

Chapter 1. Project Overview

Rob Phillips, Murdoch University

1. Introduction

In April 1999, Murdoch University, on behalf of the Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) and a consortium of 10 other universities, submitted an application for funding to the Australian Government Committee for University Teaching and Staff Development (CUTSD). Funding of \$101,740 was allocated to the proposed project in September 1999. The amended project title is “Staff Development in Evaluation of Technology-based Teaching Development Projects: An Action Inquiry Approach”¹.

The project sought to address widely-acknowledged shortcomings in the evaluation of Computer-facilitated Learning projects (CFL²), identified by a CUTSD report (Alexander & McKenzie, 1998). It involved staff development opportunities in the area of evaluation of CFL projects, proceeding from the premise that academics in most discipline areas generally have neither the skills nor expertise to carry out scholarly evaluations of student learning.

2. Project Overview

The rationale behind the project was to guide a group of university staff through the evaluation of a Computer-facilitated Learning project by a process of action inquiry and mentoring, supported by a range of practical and theoretical material. The intention was to evaluate *student learning*, rather than student *perceptions* of learning. That is, rather than simply eliciting student’s feelings about their learning, we wanted to derive firm evidence of

learning processes and outcomes, and the role of the innovation in supporting that learning.

Fig. 1.1 provides an overview of the way the project was envisaged in the original application. In practice, the project followed this process closely. Prospective participants submitted their CFL projects as potential evaluation studies. Funding was available for 20 projects, each of which was assigned a mentor, experienced in evaluation, to guide them through their study. Participants and mentors were assisted in their work by a practical Evaluation Handbook (Phillips, Bain, McNaught, Rice, & Tripp, 2000), and other materials, such as the Flashlight materials (Ehrmann, 1999), the LTDI Evaluation Cookbook (Harvey, 1998) and a number of web sites.

The project was managed by a project management team based at Murdoch University, made up of Rob Phillips (project leader), Christine Bailey (project coordinator), Rick Cummings and Jennie Bickmore-Brand. The initial Evaluation Handbook was developed by a writing team, comprising Rob Phillips (Murdoch), John Bain (Griffith), Carmel McNaught (RMIT), Mary Rice (Deakin) and David Tripp (Murdoch).

It was intended that participants (mentees) would use an action inquiry³ approach to learning about evaluation. Mentors would assist mentees to reflect about various aspects of evaluation, and how to carry out an evaluation. It was hoped that participants would become reflective practitioners in their role as evaluators and that they would also gain skills in evaluation. Mentors would also have the opportunity to apply reflective practice to their performance, both as a mentor and as an evaluator.

¹ Full details about, and an ongoing record of the project are at

<http://cleo.murdoch.edu.au/projects/cutsd99>.

² The term computer-facilitated learning (CFL) is used to describe materials which use information technology in some way to facilitate teaching and learning, including: educational CD-ROMs; online course content materials; and the use of software for computer-mediated communication within a course.

³ Action Inquiry is an umbrella term for the deliberate use of any kind of a *plan, act, describe, review* cycle for inquiry into action in a field of practice. Reflective practice and action research are two kinds of action inquiry which are specifically aimed at learning about professional practices with a view to improving them.

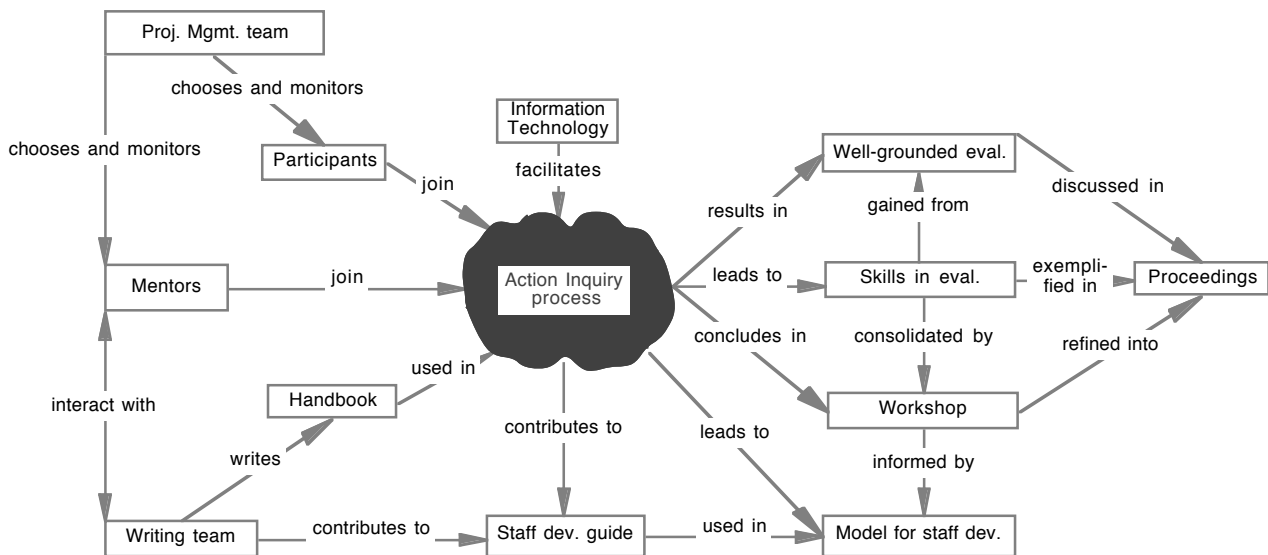


Figure 1.1. Schematic view of the project, showing roles and processes.

Mentees and mentors would, together, conduct a well-grounded evaluation, the results of which would be published in a paper. At the same time, the experiences of mentees and mentors was to be consolidated at a face-to-face workshop after the conclusion of the evaluation studies.

Most aspects of the project were facilitated by Information Technology, in the form of the ASCILITE Virtual Conferencing System (VCS), which provided messaging and resource sharing for three separate sets of project participants: mentees, mentors and writers.

Finally, a staff development guide and model for staff development was to be developed, so that the lessons learned in this project could be transferred to a broader context.

2.1 Selection of Participants

Following advertising at the 1999 ASCILITE Conference and subsequently by email, 22 applications were received for the 20 funded projects.

Applicants were asked to address the following criteria in a maximum of two pages:

Essential Criteria

- The evaluation project can be commenced and completed in the calendar year 2000
- Support from the Dean, Head of School or other appropriate authority can be demonstrated

- One (or more) of the applicant(s) have functional responsibility for implementing the learning technology in one (or more) units in 2000
- Provide a clear description of the project, including a statement of the student learning outcomes expected from the application of the technology, and how they will be assessed

Desirable Criteria

- You are a member of one of the eleven partner institutions

In addition, applicants were asked to provide a half page explanation of why they wanted to be involved in this project and how they believed the results of this project could be applied more widely in their school, faculty or university.

In selecting the participants, attempts were made to identify a variety of projects across a range of:

- disciplines
- geographical areas
- years of study
- modes of study (internal vs external)
- applications of technology

The twenty projects which met the selection criteria most closely were chosen. These are listed together with their participants, institutions and mentors in Table 1.1.

2.2 Selection of Mentors

Similarly to the mentees, potential mentors were asked to apply to be part of the project. 11 mentors were selected from 14 applicants according to the following criteria:

- Demonstrated commitment to the project and ability to contribute throughout the project duration, from December 1999 to June 2001
- Knowledge of and experience in qualitative approaches to evaluation
- Knowledge of pedagogy appropriate to higher education and/or tertiary teaching experience
- Experience in mentoring and/or postgraduate research supervision
- The ability to facilitate Action Inquiry

- Knowledge of and experience in the application of information technology in tertiary teaching and learning

2.3 Roles of Participants

Participants were expected to, with support from their mentor, develop an evaluation plan, carry out the evaluation, analyse the data and disseminate the results during 2000. An important part of the evaluation plan was the development of appropriate evaluation questions, through the use of the Learning-Centred Evaluation Framework (LCEF) described in (Phillips et al., 2000) and (Bain, 1999). This framework, derived from earlier work by (Alexander & Hedberg, 1994), has four main characteristics:

Table 1.1. A list of the evaluation studies forming this project.

State/ University	Mentee	Mentor
Victoria		
Deakin University	Christine Armatas	Mary Rice (Deakin)
Deakin University	Elizabeth Stacey, Terry Evans & Peter Smith	Mary Rice (Deakin)
Monash University	Ainslie Ellis, Dianne Hagan, Judy Sheard & Wendy Doube	Tony Gilding (VUT)
Monash University	Kathy Lynch	Gregor Kennedy (Melb)
RMIT University	Judy Lyons	John Milton (RMIT)
RMIT University	Lynn Murdoch Anne Douglas	Carmel McNaught (RMIT)
University of Melbourne	Debbie Weaver	Tony Gilding (VUT)
New South Wales		
Charles Sturt University	David Ritchie *	John Bain (Griffith)
Charles Sturt University	Liz Smith *	Carol Bowie (Griffith)
University of New England	Heiko Daniel, Peter Lockwood & Cherry Stewart	Catherine McLoughlin
University of New England	David Miron, Mary O'Sullivan & Michael de Raadt	Catherine McLoughlin
University of Wollongong	Jane Innes *	Rod Sims (SCU)
University of Sydney	Mary Peat, Sue Franklin & Alison Lewis *	Rod Sims (SCU)
Queensland		
Griffith University	Carol Bowie, Gordon Joughin, Peter Taylor, Brad Young & Craig Zimitat	John Bain (Griffith)
Griffith University	Fiona Bryer & Margaret Fletcher & Brendan Bartlett	Carol Bowie (Griffith)
James Cook University	Roisin O'Reilly	Robin McTaggart (JCU)
Western Australia		
Murdoch University	Ralf Cord-Ruwisch	Rob Phillips (Murdoch)
University of Western Aust.	Mike Fardon, Michelle Valdrighi	Rob Phillips (Murdoch)
South Australia		
Flinders University	Ingrid Scholten, Alison Russell & Paul McCormack *	Carmel McNaught (RMIT)
Australian Capital Territory		
Australian National University	Chris Trevitt, Aliya Steed & Michele Huston *	Gregor Kennedy (Melb)

* Mentors and mentees not in the same city

- it presumes that evaluation will occur in each of the major phases of an educational development project (design, development, implementation, and institutionalisation);
- it focusses attention on three aspects of learning:
 - the learning environment (*where* people learn, or the ICT innovation);
 - the learning process (*how* people learn)
 - the learning outcome (*what* people learn)
- it encourages evaluators to frame appropriate and answerable evaluation questions;
- it outlines the types of evidence and methods that may be appropriate for each question.

The characteristics of the LCE Framework are summarised in Table 1.2.

Both mentors and mentees were required to sign a contract committing them to contributing to the project. Mentees were provided with a modest amount of funding (approx. \$2000) to assist with their evaluation study. Mentors also received an honorarium of approx. \$2000 for each of their mentees. Participants were required to submit regular reports about the progress of their project.

2.4 Participating Institutions

The following institutions were part of the consortium which submitted the grant:

ASCILITE
 Charles Sturt University
 Deakin University
 Griffith University
 Murdoch University
 Queensland University of Technology
 RMIT University
 University of Wollongong
 University of New England
 The Australian National University
 The University of Melbourne
 The University of Western Australia

All of these institutions had staff who played some role in the project. However, Queensland University of Technology did not submit an evaluation study application by the required time deadline, and participated more as an observer, rather than as part of the mentor/mentee process.

An overview of the mentors, participants, the evaluation studies and the institutions they belong to are provided in Table 1.1, together with the mentor assigned to each study. 52 people from 17 universities were involved in the 20 evaluation studies selected, either as a mentor or mentee.

Table 1.2. Overview of the learning-centred framework for whole project evaluation.

Phase	Focus	Purpose
Analysis and Design	Curriculum analysis	To describe the inadequacies/ insufficiencies of the current curriculum, with particular attention to the shortfall in student learning.
	Teaching-for-learning analysis	To describe and justify the teaching/ learning/ assessment process likely to bring about the desired learning outcome.
	Specification of innovation	To describe and justify the proposed implementation, and indicate how it will facilitate the desired learning process and outcome.
Development	Formative monitoring of learning environment	To determine whether the innovation is functional in its context and accessible/ attractive to students (and modify as needed).
	Formative monitoring of learning process	To determine whether the innovation is influencing the learning process as intended (and modify as needed).
Implementation	Summative evaluation of learning process	To determine whether the innovation is influencing the learning process as intended.
	Summative evaluation of learning outcome	To determine whether the learning outcome is as intended.
	Summative evaluation of innovation appropriateness	To determine whether the innovation is educationally appropriate in its immediate context.
Institutionalisation	Impact evaluation	To determine the robustness of the learning and its transfer beyond the immediate context of the innovation.
	Maintenance evaluation	To determine the sustainability of the innovation in the context of the whole course.

Efforts were made to allocate mentors to projects in the same city as the mentees, to facilitate the mentoring and communication process. This was possible in 14 of the 20 cases. The projects in which mentors and mentees were not based in the same city are highlighted in Table 1.1.

2.5 Activities and Timelines

The project was planned to adhere to strict timelines. Two major milestones constrained the project. These were the ASCILITE December conferences in 1999 and 2000. The 1999 Conference was seen as an opportunity to seek participants in the entire project, and it was an obvious starting point for the project. The Conference also provided an opportunity for the key members of the writing team to meet and gain a shared understanding of the directions in which the project was to evolve.

The 2000 Conference provided a logical opportunity for project participants to meet to discuss their projects and their learning about evaluation at a pre-conference workshop. Participants could use their project honorarium (or other funding) to attend the workshop, but could also gain the benefit of attending the Conference as well.

The twelve month cycle in which the project had to proceed imposed strains on all people involved with the project in terms of finishing their work on time. On the other hand, it could be argued that the deadlines also resulted in more work being finished than might have otherwise been the case. Table 1.3 outlines and comments on the various deadlines imposed throughout the project.

Table 1.3. Project milestones.

Milestone	Comment
Initial Meeting December 1999	Over 50 people attended a special session at the 1999 ASCILITE Conference which described the project and asked potential participants to submit applications for evaluation studies.
Applications for Evaluation Projects March 2000	22 applications were received and 20 were selected. Applicants were informed in early March 2000.
Handbook May 2000	An Evaluation Handbook (Phillips et al., 2000) was produced in draft form. The purpose of the handbook was to generate guiding principles about evaluation across all participants and mentors, based on contemporary research. It presented theoretical aspects of evaluation appropriate to CFL projects and outlined the various steps involved in conducting an evaluation. Initially scheduled for March 2000, the Handbook was not available to project participants until May 2000, because of delays in writing. Some projects were disadvantaged, because they had already commenced by the time the Handbook was available.
Conduct of Evaluation Projects April-November 2000	Because of delays, most evaluation studies were conducted in semester 2, 2000. However, some projects began in first semester, and then carried out a second cycle of evaluation in second semester. Two projects withdrew before starting, because of workload pressures. One other project ceased in October because the participant went on extended leave. In another project, two key proponents left the university, but a colleague took over the project from them and continued the study.
Draft Papers December 2000	Participants were expected to submit draft papers of their evaluation results in November 2000, prior to the workshop in December. It was intended that written feedback, based on the criteria discussed in the next section, be provided to participants prior to the workshop, and that workshop participants would have the opportunity to read the papers before the workshop. Feedback on the quality of the draft papers was provided to authors on a standard proforma. Workshop participants were divided into four groups, with papers to be read and discussed within the four groups. Papers and review proformas were put online, and each group had an associated online forum for discussion of the papers. Thirteen papers were submitted before the workshop. Because of workload and the volume of data collected in each study, most draft papers concerned themselves with descriptions of the study rather than presentation of results. Similarly, there was only limited reviewing and discussion of papers prior to the workshop.

Workshop December 2000	<p>The workshop was attended by 37 project participants, and four guests, who acted as independent observers and note-takers.</p> <p>The aims of the workshop were:</p> <ul style="list-style-type: none"> • To present a draft version of a paper about the evaluation study for comment; • To receive assistance in the preparation of a research paper from peers; • To get feedback on the work done, to identify areas needing more work and obtain assistance from the group as a whole; • To receive affirmation from peers about the value of people’s work and contribution to the project; • To reinforce learning about evaluation methods achieved through this project; • To summarise, review and reflect on the CUTSD project as a whole; • To identify material which needs to be included in the Staff Development Guide which will result from this project.
Revised papers submitted to Project Report April 2001	<p>The results of each evaluation study were intended to be published in this final project report. The draft papers were refined based on feedback received at the workshop and proforma reviews provided by mentors. Other papers not presented at the workshop were also submitted, so that eventually 16 of the 17 projects submitted papers, and the 17th participant submitted a report about his involvement with the project, and what he had gained from it.</p> <p>Papers were required to be submitted by the end of April 2001. However, in some cases, it took significantly longer to submit papers. Every paper submitted received at least one set of feedback from a mentor.</p>
Further revision of papers for AJET August 2001	<p>Participants were given the opportunity to submit their papers to a further round of scholarly review. These further-refined papers would then be submitted through an independent double-blind reviewing process for publication in a special issue of the Australian Journal of Educational Technology. Ten participants stated this intention, but only eight actually submitted their revised papers by the required deadline.</p> <p>The review proforma⁴ used on the draft papers was refined based on the experience of using it. The ten papers were reviewed by two mentors and suggestions made for further improvements. In eight cases, the papers were revised and submitted to the normal AJET reviewing process.</p>
AJET Special Issue December 2001	<p>While Professor Ron Oliver handled logistical aspects of the reviewing process, Professor John Bain was appointed as guest editor of the special issue of AJET. It was appropriate that Bain be chosen as the guest editor, because he was guest editor of a special issue of Higher Education Research and Development (HERD) (Bain, 1999) in 1999. This issue highlighted deficiencies in evaluation of technological innovations, and provided an impetus to this project. It will be valuable to read John’s assessment of the scholarship arising from this project compared to that in 1999. However, this report will be published before the special issue of AJET is published.</p>
Staff Development Guide March 2002	<p>It was originally intended that the processes which arose from the conduct of the evaluation studies, and the reflection inherent in these processes, would be combined with the revised draft Evaluation Handbook to form a staff development guide.</p> <p>As the project progressed it became clear that there was a need for a step-by-step guide on how to design and carry out an evaluation study of student learning of tertiary innovations. It became clear that the approach advocated throughout this project was applicable much more broadly than to CFL, and that there is a paucity of practical, hands-on material in this area. A writing team⁵ has been working on “A Manual for Learning-centred Evaluation in Tertiary Education” since May.</p> <p>The Manual will not be completed by the time this Project Report is published.</p>

⁴ This will be discussed further in the following section.

⁵ The writing team consists of Tony Gilding, Gregor Kennedy, Catherine McLoughlin, Carmel McNaught and Rob Phillips, with some contributions from John Bain.

2.6 Reviewing Processes

A set of criteria was developed to assist mentors in reviewing the quality of papers submitted in the final parts of this project. The criteria were set out on a proforma (see Appendix A1.1). Mentors reviewing papers were asked to assign a qualitative rating to each criterion, and to list the positive aspects and suggestions for improvement. An initial set of criteria were developed prior to the workshop. However, these were subsequently refined into the form shown in Appendix A1.1.

The review criteria were also used by participants to assist them in writing their papers, particularly the later drafts. Papers submitted to AJET went through at least two rounds of revision, with feedback from at least three people, in addition to the mentor assigned to that project. Participants generally found the reviewing process to be positive and helpful.

3. Project Achievement Rates

The progress of each project team through the various stages of the larger CUTSD project is shown in Table 1.4. The six milestones of the project are shown in the rightmost six columns of Table 1.4. It can be seen that of the 20 projects:

- 18 evaluation studies were undertaken;
- 17 project teams were represented at the workshop;
- 13 draft papers were submitted at the workshop;
- 16 papers were submitted for this report;
- 10 projects submitted a revised paper for feedback prior to submission to AJET;
- 8 papers were submitted to AJET.

3.1 Conducting Collaborative Projects at a Distance

An underlying theme of the last round of CUTSD grants in 1999 was that collaboration between institutions was desirable. While this was not explicitly stated in the Staff Development Grants, it was explicit in the Organisational Development Grants.

The project described here was highly collaborative, involving people from most states and territories. ASCILITE's virtual conferencing system was intended to provide an online communication facility for all aspects of the project and to facilitate the

building of a sense of community among project participants. Without the online facility, it would have been almost impossible to conduct a project of this nature.

However, while online communications tools facilitate project work at a distance, it is still considerably less efficient than face-to-face work. While it is relatively easy for a skilled chairperson to ensure that members at a face-to-face meeting have a shared understanding of the issues, this is considerably more difficult when communicating solely in text.

When communicating in text-only form, it is essential that the message be written very precisely, to maximise the chance that the message be understood by the other party. Furthermore, information needs to be described in much more detail than required in a face-to-face meeting, to preempt any questions which might be asked. These issues make it much more time-consuming to manage a distributed project than a local project.

The project management team was not aware of all the implications of the preceding paragraph at the time the grant was being written and the budget prepared. For example, project documents make up over 1000 pages of text, not including papers and paper drafts.

In the original budget, \$1500 was set aside for print and web production work on the Evaluation Handbook, and \$4000 was available for project management and coordination (\$2000 from CUTSD, and \$2000 as an in-kind contribution from Murdoch). Timesheet records showed that, in 2000, the actual costs of production and coordination work by general staff were \$5600. While these figures indicate that the budget was appropriately set, they do not include an estimated 100 hours of unfunded effort by the project leader.

A second aspect necessary for successful online collaboration is the building of a sense of community among participants. This was difficult to achieve in this project, where both mentees and mentors were reluctant to contribute to discussion about evaluation issues. Many people were moving into new areas of scholarship, and didn't feel 'safe' to express their views. At the December workshop, on the other hand, discussions were very open and forthright early in the day.

Table 1.4. Summary of Progress of Projects.

Mentee	Uni	Evaluation study undertaken	Attendance at Workshop	Draft submitted	Paper submitted for Report	Revision for AJET	Submission to AJET
Elizabeth Stacey Mentor: Mary Rice	Deakin	•	•	•	•	•	•
Debbie Weaver Mentor: Tony Gilding	Melbourne	•	•	•	•	•	•
Kathy Lynch Mentor: Gregor Kennedy	Monash	•	•	•	•	•	•
Judy Lyons Mentor: John Milton	RMIT	•	•	•	•	•	•
Mike Fardon & Michelle Valdrighi Mentor: Rob Phillips	Western Australia	•	•	•	•	•	•
Mary Peat, Sue Franklin & Alison Lewis Mentor: Rod Sims	Sydney	•	•	•	•	•	•
Heiko Daniel, Peter Lockwood & Cherry Stewart Mentor: Catherine McLoughlin	New England	•	•	•	•	•	
Christine Armatas Mentor: Mary Rice	Deakin	•	•	•	•		
Fiona Bryer & Margaret Fletcher & Brendan Bartlett Mentor: Carol Bowie	Griffith	•	•	•	•		
Carol Bowie, Gordon Joughin, Peter Taylor, Brad Young & Craig Zimitat Mentor: John Bain	Griffith	•	•	•	•		
Ainslie Ellis & Dianne Hagan, Judy Sheard & Wendy Doube Mentor: Tony Gilding	Monash	•	•	•	•		
Lynn Murdoch & Anne Douglas Mentor: Carmel McNaught	RMIT	•	•	•	•		
Aliya Steed & Michele Huston Mentor: Gregor Kennedy	ANU	•	•	•			
Roisin O'Reilly Mentor: Robin McTaggart	James Cook	•	•		•	•	•
David Miron, Mary O'Sullivan & Michael de Raadt Mentor: Catherine McLoughlin	New England	•	•		•	•	•
Jane Innes Mentor: Rod Sims	Wollongong	•	•		•	•	
David Ritchie * Mentor: John Bain	Charles Sturt	•	•		•		
Liz Smith Mentor: Carol Bowie	Charles Sturt	•					
Ingrid Scholten & Alison Russell & Paul McCormack Mentor: Carmel McNaught	Flinders						
Ralf Cord-Ruwisch Mentor: Rob Phillips	Murdoch						

- Paper not submitted. Instead, a descriptive report about the participant's experiences was submitted.

Ideally, participants should have met face-to-face at the commencement of the project. With the advantage of having met each other, and having put a face to a name, they would have been more likely to contribute ideas and comments about the work of others. However, it was not possible, given the timelines and budget of this project to hold a face-to-face meeting at the start of the project. This is an important consideration for future projects.

4. Budget and Expenditure

The reconciliation of the proposed and actual budget for the project is shown in Table 1.5. This budget has not been finalised, because costs for this Report and the Evaluation Manual have not yet come in.

Shortly after the commencement of the project, it was decided to purchase access to the Flashlight question bank and other materials. The cost of this was shared amongst the participant honoraria.

Subsequently, two projects withdrew, thus freeing up some honorarium funds. Some of this was used for the team writing the Evaluation Manual to meet in Melbourne. Remaining funds will be directed towards the printing of this report and the completion of the Evaluation Manual.

5. References

Alexander, S., & Hedberg, J. G. (1994). Evaluating technology-based learning: Which model? In K. Beattie, McNaught, C., and Wills, S. (Ed.), *Interactive multimedia in university education: designing for change in teaching and learning*. Amsterdam: Elsevier Science.

Alexander, S., & McKenzie, J. (1998). *An Evaluation of Information Technology Projects for University Learning*. Canberra, Australia: Committee for University Teaching and Staff Development and the Department of Employment, Education, Training and Youth Affairs.

Table 1.5 Budget reconciliation for ASCILITE CUTSD Project.

	Budget	Expenditure	Balance
Handbook			
Develop handbook material (beginning of project)	\$6,000	\$6,000.00	\$0.00
Produce handbook material	\$1,500	\$1,648.46	(\$148.46)
Print handbook	\$240	\$221.83	\$18.17
Staff Development Guide/Evaluation Manual			
Develop Evaluation Manual (end of project)	\$6,000	\$7,021.18	(\$1,021.18)
Produce Evaluation Manual	\$1,500	\$1,500.00	\$0.00
Print Evaluation Manual	\$1,500	\$1,500.00	\$0.00
Project Report			
Edit and prepare project report	\$1,500	\$1,500.00	\$0.00
Print project report	\$1,500	\$1,600.00	(\$100.00)
Project management and coordination costs	\$2,000	\$2,000.00	\$0.00
Subtotal	\$21,740	\$22,991.47	(\$1,251.47)
Action Research			
Honorarium for 10 mentors	\$40,000	\$37,321.89	\$2,678.11
Mini-grants for participants	\$40,000	\$35,554.38	\$4,445.62
Subtotal	\$80,000	\$72,876.27	\$7,123.73
Flashlight costs		\$2,855.22	(\$2,855.22)
Miscellaneous		\$3,017.04	(\$3,017.04)
Total	\$101,740	\$101,740	\$0.00

Bain, J. (1999). Introduction to special issue on learning centered evaluation of innovation in higher education. *Higher Education Research and Development*, 18(2), 165-172.

Ehrmann, S. (1999). Flashlight Project. Flashlight Project. Available: <http://www.tltgroup.org/flashlight/FLbrochure.html> [1999, 26 Feb].

Harvey, J. (1998). Evaluation Cookbook. Learning Technology Dissemination Initiative, Heriot-Watt University. Available: <http://www.icbl.hw.ac.uk/lti/cookbook/17> [May 2001].

Phillips, R., Bain, J., McNaught, C., Rice, M., & Tripp, D. (2000). Handbook for Learning-centred Evaluation of Computer-facilitated Learning Projects in Higher Education. Committee for University Teaching and Staff Development Project. Available: <http://cleo.murdoch.edu.au/projects/cutsd99/handbook/handbook.htm>.

6. Appendices

To conserve paper, the Appendices to this report are only available at

<http://cleo.murdoch.edu.au/projects/cutsd99>