

Applicability and Rationale

Rationale

Much of the early effort to integrate C&IT into teaching has been motivated by competitive funding programmes. These provide a vital stimulus, but we must evolve professional development programmes and frameworks that ensure the integration of C&IT into the teaching of staff in higher education as a normal and integral part of their professional role. The need for this has been identified in the evaluation of TLTP (See HEFCE Circular 14/97 Annex A: 2c and 3c) and the Dearing Report (Recommendations 9, 13, 42, 47, 48). Without this support and recognition for staff the much needed wide-spread take up of new technology will not take place. Each member of this consortium has **already** developed a programme of support and tools to assist staff in integrating technology into learning and teaching, and is actively using tools developed by TLTP (eg Project ALTER, TILT, IT in T&L).

To enable this process, a number of institutions are developing or delivering professional development programmes to accredit staff in the use of C&IT. All members of this consortium are now piloting, or have firm plans for developing such C&IT professional development programmes. This project will facilitate and co-ordinate the consortium members in the sharing of their knowledge, experience and resources and to disseminate this nationally. **This project is NOT looking for funding to develop a new professional development programme** in these five institutions.

The approach of this project is to use frameworks developed by the partnership to support **the development and evaluation of technology into 70 mainstream teaching modules** in these five institutions. The partners will also share their experience, support materials and frameworks with each other, and will also make these available to five cascade institutions who undertake to implement a professional development framework during the project. The wider dissemination and integration across the HE sector will then be achieved through the co-operation of the partner institutions, the support of key professional bodies, and the accreditation of a nationally recognised certificate in the use of C&IT. Additionally, the project will actively seek to work with other initiatives working towards the professional development of staff embedding C&IT into learning and teaching. This project thus offers a long term and cost effective solution to ensure the integration of C&IT in teaching throughout UK higher education.

Aims

This project will:

- embed C&IT into the teaching of a wide range of disciplines in a cost effective manner
- transfer the EFFECTS models of integrating C&IT into five other institutions
- develop a nationally accredited scheme of professional development for staff embedding C&IT
- develop local support frameworks which, with the EFFECTS Professional Development Network, will ensure that:
- there are effective mechanisms for the dissemination of results of this project
- there are clear long term cost effective mechanisms for supporting the majority of staff to integrate C&IT into their teaching as an integral part of their professional role.

Objectives

- Establish an EFFECTS Professional Development Network (see page 6), supported by appropriate C&IT, to encourage the collaboration of staff between participating institutions.
 - Share expertise and agree a common methodology and framework for EFFECTS.
 - Embed C&IT into the mainstream teaching of 70 modules in the five consortium institutions, supported by institutional professional development programmes.
 - Evaluate the success of this integration process and the application of C&IT in these 70 modules.
 - Initiate and support similar frameworks in five cascade institutions.
 - Seek accreditation at a national level for a professional development programme in embedding C&IT in the curriculum. This will involve close collaboration with the appropriate national bodies and organisations, including ALT, SEDA and UCoSDA.
 - Work in synergy with the proposed TLTP MELT project (see Annex D), concerned with professional development of senior management on the use and applications of C&IT.
 - Undertake evaluation of the overarching EFFECTS project, to identify key outcomes and derive strategies for the effective integration of C&IT.
 - Disseminate the findings from the 70 transformed modules through subject CTI centres and professional bodies.
 - Disseminate the professional development frameworks and methodologies devised and used in the EFFECTS project through the EFFECTS network and associated professional organisations.
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Outputs

- 70 case studies outlining the integration of C&IT into the project modules
- 70 fully detailed evaluation reports, demonstrating educational and cost effectiveness
- an overarching evaluation report for the EFFECTS project
- tried and tested professional development frameworks and methodologies
- an EFFECTS Professional Development Network for staff using C&IT in teaching
- nationally recognised accreditation for staff who have completed the professional development programmes.

Outcomes

The EFFECTS project will lead to a shift in Higher Education staff culture, reinforcing the professional aspects of the role of the university teacher and valuing those involved in C&IT supported teaching, through a nationally recognised qualification. Hence it will lead to a significant increase in the embedding of C&IT in a range of subject areas, spearheaded by the 70 modules targeted during the project.

To ensure wide applicability of the project's findings to other HEI's, the Working Group will choose the 70 modules across the five institutions on the basis that they:

- cover a range of subject areas
- impact on a large number of students
- make appropriate use of a wide range of C&IT resources, including integration of TLTP and commercial products
- impact on the quality of teaching and learning
- are transferable to other institutions and/or subject areas
- meet the needs of staff and students.

The staff completing the professional development programmes will provide:

- an informed group of staff who can act as agents for further integration and development, both within institutions and disciplines
- a self-sustaining support network in the consortium institutions.

Implementation of EFFECTS

The main outcomes of the project are; to embed C&IT into teaching modules, to pilot a professional development framework and to seek national accreditation. To achieve these outcomes, the project will be implemented at three levels as described below:

Effects Project/National Level. This will be responsible for seeking National Accreditation of a professional development course in embedding C&IT, dissemination of the outputs of the 70 modules and EFFECTS project as a whole, the development and delivery of a Professional Development Network and the comparative evaluation of the Professional Development Programmes within each institution.

Institutional Level. In each institution, a project support team will be responsible for piloting a Professional Development Programme and accrediting staff embedding C&IT. The groups will also disseminate module level outcomes via workshops and seminars, and evaluate the impact of EFFECTS within the institution.

Module Level. Staff undertaking the Professional Development Programme will embed technology-based materials into the mainstream teaching of the module. They will also evaluate the educational and cost effectiveness of the changes, and present these findings as part of their portfolio for assessment.

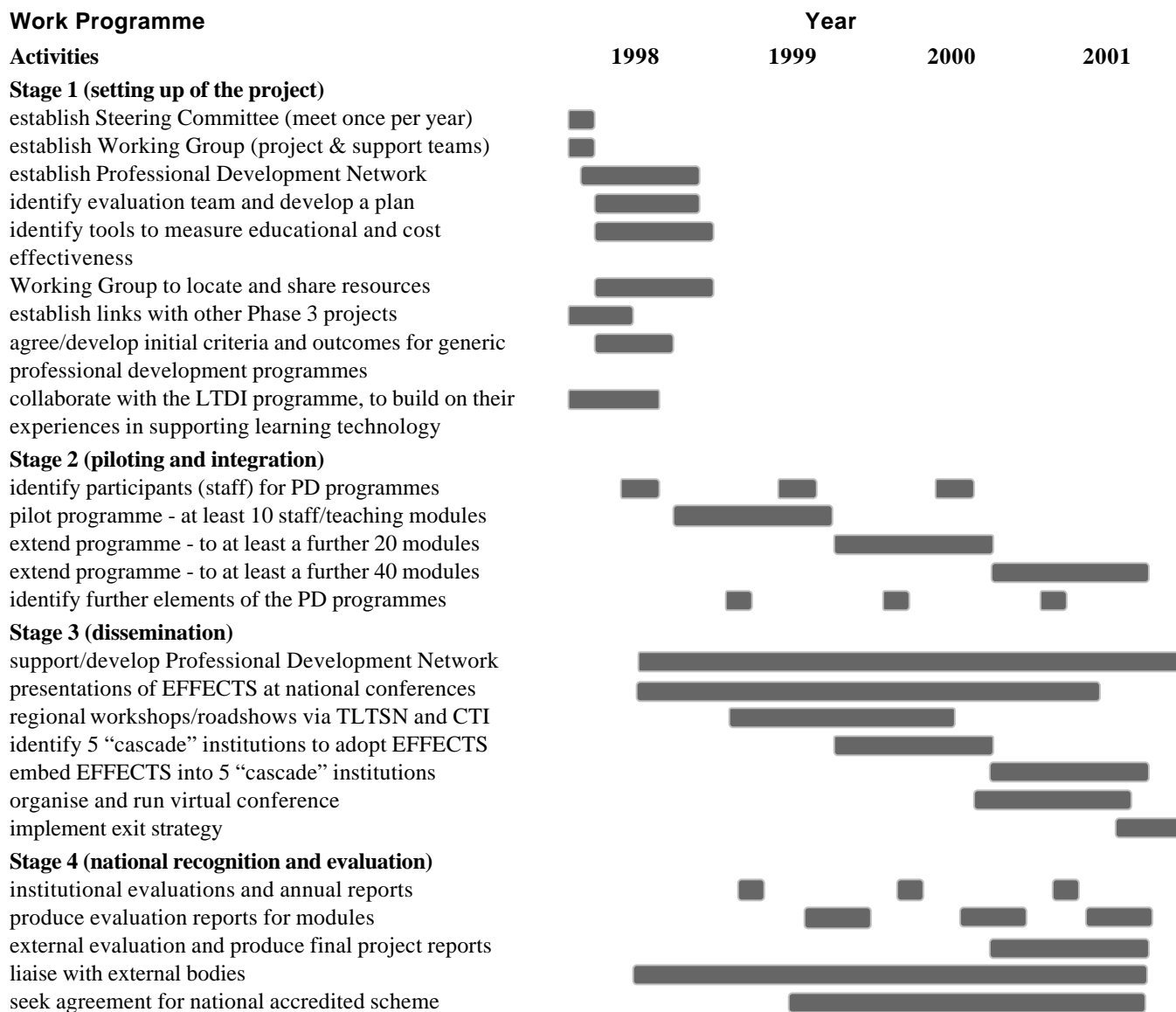
The Professional Development Programmes

The aim of the professional development programmes is to provide lecturers with a methodology for embedding C&IT into their teaching modules. The supportive framework will ensure quality at the point of delivery, as quality assurance will be an outcome from the programme. Each individual will be expected to undertake the following activities and record evidence of their work in a portfolio for assessment.

1. An analysis of their own requirements, prior to the course - to establish training and support needs, as well as any institutional barriers to embedding C&IT.
2. An analysis of the module to identify appropriate new technologies to be embedded into its delivery. Analysis will compare a "pedagogical framework" of the existing module and the redesigned module using new technologies. This will demonstrate appropriate and effective use of technologies.
3. Embedding/integration of C&IT into the teaching module.
4. Participate in discussions and maintain a reflective log on the Professional Development Network.
5. Delivery and evaluation of the module (in the appropriate learning environment).
6. Collection of specified data to measure educational and cost effectiveness.
7. An evaluation report showing educational and cost effectiveness.
8. Dissemination internally - workshops/seminars/departmental away-days etc.
9. Dissemination externally - conferences, Professional Development Network, subject specific CTI Centres.
10. A case study on the Professional Development Network.
11. Feed back any additional support and training needs into the institution's scheme.
12. Accreditation at institutional/national level.

Planning and Management

Work Programme



Milestones/Critical Dates

Agreed set of outcomes for the scheme	September 1998
Accreditation of institutional schemes	September 1999
Publication of evaluation reports/case studies	End of December each year
Publication of annual project reports	End of September each year
Identified five cascade institutions	June 2000
National Accreditation Scheme	by end of September 2001 (if not before!)
Virtual conference	in June or July 2001

Project Management Strategy (see Annex E)

Project Manager - The project manager will report to the Project Director and will:

- Produce quarterly progress reports for the Steering Committee.
- Manage the project funding and co-ordinate the Steering Committee and project Working Group.
- Establish and run the Professional Development Network.

Steering Committee This will be chaired by the Project Director, Hazel Fullerton, Head of Educational Development Services, University of Plymouth and will include representatives from professional bodies (SEDA, UCoSDA, ALT, LTDI). The Steering Committee will meet at least three times during the project and will:

- Comment on progress against the project outcomes, from the annual reports.
- Advise on the development of generic outcomes and assessment criteria for the professional development programmes.
- Seek accreditation at a national level for the professional development programmes.
- Oversee the evaluation of the EFFECTS project and moderation of the institutional professional development programmes.
- Update the project Working Group of any relevant developments at a national level in relation to the development of (i) an Institute of Learning and Teaching in Higher Education and (ii) schemes to recognise the professional development of all staff involved in the use of learning technologies, including support staff and senior management.

Project Working Group - This will consist of key representatives from each of the institutional project and support teams. After the initial phase of the project (ie from September 1998) the Working Group will meet four times per year. Further communication and planning will be done via the professional development network. The group will be responsible for:

- Establishing project support teams in each institution to implement the EFFECTS project.
- Identification and development of tools to measure educational and cost effectiveness.
- Ensuring the 70 modules are chosen from a variety of subject areas and use a variety of new technologies.
- Defining the format and structure of the Professional Development Network.
- Collating existing resources and identifying future requirements.
- Managing the delivery of professional development programmes within each institution.
- Identifying and working with the five secondary “cascade” institutions.
- Dissemination at a national and regional level and representation at national conferences.
- Collection and co-ordination of evaluation material at a project level.

Evaluation Strategy

The project’s evaluation strategy will comprise of four elements:

1. Evaluation of the educational and cost effectiveness of C&IT embedded into the 70 teaching modules. Each module will produce an evaluation report as part of a case study. These case studies will be carried out by staff and included in their portfolio, submitted for assessment, as part of their professional development programme. Staff will be trained to use a range of established evaluation methodologies, including action research, the framework developed by the BP Evaluation of Learning Technologies project, and the approaches of the TLTP Projects TILT and ALTER.
2. Annual evaluations of the professional development programmes, carried out by the institutional Working Group at each institution. This will look at the institutional impact of the training, and will draw together the findings of the case studies carried out by staff. The evaluations will also identify the generic cross-course educational and cost effectiveness of introducing C&IT. Measures of cost effectiveness will consider set-up costs, running costs and scaleability in terms of the number of staff who complete the programme.
3. External evaluation of the professional development programmes. This will ensure that individual programmes meet the criteria agreed as part of the validation arrangements.
4. Summative external evaluation of the project. This will identify the extent to which the project has met its stated aims and objectives, assess the effectiveness of the EFFECTS project model and contribute to Quality Assurance. The Steering Committee will be responsible for appointing appropriate external evaluators to the evaluation team, drawn from the relevant professional bodies. eg ALT member to look at the effectiveness of embedded C&IT and agreeing the spend of the additional funding available for the external evaluation of the project.

Plan for Measuring Cost Effectiveness

The project will measure the cost effectiveness of the institutional professional development programmes, by considering the set-up costs, running costs and scaleability in terms of the number of staff who complete the programme. This will be the responsibility of the Working Group.

The project will also measure the cost effectiveness of each of the 70 modules. This will be established using a comparative evaluation of each of the 70 modules, contrasting costs and benefits of the existing module with those of the C&IT enhanced module. Data will be collected at a module level by the individual member of staff using generic templates and tools, as a part of the outcomes from the professional development programme. Data from all the 70 modules will be collated by the Working Group and an overall evaluation of the cost effectiveness will be done at a project level.

All results will be made available on the Professional Development Network and published by the Working Group. In developing the tools to measure cost effectiveness the Working Group will draw on information from the TILT project; LTDI; ITATL (Information Technology Assisted Teaching in HE) research project.

Outcomes and Dissemination

Outcomes (See also Outcomes on page 2)

The project will produce a significant increase in the use of learning technologies in a range of subject areas ie successful embedding and evaluation of learning technologies within 70 modules, making appropriate use of the products of TLTP (and other products) and meeting the needs of staff and students. The accredited staff will provide an informed group of staff who can act as agents for further change and development, both within institutions and disciplines. This will result in a raised awareness of senior and middle management to the benefits (and need) of releasing staff for professional development programmes and a pool of potential new senior managers who have “*a deep understanding of Communications and Information Technology*” (Dearing Recommendation 42). This will be further supported by the dissemination through the TLTSN and association with the TLTP Project MELT.

The Professional Development Network will lead to an increased collaboration between participants on professional development programmes and dissemination of experiences.

A shift in institutional culture, valuing those involved in teaching, through a nationally recognised qualification.

Quality Assurance and Classroom Testing

The project will undertake testing in the appropriate learning environments and ensure quality assurance of its outcomes as follows:

- Evaluation of the C&IT in the learning environment will be an integral part of the professional development programme for each member of staff, who will be required to produce evidence in the form of student feedback, peer observation, etc.
- Quality assurance of each module will be built into the professional development programmes, staff will be required to demonstrate their ability to select appropriate technologies and to embed them effectively.
- Staff who have completed the programme (quality assured) will be used as mentors for new staff starting the programme.
- £70,000 of the funding has been allocated to directly support staff on the professional development programmes in the data collection and evaluation of educational and cost effectiveness.
- Ensuring pedagogy drives the selection of appropriate C&IT to be embedded into the 70 teaching modules.
- Producing qualified learning technology teaching professionals and a collaborative pool of expertise, institutionally and on the Professional Development Network.

Dissemination Strategy

A key part of the dissemination strategy will be the setting up of a Professional Development Network, to allow staff to share ideas, experiences, resources and also to disseminate the project outcomes.

Professional Development Network

Elements Function

Web site	To provide a front-end for external interest and a platform for external dissemination eg case studies, project reports and/or accreditation portfolios, records of achievement. It will also provide links to resources and templates for professional development programmes eg data collection sheets for user needs analysis and cost effectiveness.
Reports	To share printed versions of the module case studies; annual project reports and evaluation reports will be produced as a part of the network.
Discussion forums	To provide discussion areas for staff to share ideas and experience. It will also play a major part in the communication and operation of the Working Group and communication between the institutions involved in the national scheme.

Dissemination at Institutional/Module Level

Dissemination will be an essential part of each member of staff’s professional development programme and will include dissemination to staff within the institutions via workshops, seminars, departmental development-days, learning profiles, case studies and evaluation reports. These will also be made available on the Professional Development Network for all staff across the UK. Staff will also be assisted in the preparation of publications for journals.

National Dissemination

The Working Group will make presentations at three national conferences each year eg SEDA, ALT and UCoSDA, to disseminate the methodologies, tools and outcomes from the project. In year two, we will present regional workshops around London, Manchester and Oxford to promote EFFECTS. These workshops will be linked to the identification of five cascade institutions, who will be supported in year three to adopt the EFFECTS model within their own institutions. The dissemination will be aided by strong links established with TLTSN through Gwen Vandervelden (MELT project) from Kent University and the Interactive Learning Centre at Southampton and the synergy between the MELT and EFFECTS projects.

In addition to the dissemination of subject specific case studies through the Professional Development Network, in year three, a national virtual conference (using telematics/web) will be organised to disseminate the examples of embedding C&IT into teaching from the 70 modules. Module case studies will also be submitted to the 1999 Improving Student Learning Conference (organised by the Oxford Centre for Staff Development), which is provisionally planned to focus on subject disciplines.

Exit Strategy

- Continue the EFFECTS frameworks - guaranteed by institutions' commitment and policy towards professional development of staff and use of learning technologies and staff development policy as recommended by Dearing.
- Continue to deliver the professional development programmes in each institution.
- Continue to support "cascade" institutions, to develop their programmes and extend the cascade effect.
- Work with the professional bodies to support other institutions to participate in the Professional Development Network, and subscribe to a nationally recognised scheme.
- Extend and disseminate to FE partners in regions.
- Continue the Professional Development Network - building up further case studies from course participants.
- Extend to include professional development for support staff and senior management (TLTP MELT Project).
- Develop the framework to encourage the staff completing the professional development programmes to act as change agents, within both institutions and disciplines.

Collaboration

Support from external bodies (see Annex B)

The project has the support of:

- The Staff and Educational Development Association (SEDA). The project has signed a working agreement with SEDA, which includes representation on the Steering Committee from Liz Beaty, Vice-Chair of SEDA.
- The Learning Technology Dissemination Initiative (LTDI). The project has working agreement with Nora Mogy from LTDI and will build upon the experience of the project "Supporting Learning Technologies Implementation (year four)"
- The Universities' and Colleges' Staff Development Agency (UCoSDA). A working agreement has been signed with Gus Pennigton agreeing to support the project and send a representative to be on the Steering Committee. They have also agreed to be a part of the project evaluation team.
- Christine Steeples from Lancaster University, who is a member of the Association of Learning Technologies (ALT) Executive Working Group looking into National Recognition for Learning Technology Professionals. She has agreed to be a member of the Steering Committee and to present the EFFECTS project to the ALT Executive.

The EFFECTS project also has agreed to work with the proposed TLTP Project MELT, which is aiming to provide professional development activities for senior and middle management, to increase their awareness of issues related to using C&IT in teaching and learning.

The EFFECTS project will actively seek to work with other projects which are working towards the professional development of staff in using and/or embedding C&IT into learning and teaching as well as professional bodies working on national accreditation schemes.

Collaboration with CTI Centres and TLT Support Centres

TLT Support Centres

The project has arrangements for collaboration with TLT Support Centres through University of Kent and the University of Southampton. The TLT Support Network will be used to assist in arranging regional workshops and will link into the Professional Development Network.

CTISS

Staff on the professional development programmes, who will be embedding C&IT in to their teaching will be encouraged to contact CTI subject centres to locate suitable resources and to disseminate their outcomes. The Working Group will work with CTISS, to investigate the best ways to integrate the Professional Development Network into the CTI Centres.

Institutional Commitment (see Annex A)

Supporting Contributions from Institutions

Each of the consortium members has an established Educational Support Unit and are committed to delivering compulsory accredited (eg SEDA) teaching and learning professional development programmes.

Outlined below are examples of how each institution is committed to supporting the implementation of learning technologies. (See Annex A for supporting letters from each institution.)

Plymouth

The University has stated a commitment to exploit the use of communications and information technology in curriculum development and in evolving styles of teaching, learning and assessment. In 1996 the University allocated £200,000 to set up the Technology Supported Learning (TSL) initiative which aims to promote and encourage the integration of new technologies. TSL has provided support and funding to over 30 individuals and departments with small scale projects, has run a one day conference on Integrating Learning Technologies and a Technology Semester. A further £80,000 has been committed for 1997-8 to embed innovations in learning and teaching at faculty level. First steps have been taken to incorporate the use of learning technologies into each faculty's teaching and learning strategy (SCIL initiative). As a dispersed University, major investments are supporting learning via satellite (Rural Area Training and Information Opportunities - RATIO £2.75 million) and the Internet (South west Area Network - SWAN £300k + £50k per annum) throughout the South West Peninsula. Educational Development Services provides SEDA accredited courses for lecturers and graduate teaching assistants and is developing a learning technologies professional development programme to support staff integrating C&IT into teaching and training and IT modules as a part of the Integrated Masters Programme.

North London

The vital role of C&IT in widening access and participation has become a key area of research and innovation, undertaken by the Learning and Teaching Innovation and Development group (LaTID). The group's work includes the CREOLE project, a pioneering initiative providing HE and FE staff development in producing on-line courses and materials through an integrated web-based learning environment, and the European EXE project, training European teachers to develop and use Multimedia software in their lessons. The group is also involved in a BP funded project on the evaluation of the educational and cost-effectiveness of C&IT use. New initiatives to further this work at UNL include the building of a £7.5m technology tower, which will act as a catalyst for transforming teaching and learning processes through appropriate integration of C&IT, and a major new staff development facility, whose remit includes research into the pedagogy of C&IT use. A priority will be the transformation of staff development programmes to increase use of C&IT, and the establishment of a tailored staff development programme to run alongside staff who are actively integrating technologies.

Southampton

The University has stated a commitment to increase investment in modern computer-based learning technology, an interest in new teaching methods to meet growing student numbers and a recognition that staff training and support are essential for this to take place. The Interactive Learning Centre, at the University of Southampton, is widely recognised for its expertise in the area of teaching and learning technology. Their area of expertise ranges from staff consultancy and training to the production of computer enhanced learning materials. They have already produced a widely acclaimed open learning pack in this area for academics within the Higher Education sector: *Technology in Teaching and Learning: a guide for academics*. They are also involved in EU projects and managing a Leonardo project investigating vocational on-line training.

Oxford Brookes

Oxford Brookes has demonstrated its firm commitment to integrate C&IT into its teaching. In 1996 it committed much staff time and £50k to an IT Term - an institutional wide staff development programme; and a further £50k in 1997-8 for competitively funded development projects using C&IT for teaching. In 1997 Academic Board agreed a five year change strategy to integrate C&IT into its courses through the development of a University intranet; annual targets for Schools and Departments; and a staff development strategy, including "the development of a certificate/diploma in teaching with information technology". The Oxford Centre for Staff and Learning Development provides institution-wide staff development programmes and support.

UMIST

The Staff Development Unit and the Learning Technologies Officer provide a lunchtime series 'The University of the Future' to bring the ideas before a wider audience. The Academic Practice (compulsory for new academic staff) contains a whole day on computer based teaching and a longer module has been designed to form part of a Postgraduate Diploma programme. Projects have been funded to support the use of telematics in teaching, through small projects (£1k per project) and joint University of Manchester/UMIST Enterprise Centre funds. UMIST's Vice Principal (Information Systems) has been Director of the EDEC project.

The long term support for EFFECTS in each institution is ensured as all are committed to delivering an accredited professional development programme to support the embedding of C&IT into learning and teaching. Once established, EFFECTS will be an integrated part of the professional development policy for each institution. The aim will be in each institution to be training a minimum of eight staff per year by the end of year three, and to support them to embed C&IT in a module. In future years the aim will be to increase the number of staff and to respond to changes in the development of C&IT and provide further updating courses. The embedding of materials into new courses is a guaranteed outcome of this project.

