge:

- The Effect of the Environment on learning
- Is E-learning Effective?
- Is E-learning Engaging?
- Instructional Design for E-learning
- Supporting E-Learners
- E-Learning in the Future

These themes will be explored using data collected from all sources.

5.1.1 The Effect of the Environment on learning

The programme was launched to the pilot group of CCL staff 16 months after the February 2011 earthquake that had devastated most of the CBD and forced the closure of several libraries. However, at the start of the pilot programme most of the larger community libraries had reopened, one temporary central library had opened on the northern edge of the city and a second temporary central library was due to open in the south of the city three weeks later. In addition, a brand new library, which had started being constructed prior to the earthquakes, was due to open three months later. Christchurch was also waiting for the central government City Plan for the rebuild to be released. This would outline the location and timeline for the building of key central city facilities, including libraries. The library network and city had settled firmly into a recovery stage, aftershocks were infrequent and minor, the central city was still closed with many buildings undergoing demolition, road works and traffic congestion was part of everyday life, Earthquake Commission (EQC) repairs and insurance negotiations were a constant in almost everybody's personal lives, but library staff for the most part had settled into life of the "new normal".

Four weeks into the programme one of the largest community libraries in the south of the city, which had been open for most of the preceding eighteen months failed its Detailed Engineering Evaluation (DEE) and was closed immediately. Staff, including me, were relocated to other libraries around the city with uncertainty over whether our workplace would be repaired or demolished. This directly affected two trainees and several members of the PARG. There was a slight delay in the release date of the last two modules as time was lost in relocating office space and minimising the impact of the closure on other projects.

From my journal I note:

This has been a nightmare of a week. South library being closed indefinitely has had a big emotional and practical impact on me. Two days just spent packing up and unpacking, in my busiest work week ever, rescheduling all the new start training for different

venues and having to start almost from scratch for planning their in-library training. This is extreme logistics – 24 trainees with fewer libraries just doesn't go. This week's course module was delayed and only partially complete. Next week is the Grand Finale and I haven't even started to sort it out. I have 2 trainees on the course who are impacted by South's closure directly – this could provide some interesting results on what we get from the pilot.

I am feeling a bit frantic this week – the EQC builders are in our house and it is quite a challenge living in the mess and disruption. I do see a light at the end of the tunnel – I just need to get through the next two weeks. Luckily the bus to Fendalton goes past my house and Rosie's School even if it does take ages – so the getting to work problem is solved. It is amazing how much the practical impacts on the work brain. - Alice – journal entry 26/ 7

Interestingly, apart from the two trainees who had to change libraries, no direct reference was made in the programme feedback by anyone to the earthquakes and their ongoing effects on the workplace or on learning.

Time

From examining previous evidence around e-learning, factoring in time to complete the programme was one of the major issues. In the pre-course survey, five of the eight trainees indicated getting enough time to complete work as a concern. At the beginning of the programme the trainees' TLs had agreed to allow them sufficient time off their service desk duties to complete the online learning modules. With this agreement in place would time still present a problem for the pilot group?

The online components of the programme were estimated to total approximately twelve hours of work. From the tracking log (see Table 5.1) the amount of time each trainee spent logged into the Moodle site could be calculated as well as the number of times they logged in:

Table 5-1 Summary of Tracking Log Data showing time spent on the programme

Trainee	Total Hours Spent logged in to the Moodle site	Total number of times logged in	Number of online modules accessed
Nadia	3.9	8	5
Emma	4.9	8	6
Tasmin	7.1	8	8
Lauren	10.4	11	8
Sarah	11.1	17	8
Catherine	12.0	19	8
Eve	15.4	17	8
Zoe	16.1	18	8

From the logs it was apparent that six of the eight trainees had accessed each module at least once and had completed the majority of the programme. All trainees accessed the final module to complete the post-course survey. Two trainees did not access all the modules or complete the programme.

In the post-course survey trainees were asked how much work time and how much of their own time they used for the course (see table 5.2) and where they completed their e-learning (see table 5.3):

Table 5-2 Summary of when trainees did e-learning

	During work time I was given specifically for completing the course	During my usual off-desk time	During my own time
Nadia	Some	Some	Most
Emma	Some	Most	None
Catherine	Some	Some	Some
Tasmin	All	None	None
Eve	None	None	All
Sarah	Most	Some	Some
Lauren	All	None	None
Zoe	None	None	All

Table 5-3 Summary of where trainees did e-learning

	In the Workroom	At Home	On a public Library PC	While on Desk
Nadia	Some	Some	None	None
Emma	All	None	None	None
Catherine	Some	Some	Some	None
Tasmin	All	None	None	None
Eve	None	All	None	None
Sarah	Most	Some	None	None
Lauren	A small amount	Most	None	None
Zoe	None	All	None	None

These two questions suggested that although it had been agreed in principle that trainees would be given dedicated work time to complete the course, in practice

five of the eight trainees were doing at least some of the course in their own time and three were doing “most” or “all” of the programme in their own time, while another three trainees were doing “most” or “all” of the programme in time set aside for that purpose. Six of the eight trainees worked on the programme at home including Lauren who had negotiated to “work from home” while taking the course.

Data from the post-course survey suggested that trainees considered time the most important barrier to learning. Seven of the eight trainees cited it as a barrier to their learning. Within the focus group time was again a primary topic:

I did all of mine at home – I couldn't have found the time at work to fit it in. Eve

I found that even if you did try and do it and say I'm not available between this time and this time – there was still the habit of – oh they know the answer – we'll just go and say – excuse me – can I ask – you get interrupted and stopped – it's just not easy – it's easier just to be able to sit down in your own time and just do it and focus without any interruptions Lauren

In order for online learning to be effective, trainees suggested that time needs to be given not only in principle but it also needs to be planned for and TLs, time-tablers and other members of the library teams need to be proactively supportive in that.

My Team Leader actually sent out an email to the team – saying basically

'When they've put in reference on the timetable basically treat them like they are not here'. And that was the only time I really could do it Sarah

We have a similar set up at XYZ – that was the only way I could get it done – timetable myself for hour slots – try and spread it evenly –

look at the timetable try and pick times when there are more people around – so it's ok – that's the only way we could do that.

Tasmin

Team Leader

Data from the different sources also suggested that having sufficient time to complete the programme was directly related to the support TLs provided and the relationship the trainee had with their TL. In order to get the work time required, not only did trainees need a supportive TL but also the confidence to negotiate the time needed, and an understanding by colleagues and the trainee themselves that up-skilling is a valid use of their time.

Two incidents that I noted in my journal provide illustrations of this:

Interesting conversation with Eve – she said she is “loving” the course and is spending time doing it at home. She said that she is finding it really useful and her Team Leader has offered to give her ½ time for what she spends on it at home. This begs two questions:

- *Why isn't she getting enough time to do this at work?*
- *Why only ½ time? - Alice – journal entry 28/7*

When asked about not being able to find time at work in the focus group, Eve's response was:

– well I think my team leader would have been amenable to the idea – but I just felt I would have been letting down my team at a busy time to have asked for the time off desk Eve

Time at work was not given, but time at work was not asked for as Eve would have felt too guilty to ask for the time. Part of this feeling of guilt is possibly down to the positioning of the pilot course as voluntary. Although approval to run the pilot course, and for staff to be given time to complete the course, had been given by library management, Eve herself had volunteered to take part in the programme.

For her, the training was neither mandatory nor had it been identified as part of the Performance Review and Development (PR&D) process; it was something she was doing for herself. In this light the TL's offer of paying for half the time would correspond with CCL's policy of providing partial reimbursement of study fees for staff who take work-related qualifications.

Another incident from my journal also stresses the importance of being able to negotiate with the TL to get the time needed to complete the course:

Spoke to Emma today – I asked her how she was enjoying working at XYZ and presumed that since she was working as an “extra” there she would now have plenty of time to do the course. She said no quite the reverse, since she was an extra she had no backroom role at XYZ, and she had been rostered almost full time out in the library she had little time for anything. Since she was from a different team she didn't feel in a position to make demands on the team leader or timetabler to get time to complete the course. - Alice – journal entry 1/8

The online tracking log showed that after her library closed Emma spent less than 30 minutes on the Moodle site. Sarah, who was in a similar position to Emma in having to move to another library when her library closed, reported a similar experience:

and once I came to PQR there just hasn't been time – but actually just letting the team know that this is actually a separate time made a big difference – I think timetabling it in is the only way to get it done. Sarah

The group recognised that if the online programme were aimed at new staff then these individuals in particular may need extra support and should not necessarily be expected to negotiate their off-desk time themselves:

I think that is something important for the new people when they come along, that they are supported by their colleagues and their team leader to make the time to go out the back and do that. The new people may be less forward about saying "look I need to be able to go and do this." Catherine

I think it was important to have that support from the top – so from team leaders and the associate team leader communicating it to the team, rather than carrying it yourself. [it is difficult] To timetable yourself and have to fit it in, and have to ask the timetabler yourself "can I do this?" Like having them organise it for you in a kind of way, especially for the new people because they won't know. Emma

but that goes back to your team leader's support and whether they believe that you are lucky to be working in the library and therefore you should be up skilling yourself in your own time, which I have been told by a couple of team leaders. As opposed to, yes, you have a life outside work and you are entitled to that and your training happens during work Zoe

Place

Difficulties in finding a place to work undisturbed were also seen as a barrier:

Also the computer I was on was next to the phone. And if I was sitting there – no one expected anyone else to get the phone, so I was answering the phone and getting claims returned and lost customer membership cards and so yeah, what should have been a full hour turned into 20 minutes actually on this. Nadia

Not only was getting away seen as ideal to avoid being disturbed, but also to avoid feeling guilty about learning rather than working:

If you are not taken away though – you will be interrupted and you would feel guilty. Zoe

Limited computer resources for learning also created a barrier, and when others had demands on them, this became a source of guilt

I mean at XYZ we had 4 computers and you were hotdesking and there were 20 people, how could you sit there without feeling like oooh. Zoe

Even if you have the time – actually getting a computer... Sarah

This, and problems with technology in the library, were seen as a reason to work from home:

I did one at 3:30 in the afternoon that was a really bad time to do it. The YouTubes weren't loading up, I was sitting there going – this is really wasting my time here. So don't do it at peak. Tasmin

That's why I did it at home Zoe

It had been hoped that one of the ways of relieving pressure on workroom computers would be for trainees to do some e-learning on the staff desks out on the library floor during quiet times, but the survey data showed that no one attempted to do this. It was also thought that public PCs could be booked by staff for e-learning, but only one trainee tried this and she had her own way of dealing with the distractions:

Alice: Would using public pcs work?

Several: No

Catherine: Yes, I did some work on public PCs

Zoe: The public still recognise you

Lauren: Well, newbies they wouldn't. Just have no badges on them and they will be fine and no one will know who they are yet.

Sarah: It's quite noisy and distracting.

Several: Yes

Catherine: Ear buds!

Working on e-learning in the library was generally considered difficult. Unlike university libraries, public libraries are often noisy, with no ideal space for quiet study. Computer areas can be particularly busy sometimes, with many people around a single PC. Catherine needed her ear buds to minimise distractions.

The environmental factors that trainees considered affected the success of e-learning included time, place and TL support. These were things outside of the learning programme, the online learning environment or the delivery methods of the programme itself, yet they impacted on the success of the programme. The most important factor was seen as having sufficient time to complete the programme and this was directly related to TL support and the ability for trainees to negotiate sufficient time to take part in the programme. Place was also considered a factor, and having a suitable location to do the learning without being disturbed was a high priority.

5.1.2 Is E-learning Effective?

One of the most important questions of the project was whether e-learning is an effective method for delivering professional development and how that can be measured. Traditionally, professional development and training at CCL only directly undergoes a level one evaluation (Kirkpatrick, 2007). Feedback from trainees is obtained at the end of the course about what they thought of the course, but no assessment is made of the skills the trainees have learnt – they are not tested after the course.

Administering post-learning tests however, is not generally considered effective in the work environment as they do not measure the most important aspect of

learning in this context, which is whether the newly learnt skills are actually transferred to the workplace. Gaps in individual staff knowledge are identified through the PR&D and coaching process and then recommendations are made about professional development opportunities necessary to address those gaps. Within this framework the true value of any specific learning event is difficult to quantify. Ultimately, from an organisational perspective, professional development needs to show an effect in terms of the business as a whole (level four evaluation, Kirkpatrick, 2007). For the library these measures include customer satisfaction surveys, membership numbers, attendance numbers, number of items issued, and foot count. However, the data from the different collection methods were able to describe what the trainees themselves considered they had learnt.

Trainees own views of success

At the start of the programme trainees completed the pre-course survey and one of the first questions asked them about their own learning objectives for the programme (see table 5.4).

Table 5-4 Summary of trainees own learning objectives

What do you hope to learn from the Online Reference Training Programme?	Number of respondents
Improve skills to help customers	4
Refresh/Update/Fill Gaps in knowledge	5
Gain more confidence with answering reference questions	3
Gain more confidence with/ learn new resources	3
Being able to help colleagues with this programme in the future	2
Learning about online learning	2
Being part of a research project	1
See how well I can learn and keep up with others	1

Trainees hoped the course would improve their ability to help customers and act as a refresher to update their skills and fill gaps in their knowledge. They also mentioned gaining confidence with both answering reference questions and using resources. One of the trainees however wanted to learn about the programme itself rather than the content in order to help others:

I will be probably helping colleagues use this for the first time so I hope to introduce them to it and make it interesting for them in turn. Tasmin

A second trainee also wanted to be able to help colleagues with the course in the future as well as improving their own reference skills, two people were interested in learning about online learning by taking part in the course, one was interested in being part of a research project, and another wanted to challenge her own skills at learning.

I'll be interested to see how well I do and how I can keep up with the work as I do sometimes feel like my age and lack of technical skills hamper me in my work. Also Online learning is the shape of the future and it is interesting to be part of a project of this kind.
Nadia

All of the trainees were experienced library staff, including three in qualified roles, and their objectives were wider than the content of the programme itself. Yet at the end of the programme did they think the course had been successful? From the focus group discussion the feedback about the success of the course was positive, with trainees claiming to have learnt lots and found it enjoyable and fun:

I have learnt new ways to interview people and I have learnt about new resources on the website – which is what I was hoping would happen – and it did. Catherine

I think it gives you a lot of information, but because of the way it is presented, it doesn't feel like hard work, it's a fun way to learn but it does give you a lot of information, and after three years in the job, I've learnt a lot from this. Eve

Yes I was going to say, I found it enjoyable and I've learnt some things out of it and I think to me that makes it successful. Sarah

I thought that most of the topics covered were actually very relevant, you know, very much day to day, this is the type of question that you are going to get, so that was really good. It didn't have classical music, which is like one step beyond. Zoe

I like personally, the learning in your own time. And I think most people that work in a library are quite likely to want to keep learning. I think if you didn't it would be a bit harder but I liked the e-learning, I liked the independence of it and own pace of it. Lauren

I enjoyed it, and it's good to be reminded of some of the things that you know are there, but then you forget, just to have them sort of highlighted again, even the reference interview, you know we can always brush up on our customer service and things like that. Emma

Zoe also commented that she had found the programme successful from a trainer's perspective:

I like the videos, they were really professional, I just felt like wow, look at what we've achieved and look at the scope for new ways of teaching, coz I guess for me I was looking at it from more of a trainer point of view – I was like – oh look – there are so many different ways you can do it – this is exciting. Zoe

The trainees' own views of the programme were that it was successful. All of them felt they had learnt some useful skills so from this perspective the programme could be said to have been effective.

Assessment of skills

As mentioned above, CCL does not normally test or assess trainees at the end of a training programme. However, since the programme included many videos of scenarios with customer-staff interactions, the PARG thought it to be a reasonable expectation that trainees would be able to take part in a similar role-play activity. This could be used as an opportunity to practice skills learnt on the programme and perhaps these could be assessed too.

So in the final face-to-face session we decided to trial a role-play exercise and test its potential to be used as an assessment tool in the future. The face-to-face session included a brain storming session with the group creating a checklist of factors that they thought, in the light of what they had learned in the programme, would make a successful reference interview. This checklist was then used to "score" the role-play.

The exercise however, did not proceed as planned. Of the eight trainees only four took part in the role-play exercise. One person was unable to attend the face-to-face session, two had to leave early and one declined to take part in the role-play.

Trainees appeared to find the role-plays difficult. From my journal I note:

Trainees seemed to struggle with finding the right databases in the Source. They forgot about using Lists in Bibliocommons and stumbled through Novelist – is this a reflection that they haven't actually done the modules? The Yes/No 20 question approach to questions was shocking. I am very surprised by this, one because the trainees seemed to be doing well with the training and two, because these are experienced staff – they are supposed know most of this already!

Creating the checklist seemed to go well, the group could clearly articulate the different steps needed – so why didn't they do them! Is watching the process making them nervous, are the role-plays too artificial? How can this be done differently? Alice – journal entry 31/ 7

When asked about the role-play exercise, the trainees agreed that it was difficult and not useful for their learning.

*Because I tell you what I have no problem with role-playing – i just didn't know what to say. I was like I'm not in a library, that's Eve there, I don't know that she was supposed to be being an old lady, coz, you know, how can I know that? So no visual cues were there for me to be able to interact, and just sort of standing over there, just wasn't helping me and normally I've got plenty to say to people. But your natural speech - just goes out the window and it's very stilted and not helpful, not getting you anything from it
Tasmin*

I got a bit flustered and I wouldn't usually but just – I felt kind of put on the spot and my words weren't articulated very well. Like usually I don't have that problem – but I couldn't like think what to ask. Emma

I found with Simon observing me. Made me just feel so stupid – that my brain kind of froze slightly. Nadia

Yes, I didn't feel I got much from it either. I don't mind doing role-play – it doesn't bother me at all, but I didn't feel I got much value from it. Eve

The role-play didn't appear to be useful as either a learning tool or an assessment. There may have been several components to this. Looking at the Moodle Activity

log, only one of the four who did the role-play had actually completed most of the online course by the date of the final face-to-face session. Two of the qualified staff took part in the role-play and they may have felt extra pressure at being watched by colleagues as they would be expected to know the material already. Since the trainees were volunteers for the pilot, and already had experience, they did not need to prove their abilities.

The trainees seemed to want an activity that was safer, with others acting the parts, that would not make them feel judged:

Perhaps it might be better to have preset role-players and then the interaction would come from the class and then say what's good about this, what's bad about this. Tasmin

The evidence gained from the role-play exercise was inconclusive as a measure of the success of the programme. Its possible use as an assessment tool seems limited and some modification would be necessary for it to become a successful learning activity.

Levels of Confidence

Another component of the pre-course survey asked trainees to rate their confidence on a scale of 1 to 10 for a variety of different categories. The trainees were asked to rate their confidence again in the post-course survey. These results are compared in table 5.5.

Table 5-5 Comparison of confidence levels before and after training

	Being able to answer customer's queries?		Using Bibliocommons to answer customer's queries?		Using the library website to answer customer's queries?		Using the Source to answer customer's queries?		Using the Internet to find reliable information?	
Name	Pre-Course	Post-Course	Pre-Course	Post-Course	Pre-Course	Post-Course	Pre-Course	Post-Course	Pre-Course	Post-Course
Nadia	7	7	6	7	7	7	8	7	8	8
Emma	6	6	8	8	3	6	3	4	9	8
Catherine	5	8	8	9	4	8	4	8	7	8
Tasmin	9	9	7	9	9	9	9	10	9	8
Eve	6	8	6	8	7	8	7	8	6	7
Sarah	7	9	8	9	8	9	7	9	7	9
Lauren	5	7	7	9	6	7	6	8	9	9
Zoe	7	8	8	9	8	7	7	7	7	7
Mean Value	6.5	7.75	7.375	8.5	6.5	7.625	6.375	7.625	7.75	8
Significant Increase?	Yes, at 95% level		Yes, at 99% Level		Not significant		Yes, at 95% level		Not significant	

From table 5-5 it can be seen that the confidence scores increase in 26 instances, remain the same in ten, and decrease in four. The means for the confidence scores increase in each category. For each category a paired t-test of the means was performed using Excel.

For three of the five categories the increase in confidence levels for trainees can be said to be statistically significant and the programme can be said to be effective at improving trainee confidence in these areas. All trainees rated their confidence higher in at least one area. This was true for both non-qualified and qualified staff.

5.1.3 Transference to the workplace (Helping Customers)

Another way of measuring the effectiveness of the programme is to consider the degree to which trainees were able transfer their new skills to the workplace. This

was also something that appeared to inspire the trainees themselves with a number mentioning using their new skills to help customers unprompted in collegial discussions. From the post-course survey, five trainees said they had used their new skills in the workplace. Of the other three, one works in a non-customer facing role and the other two had just started working in different libraries due to the sudden closure of their own library:

And I found that almost immediately. I had information I could offer people that I hadn't had before, and that was great. Eve (Focus Group)

For me the course has been a great refresher and while I haven't had many reference enquiries lately (due to being in a brand new RFID library where customers are focussed on being able to issue at the moment) there were good reminders of resources especially in the homework help and reader advisory sections. Sarah (Survey)

At every point you could actually relate to where you would actually find it useful in your own queries and you'd think oh, ok I could do that. So you knew in your head you could do those things, but possibly time constraints or a slight lack of confidence meant you hadn't actually tried it, but you thought ok yeah. Nadia (Focus Group)

Yes, there were things you could put into action – you don't have to wait until you have done the whole course. You pick up things and think – next time I could. Catherine (Focus Group)

In the survey, two trainees listed a range of different resources they were able to assist customers with as a result of the programme e.g.

- Wide reading for NCEA suggestions from Green Bay High Wiki for two borrowers
- Information on a medical condition using three sites we looked at in training
- How to access the photograph catalogue under “Heritage” on the library website
- The Intrepica website
- An article from the digital magazine database

Respondents also explained that the programme not only helped them assist customers with different resources, but it also improved their reference interview, communication and interaction skills:

It made me concentrate on the whole meet and greet and rapport thing more in general. Rapport is good as people don't like to feel they are being talked down to which can happen quite easily and unintentionally. I had a question the other day about Alzheimers (used all 3 websites from the health module, brownie points please!!) and she wasn't into computers at all but by the end of the session she was into it and was writing things down so her daughter could help her in the future. I think that was because she felt really comfortable as we went along. Tasmin (Forum)

Just the type of questions that you might ask them, because it started with the whole reference interview but then as you go through the module there are other examples of reference interviews, through reader's advisory etc. which gives you other ways to approach customers or what resources to show them. Catherine (Focus Group)

Evidence from the focus group and the post-course survey suggests that there is transference of skills to the workplace and that this transference takes place both during the programme itself and beyond. Further surveys would need to be done

to ascertain whether this transference continues over the longer-term, but the results would suggest that the programme provides an effective means for staff to transfer newly acquired skills to the workplace.

Overall, considering the trainees' own views of success, the effect on trainees' levels of confidence, and evidence supporting transference of skills to the workplace, the programme demonstrates that it has been effective in improving trainees' Reference Skills. This was true of qualified staff as well as non-qualified staff suggesting that the programme may benefit staff at different levels.

5.1.4 Is E-learning Engaging?

Aside from effectiveness another key aim of the research is to consider how e-learning can be made entertaining and engaging. That learning should be both entertaining and informative has been my adage for most of my working life. It must be informative – or it is not learning, it must be entertaining or it simply becomes drudgery and drudgery is not learning either. Entertaining does not necessarily mean telling jokes or wearing a red nose (although it could) but is about engaging the hearts and minds of learners so that their interaction with you is worthwhile and joyful.

In the pre-course survey trainees were asked how they thought an online learning programme could be made interesting. The most frequent suggestion was that there should be variety in terms of how the material was delivered (50% of respondents) as well as in the content itself. Different suggestions for delivery methods included interactive quizzes, forums, games and summaries of different processes. The trainees also commented that the programme's visual appearance should be clear and interesting.

Table 5-6 Summary of how trainees thought e-learning could be made interesting prior to the course

How do you think an online learning programme could be made interesting and engaging?	Number of respondents
Variety of delivery methods/Mixture of different media	4
Variety of content/topics	2
Interactive questions/quizzes	2
Online Chat Forum	1
Summaries	1
Games and activities	1
Interesting looking screen	1
Clear layout and graphics	1
Relevant Examples	1
Real life anecdotes	1
Examples of what not to do	1
Focusing on achieving a goal	1
Useful information	1
Avoid information overload	1
Don't know	1

In order for the programme to be interesting and engaging trainees felt that the content needed to be right too. In particular, an important aspect was for the programme to be directly relevant to trainees' employment roles with "*real life anecdotes*", "*relevant examples*" and even examples of "*what not to do*". Focusing on achieving a goal, as opposed to demonstrating resources, was also mentioned by one trainee. Information needed to be useful, but not overwhelming.

From the post-course survey, the feedback from the trainees about the elements they found enjoyable was largely positive. Two aspects, the variety and the use of videos, drew the most comments:

really liked the interactivity of the modules using written content, videos and quizzes. Didn't get bored at all and appreciated the

efforts of colleagues being involved. It was nice seeing them in there and as time goes by, new videos could be made by newer people... Tasmin

Pretty darn good locally-made videos featuring local talent. Catherine

Videos...fun to watch colleagues in action & to compare their style to your own. All the music...it kept the adrenaline going ! Eve

The videos and the variety of ways in which info was presented, because I never knew quite what was going to come next. Zoe

Videos were good, easy to follow & learn. Lauren

I liked the mixture of watching, reading and doing. Most videos were of a good length and got the message across effectively... I thought it was well balanced and kept my interest most of the time. Sarah

I found the variety of media good. Emma

Other aspects of the programme that trainees enjoyed were being able to use specific online library resources easier/better, the self-directed aspect, and the fact that it was pitched at an achievable level. Tasmin also enjoyed the quizzes, which encouraged trainees to use resources to answer typical customer enquiries:

I liked the way I got involved in the databases. It is actually even better than going to a training session sometimes Tasmin

One trainee however:

enjoyed all aspects of the learning, found it useful, interesting and entertaining Nadia

When trainees were asked in the focus group when they felt most engaged with the programme again they mentioned the quizzes and the videos, but also being able to tick things off and monitor their learning

When I'm doing a quiz and I'm getting it right. And there are ticks at the end. Zoe

When you get to tick things off, like you do something and you can tick it off or find the answer. Emma

Watching the videos. Catherine

I loved being able to watch interactions and watch the actual screen that I would actually be using rather than someone just telling you something. I found that really good. Lauren

I think it was well balanced between like watching and doing. I thought the quizzes were really good too. Coz it was nice to go and actually do stuff. So there wasn't too much, just like watching. There wasn't too much just doing so It didn't feel like it just dragged out each session. Sarah

Another aspect of engagement that trainees mentioned was being able to learn at a time and pace that suited them as learners:

I like personally, the learning in your own time. And I think most people that work in a library are quite likely to want to keep learning. I think if you didn't it would be a bit harder but I liked the e-learning, I liked the independence of it and own pace of it. Lauren

I found if I did it in a chunk say like I had an hour or an hour and a half I was more engaged than if I did little bits because otherwise I had to like find that place of engagement again, you know getting started and then you sort of get in the zone. Emma

However, when asked what made people feel *least* engaged with the course again time was the biggest factor:

Zoe: I think because I was always doing it on a Saturday or a Sunday, by the time I was on to my second hour I was like – ahhhh – because I’ve got to finish this today because it’s not happening again until next weekend. By that second hour I was actually feeling somewhat less engaged.

Lauren: Just when I was rushing at the end to get it finished, actually that was it.

Eve: time pressure.

Lauren: time pressure. Actually doing it was fun.

Nadia: Yes, actually getting to do it was the pressure.

Aside from time pressure, the other barrier to engagement trainees mentioned in the focus group was longer videos:

Zoe: The only time I thought that was the slightly longer videos. Three minutes – good, but six, seven minute videos I just. I can’t sit watching TV doing nothing, and six, seven minutes just watching was too much for me

Lauren: longer videos yes

Catherine: Dewey system.

At this point Catherine mentions the Dewey System video, which is one of the longest videos in the programme. This particular video is singled out several times for dislike and further discussion is presented in the Instructional Design section (5.2) below.

When trainees were asked in the post-course survey what could be done to make the programme more engaging, the largest numbers of comments were around solving technical issues and improving the quality of picture and sound in videos as well as reducing their length (table 5.7). In addition, trainees wanted additional questions and optional activities. Having a clearer checklist was also mentioned as important for engagement in future courses. The only topic that was specifically mentioned as needing changing was Dewey.

Table 5-7 Factors that trainees thought would improve engagement with the programme

Response	Number of respondents
More quiz questions	3
Solve technical issues	3
Clearer sound and video	3
Use presenters with clearest voices	2
More support from management to relieve time pressure	2
Clearer Checklist/Sense of progress	2
Optional Activities	2
Shorter Video	1
Can Dewey be made more engaging?	1

Apart from the programme needing more support from management. Time to complete the training was also seen as important for engagement.

Overall the programme was described by the trainees as “fun” and “entertaining” as well as being seen as effective. There were, however, a number of suggested improvements from an engagement perspective and these are examined in more detail in the instructional design section below.

5.2 Instructional Design for E-learning

One of the important things to learn from the perspective of improving the programme in the future, and developing new online professional development programmes, was what design elements made the programme effective. Of particular interest was the effectiveness of different activity types.

In the post-course survey trainees were asked both how effective and how engaging they found the different activities (table 5.8). The different activities listed were videos showing overviews of resources, videos showing a reference interview, answering multiple choice quizzes, and posting and responding to comments on the forum. The scale of effectiveness ranged between not at all, a little bit, some, very and completely.

Table 5-8 Trainees rating of the effectiveness of different activities

Participants Rating of the Effectiveness of Different Activities				
	Videos showing overviews of resources	Videos showing a reference interview	Answering multiple choice quizzes	Posting and responding to comments on the forum
Not at all	0	0	0	1
A Little Bit	0	1	0	5
Some	3	2	1	1
Very	4	3	5	1
Completely	1	2	2	0

The trainees rated both kinds of videos highly and more or less equally, although one respondent rated the reference interview videos only “a little bit effective”. Answering the multiple choice questions was rated slightly higher. The forum however received very low effectiveness scores.

When comparing the scores for effectiveness with the scores for engagement (table 5.9) the two were (unsurprisingly) highly correlated; individuals who rated

an activity as highly effective also rated it as highly engaging. The engagement ratings were more extreme than the effectiveness ratings; more respondents rated the activities as “completely” engaging, while the individual who found the reference interview videos only “a little bit” effective found it “not at all” engaging.

Table 5-9 Trainees rating of the engagement of different activities

Participants Rating of the Engagement of Different Activity Types				
	Videos showing overviews of resources	Videos showing a reference interview	Answering multiple choice quizzes	Posting and responding to comments on the forum
Not at all	0	1	0	1
A Little Bit	0	0	0	5
Some	2	1	1	2
Very	4	2	3	0
Completely	2	4	4	0

Again the forum received low engagement scores suggesting that as an activity it was rated neither particularly effective nor engaging.

5.2.1 The Forum

The forum had not performed as expected. As the programme progressed there was a noticeable decrease in the number of posts to the forum. The content of the posts also changed to focus more on technical issues or observations and less on the content of the programme.

The forums are being totally misused. They are supposed to be discussing learning but have turned into a litany of fault finding – “CTRL F doesn’t work on my MAC” – well of course it doesn’t ...It’s nothing to do with the programme or the website, it is to do with CTRL doesn’t work on a MAC! Alice – journal entry 27/7

It had been hoped that the forum would be a way of providing a channel of communication for the group, providing support and group cohesiveness, but instead the forum seemed to create a barrier to learning with trainees afraid of looking foolish.

I find the forum like a little bit scary but I'm getting more used to that type of thing as well, just for putting your stuff out there for everyone to see. That's a new kinda concept for me. Emma

I find that when it comes to writing on the forum it is kind of like – uuch – you know. I have to put my, and what if my answer is wrong and it is there on the forum for everybody to see. Zoe

I wonder if new starts who are more in my age group – the older age group – might do what I did and note it all down in the booklet, my booklet's full. I'm more comfortable jotting it down on paper like this than sending anything to a forum online. I don't know, you might find that. Eve

Time was again an issue, with trainees saying that this was the reason they did not use the forum:

But I think by the time I had been through a module and I was getting to near the end of my hour and I'd find I didn't have time to post to the forum – so it often didn't get done. Catherine

At the same time, some trainees appeared to recognise the value of a forum:

I never like doing things like that. I hate doing forums, but I have discovered through other courses that what you actually end up writing down is actually your learning at that time, so it is forcing you to think about it and actually write it down and digest it, so I

think even though it is a pain in the... it's actually very useful as a learning tool. Zoe

Doing this course because we had prior knowledge it's kind of easier to go through and do it. But as a new person I think the forum could really be used as a support mechanism, not just for posting your answers, but if it was encouraged as a support for people as they go through it. Because you could feel very isolated and if you don't have any background knowledge and you got in trouble and there is no one to talk to that forum could be used.

Sarah

There were also positive comments about the forum in the post-course survey

I also found my colleagues' feedback on the forum very thought provoking. Zoe

The forum took a bit of getting used to but I warmed to it. Sarah

Some of the difficulties with the forum may have been due to its intended function as a place to write and discuss answers to problems rather than just a place to post questions and provide support. Several trainees suggested that this was a problem and thought the way the forum was used could be changed:

And at the end of the day the majority of us were just sort of parroting the same thing, you know – because you had to give answers to a lot of things, and a lot of answers were just the same, so it was just like ok, yes I agree with you, yep, da, da, da, da.

Lauren

I would rather put my answer in a quiz than have to put it on the forum, which may be a tool to make you use the forum, I'm not sure. Catherine

Maybe if the forum were for posting thoughts or ideas, but not actually you need to go and look at this and then post what you've done. Sarah

Another issue was that the forum automatically sent all the trainees an email when something was posted. This was intended to work as a reminder for trainees to respond to their colleagues' posts. However, this feature created its own problems:

I found it quite intimidating when I was getting emails from the forum talking about final fling and I'm going aaaargh, I haven't even got to local legend yet. Nadia

The feedback from the trainees suggested that there needs to be more consideration of how (and indeed whether) forums should be used for online professional development and if they are not used what would be suitable alternatives.

5.2.2 Videos

In terms of both effectiveness and engagement trainees rated the videos highly. In the post-course survey a distinction was made between videos showing overviews of resources and those showing reference interviews. Trainees rated both types of videos highly, although Emma disliked the reference interview videos. The main recommendation for the videos, apart from technical issues of sound and vision, was to make them shorter; three minutes was the suggested optimum. However, two videos came up for particular criticism – the Introduction to Reader's Advisory and the Introduction to Dewey.

In the [Reader's Advisory] video where she is just standing against a blank background – I didn't like that, I wanted her to be at a desk, like an information desk or something and if she's talking about you can find this in a Newspaper, get a prop, find a

newspaper – visual cues that make you think – oh yes, that - very good stuff, but just a talking mouth and I found that just too distracting Catherine (Focus Group)

The Dewey info was very clear perhaps a little too clear, while the other videos kept me focussed I drifted off a bit, maybe it was the white screen but it felt like it was slightly over explained. Sarah (Forum Post)

I found the Dewey video boring with too much info, don't feel I needed to have all Dewey read out as I could see it on screen... Going Quackers was good really found that interesting Lauren (Forum Post)

These two videos were the only two in the programme presented purely as lectures. In the Reader's Advisory Introduction a readers' advisory expert simply talked about the practice of readers' advisory and some of the key issues. The Dewey video was based on a PowerPoint presentation that had originally been used in the face-to-face course. The presenter narrated the presentation as she would typically do in a face-to-face class. These "lecture" type videos did not seem to translate well into the online environment.

However, the Dewey presenter also created a second video called "Going Quackers" about catalogue information and as can be seen by Lauren's feedback above and Zoe's below, this was well received.

I really liked "Going Quackers" - it's an issue that comes up frequently and the whys and wherefore were explained clearly. (Plus, how can you resist a cute little duck?!) Zoe (Forum Post)

Both Dewey and cataloguing are theoretical, information-heavy topics. In the cataloguing video the topic was presented as a puzzle – a children's book about a duck apparently had the wrong title – and the fields in the catalogue were then

explored to try and solve the mystery. Creating context – even a slightly artificial context as in the Cataloguing example – appeared to result in a more interesting and engaging learner experience. Indeed Catherine pointed out:

I think each video needs context, I enjoyed the ones where there was context – where there was an actual interaction. I think people need to see themselves in that position at that information desk or showing that customer to a shelf – they've got to be saying "that's me – I'm doing those things, or I could be doing those things"
Catherine (Focus Group)

Another aspect of the videos that the trainees enjoyed was their relevance to the workplace and in particular, the context of CCL:

I mean I was watching those videos and I was like wow, Simon, Caitlin- some of my stars doing things and I was oh, ok, you know, that's not that different from what I would do. So I felt like – that's ok. Zoe

Links were also made to YouTube videos created by other libraries, but interestingly these were not liked as much:

I found the first one that I think was made by the XYZ libraries, of how not to do the reference interview, I found that so extreme, that I almost switched off. I wondered if we could do a local production and just make it a little more realistic. Eve

Yes, I really liked our ones. I thought all the ones that were done by our staff were really, really good. Lauren

Making the videos close to real life was considered important. Trainees suggested that future videos should be even more realistic:

Lauren: *I think actually one of the videos would be really great if it was like – oh I actually don't know that information, but go and get somebody else that does. Because everyone, seemed to know everything in the videos.*

Alice *So some more videos that maybe show some more realistic situations?*

Zoe: *Some that show the fails.*

Lauren: *Fails but with some good outcomes at the end.*

Trainees commented that using videos was an improvement on the previous CCLlearn online learning programme about Web 2.0, which included a lot of readings. Providing extra information by way of readings was something that we had considered adding to the new programme so I asked if the trainees would have liked more readings, but the responses were that the videos were preferred.

Catherine: *I think it's awesome that you managed to pull this kind of resource together, because the CCLlearn was just about hyperlinks and reading pages of stuff – but this had video in it – you know embedded video which was fantastic.*

Tasmin: *This was much superior than the CCLlearn ones – yep*

Lauren: *CCLlearn was a lot of reading*

Emma: *There were lots of just pages and pages of reading. Where this was like just a video – more quick.*

Alice: *There weren't very many readings, we didn't direct you to things to read – was that something people would have liked?*

Emma: *No I think that's a good thing*

Lauren: *No that's a good thing. Having the videos is better*

The data showed that short, contextually situated locally made videos were considered effective and entertaining by the trainees. Suggestions were made to increase the range of videos and show scenarios that included not being able to solve a customer's information need but passing it on to a colleague.

5.2.3 Quizzes and Lessons

The most popular elements in the programme were the quizzes. Although we made no distinction to the trainees within the Moodle, two different types of elements were used to create quizzes – Lessons and Quizzes. The quiz element creates a straightforward multiple choice quiz, while the Lesson element can create quizzes that display images and videos, and can enable branching so that different questions appear depending on previous answers. Lessons can also be used as teaching elements providing content as well as testing. Within the programme we developed some Lessons to teach in this way, but this created confusion for the trainees.

Reader's advisor, I thought was quite long – but also because the quiz actually introduced you to more stuff. Catherine

Yes that was confusing Lauren

The quiz just needs to test you on what you have gone through – but to introduce new things at that stage made it longer. Catherine

But the quizzes were great I thought in terms of making you do stuff Zoe

I remember being surprised about that, but then I actually found it really useful – having a quiz that brought out new things – because you do have that expectation – so maybe just relabeling it. Tasmin

But time wise I had this expectation that I was going to get this finished by a certain time and then the quiz turned out to be twice as long as I thought – and I don't think I ever finished it or commented on it. I lost the thread. Catherine

So I kept thinking the next question must be the end the next question must be the end and it kept going on and on. Lauren

Another issue with the quizzes were a number of technical problems, particularly around scoring. The Moodle environment is designed to monitor, assess and grade students in a typical educational environment and consequently provides many options to ensure assessments are fair (e.g. limiting the number of times a student can take a test, or changing the grade depending on how many times a test is taken or how long a student took to answer all the questions). We did not want to limit use of the programme or “grade” our staff and so we purposely switched these features off. However, with many different members of the PARG creating quizzes and lessons inconsistencies arose; trainees discovered “back door” accesses to incomplete test prototypes, different browsers displayed pages differently and the slow speed of the network and server caused pages to time-out and data to be lost.

I wanted to review the Interloans lesson, but was told "You are not allowed to retake this lesson", which seems rather counterproductive. Also there's a numbering mistake in this section - lesson 3 is missing. Zoe (Forum Post)

Agree with Catherine about couple of wee inconsistencies in quiz results and not sure if it's just the computer here but things are impatiently slow (well I am anyway!) when changing screens Tasmin (Forum Post)

In the quiz on papers past answer was correct but no green tick. When I tried to go back the page had expired. It asked if I wanted to go back to the last page I saw but then took me further back. Tried again changing my answer and it came up with my first answer as correct! Sarah (Learning Log)

When I took the test, I had the same problem as earlier: it would go back not to the latest page I had see, but to much earlier. Also,

when I clicked on Grades I realised I had missed a quiz which I hadn't seen while going through the lessons (Searching for Grandma). Searching for Grandma seems to get stuck on one screen and won't continue. The marks also seemed random (why 5/6 when I answered all questions correctly?) I'm a tad confused as to whether I have done all I am supposed to... Zoe (Forum Post)

Technical issues such as these not only cause frustration but, as the comments above show, they also have a considerable impact on available time as trainees have to redo parts of the quiz.

The feedback about the quizzes demonstrates that a clearer indication needs to be given about whether the quiz is supposed to be a test or a lesson and approximately how long it should take. A large number of different technical issues arose with the quizzes and lessons and if these can be solved this will save trainees time.

5.2.4 Check boxes

Another feature of the Moodle environment that trainees found helped engagement was the check boxes. Moodle can enable check boxes to appear next to every learning element, which learners can check when they have completed them. However, part way through the programme it became apparent that this was not working as expected:

Occasionally I find the location of the ticks to mark things completed a bit confusing. Sometimes I'm not sure whether the tick refers to the item above or below. Nowhere either, that I can recall, have I been told whether or why I should click these ticks. Zoe (Forum Post)

There was a tick box but one of those boxes above it – I thought at first was a tick box and then it would minimise. I did it a few times before I worked it out. Sarah (Focus Group)

there is a funny place to the tick box – they are not aligned right

Zoe (Focus Group)

Although the tool was useful, and being able to tick things off was considered engaging, the Moodle environment presented the feature poorly and the boxes did not align with the correct section. Realising that this was happening we created specific checklists for the later modules. These were clearer to use and appeared separately at the top of the screen. They could also show trainees how much of the module they had completed, visualised as a bar chart. However, since these were added to the course part way through not all trainees discovered them in time to make use of them.

One of the lessons for the PARG from this was how important it is to keep the layout of the screen simple and functional. Features that seemed obvious to us as teachers were not even noticed by trainees, and small differences in alignment could create much confusion.

Overall, the data from the different sources suggested that a number of the instructional design elements, such as the use of videos based on real life scenarios, quizzes and lessons, and check boxes had created the basis for an effective and engaging programme. The data also revealed a number of design issues that needed improving such as making the check boxes clearer and tidying up technical issues, particularly within the quizzes and lessons.

5.3 Supporting E-learners

A major concern for trainees in the pilot group was how learners would be supported throughout the programme. There were two aspects to this – support from Tls and colleagues to provide adequate time and resources to do the programme, and learning support for the programme content. The first of these pertains to the environment in which the programme took place was discussed in

section 5.1.1. In this section, evidence for the importance of learning support for the programme content is discussed.

For the pilot group, the forum was intended to be the primary method of communication and learning support outside of the face-to-face sessions. The trainees were also paired (or “buddied up”) and asked to provide direct support and encouragement (via email or face-to-face conversations where possible) to each other. Trainees were also encouraged to contact either the researcher or another member of PARG if they had difficulties with the programme.

5.3.1 Tutor Support

In addition to the forums, one way for the tutors to provide support was via a regular weekly email sent out announcing the release of the next module. This was found to be useful by the trainees as a reminder and a way of keeping in touch.

I really like getting your emails, because it kind of reminded me that this was happening and it just felt because, we had the meeting and then to be honest, I could have happily have forgotten about it for another 6 weeks – you know. But your emails were sort of bringing it together and kind of reminding me. Zoe

I experienced guilt every time I got one of those. Tasmin

But it was nice – it wasn't like you should be up to here now. It was just this has been released – how are you going, how's your day, you know. It was just nice to remind you – oh must get on to that if it had sort of been in the back of your mind. Lauren

However, trainees thought the support from the tutors could go further by advocating for trainees who had difficulties and providing more reassurance:

A good message, particularly for the new people, I think, is to let them know that they are supported, but also ask them "are you having trouble with anything?" if they've got a gap they need to bridge we need to be saying "how can we help you do that?" If their problem is "I'm not getting any time at work" then arrange to get in contact with their team leader or whoever and say "look it is really important for this person to do this project – you know, you've given your verbal support to it how can we get them in a place where they can comfortably get on and get through the modules, so that it's not going to take six months Catherine

You could emphasize that it's about exposure, it's about letting them know what's out there and how they can find it, rather than at the end of this – there will be a big test and if you can't remember absolutely everything, you know, go and get another job. Catherine

And that we don't expect them to know everything, or pick it up straight away, because it's a new job and you would be thinking, oh my goodness, they are going to want to get rid of me – it's quite stressful. Sarah

Yes, that whole thing of setting realistic expectations is really important when you have just started. Tasmin

This feedback demonstrated that trainees saw the role of tutors as not only supporting learning in the programme but also providing support for a new staff member in their new role. Not only that, but since the programme is directly related to everyday library tasks, they regarded the emphasis as being on building workplace confidence rather than measuring individual ability. This is an important insight into the function of e-learning professional development in the workplace.

5.3.2 Buddies

The buddy system had mixed results; some found it a useful form of support and could empathise with each other:

I actually liked having Catherine as my buddy, even though I hardly talked to her, [laughter], but it was just so good knowing she was there and I did run a few things by you when I was in a bit of a panic, and we're at the same library so I found that really, really helpful and I would imagine, but you know what do I know now, that new people might find that actually more helpful, possibly.

Tasmin

It's good to have a buddy and say oh my god, I'm so behind, and so am I. Sarah

But others didn't like having a buddy, although they could recognise the benefits for others:

Not for me I didn't use the buddy thing at all but I think for new people starting up it's a great idea. I didn't like the buddy idea personally. Eve

Where trainees worked at the same library, they were buddied together and these buddies were more positive about the experience than those whose buddies worked in different libraries. The trainees suggested that it would be good for new staff to have a buddy or mentor in their own library that they could go to if they needed assistance with the programme.

But I was just wondering if it would be quite nice for in established libraries, not only having like a buddy who you are doing the course with, but if there was someone that they knew, they could talk to. Someone like another staff member who is prepared to be a sounding block and that kind of thing. Because when you are new,

there is like who do ask, and who don't you ask. But if there is someone you know you can ask and even if they are busy they will say I'll get back to you, or I'll make some time for you. Sarah

It's like when you go to high school and you are in your first year of high school and you get like a senior – so you've got somebody that you know – oh I can definitely go and ask that person. Lauren

I think it is most important to establish a buddy for that person – that's their go to person. It's a good message to get across to new people that this is not a job you do in isolation and this particular course you wouldn't do in isolation either. Catherine

In some ways it would probably be quite good... if there are buddies in the libraries who haven't done it, they are going to be sort of learning as they do it too because they might not necessarily know themselves. That might actually give them [new staff] a bit of a boost, if they come along and you say "oh, well I'll actually have to have a look at this too, and we can learn together Lauren

even if that buddy doesn't know the answer, actually doing the journey to finding the answer with them is quite reassuring Nadia

The idea that course trainees should not be learning in isolation within their libraries but could work with their colleagues who may not actually be taking the programme themselves was one that could potentially have wider benefits for the libraries in terms of developing collegiality and improving skills of others not enrolled in the programme.

Zoe suggested that “*the community learning librarian would be the perfect person*” to fill this role of mentor, although others in the group thought Community Learning Librarians might not be approachable or that the mentor should be a volunteer rather than someone in a specific role.

I still think it would be best to have people that perhaps put themselves forward to do it – because if you’ve got people who feel like it’s awwwl ...and don’t want to do it. [Learners] will be inclined to think well I won’t I ask. Lauren

The Community Learning Librarian (CLL) is a qualified role that was established in community libraries shortly before the Canterbury earthquakes. However, with the upheaval of the earthquakes and subsequent recovery period and many staff changing roles and moving to different libraries, the role has not had opportunity to develop. Part of the job description specifically mentions teaching colleagues – *“Planning, developing and delivering individual or group programmes to both customers and colleagues to support information literacy and the value of reading, libraries and literacy.”* (Community Learning Librarian – Position Description 2012 – Internal Document CCL). Thus, the suggestion that CLLs could become mentors for the online programme would fit with this role description.

This learning support role could also lend itself to an advocacy role to ensure that new staff receive sufficient time and TL support to take part in the programme. Providing CLL mentor support could have important benefits for the programme, and for staff in general at community libraries.

5.4 The Future of E-learning in Christchurch City Libraries

Although the data have suggested that the programme was effective and engaging for the trainees in the pilot group, the question remains of what the trainees thought of e-learning as a method of delivery and whether they consider it a useful tool for the future.

In the post-course survey trainees were asked to rate on a scale from 1 (low) to 10 (high) how happy they would be to take an online programme in the future (see table 5.10).

Table 5-10 Summary of trainees responses to how happy they would be to take an online course in the future

Response	Number of responses
10	3
9	4
8	0
7	1

The majority of trainees reported they would be very happy to take an online learning programme in the future. Only Eve had a score of less than 9 and as she explained:

There were times when I'd have liked to ask questions if I'd been in a classroom situation. Learning in a group situation helps to motivate me. I enjoy hearing feedback from colleagues - somehow the forum didn't hit the spot in this respect. Eve (Survey)

But other trainees also expressed the need for some face-to-face sessions to provide support and complement the e-learning:

I think it's good as a group to get together, especially the newbies, where they don't know each other, just to have like faces, and supporting with other people that are doing it as well, so it's good to get together to start with. Lauren (Focus Group)

And even having one part way through, doesn't matter where they are up to with any of the modules, just getting together and talking about what they are finding hard about it, what they are finding easy, if they have got any other ideas, to know that they are all in the same boat, even if they are not going the same speed. Catherine (Focus Group)

I think you can't replace the value of people coming together and getting to know other people from other teams. I think it's just really, you know, maybe the two, both of them, maybe both of them. I'm being really demanding, you know I can see the advantage doing your stuff and actually getting together with people and doing stuff with other people coz I think it is really important to bring people together. Zoe (Focus Group)

I think to get together as a group periodically would complement the e-learning. I think as someone said it is important to get together as a group for a debrief, maybe some food, just chat about it. Eve

Yet trainees also expressed liking online learning as a delivery method:

I enjoyed completing it in chunks and setting goals of how much to complete each time I was on the computer.... I enjoyed the self paced aspect and the online learning environment as this is the way of the future and it is what universities and other learning institutions are doing so it's good to break down the barriers to it. Emma (Focus group)

Thus, although e-learning was liked and trainees would be happy to take part in other online programmes in the future, there was a clear indication that professional development should not only be online. The blended approach of mixing e-learning with some face-to-face contact was preferred.

So what about the future of e-learning at CCL? Trainees were also asked how they would see e-learning fitting into library professional development in the future:

Tasmin: *Very much.*

Lauren: *Yes.*

Nadia: *Yes, very important.*

Catherine: *Excellent tool – finding the time to fit it in.*

Tasmin: *But we all need to find the time.*

Nadia: *Making the time.*

Catherine: *But I think it needs to be overall, the whole library needs to say right – “we’ve now got staff doing this, they can’t do it at the desk, they need a block of time to do it, how are we going to manage staff development and customer service”, there has got to be a balance.*

Nadia: *Because this in the end is going to contribute to better customer service.*

From this exchange it can be seen that e-learning is considered as an important and effective method of professional development delivery in the future. Yet immediately, the concern with having sufficient time is reiterated; showing how vital time is seen as being in terms of making e-learning possible. With the need to balance both developing skills and providing them there was also the recognition that ultimately it is the library customer who will benefit from staff professional development.

Despite time being seen as the major barrier to the success of any e-learning programme, this problem was not regarded as unique to professional development but also relevant to completing other tasks in the library. The problem however was not seen as insurmountable. Trainees felt that libraries are changing in many ways, with the move to e-learning being just part of those changes. There seemed to be a sentiment that the library network was currently in a state of flux and that it needed time to adjust to new ways of working:

We are still in the process of learning how to negotiate our time to do what we need to do and this seems to be taking a really long time. It seems to be throughout the network people get different provisions made for them at different libraries and yeah, we are still in that process and it’s for anything. So, it’s this but it’s also other tasks and projects , so we’ll get there, I think at different

speeds...if Library Leadership Team (LLT) don't support us to negotiate that hour in a room, then we haven't got a hope in hell of getting anybody trained! Tasmin

It's a network wide problem. I mean we've had web contributors whose team leaders promised us x numbers of hours per week, and then hours they're not coming. Somewhere or another and I think it will take a while, the pendulum will have to swing back to having. You can't have 100% on the desk and all these other things – you just can't! Zoe

I agree with what Tasmin was saying before that it is just a time of change that we are in and so that the way we are learning to do professional development is changing as well and it will just be like a time kind of thing and changing people's expectations around the way that we learn. Emma

There was also a recognition that people's expectations would change over time too and that staff would eventually learn to negotiate for time for study and other tasks. The trainees viewed the situation positively and seemed confident that the necessary changes would occur eventually. E-learning was seen as “a way of the future” for professional development at CCL but trainees were anxious that it should not be the *only* way of the future, preferring a more blended approach.

5.5 Summary of the Results

The evaluation considered data from a variety of sources and the central themes identified. Overall, the online learning programme was shown to be both effective and engaging. Of environmental factors outside the programme itself having sufficient time, TL support and a suitable location to do the work were identified as concerns by the trainees. Instructional design elements such as locally made videos, quizzes/lessons and checklists were helpful to trainees although a number of possible improvements, particularly around technical issues, were identified.

The online forum was considered least effective and engaging and other ways of supporting trainees were suggested. In particular, having an experienced staff member at the trainee's own library to act as a mentor and provide support for the programme was seen as important. As well as providing support for the programme content, the trainees also saw a need for pastoral support for the trainee to help organise their learning and ensure they were able to negotiate the time and resources they required. In general, e-learning was seen as the "way of the future" for professional development at CCL alongside face-to-face learning. The difficulties trainees experienced around securing sufficient time and resources to complete the programme were seen as temporary and that currently libraries were in the process of changing to address these issues.

6 Analysis and Conclusions

In this chapter I synthesise the observations from chapter four and results from chapter five to provide illumination and discussion of the key research questions in light of the evidence gained from the study. Following the structure of the research, this chapter considers the final two steps:

- Step 7 - Analysing of the results
- Step 8 - Disseminating the Findings

(Slater, 2005)

This study aimed to identify and evaluate factors that affect both the effectiveness of e-learning and the motivation for staff to engage with e-learning for professional development. The primary issue for the study was how to develop effective online/blended learning programmes that are appealing and engaging to library staff with limited resources in terms of budget and technical expertise.

From chapter one the primary research question was:

How can an e-learning be made effective and engaging for delivering professional development to library staff in a public library?

with the following additional key questions:

- What are the best ways of working with an in-house team to develop an online programme?
- How can learner interest and engagement be captured?
- How can learners remain engaged with the programme?
- What are effective learning activities in the online learning environment?
- What are the learning benefits of learner discussion groups?
- How can e- learning be translated into workplace practices?
- How can “success” be measured?

Overall, the programme has been shown to be effective in improving trainee's Reference Skills when considering the trainees' own views of success, the effect on trainees' levels of confidence and evidence supporting transference of skills to the workplace. This improvement in Reference Skills was true for both non-qualified and qualified staff, which suggests that the programme would benefit qualified staff as well as the intended audience of new non-qualified staff.

Trainees also found the programme engaging and a number of factors impacted on this – organisational environmental factors such as having sufficient time and support from management to complete the programme, but also features of the learning environment and instructional design of the programme itself. These included the wide variety of activities, the use of video, quizzes and lessons, the relevance of the programme to the LA role, and the locally made content featuring CCL colleagues.

This study therefore provides evidence that e-learning can be an effective and engaging method of delivering professional development to library staff, however there were a number of factors, both internal and external to the programme that had a bearing on the effectiveness of the programme and the staff's level of engagement.

6.1 Programme Development using the Participatory Action Research Process

One of the considerations for the research was to identify effective ways for individuals to work together to create the programme and identify improvements to the process.

- What are the best ways of working with an in-house team to develop an online programme?

This is very specific to the context of CCL, its organisational structure, and the roles and relationships of individuals within this structure. Two individuals with the same job title, but working at different libraries, may have different expectations

and opportunities around how they can be involved in a professional development programme and the amount of time they can commit. The context of the effects of the earthquakes and subsequent recovery also had significant impacts on how the PARG operated. The original pre-earthquake group of library trainers had mainly been based at Central Library (now closed) and the group had been dispersed across the library network in different locations and roles. For some, this meant that they were able to commit significant amounts of time to the development while others were too busy with other work tasks. The work commitments of the different individuals in the group changed as new roles were created and libraries opened or closed.

For example, one member of the group was able to develop an extensive part of the programme early in the development but later, when a library opened, was unable to commit any more time. Another group member, who was involved minimally at the beginning of the project, was relocated to my own team along with someone else who was not part of the original group and both of them went on to make significant contributions to the development and delivery of the programme.

Pre-earthquake, trainers were given guidelines relating to their face-to-face training roles, which detailed expectations around hours etc. However, no guidelines were in place with respect to developing online programmes. Those trainers who were enthusiastic about the programme gave what time they could, but were restricted by the demands of their roles and their own team requirements.

In addition to developing the programme, some trainers also chose to be part of the PARG and were interviewed. Aside from the interview there was no difference in the involvement by trainers who were part of the research and those who were not. The Participatory Action Research methodology however, had unintended consequences as in an effort to maintain the participatory nature, the development work itself was managed from a participatory perspective Phillips, McNaught, & Kennedy (2012) describe the process of developing e-learning programmes as being a project, and subject to the same factors as traditional project management.

In this framework I took the roles of both researcher and project manager and as I wanted the group to work collaboratively and take ownership of the training programme themselves, my project management approach was primarily participatory. Initial difficulties in getting the development work started are likely to stem from this. According to Situational Leadership theories of project management (Beukmann, 2012), project management leadership styles should adapt as a project progresses starting with an authoritarian style and only becoming more participatory once tasks and roles have been established. My reluctance to dictate to the group delayed the work's progress and also caused confusion for members of the PARG as to what their role was to be.

I felt somewhat concerned when Angela said she thought the programme was lacking a direction in the instructional design. I thought we had discussed lots of this – but on reflection I realised that a lot of the project structure is in my head and not clearly articulated. I think I needed to set a clearer direction right from the start. The trainers have done huge amounts of work and achieved lots but she said she felt “like an idiot.” I also think some of this is to do with the technology not being as simple as I thought with the lack of resources and slow computers making things twice as difficult. - Alice – journal entry 19/ 7

I encouraged trainees to choose their own level and type of involvement and create the resources in the style they preferred. This led to a wide variety in the style of resources, a feature commented on favourably by the pilot group, but also changed the intended problem solving focus of the programme to information giving.

Another issue for the group was the programme development work itself, which for some was more technical than they had anticipated and also more time consuming. For my own part I had made assumptions about the PARG's familiarity with IT skills (e.g. I had expected all trainers to know how to save pictures from the internet and how to use a web page editor) that proved to be unfounded.

For my own practice, the study provided important lessons and insights into the management of developing an online learning programme at CCL and some guidelines for the future:

- View programme development as a project (Phillips, McNaught, & Kennedy, 2012) whose management may best be addressed by standard project management tools to establish clear working guidelines and avoid delays
- Clearly identify the role of online programme developer as opposed to trainer, and the skills needed to undertake the role, to avoid confusion and make expectations clear
- Make an early start on the creation of content via working bees to develop motivation and ownership of the project by the group and avoid delays

6.2 Creating a Supportive Workplace Environment

One of the most important aspects of whether an e-learning course is successfully undertaken and completed by employees is how much support and motivation trainees receive from management and TLs (e.g. Frankola 2001, Hoyle 2010). Trainees in this study also reported that having a supportive TL was one of the most important factors in being able to take part in the programme. However, how to implement this in practice is not always clear. For this study, management and TLs were supportive of staff participating in the programme and agreed to allow off-desk time to complete the programme.

However, lack of time was still described as the most important barrier to completing the programme. Only by having time specifically timetabled, or by completing the modules at home, were trainees able to successfully work through the programme. Trainees pointed out that when face-to-face training required them to be off-site, other staff could be given extra hours to fill the gap, but this never happened with online learning. Alongside the necessity of providing time, a quiet environment and uninterrupted access to a computer were also important. Having the support of both the TL and wider team was essential for these

resources to be available. However, TL support alone was not sufficient. Another important factor was the trainee's own ability to negotiate within their team for the necessary resources, particularly during busy periods. This last point was made apparent through the experiences of trainees placed with other teams during the study. They were unable to secure sufficient time to undertake online learning despite being "extra" resources for the new team as they were not able to negotiate for timetabled "off-desk" hours.

Another consideration is that the pilot group were volunteers for the pilot programme. The majority of them were either qualified staff or had been with CCL for several years. This presents a different trainee group than the intended audience of new staff for whom the course would be compulsory. For a compulsory programme of this nature should it be left to the individual learner to try and negotiate time for their learning, or should it be the responsibility of the TL and wider team to accommodate these needs? Indeed, the trainees on the pilot group questioned whether new employees would be in a position to negotiate for sufficient time and resources to complete the programme. They suggested that mentors for the programme should not only provide assistance with content but also provide practical support for the trainee in terms of advocating for the necessary time and resources to complete the course. Thus, a mentor for the programme would have responsibilities spanning both the organisational environment that the programme takes place in and the learning environment developed for the programme. In particular, they felt that mentor support should be available to staff within their own workplace, i.e. a direct colleague. This role would also differ from that of a TL who has a managerial relationship to the learner.

The importance of support for the learner within the workplace has suggested a new structure for the programme with support provided by colleagues within the learner's own team. It was suggested that Community Learning Librarians (CLLs) should take on this role of mentor and this was agreed by the CCL team leaders group. The CLLs, as qualified library staff, will be able to provide support for

content of the course. However, because of their role as “next in command” after the TL and Associate TL, they will also be in a position to advocate for the learner.

The next phase of the programme has thus altered to first enrol CLLs in the online learning course, and then provide additional skills training to enable them to effectively mentor new staff.

6.3 An Effective and Engaging E-learning Environment

Evidence from the pilot group showed that a number of factors relating to the e-learning environment itself, particularly those relating to its user friendliness, are important. The environment needs to be visually appealing and easy to navigate. These findings were similar to Booth’s (2009) findings of online professional development in the health field. However, putting this into practice is not always simple. The Moodle environment for example provides a number of different navigation tools; most of these were disabled to make the site simpler to use, yet the feedback demonstrated that navigating the site was still difficult. Trainees in early CCL online programmes had liked being able to “tick off” tasks they had completed, yet simple problems, such as tick boxes being slightly misaligned from the topic titles, rendered the trainees’ Completion Tracking tool unusable. When a Checklist tool was developed to fulfil the same function, trainees did not notice the tool even though it was displayed in a prominent position on the page.

Other issues included aspects such as lessons and quizzes being longer than expected and not functioning well when revisited. These identify the need for clearer signposting of how long trainees are expected to spend on activities, and the need for continued technical support during the roll out of the programme to solve problems as they arise.

6.3.1 Selecting effective and engaging e-learning activities (objects)

Although, some research (U.S. Department of Education & Office of Planning, 2009) has suggested that the specific learning object e.g. quiz versus video, makes little difference to the overall outcome, the results from this study suggested that some

types of learning object were regarded more highly in terms of effectiveness, and particularly in terms of engagement, than others. For example, the locally made videos based around scenarios were thought to be both an effective and engaging method of delivery. Trainees were able to directly relate what they had viewed to their every day work and in a number of cases trainees had opportunities to use their new skills with customers. Trainees, enjoyed the real-life nature of the videos (indeed wanting them to be even more realistic), enjoyed learning tips from their own colleagues, and felt reassured that the videos showed methods of working that they felt they could replicate. This lends evidence to theory purposed by Herrington et. al (2010) that e-learning should offer authentic, real life experiences.

However, videos delivered in a lecture format were not as successful. Trainees disliked a “talking mouth” or converted “PowerPoint presentation”. Another aspect was the length of the videos, which trainees agreed optimally should be no more than three minutes long. This leads to the observation that although video were an effective tool for learning, careful consideration needs to be given to the length of the video and how well it holds the learner’s attention. Watching the longer, dryer “Dewey” video was singled out in particular as the time when trainees felt least engaged with the programme. This suggests that *how* an online learning activity is presented matters particularly for engagement. It also showed that techniques that may work well within a face-to-face environment, such as a talks or PowerPoint presentations, may not translate well to the online environment.

One technique that did prove successful in the example of the cataloguing video was to present the learning as a mystery that needed to be solved (using the catalogue to find out why a book has the “wrong” title) rather than providing a description of the catalogue. This suggests that scenarios and stories are effective tools for online learning within a workplace environment and should be chosen over presenting straight facts.

Quizzes and lessons were other learning objects that performed well with trainees reporting them to be both effective and highly engaging. Trainees liked to see how

they were doing and were disappointed when some of the technical glitches with the system denied a correct score.

Few text documents, or links to text documents and supplementary reading material, were provided in the programme largely because of time constraints. This was initially thought to be an area for improvement in the next iteration of the programme. However, trainees expressed that they preferred videos to readings (the primary content of the previous online Web 2 courses). This was surprising given the traditional love of reading that many library staff hold, yet demonstrated that staff preferred the more practical approach for professional development that relates to their job.

One aspect of the learning objects that trainees found particularly engaging was the wide variety of both content and different types of learning objects (videos, lessons and quizzes etc.). This was the most commented on feature of the programme when trainees were asked what they enjoyed most. The number of different trainers developing the programme content using their own ideas and styles created a large part of this variety (despite being difficult to administer from a project management perspective).

6.3.2 Learner Discussion Groups (Forums)

Forums present the opportunity for online discussions and for trainees to share ideas and learning with each other. In this study the forum was the primary way for trainees to communicate with each other. However, despite trainees expressing a desire to interact with each other, the forum was poorly used and trainees disliked it. In the post-course survey, trainees rated the forums as the least effective and engaging activity type. Part of the reason given for this was the use of the forum as a place to provide answers to exercises. Trainees were concerned that their answers could be “wrong” and they would be embarrassed, they also felt that once a correct answer had been given there was little they could add. This reluctance to use forums in workplace learning was also found by Booth (2009).

Many of the posts on the forum concerned comments about errors or technical issues with the programme itself rather than about the content of the course. However, some trainees felt that writing reflections on the forum helped with their own learning, although they disliked doing it. Others found that they had enjoyed posting to forums in the past where the focus of the forum had been about providing peer support and encouragement rather than answers. Another issue was time, with trainees preferring to spend their limited time working through the modules rather than contributing to the forum. This raises the question of what purpose a forum serves; peer support, an arena for collaboration, a venue for subject related discussion and questions, a place for questions about programme administration, somewhere to record personal learning reflections, or some combination of all of these things?

Forums tend to be more evident in educational online learning as opposed to workplace learning, where learning modules are usually undertaken by learners in isolation and asynchronously. Yet, even in tertiary settings they are often avoided unless directly related to assessment (Kirkwood, 2009). Thus, the benefits of online user discussion groups remain unclear. The question of how to effectively use forums, what their purpose should be, and whether indeed they are useful in workplace learning also remains unanswered.

Using the forum as a place to post answers to questions led to trainees feeling uncomfortable about looking foolish, yet the opportunity it presented for reflection was considered valuable. This suggests that if a forum is used in the future it should be more confined to encouraging reflection on learning, rather than for other purposes.

6.3.3 Transferring Online Learning into Workplace Practices – How is Success Measured?

Some of the most positive and exciting pieces of feedback were the accounts trainees gave of being able to use the skills they had learnt in the programme directly in their work. Evaluating workplace learning at CCL is usually undertaken

directly after a training event via a questionnaire. According to Kirkpatrick & Kirkpatrick (2007) this is termed “Level One Evaluation” and measures trainee’s “reactions” – what they thought of the training and presenter – but says little about whether the trainee actually learnt anything, and still less about whether they will actually make any changes to their workplace practice.

Other methods of measuring learning at CCL include twice yearly individual Performance Review and Development (PR&D) appraisals with TLs, which identify individuals’ learning successes and needs, and an annual Engagement Survey in which staff evaluate the provision of training and professional development as a factor in staff engagement. The Engagement Survey, although confirming that library staff are happy with the professional development opportunities that they are provided, gives no evidence of the success or otherwise of a specific learning programme. PR&Ds, in conjunction with regular coaching sessions, enable the individual and their TL to ensure that follow up actions committed to during a training event are undertaken, and subsequent conversations with managers enable professional development needs to be identified across the network. Collated results from PR&Ds however, are not directly available to inform staff professional development programmes at CCL and cannot be used to evaluate the transfer of skills of any particular training.

The longer term nature of the online learning programme described in this thesis (over six weeks as opposed to a number of one off events), and the closer scrutiny of feedback that this research afforded, provided evidence that online learning was indeed being transferred into the workplace. Comparing this outcome with the previous face-to-face reference skills training is however impossible because in the past little information was collected regarding the transference of reference skills training to the workplace.

This observation identifies improvements that could be made to the training evaluation process that relates not only to online learning programmes, but to *all* professional development programmes offered by CCL to staff. This omission however is not unique to CCL, the American Society for Training and Development

(ASTD) estimates that only 14% of organizations evaluate the transference of skills training to the workplace (ASTD, 2009).

Kirkpatrick & Kirkpatrick (2007) recommend four levels of learning evaluation:

Level One Reaction – immediate post course response by learners on the effectiveness (and enjoyableness) of a learning event

Level Two Learning – did the learners learn what was intended?

Level Three Behaviour – did the learners apply the learning back in the workplace?

Level Four Results – did the changes in workplace practices improve the results of organisation?

Although, recognised by training and development professionals as being one of the standard systems for evaluating workplace learning, it is clear that only a minority of organisations actually implement it.

The final stage in the Kirkpatrick evaluation processes is analysing whether changes in workplace practices actually impact on the success of the organisation. For businesses this can usually be measured in terms of turnover, or profits, but for local government organisations such as libraries success is not so easy to define. However, foot count, membership numbers, borrowing rates and customer satisfaction surveys are all potential methods of measuring organisational performance and, indirectly, success of professional development programmes.

How workplace learning is, and should be, evaluated is a concern for all types of professional development programmes, not just online. However, when something new is being introduced the evidence for successful outcomes needs to be stronger to justify the effort of making a change. This study provided evidence that trainees thought the online programme was enjoyable and engaging. It also provided evidence that trainees found the programme to be effective in terms of learning new skills and raising levels of their own perceived confidence. Evidence of

transference of skills to the workplace gives online learning greater credence to be considered as an effective, successful professional development tool.

Being able demonstrate positive organisational outcomes as a result of online learning would strengthen the case further and encourage management buy-in and future endorsement. Given that management and TL support is one of the main indicators of whether an online programme will be successful, encouraging management support through clearly evidenced organisational outcomes may also improve online learning outcomes.

For CCL, undertaking this research into online learning identified a gap in evaluation processes that affected all training programmes. One of the indirect outcomes of the research is a plan to develop procedures that address this gap.

6.4 Earthquake-Proof

Much mention is made of resiliency in the aftermath of disaster and the ability for communities to respond and rebuild themselves (Aldrich, 2012; Solnit, 2009). Aldrich (2012) mentions three types of social capital necessary for effective resiliency: Bonding Social Capital – connecting families and friends in a neighbourhood, Bridging Social Capital – connecting different groups within a neighbourhood (e.g. one individual belonging to a number of different local organisations and societies and so forming a bridge between them) and Linking Social Capital where a community has links to government agencies and authorities with power.

Public libraries have a leading role in connecting communities at all levels, contributing to social capital through interactions between staff and customers and promoting interactions among customers (Johnson, 2012). In the aftermath of the February 2011 earthquake, CCL continued to deliver services in as many locations as possible and to provide information to the public via its social media sites.

Given the library's strong online presence, after the earthquakes one of questions I pondered as an aside to my primary research was – could e-learning be “earthquake proof” - that is, still able to be undertaken in the weeks and months following a major disaster?

This research took place within the specific context of CCL at a particular time – 16 months post-earthquake in a city recovering from disaster. This recovery process has become part of the background to this study – the “new normal”.

The study focused on the development and delivery of the online learning programme, and in the interviews and focus groups no direct question was asked about the impact of the earthquakes or recovery. This was intentional as I wanted trainees to identify the factors, benefits and barriers that they found important to the effectiveness of the programme without prejudging the issue. The question “*What things (if any) either within or external to the programme acted as a barrier to your learning?*” was used in the post-course survey to give trainees the opportunity to respond to this. Interestingly, no respondent mentioned the earthquakes or recovery process directly. The two trainees who were relocated to other libraries as a result of the library closure mentioned this, but both framed it in terms of a concern around time:

The biggest issue I had was time. Some things I rushed, some things I did not complete. While my situation has been a little different (working in a very busy library that was understaffed due to sickness and then moving to a new library with very little off desk available). Sarah

For me the timing was all bad with the sickness and getting behind, to scheduling in time and then with the closure of xyz it was disappointing for me. Emma

From the feedback about the programme given by the trainees, no direct mention was made of the unique situation at all. On reflection, the earthquakes and

recovery process have become so entrenched in everyday life that it is almost not worthy of comment. In conversation, specific events may be mentioned but not their cause e.g. “Barrington Street is one long traffic jam as the roundabout is closed” (because of extensive repairs to sewage pipes damaged by the earthquake).

Over the course of the five months from February 2012 – August 2012 over which the development and delivery of the online programme took place several earthquake-related events impacted on the programme including:

- The programme pilot was given the go ahead with limited resources or technical support as there was a freeze on new spending
- The continued closure of CBD and Central Library, including access to meeting rooms and resources
- Large numbers of staff choose to leave Christchurch and the libraries
- A freeze on recruitment created gaps in the workforce and time limitations for everyone involved
- The technical expert assigned to the programme also left Christchurch before the roll out of the programme
- Two additional qualified staff were temporarily assigned to my team as a result of their libraries being closed, and thus they had time to develop the programme
- One community library was reopened after closure for repairs resulting in staff relocations
- The new Central Library opened at Tuam Street, again resulting in staff relocations
- The largest ever intake of new library assistants took place when the recruitment freeze was lifted, resulting in a change of focus for library staff and resources
- The largest community library (the one at which I myself was based) was found not to meet safety codes and was closed indefinitely and staff (including me) were relocated
- The government announced its city plan for Christchurch, including a new Central Library scheduled for completion in 2015

- Ever changing city road works and closures caused delays and confusion
- Personal dealings with insurance, EQC, and home repairs for the majority of staff caused emotional stress and fatigue
- Continual, although increasingly infrequent, aftershocks provided a constant emotional state of “high alert” and sleepless nights

All of these events were a direct consequence of the 2010-2011 earthquakes, yet responses were to each event rather than the earthquakes themselves. The environment is one of continual change, with each event having subsequent consequential effects. For example, the closure of one library led to the relocation of its staff but also put on hold a planned technology roll-out. Instead, the technology was installed in a different library and it was these staff who required training in the new technology.

During the delivery of the programme there were no significant earthquakes to test whether e-learning would be “earthquake-proof” in terms of whether people would still be able to access learning, or have the desire to. However, a number of personal reflections relating to the period directly following the February 2011 and June 2011 earthquakes suggest that e-learning may have benefits in this situation:

1. Needing to connect

Immediately after aftershocks one of the first behaviours for people was to go online. This was firstly to establish the size and location of tremors using the Geonet website, and secondly to communicate with friends and family, particularly using social media such as Facebook.

In the days after the February 2011 earthquake a state of emergency was declared. Workplaces, schools and shops were closed, streets were impassable and continual aftershocks continued to shake the city. For those of us who were unable to physically go and help with the rescue and cleanup process there was still a need to connect with others. Even less affected communities became more closely bonded, e.g. organising impromptu sports sessions for children, or baking for others in the city. This included the online community too. In the ensuing days after each major tremor my own Facebook usage increased dramatically, as did the number of posts from others in Christchurch (Howell & Taylor, 2011).

2. Available Time

Prior to the delivery of the online reference training programme, CCL was delivering an online Digital Communication course. On June 6th 2012 Christchurch experienced heavy snowfall. Interestingly this date saw one of the highest usages of the online course by the trainees. Although libraries remained open, many staff were unable to get into work and very few customers were able to go to the library.

This high usage is likely related to time. Staff were either at home with access to the online programme but unable to leave the house, or were at work and able to login to the training site as they were not busy with customers.

Immediately following the earthquakes many who were only slightly affected, but unable to attend work or follow their usual routines, had time available with no where open to go. Evidence suggests that a large number of people were already online and so could potentially engage in online learning.

3. Anytime, anywhere

One of the important advantages for e-learning over face-to-face learning in an earthquake recovery environment is the ability to learn anywhere. The earthquakes caused the closure of many venues, travelling by road became hazardous and time consuming, and this created reluctance for people to stray far from home lest another event would trap them on the wrong side of the city. Learning at home or in your usual workplace becomes a more attractive option in these circumstances.

4. Something worthwhile

In the first few months after the February 2011 earthquakes, staff at CCL were in a variety of different places. Some had lost homes and loved ones and were grieving, some were seconded to Civil Defence and were involved in the recovery efforts, and some were back in their usual workplace. However, a number of libraries were closed both as a result of damage and of libraries being commandeered to accommodate other council services. Staff from these libraries were reallocated across the network to provide additional assistance in those libraries that were open to the public. Although these staff had library desk duties to perform, their usual off-desk roles had diminished. For staff from Central Library with a large behind the scenes responsibility, this required a considerable change in duties. Although some libraries became very busy, others were overstaffed until customer numbers built up.

During this time a number of face-to-face training sessions were provided in areas such as resiliency, but also computer skills, family history, music collections and health resources. It was recognised that although people reported an inability to concentrate and remember information, staff appreciated the training sessions on a number of levels. As well as providing an opportunity to meet up with other colleagues and provide support, it was also an opportunity to do something worthwhile and to learn something new. Yet due to lack of training venues and difficulties in travelling around the city these sessions were somewhat limited. Being able to provide online learning without the need for travelling although not

providing the face-to-face support would have likely benefitted many staff and up skilled the workforce.

Thus there are a number of factors that would suggest that e-learning could have the potential to be earthquake- proof and an effective form of staff learning in the aftermath and recovery from a disaster. It could provide a sense of normalcy in a time of upheaval and the opportunity to upskill in a period of relative quiet.

Fortunately, this hypothesis could not be tested during the timeframe of this study as no major event occurred resulting in library closure.

6.5 Relating the research to previous studies and the wider context

The research took place in a unique setting – Christchurch City Libraries - in unique circumstances – the period following a series of devastating earthquakes – but despite this there are a number of lessons of value for developers of e-learning programmes and professional development practitioners, particularly in library contexts.

6.5.1 Workplace Support

Previous work (e.g. Hoyle (2010), Frankola (2001), Forsyth, Joseph & Perry (2009), CIPD (2011)) has documented the low completion rates of workplace online learning, including within the public library context. One of the most commonly identified barriers to workplace online learning is time (Forsyth, Joseph & Perry (2009), Stephens & Cheetham (2011)) and my research also identified time as being a key issue. Organisational support has also been identified as a key factor in the success of online workplace learning (Hoyle (2010), Dalston & Turner (2011)). In my study organisational support was also considered essential, particularly with regards to being given *time* to complete the programme. Although “*allowing staff time to work on the program and make it a key commitment*” (Stephens & Cheetham (2011), p.56) has been put forward as exemplary practice for workplace e-learning, my research revealed that this was

not by itself sufficient. In practice, trainees also needed to be able to *negotiate* with other colleagues to actually obtain the time and resources they required in the day-to-day working environment. This observation has not been a major theme in previous studies. There are many factors that may impact on a trainee's ability to engage in this negotiation; their personality, skills at negotiating, and position within the team. For newer colleagues with a junior position within a workplace this could prove a substantial barrier. Developing workplace support provisions that ensure trainees are actually able to *negotiate* and take the learning time they require is thus an essential consideration for all online workplace learning.

6.5.2 Activities for e-learning

Despite some evidence suggesting that different types of online content (video, quizzes etc.), have little influence over the amount that learners learn (U.S. Department of Education & Office of Planning, 2009) other authors (e.g. Kim (2009)) have found that interactive elements such as simulations and animations that allow the learner to control the pace of their learning are positive motivational factors. Clark and Mayer (2011) suggest using a visually simple design to avoid cognitive overload and aid learning. Yet considering Keller's ARCS model (Keller, 2010) of motivational instructional design (where ARCS represents the four categories of *attention, relevance, confidence* and *satisfaction*), the inclusion of exciting visual elements to gain the learner's attention and curiosity is important. Booth et al. (2009) also found that workplace learners preferred e-learning programmes that were attractive and easy to use. In my study, attractiveness and ease of use were found to improve learners' engagement with the course and trainees strongly preferred some types of activities over others (i.e. videos and interactive quizzes over written text.), concurring with both Kim (2009) and Booth et al (2009). My research also demonstrated however, that a major contributor to learner engagement was not any one particular activity type but the *variety* of different activities and the element of surprise that this variety brought. This fits directly with Keller's (2010) ARCS model, which suggests using variety to invoke attention, and also Allen's (2007) stress on moving away from traditional workplace learning models to make workplace e-learning "less boring". However,

the impact of *variety* in online programmes on effectiveness and learner motivation has had little consideration in previous studies. Within my study it came forward as a major theme and may warrant further research.

6.5.3 Content for e-learning

Some authors (e.g. Kirkwood (2009), Laurillard (2008)) criticise e-learning programmes for replicating existing teaching practices rather than using e-learning technology as an opportunity to deliver something better. In my research, most of the programme content was specifically developed for the e-learning environment. However, when traditional presentations converted from face-to-face programmes were used, these were considered far less engaging and effective, suggesting that existing teaching practices do need to be reconsidered when moving into the online environment.

Dalston & Turner (2011) found that providing externally created “canned” training was ineffective without internal facilitation, and my research suggests that local *content* is important too. Allen (2007), Clark and Mayer, (2011) and Herrington et. al. (2010) all suggest that workplace e-learning should focus on providing authentic, real-life experiences both to promote engagement and transference of learning into the workplace. In my study, trainees preferred, and felt more engaged with, locally developed in-house content even over other NZ produced material. For workplace training this emphasises the need for developing in-house materials rather than buying online learning “of the shelf”.

In the wider learning context, the move internationally towards Massively Open Online Courses (MOOCs) with thousands of learners enrolled across the globe (e.g. Hoare, 2013 and Shadwell, 2013) could well mean that the potential for *all* learners to be exposed to local content is lost. Thus, the challenge of ensuring that MOOCs are locally relevant is important, for without it some learners may be placed at a disadvantage.

6.5.4 Evaluating E-learning in the Workplace

Although there are established models for evaluating the effectiveness of workplace learning beyond immediate impressions (e.g. Kirkpatrick & Kirkpatrick, 2007; Kearns, 2005), evidence suggests that only 14% of organisations measure transference of skills to the workplace (ASTD, 2009). In my study a variety of different methods were used to evaluate the programme (e.g. self-reported confidence levels, effectiveness and engagement scores, and activity tracking logs) but successful skill transference was the measure that appeared to resonate most with the trainees. For example, in collegial discussion a number of trainees made unprompted remarks on how they had used their new skills in the library.

However, the question of how best to measure skills transfer for any workplace learning (whether delivered by traditional methods or online) is problematic as it usually requires follow up at a later stage and is affected by the opportunity to put learning into practice. In the context of a professional development programme for public library staff, Dalston and Turner (2011) discovered that opportunity to practice skills outside of e-learning was the most important indicator of confident skills transfer. Park & Wentling (2007) investigated a number of factors affecting skills transfer from e-learning but admitted that they only measured "*perceptions of transfer rather than transfer behaviours*" (Park & Wentling, 2007 p. 325).

The six week length of my study enabled trainees to put their skills into practice as they were learning and so they were able to provide specific examples of how they had used their the skills in the workplace before the end of the study. If the programme had not been so long it is likely that this information would have been missed – yet not only was it a strong indicator of success for the trainees themselves, it also provides evidence for team leaders and managers about the value of online learning. Although organisations believe that e-learning is a cost effective way of delivering training (e.g. Solomon, 2010) there is also the need to demonstrate that e-learning actually produces transferable skills in the workplace and that these have a positive effect on the business (Philips et. al, 2002, Kirkpatrick & Kirkpatrick, 2007) if e-learning is to be considered effective. My research adds to a growing body of evidence emphasising the importance of ensuring that provision is made to document the transference of skills to the

workplace. The overall effect that this has on organisations' success should be an important consideration for future research.

6.6 *Limitations*

The research identified a number of factors that affect the success of online learning programmes for library staff development that are likely to be generalizable. These include the need for a clear programme development process, the need for both organisational support and advocacy for trainees, the importance of selecting a variety of learning activities that are authentic and related to everyday workplace scenarios, and the importance of ensuring transfer of skills to the workplace. There are a number of limitations to the generalisability of these findings. This study relates to a specific context at a specific time that was unique in its circumstances. The culture of the organisation itself is also unique with an expectation of high levels of collaboration and a personal commitment to learning among staff.

Within the study itself there were also limitations. One of my concerns when embarking on this study was the small number of staff that, from previous programmes, had shown an extreme dislike of online learning. How could e-learning be made palatable to them, particularly if the programme was going to be compulsory in the future? The results of this study found that trainees enjoyed the programme, finding it both effective and engaging, and saw e-learning as way of the future. However, the trainees were self-selected volunteers, many with a prior interest in e-learning. Although this study indicated areas of success and areas for improving e-learning programmes in the future it is still unclear whether these will be sufficient to overcome more extreme staff reluctance.

6.7 *Personal reflections*

At the start of this project, my feelings about e-learning were somewhat ambivalent. I enjoyed using and working with computers, but personally I preferred to learn in a face-to-face environment. The e-learning that I had been

involved with both as a user and as a facilitator had suffered technical problems, but also from a learner perspective often felt dull, isolating and frustrating. Yet, at the same time it seemed that there was potential for e-learning to be a useful tool, and one that could be undertaken anytime, anywhere. From a personal perspective e-learning needed to be more engaging and more relevant than any I had previously experienced and I wanted to explore how this might be achieved.

Using Participatory Action Research (Whitehead & McNiff, 2009) as an approach enabled me to examine my own workplace practices around developing and delivering an online programme. In conjunction with using a structured framework (Slater, 2005) and gathering background data from each of the four Brookfield lenses (Brookfield 1995) this enabled a comprehensive analysis to be undertaken that provided academic rigour.

Developing the programme was a collaborative effort, involving colleagues who formed the Participatory Action Research Group. I had worked with these colleagues before providing support, advice and feedback for the in-house face-to-face training they delivered. But this was something different, creating an entirely new online learning programme from scratch.

I had wanted the composition of the programme to evolve with the group as part of the Participatory Action Research but the initial lack of clear vision and structure hindered the process and caused confusion among the group. Coghlan & Brannick (2010) warn about the challenges for the researcher presented in keeping the responsibilities of the “core” (or workplace) action research project and the “thesis” action research project separate and this was certainly the situation early in the study. However, as the study progressed, and the PARG began to establish their roles, it became easier to stand back from the “core” action research project and observe the process of developing the programme from a “thesis” action research perspective. The two perspectives were able to inform each other; the rigour of data collection and its critical analysis in the “thesis” action research project informed the “core” action research project to provide better outcomes for the organisation. At the same time, identifying gaps in the

evaluation of the outcomes of the “core” action research project enabled the development of more robust data collection models for the “thesis” action research project in the future.

Establishing an effective way of working as a group of individuals from different teams with different skill sets was, for me, an important lesson. Although the group were keen to participate, they needed to “get their hands dirty” and build confidence with the technical tools before they were able to effectively contribute their ideas and take ownership of the project. Working bees proved to be a successful way of achieving this. Another issue was clarity of roles; who was expected to do what and when? I was working with trainers and initially considered the role of developing the programme to be simply creating resources for training as part of a usual trainer’s role. However, it became apparent that developing e-learning required a different set of skills to face-to-face training, both more technical and more creative. In the future, a “job description” of developer will be created to make the differences clear from the start. The process required more management than I had anticipated and I found myself lacking the project management skills needed. Identifying this skill gap enabled me to address it by attending training in this area.

Another area of learning for me was the recognition by the PARG that reference skills were simply a wider part of customer service. This had a number of interesting consequences. Firstly, it positioned reference skills within the new customer service model being rolled out across the network and enabled links to the customer service training to be created, reinforcing the messages of both. Secondly, it led to the development of scenario-based training focusing on workplace tasks of dealing with customers rather than on the resources the library provides. Thirdly, it suggested that the success of the reference skills course should not be based on whether trainees had gained knowledge about library resources, but whether trainees were able to use their new reference skills to deliver better customer service. Considering success as being about transference of skills rather than acquisition of skills led to the realisation that improvements can be made in how transference is measured both for e-learning and for face-to-face training.

Initially, when starting the programme development I was particularly focused on creating new exciting e-learning activities and expected the research to reveal which of these was most effective. Due to time and technological constraints however, the finished programme was not as I originally envisaged with a number of elements such as gamification unable to be included and others such as branching scenarios only partially. Trainers had also independently developed some activities in creative ways that I had not anticipated and some of these I had reservations about as they focused on resources rather than scenarios. However, it became apparent that the variety and “surprise” element of different types of activities was one of the most engaging features of the programme. For me, this led to the realisation that there probably was no “best” way of developing e-learning activities when working with the group (although there were clearly some dreadful ways), but a number of different good or “good enough” ways. Although the study revealed a number of both technical and content improvements that could be made to activities, these were more often about elements that were ineffective (e.g. trying to turn a lecture into a video) rather than a particular type of activity (video) itself. This has led to the idea of producing a list of guidelines (rather than rules) for developing activities, enabling developers to be creative while avoiding some of the pitfalls the research shed light on.

Overall, I found the research process very effective at enabling me to reflect on my own professional practice and it identified a number of areas that I personally can develop. Using action research has also enabled a number of practical guidelines and recommendations to be formed that can be implemented in future e-learning programmes. This practical focus is exceptionally valuable in the real world workplace setting, enabling decisions to be based on empirical evidence.

6.8 Future

Overall, this study has demonstrated that e-learning can be an effective and engaging professional development tool for library staff. As a Participatory Action Research Project based in the real world, this study has considered just one iteration of development, delivery and evaluation cycle for an e-learning

programme that will continue to be developed and rolled out in the future. A number of lessons have been learnt as described in this thesis and these will inform the next iteration of the programme. Questions still remain over how best to provide the needed organisational support for trainees and how to provide motivation for reluctant trainees. In addition, the effectiveness of more “game-like” activities was an area that I hoped the study could explore but this proved impossible to do due to the time and technological constraints of developing the activities in the first place.

As Christchurch reaches the second anniversary of the devastating February 2011 quake the future is beginning to look a little brighter and more hopeful. There have been no significant aftershocks (magnitude 6 or above on the Richter scale) for over a year, although access to the CBD is still restricted and many buildings have been demolished or are still scheduled for demolition. Repairs and rebuilds are gaining pace and a city recovery plan has been announced that includes significant new library infrastructure. There is a long way to go, with much political disagreement, insurance disputes, and for many the pain of personal loss.

For CCL, some libraries remain closed and unlikely to reopen, yet replacement facilities have opened and in September 2012 a brand new library (planned before the earthquakes) in Aranui on the east side of the city finally opened. CCL features in the Christchurch Central Recovery Plan as one of a number of anchor projects with a planned new Central Library on the edge of Cathedral Square scheduled for completion by the end of 2015. In addition, two new community libraries are being planned to replace smaller facilities as a consequence of population growth to the west of the city.

With all the changes and challenges that have been endured, and with all the trials that remain in the future, there is one significant change I have noticed in my colleagues and the culture of CCL. There is a new “daring”, a “can do” attitude and a willingness to try others’ new ideas, experiment and just “get on with it”. Colleagues have stepped into new roles, worked in new locations, and become involved in situations and projects they never envisaged. These are exciting times

with a number of opportunities and challenges for the years ahead. Professional development for library staff will continue to be an increasing need and new, effective ways of delivering it – including online learning –will continue to be explored.

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Appendices



Appendix A - Letter Requesting access to Christchurch City Library for Education Research Project

Dear Carolyn Robertson,

As well as being an employee of Christchurch City Libraries, I am also a Masters student of Adult Education in the College of Education at Massey University. For my thesis I would like to explore the effectiveness of e-learning as a tool for the delivery of staff development. I would like to base my study around a pilot Reference e-learning programme I am intending to develop for staff. I seek your permission to use this work as a basis of my study and permission to invite staff to take part in the research.

Project Title: E-Learning - Effective, Engaging and Entertaining

Information

The research methodology I will be using is Participatory Action Research which emphasises action and reflection on real world practice rather than setting up a test group with controls. In collaboration with reference trainers, I wish to develop a new Reference e-learning programme which will be comprised of both face-to-face and online training, to be piloted in early 2012. The programme is intended to support learning for both new staff and those who wish for a refresher around reference skills and to respond to issues and constraints arising from the earthquakes. Evaluation of the process of developing and delivering the programme, and the effectiveness of the programme for trainees, particularly focusing on the e-learning aspects, will be the subject of the project. It is hoped that this research will inform future Professional Development programmes at Christchurch City Libraries. By using a formal research process I also hope to have greater rigour around the usual feedback processes.

The results of the study will be written up as part of my Master's Thesis and will be possibly be disseminated through academic and conference papers. A summary report will also be available for CCL and participants. Every effort will be made to keep the identity of individual participants anonymous; however, due to the nature of the background of the study (i.e. a large multi-sited public library in New Zealand rebuilding after the effects of earthquakes) the organisation will be identifiable.

What would staff do?

There are two categories of staff who I would like to invite to take part:

Reference Trainers – this group of people will be involved in developing and delivering the programme in different ways as part of their everyday work. In addition to this I would like to conduct up to 2 interviews with each of these volunteers for up to 1 hour each.

Pilot Trainees – this group of people will pilot the reference training course: completing pre and post course questionnaires, taking part in the training activities – both face-to-face and online - as part of the usual process of developing professional development programmes for staff. In addition to this I would like to hold a focus group of up to 2 hours with the volunteer trainees to receive feedback.

I would also like staff to have permission to treat attendance (with the permission of their Team Leaders to participate) at the interviews or focus group as part of their every day work time.

Contact details of my supervisors

My supervisors are Gloria Slater (g.r.slater@massey.ac.nz or telephone 06 356 9099, ext 8841. School of Educational Studies, Massey University, Private Bag 11222, Palmerston North 4442) and Gordon Suddaby (G.T.Suddaby@massey.ac.nz or telephone 06 356 9099, ext 5421, National Centre for Teaching and Learning, Massey University, Private Bag 11222, Palmerston North 4442)

I hope the project will provide benefits to Christchurch City Libraries as an exploration of alternatives to our usual face-to-face training, and provide useful information to the wider library community as well as proving a worthy research topic for my Master's thesis.

Please contact me if you would like any further information about the proposed research.

Warm Regards

Alice Cruickshank
Professional Development and Learning Coordinator



Appendix B - Information Sheet for Participants taking part in interviews

E-Learning – Effective, Engaging and Entertaining

The Research Project

I am a Masters student of Adult Education in the School of Education at Massey University. For my thesis I am exploring the effectiveness of e-learning as a tool for the delivery of staff development. The research methodology I will be using is Participatory Action Research which emphasises action and reflection on real world practice rather than setting up a test group with controls. In collaboration with reference trainers, we are currently developing a new Reference Training programme which will comprise of both face-to-face and online training to be piloted in early 2012. Evaluation of the process of developing and delivering the programme and the effectiveness of the programme for trainees particularly focusing on the e-learning aspects will be the subject of the project. It is hoped that this research will inform future Professional Development programmes at Christchurch City Libraries

Invitation

As part of the Reference Trainers Team I warmly invite you to be a participant in this action research project.

What would you need to do?

If you agree to participate in the study please contact me by email to let me know. You will continue in your role as reference trainer and be involved with creating the new online Reference Training programme as part of your normal role as a reference trainer.

In addition you will also take part in discussions with the researcher during the course of the study and an audio taped interview as part of the evaluation. The interview will take up to 1 hour and will be held at a time and place convenient to you. Since the results of the project will be of value to Christchurch City Libraries, with the permission of your team leader to participate, this time can be within and count towards your normal work hours.

You will be sent a transcript of the interview to check and will be able to make any amendments you wish to at this time, before I start evaluating the data.

Collegial discussions, initiated by the researcher or participants themselves, may also occur throughout the project as part of the participatory process. The researcher may record insights from these conversations in her reflective journal but you may also ask for particular dialogue not to be recorded.

If you choose not to take part in the study you need do nothing in response to this email, you will continue in your role as reference trainer and be involved with creating the new online Reference Training programme as part of your normal role as a reference trainer.

All discussions about the research aspect of the project (as opposed to the usual workplace aspects) will take place confidentially. In order to satisfy ethical considerations your decision to be involved or not involved in the research aspect of the project will not be made public as far as possible to others.

Tape Transcription

I will probably transcribe the data myself, but may also employ a transcriber who will be required to sign a confidentiality agreement. I will show the transcript to you for checking before using it for evaluation so that you can make any changes or delete any data.

The use of the interview data

The results of the study will be written up as part of my Master's Thesis and will be possibly be disseminated through academic and conference papers. A summary report will also be available for CCL and participants. Every effort will be made to keep the identity of individual participants anonymous; however, due to the nature of the background of the study (i.e. a large multi-sited public library in New Zealand rebuilding after the effects of earthquakes) the organisation will be identifiable and consequently individuals may also be possibly identifiable.

The storage of tapes and interview transcripts

In any stored data, your identity will be coded, and your name removed. Your name will be changed in my report and I will do my utmost to ensure that you will be unable to be identified in any discussions or writing, published or otherwise, arising from the research.

All audio data, as well as transcriptions, will be kept for the required 5 years in a locked filing cabinet in the office of the researcher. Any footage downloaded onto the researcher's computer will be accessible only to the researcher by password, and potentially her supervisors.

After 5 years, the transcriptions will be shredded and any audio-tapes will be incinerated. This will be the responsibility of the supervisors.

Raw data will be offered back to you at the completion of the study. If you decline it, it will be destroyed and deleted from the researcher's computer.

Your rights as a participant

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

- Decline to answer any particular question
- Withdraw from the study up to the evaluation stage
- Ask any questions about the study at any time during participation
- Provide information on the understanding that your name will not be used
- Be given access to a summary of the project findings when it is concluded
- Ask for the tape be turned off at any time during interview(s) and discussions

Contact details of the researcher and supervisor

You can contact me by email, Alice.cruickshank@ccc.govt.nz or telephone 941 5146. My supervisors are Gloria Slater (g.r.slater@massey.ac.nz or telephone 06 356 9099, ext 8841. School of Educational Studies, Private Bag 11222, Palmerston North 4442) and Gordon

Suddaby (**G.T.Suddaby@massey.ac.nz** or telephone 06 356 9099, ext 5421, National Centre for Teaching and Learning, Private Bag 11222, Palmerston North 4442)

“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 11/71. If you have any concerns about the conduct of this research, please contact Dr Nathan Matthews, Acting Chair, Massey University Human Ethics Committee: Southern B, telephone 06 350 5799 x 8729, email humanethicsouthb@massey.ac.nz.”



Appendix C - Information Sheet for Participants taking part in a focus group

E-Learning – Effective, Engaging and Entertaining

The Research Project

I am a Masters student of Adult Education in the School of Education at Massey University. For my thesis I am exploring the effectiveness of e-learning as a tool for the delivery of staff development. The research methodology I will be using is Action Research which emphasises action and reflection on real world practice rather than setting up a test group with controls. In collaboration with reference trainers, we are currently developing a new Reference Training programme which will comprise of both face-to-face and online training to be piloted in early 2012. Evaluation of the process of developing and delivering the programme and the effectiveness of the programme for trainees particularly focusing on the e-learning aspects will be the subject of the project. It is hoped that this research will inform future Professional Development programmes at Christchurch City Libraries

Invitation

I warmly invite you to take part in this action research project by acting as a trainee in the pilot Reference Training programme.

What would you need to do?

If you agree to participate in the study, email back to me to let me know. If more than the number needed agree to participate, there will be a selection process to decide on the participants. If you are selected you will be notified and will take part in the pilot online Reference Training programme.

If you are not selected you will be offered the opportunity to take part in the online Reference Training programme at a later date after the pilot is completed.

Taking part in the pilot will involve completing pre and post course questionnaires (up to 1 hour), attending face-to-face components and completing the on-line activities (up to 18 hours in total). The on-line activities (e.g. completion rates, time spent on activities) will also be monitored automatically through the on-line Learning Management System. Collegial discussions, initiated by the researcher or trainees themselves, may also occur throughout the pilot as part of the participatory process. The researcher may record insights from these conversations in her reflective journal but you may also ask for particular dialogue not to be recorded.

In addition you will also take part in a focus group to provide feedback at the end of the course. The focus group will take up to 2 hours. It will be held at a time and place convenient to you. Since the results of the project will be of value to Christchurch City Libraries, with the permission of your team leader to participate, this time can be within and count towards your normal work hours. You will be sent a summary of the transcript

of the focus group to check before I start evaluation of the data. You will also be asked to agree not to disclose anything discussed in the Focus Group.

Tape Transcription

I will probably transcribe the data myself, but may also employ a transcriber who will be required to sign a confidentiality agreement. I will show a summary of the transcript to you for checking before using it for evaluation.

The use of the focus group data

The results of the study will be written up as part of my Master's Thesis and will be possibly be disseminated through academic and conference papers. A summary report will also be available for CCL and participants. Every effort will be made to keep the identity of individual participants anonymous; however, due to the nature of the background of the study (i.e. a large multi-sited public library in New Zealand rebuilding after the effects of earthquakes) the organisation will be identifiable and consequently individuals may also be possibly identifiable.

The storage of tapes and focus group transcripts

In any stored data, your identity will be coded, and your name removed. Your name will be changed in my report and I will do my utmost to ensure that you will be unable to be identified in any discussions or writing, published or otherwise, arising from the research.

All audio data, as well as transcriptions, will be kept for the required 5 years in a locked filing cabinet in the office of the researcher. Any footage downloaded onto the researcher's computer will be accessible only to the researcher by password, and potentially her supervisors.

After 5 years, the transcriptions will be shredded and any audio-tapes will be incinerated. This will be the responsibility of the supervisors.

Raw data will be offered back to you at the completion of the study. If you decline it, it will be destroyed and deleted from the researcher's computer.

Your rights as a participant

You are under no obligation to accept this invitation. If you decide to participate, you have the right to:

Decline to answer any particular question

Withdraw from the study

Ask any questions about the study at any time during participation

Provide information on the understanding that your name will not be used

Be given access to a summary of the thesis findings when it is concluded

Contact details of the researcher and supervisor

You can contact me by email, Alice.cruickshank@ccc.govt.nz or telephone 941 5146. My supervisors are Gloria Slater (g.r.slater@massey.ac.nz or telephone 06 356 9099, ext 8841. School of Educational Studies, Private Bag 11222, Palmerston North 4442) and Gordon

Suddaby (**G.T.Suddaby@massey.ac.nz** or telephone 06 356 9099, ext 5421, National Centre for Teaching and Learning, Private Bag 11222, Palmerston North 4442)

“This project has been reviewed and approved by the Massey University Human Ethics Committee: Southern B, Application 11/71. If you have any concerns about the conduct of this research, please contact Dr Nathan Matthews, Acting Chair, Massey University Human Ethics Committee: Southern B, telephone 06 350 5799 x 8729, email humanethicsouthb@massey.ac.nz.”

Appendix D - Email Invitation for Participants to take part in the study

Dear Colleagues,

I warmly invite you to take part in an action research project by acting as a trainee in a pilot Online Reference Training programme.

The Research Project

I am a Masters student of Adult Education in the School of Education at Massey University. For my thesis I am exploring the effectiveness of e-learning as a tool for the delivery of staff development. The research methodology I will be using is Action Research which emphasises action and reflection on real world practice rather than setting up a test group with controls. In collaboration with reference trainers, we are currently developing a new Reference Training programme which will comprise of both face-to-face and online training to be piloted in early 2012. Evaluation of the process of developing and delivering the programme and the effectiveness of the programme for trainees particularly focusing on the e-learning aspects will be the subject of the project. It is hoped that this research will inform future Professional Development programmes at Christchurch City Libraries

What would you need to do?

If you agree to participate in the study, email back to me to let me know. If more than the number needed agree to participate, there will be a selection process to decide on the participants. If you are selected you will be notified and will take part in the pilot online Reference Training programme.

If you are not selected you will be offered the opportunity to take part in the online Reference Training programme at a later date after the pilot is completed.

Taking part in the pilot will involve completing pre and post course questionnaires (up to 1 hour), attending face-to-face components and completing the on-line activities (up to 18 hours in total). The on-line activities (e.g. completion rates, time spent on activities) will also be monitored automatically through the on-line Learning Management System. Collegial discussions, initiated by the researcher or trainees themselves, may also occur throughout the pilot as part of the participatory process. The researcher may record insights from these conversations in her reflective journal but you may also ask for particular dialogue not to be recorded.

In addition you will also take part in a focus group to provide feedback at the end of the course. The focus group will take up to 2 hours. It will be held at a time and place convenient to you. Since the results of the project will be of value to Christchurch City Libraries, with the permission of your team leader to participate, this time can be within and count towards your normal work hours. You will be sent a summary of the transcript of the focus group to check before I start evaluation of the data. You will also be asked to agree not to disclose anything discussed in the Focus Group.

What if I would like to do the training but not take part in the research?

If you would like to take part in the online reference training programme but not take part in the research project please also email me and you will be offered the opportunity to

take part in the online Reference Training programme at a later date after the pilot is completed.

Warm Regards,
Alice Cruickshank



Appendix E - Participant Consent Form

E-Learning - Effective, Engaging and Entertaining

How the effective is e-learning as a tool for the delivery of library staff development?

Participant Consent Form

This consent form will be held for a minimum period of 5 years

Researcher: Alice Cruickshank

Participant's name:

I have read the Information sheet and have had the details of the study explained to me. My questions about the research have been answered, and I understand that I can ask more questions at any time and withdraw from the research at any time prior to the evaluation analysis stage.

I agree to the interview being audio taped. However, I understand that I am free to stop the interview and the tape at any time, to decide not to answer any question, and to withdraw from the interview at any time. I understand I will receive a transcript of the interview and will be able to change or delete anything in the transcript that I am not happy with and that when the tape of my interview is no longer needed, it will be erased.

I agree to focus group discussions being audio taped and not to disclose elsewhere anything discussed in the Focus Group.

Collegial discussions, initiated by the researcher or trainees themselves, may also occur throughout the pilot as part of the participatory process. I agree that the researcher may record insights from these conversations in her reflective journal for private reflection, but I understand that I may also ask for particular dialogue not to be recorded.

I agree to participate in the study under the conditions set out in the Information Sheet.

Signature:..... **Date:**.....

Full Name – printed:.....



Appendix F - Transcriber's Confidentiality Agreement

E-Learning – Effective, Engaging and Entertaining

I (Full Name - printed) agree
to transcribe the recordings provided to me.

I agree to keep confidential all the information provided to me.

I will not make any copies of the transcripts or keep any record of them, other than
those required for the project.

Signature:

.....


Date:

.....

Appendix G - Interview Schedule for members of the Participatory Action Research Group

1. What does the term “e-learning” mean to you?
2. Tell me about any involvement you may have had with e-learning (trainer or trainee) in the past?
3. What were your feelings about taking part in that?
4. What were your feelings about e-learning prior to taking part in this study?
5. What do you think are the most important topics to cover in the reference module?
6. Considering previous examples of Christchurch City Libraries online learning materials (examples provided) what aspects do you think:
 - Worked well
 - Could be improved
7. What do you feel are the most important things to bear in mind when developing an on-line course?
8. What would make for success?
9. What should we avoid?
10. What things do you think we could do to engage library staff in the course?
11. What things do you think we could do to make the programme entertaining as well as informative?
12. What things would you like to do to help develop and deliver the programme?
13. What things could we put in place to improve how we collaborate and contribute effectively on the project?
14. What do you hope/expect to get out of being involved in this project.
15. Any other comments?

Appendix H - Online Pre Course Survey



Online Reference Training Precourse Evaluation Form

This Pre Programme survey enables you to provide some information about your previous experiences and what you hope to gain from the course. This will help us develop better Profesional Development programmes for you and others in the future.

* Required

Name *

Have you ever used an e-learning programme before?

Yes

No

How Confident do you feel about learning online?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

What concerns (if any) do you have about taking part in the Online Reference Training Programme?

How do you think an online learning programme could be made interesting and engaging?

What do you hope to learn from the Online Reference Training Programme?

Currently how confident do you feel about being able to answer customer's queries?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

Currently how confident do you feel about using Bibliocommons to answer customer's queries?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

Currently how confident do you feel about using the library website to answer customer's queries?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

Currently how confident do you feel about using the Source to answer customer's queries?

1 2 3 4 5 6 7 8 9 10


Not at all Confident Very Confident

Currently how confident do you feel about using the Internet to find reliable information?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

Appendix I - Online Post Course Survey



Online Reference Training Post course Evaluation Form

This Post Programme survey enables you to provide some information about your experiences with the course. This will help us develop better Professional Development programmes for you and others in the future.

*** Required**

Name *

Where and When

This first section is all about where and when you did your online learning. Finding out about this will help us structure the course better and provide time management advice to future trainees.

How much of your online learning did you do at each of the following locations?

	None	A small amount	Some	Most	All
At Home	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the Workroom	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
While on Desk	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
On a public Library PC	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Somewhere else	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How much of your online learning did you do at each of these times?

	None	A small amount	Some	Most	All
During work time I was given specifically for completing the course	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During my usual off -desk time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
During my own time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

When managing your time did you find it best to:

- Do each module all in one go
- Do each module in 2 or 3 30min+ sessions
- Do parts of each module in smaller chunks of less than 30mins.
- Other:

Over the timeframe of the course 26th June- 31st July how many days were you away on sick leave (if any)?

Over the timeframe of the course 26th June- 31st July how many days were you away on annual leave (if any)?

Effectiveness and Usefulness

This section of the questionnaire is to gain feedback about how useful the programme was to your work and how effective it was at delivering it.

Which parts of the course do you think were the most useful?

Have you been able to use any of the skills learnt on the course with a customer? Please describe.

How effective at helping you learn did you find these activities?

	Not at all	A little bit	Some	Very	Completely
Videos showing overviews of resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Videos showing a reference interview	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Answering multiple choice quizzes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Posting and responding to comments on the forum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What aspects of the programme helped you with your learning?

What things (if any) either within or external to the programme acted as a barrier to your learning?

Currently how confident do you feel about being able to answer customers' queries in general?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

Currently how confident do you feel about using Bibliocommons to answer customers' queries?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

Currently how confident do you feel about using the library website to answer customers' queries?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

Currently how confident do you feel about using the Source to answer customers' queries?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

Currently how confident do you feel about using the Internet to find reliable information?

1 2 3 4 5 6 7 8 9 10

Not at all Confident Very Confident

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Engaging and Entertaining

One of the aims of the pilot is to examine what elements make an online programme enjoyable and engaging. This section is to gain feedback about what you liked and enjoyed about the online reference programme.

What parts of the programme (if any) did you find most enjoyable and why?

What parts of the programme did you find most interesting?

How engaging did you find these activities?

	Not at all	A little bit	Some	Very	Completely
Videos showing overviews of resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Videos showing a reference interview	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Answering multiple choice quizzes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Posting and responding to comments on the forum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What do you think we could do to make the online programme more engaging?

How happy would you feel about taking an online learning programme in the future?

1 2 3 4 5 6 7 8 9 10

Very unhappy - I would prefer something face-to-face



Very Happy - I feel very confident about learning online

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Continue »

In General

This section enables you to provide feedback about the programme in general or anything additional that may help improve the programme.

What two things would you change about the course to improve it?

Please provide any other comments or feedback you have about the course:

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Submit

Appendix J - Focus Group Schedule for Participants

1. Tell me about any involvement you may have had with e-learning (trainer or trainee) in the past?
2. What were your feelings about taking part in that?
3. What were your feelings about e-learning prior to taking part in the programme?
4. What were your thoughts on the overall
 - look of the programme
 - functionality of the programme
 - navigation of the programme
5. What were the highlights of the on-line programme?
6. What were the challenges?
7. What activities did you think were most effective and helpful?
8. What activities worked less well?
9. At what point did you feel most engaged with the programme?
10. When did you feel least connected with the programme?
11. Did you find any aspect of the programme particularly entertaining? Which one(s)
12. What things could be done differently to make the programme more engaging and entertaining?
13. What was the most surprising thing about the programme?
14. Did your feelings about e-learning change as a result of the programme? In what ways?
15. What external factors helped your learning?
16. What external factors hindered learning?

Appendix K - Sample Learning Log Page

Reader's Advisor - Release Date 17th July

This session explores some resources that will help you answer a broad range of enquiries regarding reading, poetry, literature, and music. These resources will help you match similar authors, explore series titles, find a piece of music, and learn about e-books and audio books that can be downloaded through our library website.

Date	Start Time	End Time

What I learnt
What I liked (what was Entertaining and Informative)
What could be improved (Techie issues, errors and formatting, exercise confusing, better way of explaining something etc.)

Level of Course

Too _____ Too
Easy _____ Hard