



FINAL REPORT FOR A 1997 STAFF DEVELOPMENT GRANT

IDENTIFICATION

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Project Title

Developing Capacity to Integrate IT into Higher Education Teaching and Learning
Publicised as 'e.learning@mq' within the University.

10 Key words or phrases that describe the project

Professional development; Information technology for learning; IT based curriculum; raising university-wide awareness; departmentally based curriculum change.

EXECUTIVE SUMMARY

Major Objectives Of The Project

- To raise the awareness of staff at all levels (Executive, Head of School/Centre/Office/ Discipline and program) to
 - The potential of current and developing Information Technologies to enhance and deliver educational programs across the disciplinary spectrum
 - The processes/ issues associated with the design and development of IT based curricula, and
 - The processes/ issues associated with managing the development and integration of Information technologies into the curriculum
- 2. To assist staff to strategically plan and set specific goals in relation to the introduction of Information Technologies into the University's educational programs (Executive, Heads of Department/Division/Centre/Office and program)
- 3. To assist staff to develop coordinated strategies for realising these goals at the School/ Discipline level, and
- 4. To assist staff within each school to develop the knowledge and skills required to design, develop, implement, evaluate and use Information Technologies in the curriculum.

Outcomes of The Project

The project successfully increased the University community's awareness of issues involved in the use of Information Technology in the curriculum by means of having a series of high profile keynote speakers address the broad university, societal and political issues, and an ongoing series of showcases exemplifying the use of technology in practical teaching and learning contexts.

It successfully built up the level of knowledge and skills of both academic and general staff in theoretical and practical aspects of integrating technology into teaching by means of series of workshops on *Integrating e.learning into the Curriculum*, and short courses designed to provide experiential understanding of academic program development and online teaching and learning.

It facilitated nine teams from eight different departments and offices of the University to develop collaboratively their own and their colleagues' skills, by means of specific projects relevant to their work. These teams achieved useful outcomes, both in terms of professional development and building useful resources involving the integration of IT into learning and teaching.

The project was also responsible for developing collaboration among various parts of the University that support learning and teaching and/or technology, to bring knowledge and expertise to the University (The Centre for Flexible Learning, the Library and the Office of Computing Services with the Centre for Professional Development).

The project was not as successful in achieving its objective of assisting academic leaders to strategically plan for the introduction of IT into their educational programs. The ongoing programs of the Centre for Professional Development focus, however, on development of academic leadership and encompass these goals in a broader context. Perhaps the original overall goals for the project were larger than it could accommodate in reality.

HOW THE PROJECT AND ITS OUTCOMES MIGHT BE IMPLEMENTED ELSEWHERE

JUSTIFICATION - *why was it a good thing?*

The project aimed to work towards increasing staff capacity to integrate IT into teaching and learning in the University at both an organisational and individual staff level. To do this, it provided a range of programs over a two year period, 1998-1999, to meet the broad aims of:

1. raising the consciousness across the University,
2. assisting Executive, Heads of academic units and centres to strategically plan and set goals
3. assisting staff to realise these goals at the Department/Division level
4. assisting staff to develop the necessary skills and knowledge for implementation.

1. *Raising consciousness across the University* was achieved by means of inviting high profile speakers to address the University community on the theme, *You, Macquarie and Information Technology*, and running a series of showcases to enable staff to see what can be done.

The **keynote speakers** were as follows:

- *Meeting the Challenge & Creating Macquarie's Future*. Barbara Lepani, Australian Centre for Innovation and International Competitiveness.
- *Rapid Change and our Universities*. Peter Coaldrake, co-author of *On the Brink: Australian Universities Confronting their Future*.
- *IT and Changes in University Work: Professional & Industrial Issues*. Richard Caladine, NTEU.
- *Globalisation & Higher Education*. Bob Fagan, Professor, Human Geography, Macquarie University.
- *The role of new media in changing students' engagement with knowledge*. Diana Laurillard, PVC, Open University, UK
- *Locking investment in teaching innovation into institutional plans and practice*. Diana Laurillard.

Showcases: provided demonstrations of appropriate technology for, and case studies of using IT in the curriculum at Macquarie. The showcase program was developed by the Centre for Professional Development (CPD) in collaboration with the Centre for Flexible Learning (CFL) and the Information Technology Training Unit (ITTU) of the Library. Presentations were given by academic and general staff, focusing on, for example: the latest WEB developments; tools for collaborative working; the evolution of online course registration; the evolution of presentation technology; the development of online training material; the WEB and student perspectives; recent e.learning case studies at Macquarie and using the WEB for discursive teaching. 15 in all were offered, 7 in 1998 and 8 in 1999.

2. *Assisting academic leaders in strategic planning.*

It was originally proposed to run two mini-conferences for members of the Executive and Heads of Divisions and Centres. Although this was considered valuable, it did not prove possible to implement it. A short course on *Academic Program Development* was run in 1999, but the academic staff it attracted were not in the above target group.

3. *Assisting staff to develop programs at the Department/Division level*

Funded local area projects for peer group professional development were supported both financially and by other means to foster programs in individual departments. A series of three workshops on *Preparing Proposals for Local Area Projects* was held during October 1998, to assist staff to plan and develop locally based professional development programs for the integration of IT into the curriculum.

Applications for funding were invited to be submitted by 10 November 1998, and a selection committee of six academic and general staff with expertise in teaching, the use of IT or professional development was appointed. As a result nine projects were funded for 1999. (See Appendix 4).

These projects were located in the following departments: Asian Languages, Biology, Education, European Languages, the Institute of Early Childhood, Linguistics and Warawara (Aboriginal & Torres Strait Island Programs Unit), as well the Library (two teams).

Three mini-conferences were held in February, July and December 1999, to support the nine project teams, providing whole days in which each team presented progress reports, and discussed problems and successes, and gained support from their peers and the Project Manager. Each group evaluated their projects and presented a final report, together with a financial report on use of funds. Projects were funded at an average of \$4,500 each.

4. Professional development for gaining skills and knowledge

Professional development for relevant knowledge and skills was implemented by means of several workshop series dealing with theoretical and practical issues, information sessions about the University's resources and short courses involving commitment and assigned work.

Workshop series

- A series of six workshops, *Integrating e.learning into the curriculum*, was run twice in 1998 (daytime and early evening) and again in 1999. It focused on the higher education context, learning and teaching theory and practice, educational design using IT, planning, implementing, evaluation and re-design of IT learning resources and online curricula.
- A new series of seven workshops, exploring further issues was offered in 1999, focusing on a different set of issues such as teamwork, legal issues and copyright, and computer mediated communication.
- Series of 3 information sessions/workshops, *Preparing applications for Macquarie internal and CUTSD Teaching Development Grants*, guiding the development and planning of projects and grant applications. It offered a comprehensive approach to developing learning goals, setting up a project and budgeting as well as preparing applications, jointly organised by CFL and CPD.

Information sessions:

IT support services & facilities for staff. Staff were offered a series of 5 information sessions to inform them of support available within the University for developing online teaching and learning were conducted in collaboration with CFL and the Library's ITTU.

Short courses to develop skills and knowledge

- *Introduction to Learning and Teaching Online* was developed collaboratively with CFL to allow staff the opportunity to take the students' role in an online learning experience. It comprises two face-to-face meetings, separated by six weeks online experience, using WebCT. The course was offered three times during the project, once each semester, and continues to be offered each semester in 2000.
- *Academic Program Development*, consisted of two sessions given by CPD staff, aimed at assisting staff to develop a strategic approach to reviewing existing programs and establishing directions for the future.
- *WebCT Training*: three sessions given by CFL staff, focusing on using WebCT as a framework and tool developing materials and online teaching. The course was run each semester.
- *Using Netmeeting*: a course comprising two sessions given by ITTU staff, focusing on collaborating over the Internet using audio, video and chat tools. Offered three times.

Support for using IT in the curriculum .

A listserve for discussion of issues raised in the keynote addresses was established, as well as a WWW homepage. The latter was devised as a means of disseminating information about e.learning and can be accessed at: <http://www.cpd.mq.edu.au/e.learning>.

The need for a facility for staff to experiment with using different software to assist them in the development of resources for teaching and learning became evident within the project. As a result, the University gave financial assistance to establish 'e.studio' for this purpose. e.studio has been set up within the Library, and staff using it are supported by library staff who have relevant expertise.

TARGET GROUP - how many people benefit each year?

The table below summarises staff attendances at various activities in terms of their status, and on the level of representation in Divisions, Department and Offices.

Table 1. Staff attendances and representation of Divisions, Departments and Offices

	Exec	HoDs	Academics					Gen Staff	Other* /ext	Total	Org. Units represented out of 9 divs, 41 depts		
			A	B	C	D	E				Divs	Depts	Offices
Information sessions		1	2	16	3			16	6/1	45	7	13	7
Showcases		2	17	47	28	11	0	65	9/2	181	9	21	11
Keynote speakers	4	13	10	39	18	16	4	89	8/30	231	9	26	13
Short courses		5	21	46	37	10	1	26	14/9	169	9	20	4
Workshop series	1	16	47	85	54	15	7	113	8/3	349	9	30	11
Local Area Mini-Confs		2	12	19	8	2		25	4/0	72	4	6	3
Local Area Support		1	5	10	10	2		14	2/0	44	8	14	8
Totals	5	40	114	262	158	56	11	348	51/45	1091			

- 'Other' indicates people who did not indicate their status/affiliation.
'Ext' indicates people attending from other universities

It should be noted that the numbers of staff above represent total counts of attendances at each activity, and would therefore include multiple counting of people who attended several events. So, although the total number was 1091, (602 of whom were academic staff) the number of different members of staff who participated in the program was 399 (189 academic, 136 general staff, the rest external or other).

As we would expect for a project that focused on learning and teaching, academic staff dominated the numbers in the workshop series, short courses and local area projects – areas focusing on teaching issues). It nevertheless the strong representation of general staff, particularly those involved in teaching programs in various parts of the University, indicates the increasing blurring of lines between academic and general staff roles. Although the project reached all levels of the University community, its impact varied across academic units and among academic staff with differing positions of responsibility and interest in IT. For example, few members of the University Executive participated in any of the activities offered except the keynote addresses. The keynote speakers and

workshops had the most diverse populations of both academic and general staff. While most activities were accessed by staff from all nine divisions, the workshop series achieved the widest representation, namely staff from 30 of the 41 departments. This broadly based participation did not immediately translate into active involvement in local area activities, however. Despite being offered a number of opportunities to access funds to establish local area-based IT support groups, only nine such groups were established.

TECHNICAL SOUNDNESS - *how well it worked; aspects that did not work well*

The project worked well in raising consciousness of the issues. With the initial series of keynote talks, showcases and workshops (which were offered both day and evening) awareness and enthusiasm was generally high, and activities were well booked. The workshop series, information session and short courses were successful in building knowledge and skills for a considerable group of people. The local area peer group projects were probably the most successful way to support innovation and professional development of staff for integrating IT into educational programs in a practical hands-on manner.

The project (workshop series and showcases) also succeeded in stimulating useful networks across discipline areas within the University among staff with common interests. The local area projects fostered collaboration across groups through the mini-conferences. The two language-focused projects shared their developing knowledge and arranged common activities too. Greater collaboration among related University organisations has already been noted and these continue. The establishment of the website, and *e.studio* have also served the University community well.

Appointment of a part time administrator to the project proved very successful, and enabled the development of the Website, continuing communication with local area projects, and excellent evaluation and documentation of the project.

The goal that worked least successfully was the development of strategic planning and goal setting with members of the Executive and Heads of Division. Their lack of availability to be involved may well have been influenced by the fact that the project coincided with a major restructuring of the University from 14 schools into three colleges, nine divisions and 41 departments which occupied a considerable amount of time and energy. Possibly it required time to be allotted to assist heads of division individually to set goals and priorities for curriculum change to achieve these ends. Such labor intensiveness may have been beyond the capacity of the project to achieve. Perhaps the original overall goals for the project were larger than it could accommodate in reality.

ADMINISTRATIVE CONVENIENCE - *impact on organisational infrastructure*

The most effective aspect of the project's impact on the organisational infrastructure of the University was in its bringing together of various centres and offices concerned with the use of IT affecting learning and teaching. Particularly, it fostered collaboration among the CFL, the Library's ITTU, the Office of Computing Services and the Division of Information Services, as already mentioned. This collaboration and relationships built through the project continues. The other impact visible was the development of networks and sharing of knowledge across different departments and disciplines, through the workshop series, short courses and local area projects.

ORGANISATIONAL ACCEPTANCE - *embedding of outcomes; support to ensure durability*

The local area projects, for a comparatively small financial investment, succeeded in embedding the project into their areas. For example, *IT supported Unit delivery facilitation at IEC (Institute of Early Childhood)*, has led to ongoing programs and developments for which a large grant of internal funding has been gained. Similarly, the *Structured IT core competencies program for Library staff* has been

incorporated into IEC's preparation of students for online courses and its staff training. It is not possible to measure the ongoing impact at this stage, as staff continue to have the opportunity to further their capacity for using IT through Macquarie's "Flagship" and Teaching Development Grants offered each year.

The short course, *Introduction to Learning and Teaching Online*, has been offered in each semester in 2000, and continues to attract excellent enrolments, not only within Macquarie. The course has proved an excellent experiential introduction for staff to the pedagogical and technical aspects of introducing an online component to their course units. The *Showcases* disseminating current innovations, have continued during 2000, organised collaboratively by CPD, CFL and Library staff.

EVALUATION - how it was done, and its findings

Formative evaluation to assist in the ongoing planning of the project was provided by input from the *Reference Group*. The Reference Group was chaired by Professor Bernard Carey, PVC (1998) and Professor Carrick Martin, DVC, Academic (1999), and included members from CPD, CFL and the Library (Appendix B). The Project Manager reported to the Reference Group which met six times each year of the project. Other formative feedback was obtained through the regular *feedback forms* distributed at the end of each activity. Written feedback was also obtained from local area project teams after the mid-year mini-conference.

Summative evaluation. A questionnaire was sent by email and hard copy to all participants who were contactable (315), at the end of 1999, to evaluate the impact of their participation. 30 per cent (94) responded, a low return rate, partly attributable to the fact that some accessed only one activity of the program and did not feel they had much to contribute. Most respondents (73%) found the program moderately to significantly effective in raising awareness of the issues, and the next most significant impact was for increased knowledge or skills for a planning the use of and implementing IT in the curriculum. More than half also increased knowledge or skills for design of curriculum and development of IT resources and even strategic academic program planning using IT. The least impact came for acquiring knowledge or skills in managing and developing coordinated strategies for the use of IT, and evaluation of its use in the curriculum. This confirms our own perception of the program's strengths and weaknesses.

Local area projects: Each team's final report evaluated the effectiveness, outcomes and money spent on their project. The teams believed their projects were successful in increasing their skills and understanding of using IT, and that this extended to other staff in their departments; colleagues gained better understanding of the use of IT in teaching and learning, leading in some cases to attitudinal change, and within department networks were developed as a result, in which staff discussed issues and assisted each other. Some teams believed they had developed better and more effective strategies for professional development of staff for implementing IT, as a result of the experience. They emphasised the value of one-to-one assistance as a starting point, supplemented by workshops within the department. They believed this approach was more valuable and less intimidating than university-wide training. Some had developed new modules for courses, websites and web pages for use of either staff or students, or in one case for the use of mentors to assist distance Aboriginal and Torres Strait Islander students. The projects were all well supported by their Heads of Department (one project team included the Head of Department) and proved in concrete terms the most useful aspect of the whole project. Most spent their money on time release for one or more team members, or for employing a part-time expert consultant to assist them. TIME was the biggest difficulty, and the effects of downsizing staff and restructuring were felt by some projects. Two projects were hampered in their work by loss of staff on short-term appointments during the project, however.

LIST OF PUBLICATIONS AND OTHER MEANS OF DISSEMINATION

Website for the project: <http://www.cpd.mq.edu.au/e.learning/index.html>.

This website sets out the program for 1998-99, and includes materials from workshops, resources, keynote addresses, details of and reports on the local area projects.

Conference papers

Litchfield, A. (2000) e.learning@mq: Staff Development to Integrate New Media into Learning and Teaching at Macquarie University. EDMEDIA, 2000, World Conference on Educational Multimedia, Hypermedia & Telecommunications, Montréal, Quebec, Canada

Litchfield, A. (1999). e.learning@mq: integrating IT into learning and teaching at Macquarie University. ASCILITE '99. 16th Annual Conference, Brisbane.

Philip, R & Litchfield, A. (1999) Learning and Teaching Online: a short course for higher education staff. ASCILITE '99. 16th Annual Conference, Brisbane.

Litchfield, A (1998). Designing Multiple Media Learning Resources. EDMEDIA '99, the World Conference on Educational Multimedia, Hypermedia & Telecommunications, Seattle, USA.

Litchfield, A (1998). Crossing the Chasm: developing capacity to integrate IT into learning and teaching at Macquarie University. ASCILITE '98, the 15th Annual Conference of Australia, December. Paper sponsored by the CUTSD Secretariat.

Conference Workshops

Litchfield, A. Planning IT Learning Resources. ASCILITE '98, the 15th Annual Conference of Australia, December.

Appendix B: Acknowledgments

The project team wish to acknowledge the support of the following:

- The Committee for University Teaching and Staff Development (CUTSD) for funds to make the project possible.
- Macquarie University:
 - The Vice Chancellor and members of the Executive, for their visible support for the launching of the project, for the provision of space and University facilities and equipment.
 - staff for support for the project in the form of time given by members of the local area project teams, many of whom gave time well beyond that provided for in their grants.
- Persons of the Reference Group and Project Directors:
 - Professor Bernard Carey, former Pro Vice Chancellor, Macquarie University, now Deputy Vice Chancellor, University of Western Sydney, Hawkesbury, in 1998
 - Professor Carrick Martin, Deputy Vice Chancellor (Administration), in 1999.
- Members of the Reference Group:

Centre for Professional Development:

Dr Stephen Marshall, Director

Ms Moya Adams, Senior Lecturer, Learning and Teaching

Mr Andrew Litchfield, Project Manager, Lecturer, Learning and Teaching

Ms Patricia Gustafson, Project Officer

Centre for Flexible Learning:

Professor David Rich, Director, and CUTSD Liaison Officer

Ms Maree Gosper, Lecturer, Educational Services

Library: Heather Cooper; Librarian

Appendix C: References

A Sample of journals, societies, listserves related to Teaching and Learning Online prepared for the local area projects by Patricia Gustafson can be found at:

<http://www.cpd.mq.edu.au/e.learning/projects/LA-MC1-resources.html>

Keynote addresses can be found at:

Barbara Lepani:

<http://www.cpd.mq.edu.au/e.learning/98/lepani.htm>

Peter Coaldrake:

<http://www.cpd.mq.edu.au/e.learning/98/coaldrake.htm>

Richard Caladine:

<http://www.cpd.mq.edu.au/e.learning/98/caladine.htm>

Bob Fagan:

<http://www.cpd.mq.edu.au/e.learning/99sem1/globed/index.htm>

Diana Laurillard

<http://www.cfl.mq.edu.au/cfl/online/laur.htm>

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Appendix E: Attachments

- 1. Guidelines for Local Area Project applications**
- 2. Summaries of Local Area Projects**
- 3. Evaluation Survey: Summary of outcomes**