

# Annual Report

TLTP 85

## Computer-assisted Assessment Centre

(The Implementation and Evaluation of Computer-assisted Assessment)



University of Luton

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## Section 1

### Activities and Progress

This section outlines the major activities and objectives of the project and for each activity details:

- the extent to which objectives have been met, as defined by the project brief and project plan (Appendix 1), and where relevant,
- deliverables and outputs produced as a result of activity
- particular successes of the activity.

#### 1.1 Literature Review

A literature search and review has been on-going since the beginning of the project. The process involves identifying and collecting relevant literature about computer-assisted assessment (CAA), key details of which are entered into a database. As literature is collected it is reviewed and best practice identified, which will ultimately lead to an article reviewing current CAA practice and will contribute towards the development of models of implementation and evaluation (see 1.4 below).

We are currently investigating the mechanisms for making the database of literature available in a searchable form from our web site. It is anticipated that this will take place in November 1999, and the database will continue to be updated and maintained throughout the life of the project.

##### 1.1.1 Objectives

The literature review is progressing the objectives of:

- identifying institutions, faculties, departments and subject areas which have successfully overcome the difficulties of implementing various types of CAA,
- and identifying the obstacles to embedding CAA at institutional, faculty and departmental levels.

#### 1.2 National Survey

##### 1.2.1 Introduction

In January 1999 a national survey of CAA was conducted. The survey drew on the methodology and results of a previous survey conducted by Loughborough University in 1995. The survey aimed to identify the following:

- obstacles and success factors for the implementation of CAA,
- pedagogical benefits and limitations of CAA,
- the number, type and educational level of assessments in use,
- the type of support available to academics who use or wish to use CAA
- and regulations, policies and procedures for the use of CAA.

The survey was designed to seek the opinions and views of both users and non-users of CAA and to gather information about perceptions of and attitudes towards CAA. A series of questionnaires was designed and targeted at different groups of staff who, through the literature search were identified as being involved in using or supporting CAA. The questionnaires are provided in Appendix 2. The groups of staff identified were: academic staff; educational technologists and learning technology support staff; staff and educational developers; and quality assurance staff. The survey was distributed between the end of January and mid-May, in both a paper and electronic format. Questionnaires were piloted with consortium members and then distributed throughout the UK higher education sector and to a limited extent internationally.

### **1.2.2 Distribution of the Survey**

Through the literature review and previous contacts, a group of approximately 1,000 academics and educational technologists were identified as being interested in the use of technology and assessment in higher education. This group formed a core of respondents whose responses could be logged and followed up. This group was mailed a personalised copy of the questionnaire and forwarded a second letter if they did not respond initially.

In addition to this group of 'known' respondents, questionnaires were distributed by a range of methods aimed to gather the views of those using and supporting CAA and those who did not. To achieve wide coverage of the higher education community and a greater response rate, questionnaires were mailed through various existing organisations and undoubtedly there was duplication in the coverage.

A number of existing networks and organisations were used to distribute paper copies of the questions including: CTI Support Service, CTI Centre for Land Use, the Association for Learning Technology, CTI Library and Information Studies, CTI Textual Studies, the Royal Geographical Society and Universities' and Colleges' Staff Development Agency. In addition, quality assurance questionnaires were sent to all heads of quality assurance, and the University of Edinburgh distributed questionnaires to all heads of department, quality assurance staff, staff developers and educational technologists to provide the basis for an in-depth institutional case study.

Electronic versions of the questionnaires were made available on the project web-site and a number of mailbase lists were used to request completion of the questionnaire by various groups. The questionnaire was also distributed through the Humanities and Arts higher education network. In total 10,500 paper questionnaires were distributed, 1,000 of these were targeted at specific individuals, 270 were targeted at staff developers and 142 were aimed at quality assurance staff. The views of educational technologists were sought by posting messages on specific mailbase lists and through the group of 'known' staff. The remaining questionnaires were aimed at academic staff and it is estimated that there was overlap in the distribution lists of the CTI Support Service and the individual CTI Centres, and that of the Association for Learning Technology.

### **1.2.3 Results**

The questionnaires are currently being analysed and will form the basis of a number of journal articles and conference papers in the second year of the project. The questionnaires will be followed up with telephone and face-to-face interviews and focus groups which will seek to bring together different groups of staff to discuss the role and potential of CAA within their discipline and institution.

Further details and the preliminary findings of the survey were reported in a keynote address the 3<sup>rd</sup> Annual CAA Conference held in June 1999 at the University of Loughborough. A copy of the keynote address is provided in Appendix 3 and provides a detailed overview of the survey.

Further details of the survey are given in section 3.

### **1.2.4 Objectives**

The national survey addresses many of the objectives of the project, particularly:

- Identifying institutions, faculties, departments and subject areas which have successfully overcome the difficulties of implementing various types of CAA
- Identifying the obstacles to embedding CAA at institutional, faculty and departmental levels
- Identifying good practice in the embedding of CAA within the curriculum
- Identifying good practice concerning the quality assurance issues of CAA.

The preliminary findings of the survey suggest that it will be possible to meet all the above objectives following the full analysis of the survey data and literature review.

## *Outputs*

- Keynote paper on the national survey at the 3<sup>rd</sup> Annual CAA Conference (Appendix 3)
- Front page article in the Times Higher Educational Supplement about the survey (Appendix 4)

## *Successes*

- The THES article raised the profile of the project considerably and generated a number of enquiries.
- The survey was successfully targeted at non-users of CAA and generated some unexpectedly rich responses from both users and non-users.

## **1.3 Web Site**

A project web site was constructed and released to provide advice and guidance on the use of CAA in higher education. It contains various types of information, including:

- a frequently asked questions about CAA section
- on-line resources
- bibliography
- links to relevant electronic article, mailing lists and other sites
- details about the project and consortium members.

The web site is currently being redesigned and will be relaunched early in the next academic year. Sections currently under development include a searchable CAA literary database, CAA Centre archives, downloadable materials and advice on quality assurance and the evaluation of CAA.

Further details about the web site are given in 1.7.1.

### *1.3.1 Objectives*

The development of the web site has helped to meet the objective of dissemination of CAA materials throughout the HE sector (see section 1.7 for more details).

## *Outputs*

- Deliverable met: Launch of web site (June 1998)

## **1.4 Model Development**

A major task of the project has been to develop models of implementation and evaluation for CAA. Consortium members have worked to draft a number of models based on their expertise in a particular type of CAA.

The models (see Appendix 5) currently include:

- Web-based - Glasgow
- OMR - Loughborough
- PC-based assessment - Luton

The models have been presented to academic staff in Oxford Brookes University through a series of workshops between March and June 1999 (See 1.5.1 below for more details). Following initial development a day long project meeting was held to discuss the refinement of the models and the creation of front-end, generic material which would be used to support the use of the models by academic staff during the pilot phase of the project.

A holistic document that encompasses each of the three models is under development and a first draft of material which will be included is given in Appendix 6. This documentation has been used to support the consortium partner workshops detailed in 1.5.1 below. The document will need to be responsive to the needs of multiple and varied users and a comprehensive table of contents, index and other appropriate navigational tools will be provided.

When complete, the documentation will detail the pedagogical, operational and technical issues of implementing CAA. In addition, it will provide a framework for evaluating the implementation of CAA and will address issues relating to wider institutional implementation. A summary of the content of the documentation is provided in Appendix 7.

The models and supporting documentation will be distributed to consortium partner staff who are undertaking pilot projects in year two of the project. They will be supported in their use of the materials by project team co-ordinators identified in each faculty which is involved with the project.

#### *1.4.1 Objectives*

The development of the models meets part of the objective of developing and piloting a range of models and guidelines which focus on the strategic implementation of CAA within departments, faculties and institutions.

#### *Outputs*

- Draft models of implementation for web-based, OMR- based and PC-based CAA
- Draft of supporting documentation

#### *Successes*

- Identification of a group of staff who are committed to undertaking pilot projects in the coming academic year.
- Evaluation of the first workshop led to an improved structure and format for subsequent workshops.

### **1.5 Workshops**

#### **1.5.1 Consortium Partner Workshops**

Two workshops have been held at Oxford Brookes University to provide an introduction to CAA, raise awareness of the advantages and limitations of different methods, consider elements of question design and present the models of CAA being developed by the project. Workshops were held at the School of Biological and Geological Sciences and School of Social Sciences and Law. It was initially intended to hold a further workshop at the School of Architecture but due to lack of interest and the inability to find a suitable date this was cancelled. Staff from other schools also attended the workshops and some of these have shown an interest in taking part in the pilot phase. The workshop programmes are provided in Appendix 8 and the documentation distributed is given in Appendix 6.

Following the first workshop, evaluation and the attendance at a TLTP planning and delivering workshops session led to the revision of the programme.

Further workshops may be provided during the coming academic year depending on the numbers of staff and students involved and the type of model in use. These will help guide project teams in the subsequent development of test material and operational and technical procedures necessary to implement the model which they have chosen to pilot. Further support through the project web-site, by phone, email or in the form of specific consultation will be provided by the centre, liaising with and involving, where necessary and appropriate, the original developers of the model.

Members of staff involved in the piloting are working towards using the models to deliver various forms of CAA to their students during the academic year 1999/2000.

## **1.5.2 Other Workshops**

A number of institutional and subject specific workshops have been delivered to various groups upon request to address specific issues of implementing CAA in higher education. Further information about these workshops is detailed in 1.7.3 below.

### *1.5.3 Objectives*

The delivery of workshops relates to the objective concerned with developing and piloting the models and guidelines focussing on the strategic implementation of CAA within departments, faculties and institutions. It also relates to the identification of good practice and the development of measures to evaluate the educational and cost effectiveness of different types of CAA (see section 3 for further details)..

#### *Outputs*

- Deliverables met: Institutional staff development workshops from and to consortium members.
- Subject-specific and generic workshops

#### *Successes*

- The number of requests for institutional and subject-specific workshops has been greater than anticipated and requests for future workshops are continuing to come in.

## **1.6 2<sup>nd</sup> and 3<sup>rd</sup> Annual CAA Conferences**

The project was launched at the 2<sup>nd</sup> Annual CAA Conference held by Flexible Learning at Loughborough University, in June 1998. A keynote address was given which disseminated information about the forthcoming work of the project.

The 3<sup>rd</sup> Annual CAA Conference was held in June 1999 and was hosted by Loughborough University and the CAA Centre. Further details of the conference are given in 1.7.5 below.

## **1.7 Dissemination**

The chief methods by which information about the CAA Centre project has been disseminated are through the web site, national survey, publications, presentations, the annual CAA conference at Loughborough University and the distribution of flyers.

### **1.7.1 Web site**

The web site (see 1.3 above) has proved to be an excellent dissemination tool, through which many of our enquiries for further information have been received. The relaunched version of the site will contain a dedicated section for downloadable resources, which will function as an additional route for the dissemination of project materials. Information about the site has (and will continue to be) published at regular intervals on relevant mailing lists and appears on all Centre publicity.

### **1.7.2 National Survey**

The national survey (see 1.2 above) was also used as an opportunity to disseminate information. Flyers, a written description of the project and web site details were distributed along with the questionnaires, thus raising the profile of the project. Additionally, information about the survey and the project appeared in relevant newsletters (eg HAN, Computers and Texts, etc.) and the online version of the questionnaire became the subject of a discussion on the web-assisted-assessment mailbase list. (See web-assisted-assessment archives, March 1999.) As a result of the national survey publicity, the Centre received a number of enquiries for further information about its work and CAA in general. Interest in the findings of the National Survey also led to the publication of a front

page article in the *Times Higher Education Supplement*, "Computer marking splits unis" by Alison Utley on 4 June 1999.

### **1.7.3 Presentations and Workshops**

A large amount of dissemination has occurred through the presentation of workshops and talks by project team members. The following is a selected list of presentations given during the past year:

#### **November 1998**

Bull, Joanna, 'The implementation of a university-wide computer-based assessment system', *Flexible Learning in Physics*, Stockholm Royal Institute of Technology and Stockholm University, two-day international conference.

Bull, Joanna, 'The potential of computer-assisted assessment for reducing your workload', *Using PCs to Reduce your Teaching and Assessment Workload*, University of Wales Swansea and Swansea Institute of Higher Education, one-day conference.

Whittington, Dave, 'Effective use of the WWW in the teaching of computing', University of Keele and the CTI Computing Centre.

#### **January 1999**

Bull, Joanna, 'Using technology for assessment', *It's a Kind of Magic*, Learning Technology workshop, University of Hertfordshire.

#### **February 1999**

Bull, Joanna, 'Using C & IT in assessment', joint workshop at the *FDTL National Conference*, East Midlands Conference Centre, Nottingham.

Whittington, Dave, 'Virtual Universities and Assessment', presentation at IT Inspiration Day, Lund University, Sweden.

#### **March 1999**

Bull, Joanna, 'Computer-based assessment workshop', Oxford Centre for Staff Learning and Development workshop, UMIST Conference Centre.

Bull, Joanna and McKenna, Colleen, 'Computer-assisted assessment', *Using C & IT in Education*, LTDI/Talisman conference - Strathclyde Graduate Business School.

#### **April 1999**

Bull, Joanna, 'Computer-assisted assessment: efficiency and pedagogy', (keynote address), *Believe IT or not* 2-day conference - KTH Stockholm.

Bull, Joanna, 'Computer-assisted assessment workshop', *Believe IT or not*, 2-day conference, KTH, Stockholm.

Bull, Joanna, 'Using technology for student assessment workshop', Queens Medical Centre, University of Nottingham.

## May 1999

Bull, Joanna, 'Computer-aided assessment workshop', *From the Margin to the Mainstream: Exploiting New Technologies for Learning and Teaching in Higher Education*, British Council conference.

Bull, Joanna, 'Designing and using objective tests workshop', Departments of Computer Science and Engineering, University of Hertfordshire.

## June 1999

Bull, Joanna, '*Implementing Computer-based Assessment Systems*', Learning Technology Support Group, University of Bristol.

Bull, Joanna, 'Update on the national TLTP3 project: 'The implementation and evaluation of computer-assisted assessment'', *Third Annual Computer-assisted Assessment* conference, Loughborough University.

McKenna, Colleen and Bull, Joanna, 'Designing effective objective test questions: an introductory workshop', *Third Annual Computer-assisted Assessment* conference, Loughborough University.

Whittington, Dave and Hunt, Helen, 'Approaches to the computerized assessment of free text responses', *Third Annual Computer-assisted Assessment* conference, Loughborough University.

McKenna, Colleen, 'Using computers in assessment', Learning and Teaching Innovation and Development, University of North London.

## July 1999

Bull, Joanna, 'Using CAA and designing effective objective test questions workshop', *TLTP Compact* Project, University of Nottingham.

Bull, Joanna, 'Computer-assisted assessment: strategies and issues for institutional implementation', *The Physiological Society AGM*, University of Newcastle upon Tyne.

## September 1999 (forthcoming)

Bull, Joanna and McKenna, Colleen, 'Computer-assisted assessment centre national survey: current practice in UK HE', at *ALT-C*, Bristol University.

Whittington, Dave and Brickley, Dan, 'The IMS Question and Test Interoperability Standard', at *ALT-C*, Bristol.

## 1.7.4 Publications

The following are articles written about the work of the project; copies of publications are provided in Appendix 9.

Bull, Joanna (1998) 'Introduction to the national TLTP phase 3 project: the implementation and evaluation of computer-assisted assessment', *Proceedings of the 2<sup>nd</sup> Annual CAA conference*, Eds W. Wade and M. Danson, Loughborough University.

Bull, Joanna (1998) 'The implementation and evaluation of computer-assisted assessment project', *TLTP Newsletter*, No. 11.

Bull, Joanna (1998) 'TLTP3: The implementation and evaluation of computer-assisted assessment project', *Life Sciences Educational Computing*, Vol. 9 (3).

Bull, Joanna (1998) 'Supporting computer-based assessment', *Interactions*, Vol. 2 (3).

Bull, Joanna (1999) 'Computer-assisted assessment: impact on higher education institutions', *Educational Technology and Society*, Vol. 2 (3).

Bull, Joanna (1999) 'The computer assisted assessment (CAA) centre, TLTP phase 3 project', *HABITAT: The Computers in Teaching Initiative Centre Centre for the Built Environment*, No. 7.

Bull, Joanna (1999) 'The implementation and evaluation of computer-assisted assessment project TLTP phase 3', *Infocus: the Journal of the CTI Centre for Library and Information Studies* Vol. 3 (2).

Bull, Joanna (1999) 'Computer-assisted assessment centre', *Association for Learning Technology Newsletter*, No. 25.

Bull, Joanna (1999) 'Piloting models', *FDTL and TLTP Projects Bulletin* No. 1.

### **Articles which discuss the CAA Centre**

Cummings, Alan (1999) 'Via technology to social change!', *VISION July/August*.

'Report on the CTI-AFM 10<sup>th</sup> annual conference' (1999) *ACCOUNT* Vol. 11, (1).

Utley, Alison (1999) 'Computer marking splits unis', *Times Higher Education Supplement*, pg 1, 4 June 1999.

### **1.7.5 3<sup>rd</sup> Annual CAA Conference**

Members of the consortium aided project team members at Loughborough University, led by Myles Danson, in organising and contributing to the 3rd Annual CAA Conference in June 1999. The conference is the largest gathering of its type in the UK and the CAA Centre maintained a high profile throughout the event by distributing flyers, leading discussion groups and presenting talks and workshops. In particular, the conference was opened with a keynote address on the project's recent activities.

### **1.7.6 Visitors**

Information about the project has also been disseminated through visits to the Centre by academics and educational technologists interested in CAA. The project hosted Jackie Knowles from the TALENT project in April 1999 and has worked with the Compact project to support their use of CAA.

The CAA Centre has also attracted international interest: Professor Eleuterio of the Multimedia Laboratory at the Pontifical Catholic University of Pana, Brazil visited in July 1999 and the project will also receive visitors from the University of Newcastle, New South Wales, Australia in September 1999.

### **1.7.7 Other dissemination methods**

- Flyers detailing the project aims, activities and contact details were printed at the start of 1999 (Appendix 10). These have been distributed with the national survey questionnaires, at conferences and workshops, in response to requests for further information and to all members of staff at the University of Luton.
- Additional flyers have been distributed at the CTI Accounting, Finance and Business Annual Conference and at the launch of the Institute of Learning and Teaching

- Publicity materials about the project have been circulated to members of the Board of Governors and the University Court at the University of Luton: which includes area MPs and MEPs, the chairman of the British Library and heads of local schools and businesses. (See appendix 11.)
- Enquiries for information: The Centre has received approximately 100 email or telephoned requests for advice and information thus far in 1999.

#### *1.7.8 Objectives*

The objective of disseminating project activities and outcomes has been met through the various activities detailed above.

#### *Outputs*

- A number of presentations, workshops and publications and publicity through the THES article and Annual CAA conferences
- Deliverables met: launch of project at CAA Annual Conference,  
Key role and profile in 3<sup>rd</sup> Annual CAA Conference,  
Articles and publications,  
Institutional and specific workshops and presentations.

#### *Successes*

- THES article
- The volume of articles and presentations
- High level of interest in the project's activities
- Positive evaluations of 3<sup>rd</sup> CAA Conference

## Section 2

### Learning from Process of Implementation

This section addresses each of the questions raised in the format for annual reporting to reflect on the process of implementation.

*2.1 Have you encountered any difficulties in managing the project and carrying out your activities?*

There have been no noticeable difficulties in managing the project. Appointing administrative staff took longer than anticipated, although the impact of this was anticipated and counter-acted by the employment of temporary staff in the interim and subsequent periods.

In carrying out our activities, there was a difficulty in finding appropriate times to deliver consortium partner workshops and to generate enthusiasm among busy academic staff. However, the identification of key project team members and co-ordinators within each faculty taking part in the piloting phase has compensated for this problem.

*2.2 What changes have you made to your plan and what are the reasons for these changes?*

The project changed one consortium member during the first 4 months. This was due to key personnel at the University of Strathclyde moving to the University of Glasgow. The expertise of the individual was crucial to the project and the decision was taken to change consortium partners.

The distribution of national survey was planned for December 1999, but following advice from the management group it was decided to postpone the mailing until late January to try and achieve a higher response rate. As a result of this, it was necessary to delay the timing of the interview and focus groups, to accommodate the later return of questionnaires and subsequent identification of interview candidates.

The project has published a number of articles (see 7.1.4 above) because we were invited to do so. This was unplanned but it was considered prudent to take advantage of the opportunity for publicity and dissemination.

*2.3 Has your project thrown up any unanticipated outcomes or unexpected opportunities and how have you taken account of these?*

The project has generated a high number of requests for presentations, workshops and publications and has been reported in a front-page article in the THES. We have done our utmost to meet these opportunities for publicity and dissemination without neglecting planned activities. As assessment is generic there is potential for activity and dissemination in all subject areas. The scope of the project could easily be extended to provide further support, advice and guidance to higher education on the use of CAA. While we intend to meet as many of the requests we receive as possible, we recognise that within the constraints of the current project this may not be always possible.

*2.4 Do you have any reflections on the nature of effective partnerships as a result of your experience of working in a multi-site, multi-partner consortium?*

From the outset (the bidding stage) include as many of the people who are involved in the activities of the project, within reason. Ensure that everyone involved is clear about the objectives of the project and re-assert this process at the outset of the project and at regular intervals. Set up clear and effective mechanisms of communication and consult regularly. Avoid unnecessary bureaucracy.

2.5 *What have you learnt so far about how best to embed the use of learning technologies in HE institutions?*

Although we have not yet reached the piloting phase of the project which is where we will gather most of our experience of embedding the use of learning technologies in HE institutions, we have already identified the need to take account of organisational structure and culture. The nature of implementing CAA involves a variety of individuals and departments who may not be familiar with working together, depending on their different organisational setups. Navigating and managing the process may be problematic as such activities do not easily sit with a particular department's remit.

The project has also found that it is important to work with enthusiasts and acknowledge that there will always be a minority who can not be convinced of the benefits of learning technology. For this reason it is wise to be realistic about what you hope to achieve and to make the most of each opportunity whether it is planned or unplanned.

2.6 *Do you now have a different understanding of what you are trying to achieve or the nature of innovation?*

We have developed a more comprehensive understanding, rather than a different understanding, of what we are trying to achieve. The goals of the project have become clearer as the dynamics and working practices of the consortium have developed. Additionally, as the views and demands of practitioners within the sector have been made known (through enquiries, the national survey, workshops and conferences) the potential role of the Centre as a key broker of information and innovation has been much more sharply defined.

## **Section 3**

### **Interim Evaluation Results**

#### **3.1 Evaluation Activities**

The key evaluative question the project is addressing is the identification of practice which successfully overcomes the difficulties of implementing CAA in higher education (HE). Across HE organisational aspects, including institutional and economic factors, are the most likely to differ between institutions, making them both important to evaluate but difficult to compare and analyse.

The literature review has and will continue to involve evaluating the extent and focus of CAA use across the HE sector, and together with the national survey will assist in identifying which aspects are of most relevance to stakeholders and will therefore become the focus of further evaluation.

The national survey was undertaken to evaluate CAA activity, perceptions and attitudes across the higher education sector (see section 1). The responses indicate that this has been a successful method of gathering evaluative data, which will be further enhanced by follow-up semi-structured interviews and focus groups to embellish the responses obtained. Analysis of the survey data is currently taking place and will reveal the contexts and conditions, drivers and inhibitors which lead to the effective implementation of CAA.

The project's evaluation advisors, Dr Gordon Doughty and staff from the former TLTSN centre and former TILT project at the University of Glasgow, have met with the project to begin developing common methodologies for implementing the models and evaluating their effectiveness. Further meetings are planned to finalise a standard set of criteria for measuring the cost and learning effectiveness of CAA

The workshops run at Oxford Brookes University to introduce and support the models of implementation have also proved useful in obtaining qualitative information from prospective users about their expectations and anticipated problems. The workshops were evaluated by participants and in response to their comments and suggestions amendments were made to the format and structure of future workshops in order to better meet the needs of future participants.

#### **3.2 Stakeholders**

To identify the stakeholders in CAA has been challenging. The nature of CAA means that often it does not sit easily in any particular department's or individual's remit. We have found that individuals within different central service departments, such as computing services, examinations offices and staff development, take responsibility for different aspects of CAA. Different university structures mean that it is often problematic to identify relevant central service departments or individuals who have assumed such responsibility. The national survey has provided an opportunity to identify stakeholders more accurately. Clearly academic staff, students and senior managers are important stakeholders however administrative staff; staff developers; teaching and learning technology officers; examination officers; and computing services staff are also stakeholders.

Our experience of introducing CAA at Oxford Brookes University has identified academic staff and educational technologists as key stakeholders. However it is difficult to identify one group of stakeholder over another at this stage because as the process continues it may become apparent that at different stages of implementation some stakeholders become more important than others. Following the piloting phase of the project in the coming academic year, the relative importance of stakeholders will become clearer.

### 3.3 Piloting Phase

The piloting phase begins next academic year and will allow the differences in the use of applicability of the project's system or service across different institutions to be effectively evaluated. It is expected that different organisational structures and cultures will impact on the uptake and successful implementation of CAA.

The piloting phase will also allow the evaluation of learning gains made through the introduction of CAA and factors of cost effectiveness to be identified.

## Section 4

### Future work

This section addresses each of the questions about future work suggested in the requirements for project annual reporting.

4.1 *Have you made any plans for maintaining or developing the work of the project in some form after the end of TLTP?*

The project is seeking additional funding from any relevant source. The exact details and extent of the commitment of the University of Luton to continuing supporting the project at the end of funding will be discussed and defined in the coming academic year.

4.2 *Have you identified any inhibitors to uptake which need to be addressed at a national level by HEFCE/DENI?*

Our literature search and national survey has revealed that the uptake of learning technology is often hindered by the temporary and low national and institutional status of educational technology staff, who are often responsible for leading the process. The lack of professional status and lack of national, and subsequently institutional, recognition leads to short-term solutions which are often ineffectual.

4.3 *How do you now envisage the future scenario for the learning system or service being developed/implemented by the project ?*

We envisage the system developed by the project as a set of tools, guidelines and models which can be used by individuals, departments and institutions to effectively implement CAA in a strategic manner. The crucial impact of different organisational structures and cultures would mean that it is highly unlikely that this would operate effectively unless supported by a national centre of CAA, which would be able to assist in tailoring the generic tools to an individual institution as well as advising on subject specific issues.

## Section 5

### Future Support

This section addresses each of the questions about future support for the project from the National Co-ordination Team.

#### 5.1 *What consultancy or information help would you like and when?*

Consultancy and information help are useful throughout the duration of the project. The accessibility of the national co-ordinators is very important and their quick response and positive attitude is appreciated. The re-designed NCT web-site has been particularly helpful, as has the documentation regarding running workshops, dissemination, continuation strategies and so on made available from the FDTL programme. The availability of workshops to support particular activities have been on the whole beneficial to the project. These activities should continue throughout the life of the programme.

In terms of additional future activities it would be useful to have:

- forums by which similar projects can share their experiences
- consultancy and information on gaining support of senior managers within consortium institutions; guidance on dissemination strategies for senior managers
- consultancy and information on continuation strategies.

#### 5.2 *What help would you like networking with other projects and organisations and when?*

It is useful to network with other projects and organisations throughout the life of the project. It is difficult to maintain a detailed understanding of the work of the multitude of projects and organisation which may be relevant to the project, particularly when addressing generic issues. The support and advice of the NCT in identifying and promoting networking between projects is invaluable. Opportunities to attend NCT workshops and events also provide valuable opportunities to meet with projects and relevant organisations. Further opportunities should be made available which include whole project teams rather than selected individual members. An annual conference which encourages all those who are involved in projects to attend would be useful.

#### 5.3 *What help would you like with project and financial management and when?*

The requirements to submit project plans, various strategies, risk assessments, while initially appearing onerous have been extremely useful in the smooth running of the project and in defining project aims and outcomes to consortium partners. It would have been helpful to be made aware of the financial reporting mechanisms and categories prior to submitting budgets. Advice concerning funding of attendance at NCT events for project members would also have been valuable.

#### 5.4 *What help would you like with dissemination of ideas and information and when?*

Advice and information about dissemination strategies successfully used by similar or previous projects would be useful at all stages of the project, but particularly during the last half of the project.

In year 2 and 3 of the project it would be useful to have:

- strategies and practical examples of disseminating information for understanding and action,
- methods for disseminating ideas and information to a potentially wide audience,
- suggestions of how to identify primary audiences within a potential audience of the majority of HE,
- advice and guidance about how to effectively disseminate to senior managers,

- a forum created by HEFCE for dissemination to senior managers, utilising the chairs of steering groups of other projects.

#### 5.5 *What help would you like with evaluation strategies and methods and when?*

This is the area where the least useful information and advice has so far been provided. Although there was initially copious documentation from the Tavistock Institute (TI), it did little to assist in the formulation of a practical evaluation strategy. The focus of this project is evaluation and therefore evaluation is embedded within many of the key tasks and outcomes of the project. Based on the advice of the TI it was difficult to disentangle what they termed 'evaluation strategies' and tasks which the project would be undertaking as part of its previously planned activities.

An example evaluation strategy or case study of a project and its evaluation strategy would be most useful in further defining the evolving evaluation strategy. In addition, there has been confusion over the exact nature of the roles and relationships between the TI, Open University, NCT, HEFCE and external evaluators. A clearer definition of the areas of responsibility of each of these with regards to evaluation would also be useful.

Future help with evaluation strategies and methods should include:

- clearer, more easily accessible guidance from the TI,
- recognition that evaluation may well be an integral part of the project and guidance on how to manage this,
- advice and guidance on the appointment of external evaluators,
- suggestions and examples as to the extent and purpose of their evaluation .