



Evaluation of the
Design for Learning Programme

Final Report

Glenaffric Ltd
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1 Introduction

- 1.1 This is the final report of the evaluation of the JISC Design for Learning Programme¹, which commenced in May 2006 and concluded in mid 2008. The Programme was developed as part of the Designing for Learning theme of the JISC e-Learning Pedagogy programme. Its vision was to bring together and build on two key strands of the JISC e-Learning Programme – the Technical Framework and Tools strand and the Pedagogy strand – to ensure that the conceptual and practical implementation of designing for learning was informed by what is known about effective pedagogic practice. The aims of the Programme were to:
- support practitioners in the process of design for learning, in a range of learning programmes and contexts across UK post-16 and higher education;
 - ensure the process of designing, planning and orchestrating learning activities ('design for learning') in UK post-16 and higher education is based on sound pedagogic principles, is evidence-based and learner-centred;
 - promote the development and implementation of tools and technical standards to support the process of design for learning;
 - promote the sharing of expertise in design for learning, for example through sharing and re-use of effective pedagogic learning designs, use models or exemplars; and
 - support the establishment of communities, services and resources to promote and sustain effective practice in design for learning.
- 1.2 The Design for Learning Programme included a Models of Practice project, two Pedagogic Planner projects, nine implementation and evaluation projects and a Support Project run by JISC CETIS. See Appendix A for a list of the project names and lead institutions, and project acronyms used subsequently in this report.
- 1.3 Glenaffric Ltd was commissioned in March 2006 to undertake the formative evaluation of the Design for Learning Programme and provide a synthesis and summary of the lessons learned, to aid JISC and the wider community in understanding the emerging lessons and recommend ways of applying and building upon them. The objectives of the study were to:
- develop an evaluation framework for the Design for Learning Programme;
 - collate and synthesise issues arising across the programme, particularly in relation to conceptual difficulties in the development of exemplars/designs, cultural factors in the use, sharing and re-use of exemplars/designs, and user requirements for new learning design tools;
 - identify areas of successful innovation or emerging good practice from the projects which could be built on by JISC and the wider community;
 - assess the progress of the projects towards realising the overall aim of the Design for Learning Programme and to identify gaps in the work carried out by the projects which could be addressed in a future funding call in order to meet the aim of the programme;
 - provide a summary evaluation of the funded projects in relation to their original aims and objectives; and
 - make recommendations on sustainability and continuation of the programme.
- 1.4 The Programme was overseen by the Pedagogy Steering Group of the JISC Learning and Teaching committee. A Programme Team comprising the JISC Programme Manager, representatives from the CETIS Support Project and the evaluation team met and communicated on a regular basis for operational issues and to maintain a consistent overview of ongoing project and programme activities. Additional advice and guidance

¹ www.jisc.ac.uk/whatwedo/programmes/elearningpedagogy/designlearn

from the community was provided by the JISC Learning and Teaching Practice Experts Group² (formerly the Pedagogy Experts Group).

- 1.5 Initially JISC appointed two Programme Managers to oversee the Programme – one with specific responsibility for the four implementation projects with a more technical focus. Following discussion with the Pedagogy Steering Group in October 2006 the operational distinction between the (more) technical and the (more) pedagogical projects was removed. An interim Programme Manager was then appointed to cover maternity leave for six months until June 2007. The evaluation team and Support Project provided some continuity and programme management support during this time.

2 Evaluation Framework

- 2.1 The Evaluation Framework³ for the Design for Learning Programme was developed iteratively over the early phase of programme activities. The Framework offered an account of the background and underpinning theories that informed the development of the Programme. It described the evaluation methodologies to be used, and presented an evaluation implementation plan. The Framework also included graphic presentations of the Programme objectives and deliverables mapped to the intended project outputs and outcomes. It also offered a matrix summary of the programme-level evaluation questions related to identified stakeholder groups, mapped to the project evaluation plans. This document served as a reference throughout the programme-level evaluation.

3 Methodology

3.1 Approach and Rationale

- 3.1.1 From the outset, the evaluation team was concerned to take a consultative, reflective and formative approach to the evaluation of the Design for Learning Programme. This was particularly appropriate given the explorative nature of the Programme objectives, and the evaluative nature of the projects themselves. Consultation in the development of the Evaluation Framework was particularly important given not just the levels of evaluation expertise in the Programme, but also the focus of the Programme itself – the evaluation team was aware from the outset of the challenges inherent in designing an evaluation for the Design for Learning Programme.
- 3.1.2 An evaluation methodology approach based on principles of soft systems was developed for the Programme. As outlined in the Programme Evaluation Framework, soft systems methodology can be particularly helpful in illustrating projects and programmes in their wider developmental context, and are relevant to the exploration and understanding of the relationship between the conceptual models of design for learning with the real-world situations in which they may be applied. The focus of the Programme was on the design, development and practical implementation of real-world learning activities involving active practitioners in learning and teaching situations. The evaluation objectives were therefore concerned less with the processes by which the projects go about their activities, and more with gathering conceptual issues, challenges and examples of emerging good practice, analysing and reflecting on these, and feeding back to the programme and the wider community.
- 3.1.3 In recognition of the role of the programme-level formative evaluation study in facilitating project-level evaluation, the evaluation team initially developed an approach based on Flanagan's *critical incident technique*⁴ to gather information from projects on an ongoing basis. This approach was used to facilitate and illustrate recognition that even very small and subtle individual experiences of design for learning are significant in terms of the insights they provide. Part of the role of the programme-level evaluation was to gather, collate and analyse these incidents of practice and to develop a wider understanding of their impact on the programme as a whole.

² www.jisc.ac.uk/whatwedo/programmes/elearningpedagogy/elearningexperts.aspx

³ [www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/ped\(july07\)03_d4levalframef.pdf](http://www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/ped(july07)03_d4levalframef.pdf)

⁴ Flanagan, J.C. (1954) 'The Critical Incident Technique', *Psychological Bulletin* 327-359.

3.2 Glenaffric Evaluation Matrix (GEM)

- 3.2.1 The evaluation team was keen to establish and confirm an evaluative focus for project activities from the outset. It was important to raise awareness, interest and confidence in the role of the programme-level evaluation to support and enhance project-level evaluation and hence the overall impact of the Programme. With this in mind, the evaluation team developed a Moodle environment⁵ with facilities for information sharing and discussion of emerging evaluation issues of interest. This environment was presented at the Programme start-up meeting in May 2006. Following this meeting, discussion notes from three expert forums and the plenary were put in GEM with a view to continuing a dialogue about emerging issues of evaluation interest throughout the Programme. The environment was functional but not fully developed at the time of the start-up meeting and its working title was the 'Glenaffric Evaluation Moodle/Muddle' – the revised Glenaffric Evaluation Matrix retains the original acronym (GEM) and continues to be used as an evaluation resource for various programmes and initiatives.
- 3.2.2 A further key function of GEM was to provide a forum for the development and implementation of Project Incident Questionnaires (PIQs) – short, reflective questionnaires that project team members were encouraged to complete on a regular basis as an ongoing, private record of issues of interest emerging through evaluation activities.
- 3.2.3 GEM suffered a near-fatal technical crisis when the database was inadvertently deleted in June 2006. The site was subsequently reinstated and most of the data was recovered, but valuable momentum (and – understandably – some confidence) was lost and some opportunities to build on discussion forums to capture key conceptual and process issues relating to design for learning were missed.

3.3 Project Visits

- 3.3.1 Each of the projects was visited by the evaluation team with the Design for Learning Programme manager in late summer and autumn 2006. Visits to the four technical projects were also accompanied by the then technical consultant to the JISC e-Learning Programme. The main purpose of these meetings was to discuss project plans, project management arrangements, technical issues and evaluation plans, and to raise and discuss any initial outcomes of interest, cultural and organisational issues relating to design for learning. Following each visit a detailed report was produced for the project team. A summary report of emerging programme-level issues was also produced for discussion by the programme team.
- 3.3.2 Following the extension of the two Pedagogic Planner projects from March 2007, evaluation visits to both Planner projects took place in July 2007. These meetings focused on plans for the development of the Planners, technical issues and developments, planned outputs and outcomes, future development and sustainability plans.

3.4 Interviews

- 3.4.1 Telephone interviews took place with each of project managers (sometimes also involving other members of the team) in December 2006 and May 2007. These were semi-structured discussions exploring emerging issues and challenges, key points arising from project interim reports and progress with project evaluation activities. A summary of the main points raised and programme-level issues of interest was produced and discussed with the Programme Team.
- 3.4.2 In 2006, the evaluation team also interviewed key individuals who had been directly involved in developing the Design for Learning Programme in the wider context of the JISC e-Learning Pedagogy programme. These interviews explored the programme rationale, background and context, particularly the development of the scope and vision for the Programme from the background studies and consultation with the Pedagogy Experts Group.

⁵ www.glenaffric.co.uk/gem/

3.5 Project Incident Questionnaires (PIQs)

- 3.5.1 In order to gather conceptual issues and developments in thinking throughout the Programme, project representatives were encouraged to use the PIQs to record 'critical incidents', milestones and issues of interest emerging from their experiences. In total there were twelve individual contributors to the PIQs through GEM. In practice, most people posted two or three PIQs in the early phase of the Programme, and then stopped, but some continued to post messages throughout the Programme. Those who engaged in the process in this way reported that they found the process helpful in articulating their own thoughts and developing their conceptual understanding of design for learning.
- 3.5.2 Most PIQ posts were concerned with project management and operational issues, particularly reflecting on project meetings, Programme meetings, reports, programme management interventions and evaluation feedback. There was quite a strong focus on project team relationships, mostly positive and affirming, occasionally expressing some concern or frustration. Some PIQs discussed technical problems that had arisen. So while some useful evaluation evidence about developing conceptual understanding through the Programme was generated by the PIQs (from one user in particular), this evaluation intention was not fully realised.

3.6 Interim Reports and Presentations

- 3.6.1 A number of events and activities have presented opportunities for consultation, discussion and iterative feedback on evaluation findings, with opportunities for secondary evaluation data gathering. These included:
- Presentations and facilitated discussions at the Programme Start-Up Meeting in May 2006
 - Presentations and discussions at the Programme meeting in January 2007, based on a short interim report on emerging cultural and conceptual issues, and an update on project evaluation activities in relation to the programme Evaluation Matrix.
 - Models and Planners Workshop in October 2006
 - Models and Planners review meeting in January 2007
 - Telephone meeting to review the Models of Practice project final report in April 2007
 - Design Bash in October 2007
 - Strategic Review Meeting on Pedagogy Planning Tools in March 2008.
- 3.6.2 The evaluation team facilitated a symposium at ALT-C 2006 on designing for learning (based on an abstract initially submitted by Helen Beetham, and supported by a team of project representatives).
- 3.6.3 Consultation took place with the JISC Pedagogy Experts Group in June and October 2006 – the first to outline intended evaluation approaches and discussing emerging issues of interest, the second to participate in consultation exercises undertaken by the Models and Planner projects. The draft Programme Evaluation Framework was presented to the Pedagogy Steering Group in October 2006, and an Interim Evaluation Report was submitted in June 2007.
- 3.5.6 The evaluation team has also been involved in a number of programme-level support, and management activities, including:
- Reviewing and offering points of feedback on the Project Interim Reports submitted in October 2006 and April 2007
 - Regular meetings with the Programme Management and Support team (telephone, Skype, face to face)
 - Ongoing informal contact with the Programme Manager(s) and Support Project

3.6 Analysis of Evidence and Final Reporting

- 3.6.1 Evaluation evidence has been analysed and reported formatively throughout the evaluation project. The principal consistent set of sources of evidence informing the final report has been the final reports of the projects themselves. Other sources of evidence

include project evaluation reports and other relevant documentation, and the PIQ posts in GEM. These sources have been analysed using the qualitative analysis programme MaxQDA⁶, using a coding frame based on the objectives for the Design for Learning evaluation (see Appendix B).

3.6.2 This report presents a synthesis of the evidence gathered in support of the evaluation objectives in terms of:

- Conceptual challenges with design for learning
- Cultural and organisational factors impacting on design for learning, including usability and user requirements
- Areas of successful innovation and emerging good practice
- Sustainability and future developments

The report also includes an account of evaluation findings in relation to general issues of programme design and support.

3.6.3 Two large tables of evaluation evidence are appended to this report. Appendix C is a summary of the Design for Learning Programme objectives mapped to project outputs. This table was initially included in the Programme Evaluation Framework, having been developed from project plans and other initial documents. It is presented here as a comprehensive account of project objectives, deliverables, planned and actual outputs, from information derived primarily from the project final reports.

3.6.4 The table at Appendix D is the completed Design for Learning Evaluation Matrix, which was also included in the Programme Evaluation Framework. The Evaluation Matrix focused on the development of indicators in support of three top-level evaluation questions for the Programme:

- What is effective design for learning?
- Do design for learning approaches work?
- How pleasing are design for learning approaches in use?

In practice, projects found the development of evaluation indicators quite challenging. While a session during the Programme meeting in January 2007 helped to focus their evaluation plans and activities on supporting the programme-level evaluation, evidence in support of these evaluation questions has been derived mainly from general accounts in the project final reports.

4 Conceptual Challenges with Design for Learning

4.1 Defining Terms and Parameters

4.1.1 The background to the Programme included several research and scoping papers, and the projects were planning and implementing their activities on the basis of a robust methodological framework underpinned by academic research and practitioner consultation. One of the effects of the background and scoping work was to present a research context for the projects than was, if not necessarily more substantial, then certainly more overt, than was the norm for a JISC Innovation Programme.

4.1.2 The interim evaluation report of June 2007 noted that many of the Design for Learning projects had wrestled with vocabularies, definitions, taxonomies and the naming of parts, giving rise to thorny debates touching on ontological and epistemological questions about defining and naming as well as more practical concerns with developing and confirming a shared understanding of design for learning and its implications for academic practitioners and researchers.

4.1.3 As work progressed, and the projects developed their artefacts and resources and submitted their final reports, the focus shifted from a concern with understanding and defining the terms and parameters of design for learning towards more practical implementation-related issues. This is not to say that the academic rigour that formed the basis for the Programme was lost in the flurry of development and implementation

⁶ <http://www.maxqda.com>

work, but that the emphasis of the projects shifted from the conceptual ('what do we mean by design for learning?') to the practical ('how can design for learning help us to improve learning and teaching practice?').

- 4.1.4 The Design for Learning Programme also served to develop conceptual understanding of different layers of learning design, encompassing course or programme design, lesson planning and learning object creation. The London Pedagogy Planner project also highlighted the need for a structurally different form of description of pedagogy to capture the internal relationships between learner, activity, learning content, and learning outcome.
- 4.1.5 One of the defining attributes of the Programme was an apparently increasing complexity in the issues uncovered and explored. The more researchers investigated, analysed and reported on the conceptual underpinnings of design for learning, and the more practitioners explored and implemented design for learning and pedagogic planning, the more complex, diffuse and problematic the area seemed to become. The Pedagogic Planner projects were aware from the outset of some of the key conceptual challenges impacting on design for learning, including the complexity and non-linearity of education design process, the diversity of existing approaches to design, the broad range of activities that take place in education and the tools that support these activities, and the range of the institutional (and extra-institutional) systems, standards and procedures that are involved. In practice, as they noted, the process of pedagogic planning proved to be both more complicated and more important than was realised when the Planners were first conceived.

4.2 Sharing and Reusing Learning Designs

- 4.2.1 One of the principal conceptual issues explored in the Design for Learning Programme was the extent to which an effective design for learning is in essence inspirational (used as a model and exemplar principally for professional development and awareness raising) or runnable (replicable in multiple learning and teaching contexts). Some elements of tension were apparent from the outset between the technical community seeking learning designs, written to a particular specification for running on technical systems and tools, and the practitioner-led projects which were more concerned with the exploration and enhanced understanding of conceptual issues of learning and teaching practice. This dichotomy was exposed as early as the Programme start-up meeting as a potential tension between the interest of the technical projects in developing or harvesting learning designs developed to a common specification facilitating sharing and reuse, and the focus of the pedagogical implementation projects on enhancing learning and teaching practice through exploring issues relating to the impact of designing for learning.
- 4.2.2 The Models of Practice project explored the inspirational/runnable dichotomy in some detail, and ongoing discussions on this issue informed the further development of the Pedagogic Planner projects. In the same vein, the DeSila project identified two broadly contrasting approaches to reuse, described in this project as 'off the shelf' and 'cherry-picking'. 'Off the shelf' approaches involved the direct transfer of content resources or activity designs with minimal adaptation, and seemed to be effective in particular with teaching in what the project described as 'high consensus' discipline or subject areas. In contrast, when teaching (and design for learning) was experienced as a highly personal, rather than generic, practice, practitioners were more likely to conceive of both content and activity reuse in terms of 'cherry-picking' nuggets of ideas and content for inspiration and adaptation, rather than for direct transfer to a new learning design.
- 4.2.3 Both DeSila and ALeD were exploring the use of the Learning Activity Management System⁷ (LAMS) tool for designing, managing and delivering online collaborative learning activities. ALeD reported that practitioners' attitudes to reuse suggested that they might be more open to reusing whole-sequence LAMS-based activity designs when the content was perceived as generic and therefore directly transferable. However, cultural factors appeared to constrain the practice of reuse, and the project confirmed

⁷ <http://www.lamsinternational.com/>

the need for local, community-focused strategies to encourage development of active sharing and reuse practices.

- 4.2.4 The Design for Learning Programme has surfaced, explored and attempted to resolve some of the key tensions that emerged in the perceived polarities of designing and planning, teaching and learning, generic and specific. In practice, as the Models of Practice project identified and described, the distinction between planning for teaching and designing for learning is not clear. Mod4L suggested that the nub of the challenge lay in the metaphor of learning design itself:

The metaphor is of design as a product – an engineering or architectural blueprint which specifies the components of the design and the way the components are linked. It is predicated on the assumption that the properties of both the components and the linkages are constant and stable – if the components or linkages themselves vary they do so in a manner that can be predicted by an algorithm based on their properties. In real life teaching situations this assumption breaks down.

Mod4L noted that even ‘runnable’ designs are usually supported and mediated by a teacher or by some supportive context of study, hence it may be necessary for the machine-readable representation to be augmented by representations intended for a human actor, whether the teacher or the learner. The evaluation of Phoebe also explored the key question of whether the same learning design can serve both functions – that is, whether a runnable design can also be inspirational. Phoebe identified two barriers to this dual function: informational (how much additional information is needed to enable another practitioner to decide whether a design is appropriate for use in another context) and representational (how to store and display the content of the learning design and the relationships among the entities in it, in a form that is easily comprehensible, and transcends technical platforms).

- 4.2.5 Practitioners’ experiences of, and attitudes to, sharing and reuse of learning activities varied widely. Projects emphasised the importance of a sense of community – shared values, understanding and purpose – as a basis for sharing learning designs. ALeD noted that participants generally indicated that they would be happy to share LAMS sequences they had produced with others, sometimes seeing this as a means of further developing personal profiles within a disciplinary community.
- 4.2.6 The projects also identified and explored a number of technical and practical issues relating to the sharing and reuse of learning designs. They identified some particular challenges with the sharing and interoperability of the learning designs created in both LAMS and Moodle, it being necessary to have an installation of LAMS to run a sequence created in LAMS and likewise with Moodle. Some reservations were also expressed regarding copyright and intellectual property, in particular regarding content embedded into sequences, and about whether individual staff or the institution would own designs created in LAMS. Most of the implementation projects made some attempt to use the IMS LD specification as an interoperable basis for sharing and reusing learning designs, but none was able to report on satisfactory, sustainable use of the specification.
- 4.2.7 Further issues were identified in relation to the interoperability of LAMS and institutional VLEs. Seamless integration with the institutional VLE was perceived as essential to practitioner engagement with LAMS. Some practical difficulties were also encountered for sharing designs via the LAMS international community web space, which can only be accessed by registered users, and has limited communication functionality for informing the community of newly deposited items or designs that have been reviewed favourably.
- 4.2.8 In short, the Programme has demonstrated that sharing learning designs is technically possible, but pedagogically problematic, resource-intensive and culturally challenging. The Support Project has reported that at the end of the Programme, the fundamental technical issues around sharing, adapting and viewing learning designs have not moved forward significantly. Nevertheless, Design for Learning has served to raise the level of debate and clarify some of the key issues that impact on conceptual understanding and practical implementation of sharing and reusing learning designs.

4.3 Pedagogical Issues

- 4.3.1 One of the principal pedagogical issues explored by projects in the Design for Learning Programme was the extent to which working with learning design tools such as LAMS enabled staff to exercise the application of different techniques for higher order thinking that traditional teaching methods might not have supported. ALeD reported that LAMS was particularly effective in promoting active learning, and facilitating a move from a more behaviourist approach (supported by the development of learning objects in isolation) to a more constructivist approach (through the appropriate sequencing of learning objects and content). ALeD also noted that learning design tools are effective for delivering content where there is a strong emphasis on sharing, collaboration and reflection in the learning process.
- 4.3.2 DeSila noted that LAMS was seen to provide well for the design of linear forms of inquiry and relatively tightly-structured, teacher-controlled pedagogy. On the other hand, it appeared considerably less well-suited to the design of more flexible and open-ended forms of inquiry and despite its orientation towards activity, did not tend to direct pedagogical thinking and practice towards student-led approaches. Indeed, the processes of activity design supported by LAMS were perceived as bringing a risk of unreflective, mechanistic approaches to designing learning. LAMS did not appear to be intrinsically generative of student-led approaches to inquiry-based learning (IBL), and as the project team noted, activity-centred pedagogy may at the same time be strongly teacher-centred.
- 4.3.3 For DeSila, the project raised a question about the design for learning concept, noting the value in focusing attention on activity in design for learning. However intellectual inquiry is inseparable from engagement with content, and too strong an emphasis on activity in design for IBL may serve to create a counter-productive separation of content and activity in both the practice of design and the experience of learning. The project concluded that there may be a case for some rebalancing of the definition of design for learning to reflect a more integrated conception of the relationship between process and content in learning and knowledge-creation.
- 4.3.4 The London Pedagogy Planner also explored the role of the iterative design process in generating a deeper conceptual analysis of layers of learning design, which can be thought of as a similar set of design decisions and modelling at each layer of description of the learning process, from degree programme to learning activity. The work of this project confirmed the need for a structurally different form of description of pedagogy to capture the internal relationship between learner, activity, learning content, and learning outcome.
- 4.3.5 In general, projects in this Programme have demonstrated that the real value in designing for learning lies in the insights that practitioners gain into their own practice, and the opportunities for sharing these insights in collaborative contexts for design and reflection.

5 Cultural and Organisational Factors Impacting on Design for Learning

5.1 Managing Attitudes and Expectations

- 5.1.1 Several projects identified the management of practitioner attitudes as central to success in presenting and promoting design for learning tools and technologies. Specifically, projects were concerned with managing the expectations and attitudes of individual practitioners, communities and institutions, both towards the role of planning in their practice, and towards the value of collaborative design and the sharing and re-use of learning designs.
- 5.1.2 A number of projects reported some tensions between staff aspirations for the development of innovative practice and the use of digital technologies, and the time available to prepare and deliver a particular curriculum. At a practical level, it was noted that time and resource pressures on staff can lead to the adoption of a more behaviourist approach, and consequently to reduced impetus for engagement with the development of designs in ways that work towards maximising active learning.

5.2 Institutional Systems and Professional Development

- 5.2.1 Several of the projects noted that institutional commitment to supporting and maintaining a particular system or platform is essential for practitioner engagement and the investment of time and resources in developing competence in designing for learning. Uncertainty over support and maintenance processes, or over the developmental future of a particular system, platform or tool, can have a deleterious effect on the engagement of practitioners at an exploratory level.
- 5.2.2 The Programme also highlighted a tension between design for learning as a focus for professional development or as a tool for academic management. The evaluation of Phoebe surfaced a set of tensions between a top-down management-directed deployment – with its implications of conformity and enforced adherence to standards – and the bottom-up voluntary espousal of a tool that individual teachers perceive as genuinely relevant to their personal practice. The project reported that buy-in at all levels is essential for the uptake and sustainability of any pedagogy planning tool, and articulated the challenge of designing a tool in such a way that it can accommodate the needs and perspectives of management and teaching staff, and thus maximise the chances of securing this buy-in.
- 5.2.3 At a more abstract level, some projects explored the impact of the culture of the enterprise system on staff and learner engagement with design for learning. DoL noted that a learning design is an instrumental device, a tool that supposes a pre-existing narrative for its purposive use. However, the wholesale institutional adoption of a particular system immediately excludes a range of other potentially creative learning outcomes, and therefore potentially diminishes the effectiveness of the learning activity. DoL warns that insistence on the implementation of e-learning systems as enterprise technologies is far more damaging than treating e-learning as a merely functional technology, as the former creates a barrier to the effective adoption of technology to support the enhancement of learning and teaching in the institution.
- 5.2.4 The focus of the ELIDA CAMEL project presented opportunities for some reflection on the development of intentional communities of practice in this context of institutional processes and systems. It was suggested that nascent communities of practice challenge existing power structures in HE and FE in useful, practical, inter-institutional and non-confrontational ways, and potentially enable innovative and exciting new developments to emerge. A further observation from a number of projects was that subject and discipline-based communities are powerful arbiters and enablers of technology-enhanced practice.

5.3 Usability and User Requirements

- 5.3.1 Each of the projects in the Design for Learning Programme made considerable efforts to plan, implement, review and evaluate the needs, challenges and aspirations of a range of users. As the London Pedagogy Planner emphasised, the key to usability is involving users from the outset in the development of ideas and possibilities and testing of initial prototypes. However, since the idea of a digital learning design tool is unfamiliar to most lecturers, it was not possible to ask them about their requirements for such a tool in advance of their experimentation with existing tools and prototypes. Early interviews identified Microsoft Word as the most likely design tool to be used, with only occasional reference to concept mapping tools. From the initial prototype onwards, the project was able to develop user-defined requirements from users reflecting on their experience of its functionality. User requirements therefore continued to evolve every time a functionality is tested with lecturers.
- 5.3.2 Some projects identified usability issues with particular tools and systems and types of learners. ALed noted that LAMS did not present sufficient visual stimulus for some groups of learners, which had a negative effect on the accessibility of the learning designs. In particular, students with dyslexia experienced difficulties because of the size of the text on screen and the colour contrast. In this context, the inability to change the interface limited the opportunities for authors to sequence learning designs effectively for their learners. LAMS also proved to be inaccessible to assistive technologies such as

- JAWS⁸ and Supernova⁹ screen reader software. Furthermore, a learning sequence exported out of LAMS and tested for usability could not then be re-imported into LAMS.
- 5.3.3 However, the LD4P project noted that in terms of basic usability and intuitive deployment by practitioners engaged in designing learning experiences, simpler tools such as LAMS are more readily mastered than fully-fledged tool sets such as Reload/ReCourse and SLeD. This project identified a need for tools that allow a practitioner to use various planning and authoring tools with IMS LD as basis for interoperability.
- 5.3.4 EDIT4L identified a number of factors which impact on the perceived usefulness of practitioner toolkits to assist with the learning design process. These included the lack of an overall conceptual understanding of the structure of the designs being built, the lack of ability to jump from one part of the creation process to another, difficulties in identifying simply where one was in the overall creation process. In general, users who favoured a linear approach, and were more text-orientated, found the system easy to use. In general, projects noted that usability is enhanced by avoiding heavy emphasis on pedagogical language, and the provision of glossaries, definitions and illustrative examples.

6 Areas of Successful Innovation and Emerging Good Practice

- 6.1 One of the defining characteristics of the D4L Programme was the high level of conceptual discussion and communication about emerging issues within project teams, between projects and at Programme level. Communication and consultation also took place on several occasions with the wider sector, including representatives from a range of organisations representing tertiary education.
- 6.2 Projects have emphasised that their work in this Programme has enhanced thinking and understanding about learning and teaching processes in institutions. Discussions and workshops focusing on tools, toolkits and planners have served to encourage reflection and develop dialogue between practitioners, technologists and developers about the concepts and practice of designing for learning.
- 6.3 In general terms, the Programme has served to raise levels of discussion and debate about learning and teaching practice, supported but not determined by the use of technology. The timing and timescale of the Programme has a bearing here – it could be argued that in the course of the programme the use of technology for learning and teaching in most areas of tertiary education has ceased to be a novelty on the periphery of mainstream practice, and has become accepted and expected as an integral element of course design and delivery.
- 6.4 Practitioner feedback has consistently indicated that the use of pedagogy planning tools is viewed by many as a catalyst in the drive towards effective practice in technology-enhanced learning. The Programme has demonstrated the value of the creation of usable tools that can mediate understanding of the potential impact of technology on the practice of designing for learning. It has clarified the different levels at which design operates in the processes of curriculum planning and development, and the practice of teaching itself. It has provided a clearer picture of the institutional systems, processes and tools that might interact with planning tools and a greater understanding of other developments in the sector which might impact on the practice, processes and tools for pedagogic planning in the future, such as repositories, open content initiatives and the JISC e-Framework.
- 6.5 From the outset, the Programme emphasised the role of the professional teacher in discovering resources and designing bespoke learning experiences. A key intended outcome from the Programme was the provision of tools and systems to enable the discovery, contextualisation and updating of learning designs. This highlighted an initial concern that progressing the development of reusable, machine-runnable learning designs could in some ways be perceived as devaluing or destabilising the role of the professional teacher.

⁸ <http://www.freedomscientific.com/jaws-hq.asp>

⁹ <http://www.aidis.org/support/supernova.php>

- 6.6 In practice, a key message from a number of projects was that technology-based tools and systems enhance learning and teaching by supporting good practice and the use of effective techniques: they do not replace the teacher in the learning and teaching process. Designing for learning and planning for teaching are mutually inclusive activities. As the Mod4L project noted, the production of a plan or blueprint for a lesson is only one part of successful instantiation of a lesson. The plan is one element in a process of design and instantiation which calls upon contextual, tacit and experiential knowledge, and its place within, and links to, other aspects of the process needs to be evident. In a similar vein, DeSila emphasised that teaching is an intellectual, moral and creative activity, rather than a solely technical or practical exercise. The conclusion is that there remains a need for technical tools (and associated community and institutional processes) that engage and support imaginative and critically reflective approaches to teaching, develop the professionalism of the academic practitioner, and enhance the experience of the widest possible range of learners at all levels in tertiary education.

7 Sustainability and Future Developments

7.1 Impact on Scholarship

- 7.1.1 One of the key indicators of impact of a development programme, particularly a programme with a basis in scholarly research and background studies such as this one, is the extent to which project outputs inform further research and development work in the wider sector. A cursory review of current citations indicates that the Models and Planner projects in particular have been widely referenced and cited in subsequent research and development work. Mod4L, for example, has been the principal subject of at least 13 further publications, several of which have been further cited. There are several references to the London Pedagogy Planner in ongoing research and development by respected scholars and academic developers.
- 7.1.2 Other projects have also been cited in further publications and have been the subject of scholarly articles, conference presentations, research papers and symposia. The work of this programme has made a significant contribution to research-underpinned practice in learning and teaching development in the UK and beyond.¹⁰

7.2 Technical Developments

- 7.2.1 Some projects noted that external developments in the technical tools and platforms that were tested and used for designing learning in this Programme would help to facilitate sustainability in some contexts, most notably the availability and installation of upgraded versions of LAMS and Moodle enabling integration on the same server.
- 7.2.2 In other contexts, the sustainability of project outputs was potentially compromised by a lack of technical support at institutional level (for example, the server on which the C2L BehaviourComposer was running with LAMS v2 was decommissioned shortly after the project ended).
- 7.2.3 Work undertaken by the LD4P project team continues to inform the development of the ReCourse LD (TENCompetence Learning Design editor)¹¹. The work of the D4LD project on the SLed platform forms part of the broader OU Learning Design project as the basis for integration into the Moodle VLE.
- 7.2.4 The Support Project has noted that the decision not to focus solely on the development of the IMS LD specification has enabled alternative avenues for sharing learning designs to be used, including the use of social networking platforms such as wikis.

¹⁰ Rethinking Pedagogy for a Digital Age. Designing and delivering e-Learning, Routledge, Oxford and New York 2007, edited by Rhona Sharpe and Helen Beetham, includes a number of contributions associated with the work of the JISC e-Learning Pedagogy programme in general and the Design for Learning Programme in particular.

¹¹ <http://www.tencompetence.org/ldauthor/>

7.3 Developing Communities of Practice

- 7.3.1 Understanding the shared purpose that drives and defines the development and sustainability of a community of practice was an important part of the intellectual underpinning and practical implementation of the Design for Learning programme. The evaluation of the Phoebe Planner confirmed that Phoebe is essentially a tool for community use, whether the members of a given community are working on their learning designs individually or collaboratively. The symbiotic nature of this relationship was emphasised, in that the planning tools must be useful to a community in terms of functionality, guidance, output and interoperability with relevant institutional systems, but at the same time are dependent on those communities for its continuing maintenance and relevance. The Phoebe evaluation highlighted the importance of capitalising on an emergent user and contributor base and of maintaining Phoebe as a vehicle for dialogue and a catalyst for change.
- 7.3.2 ELIDA CAMEL highlighted the role of national agencies in supporting and validating engagement with communities of practice. Several projects, notably ALed, DeSila and the London Pedagogy Planner, have contributed to an international community of pedagogic planners working with LAMS.
- 7.3.3 Other, smaller and more specialised communities of practice have also been instigated or continued through this Programme. The C2L project stimulated international research interest, and has led directly to another project, funded by EduserV, which aims to enable and support a community of model-builders comprising students and established academic researchers.

7.4 Institutional Impact

- 7.4.1 Only one of the projects in this Programme (DoL) specifically identified the alignment of project aims and outputs with the institutional strategy for technology-enhanced learning and teaching as a key factor in the sustainability and further development of those outputs. DoL also highlighted the importance of internal and external dissemination of project activities and outputs via a wiki for developing and sustaining a project profile, raising awareness and creating a momentum for change.

7.5 Relationships with the Wider Sector

- 7.5.1 Throughout the Programme, the JISC Learning and Teaching Experts Group provided a forum for consultation and dissemination with a wide range of individuals and sector organisations including representatives from further education and adult and community learning.
- 7.5.2 Two of the projects (DeSila and Sharing the LOAD) had direct organisational links to CETLs and were able to engage not just directly with their specific CETLs but with a wider community. The learning designs developed by Sharing the LOAD have been permanently archived to the CETL website, and as a result of the project the RLO-CETL is now firmly committed to producing all future learning objects in GLO format.
- 7.5.3 The Design for Learning Programme wiki¹², developed and maintained by the Programme Support Project, provides an ongoing forum for sharing and accessing learning designs.

7.6 Pedagogy Planner Developments

- 7.6.1 The Design for Learning Programme has demonstrated that pedagogy planning tools have much to offer the education sector. Practitioners require support both for innovation in their teaching approach and for engaging with new technologies, and planning tools have the potential to make a substantial contribution to the provision of this support. However, to achieve the desired impact, these tools need continued support and development in the wider context of changes in post-compulsory education, and practitioners need encouragement to engage with the tools and communities of practice

¹² http://dfl.cetis.ac.uk/wiki/index.php/Main_Page

- 7.6.2 The two Pedagogy Planners have collaborated on a shared vision and a technical development plan for a digital learning design support tool which capitalises on the complementarity of both tools. Phoebe provides a resource bank of conceptual guides, and the London Pedagogy Planner displays multiple dynamic numerical and graphical representations of a learning design. By the end of the Programme, integration was working on two levels: the London Pedagogy Planner linked to relevant sections of the Phoebe guidance materials where appropriate, and Phoebe could pass users to the London Pedagogy Planner for more explicit design and planning decisions once their ideas had been clarified. The projects recommended the continuation of the development of a learning design system capable of supporting different levels of user engagement, community engagement and practice.
- 7.6.3 The Planners have also secured research funding from the EPSRC/ESRC for a research project on building a Learning Design Support Environment.¹³ This project focuses on how digital representations of learning theory and learning design can contribute to computer science and education, and is developing specifications for the integration of the London Pedagogy Planner and Phoebe in a single online environment.

8 Programme Features

8.1 Programme Design

- 8.1.1 The original concept for the Design for Learning Programme was in itself an area of innovation that has laid a foundation for sustainability and further developments in a number of contexts. The Programme was underpinned by a robust conceptual framework, developed through a number of detailed background papers and reports. Its design was based on an initial scoping exercise of models of practice, leading to the development of a pedagogical planning tool, followed by a series of implementation projects.
- 8.1.2 For operational reasons, all of the projects started at the same time, and modelling, planning and implementation activities took place concurrently. While this was perhaps not the neat linear process that was envisaged, some useful serendipitous synergies and cross-fertilisations occurred. The Models of Practice project worked with the Planners in developing conceptual understanding of the processes that practitioners engage in when designing for learning. The implementation projects developed their own planning processes in order to implement, and at the same time informed and contributed to the development of the Planners. High levels of collaboration and consultation took place between the Models and Planner projects, and the Phase 2 Planner project activities in particular have been able to build on the findings of the Models project.
- 8.1.3 The organisational distinction between 'technical' and 'pedagogic' implementation projects with separate JISC programme management was not well understood by the projects and caused some initial confusion about roles. The 'technical' projects had pedagogical elements and a focus on practice, and the 'pedagogic' projects focused on the use (and in some cases the development) of technologies for design for learning. The Programme was specifically built on the premise of bringing technical and pedagogic elements of design for learning together.

8.2 Programme Support

- 8.2.1 There was a relatively complex management, support and evaluation structure for the Design for Learning programme, involving a number of JISC programme managers, expert consultants, the JISC CETIS Support Project and the evaluation team. Regular meetings facilitated the relatively smooth running of the programme and a consistent approach to management and support.
- 8.2.2 A number of support platforms were available for projects. The evaluation team developed and implemented GEM prior to the start-up meeting in order to be able to capture and then build on conceptual issues emerging in the early stages of the Programme. Subsequently, the Support Project developed the Programme wiki. Both

¹³ <http://www.londonmet.ac.uk/ltri/research/projects/ldse.htm>

platforms presented opportunities for projects to engage in discussions on issues of interest emerging from their activities, but neither was particularly well used for as a forum for informal communication between project teams.

8.3 Programme Achievements

- 8.3.1 One of the most positive factors about this programme was the academic curiosity and intellectual rigour with which project representatives approached their activities and their interest in the wider development of the programme and its vision. There was a real sense of community and mutual support. Programme meetings and support workshops were well attended and buzzed with ideas, enthusiasm and collaborative discussions. Project team members regularly attended and contributed to events and workshops arranged by other projects. In the wider scheme of things, these were relatively small-scale projects and their commitment, contribution to communities of practice and outputs represent high values of return on a relatively small investment of innovation funding.
- 8.3.2 The table at Appendix D of Programme objectives mapped to project outputs demonstrates the breadth, depth, range and complexity of outputs generated by the projects in this Programme. It shows that in all instances the projects achieved their objectives and produced their intended outputs, and in many instances exceeded these goals.

9 Conclusions and Recommendations

On the basis of the evaluation evidence and the processes undertaken in the course of gathering this evidence, a number of high-level conclusions are made, from which recommendations for future innovation programmes may be drawn. Numbers in brackets refer to the sections and paragraphs in this report where evidence and findings in support of these conclusions is considered in more depth.

- 9.1 The conceptual underpinning of the Design for Learning Programme provided a robust basis and framework for further pedagogic research, professional capacity enhancement and technical development. Future innovation programmes will find value in underpinning their intentions with a conceptual framework for the development and implementation of technologies to support learning and teaching. (4.1, 6.1, 7.9.1)
- 9.2 The Design for Learning Programme has demonstrated the value of a balance between theoretical understanding and technical implementation. Future innovation programmes should continue to support collaborative initiatives involving academic practitioners and technology experts. This helps to develop mutual trust and understanding of professional contexts, and the need to balance the different expectations and challenges of a range of stakeholders. (6.2, 6.3, 6.6, 7.9.3)
- 9.3 The Programme sought to explore issues relating to the specification of interoperable learning designs for sharing and reuse. There is no clear evidence that the use of IMS LD presents pedagogical advantages, particularly in the context of increasing use of social networking platforms both for professional development and for learning and teaching practice, and little support for the further development of the specification. Future initiatives should ensure there is proactive engagement with users and stakeholders to clarify the pedagogical rationale for the development and implementation of technical specifications. (4.2.7, 5.3.3, 7.2.4)
- 9.4 Engaging users in the scoping and iterative development of design for learning tools and approaches was a key element of this Programme. Projects made efforts to involve practitioners and learners in the development and evaluation of outputs and activities. User engagement was also a key element at programme level, not least through consultation with the Learning and Teaching Experts Group. Future developments should maintain this momentum and capitalise on the interest and goodwill generated by this engagement, while endeavouring to manage expectations and sustain the high levels of interest generated. (4.3, 5.1, 5.3, 6.4)
- 9.5 The Design for Learning Programme has provided rich resources for the ongoing professional development of individuals involved in projects at a number of levels, including project management, technical development, pedagogical research, academic

implementation and institutional strategy. Further consideration should be given to acknowledging and accrediting the continuing professional development value of engaging with innovation programmes, perhaps most usefully in association with discipline-based communities. (4.2.8, 4.3.5, 5.2.4, 6.1, 7.3)

- 9.6 The management, support and evaluation mechanisms for the Design for Learning Programme were relatively complex and potentially confusing. It is important to design programme support provision from the outset on the basis of a clear understanding of the underlying pedagogy of the programme, its focus and intended outputs, and the needs and expectations of the participants. (3.2, 8.2.2)

Appendices

Appendix A – Design for Learning Projects

Appendix B – Coding Frame

Appendix C – Programme Objectives mapped to Project Outputs

Appendix D – Evaluation Matrix with Projects' Evidence

Appendix A – JISC Design for Learning Programme Projects

See www.jisc.ac.uk/elp_designlearn.html for project summaries

Project Name	Acronym/short name	Lead institution
Models of Practice	Mod4L	Glasgow Caledonian University
Phoebe	Phoebe	University of Oxford, TALL
User-oriented Pedagogic Planner	London Pedagoggy Planner (LPP)	University of London Institute of Education
Authoring using Learning Design	ALeD	Swansea College
Constructing2Learn	C2L	University of Oxford
Developing for Learning Design	D4LD	Open University
Learning design for inquiry-based learning: a situated evaluation of LAMS	Desila	University of Sheffield
Designs on Learning	DoL	Ravensbourne College
Evaluation of Design and Implementation Tools for Learning	EDIT4L	University of Southampton
e-learning Independent Design Activities for Collaborative Approaches to the Management of e-Learning	eLIDA CAMEL	University of Greenwich
Learning Design for Practitioners	LD4P	Liverpool Hope University
Sharing the LOAD (Learning Objectives, Activities and Designs)	Sharing the LOAD	University of Cambridge

Appendix B – Coding Frame

Node	Description
D4L Programme	
Outcomes	Actual project outcomes
Cost benefit	Cost benefit of approach or tools - could be coded as evaluation efficiency
Future work	Project recommendations for further or future work in the field of design for learning
Pedagogy	Project findings related to pedagogy
Upskilling	Staff trained in new approaches and/or technologies
Issues	Collate and synthesise issues arising across the programme
Conceptual	... particularly in relation to conceptual difficulties in the development of exemplars/designs
Cultural	Cultural factors (in the use, sharing and re-use of exemplars/designs)
Sharing	Use, sharing and re-use of exemplars/designs
Technical	Issues of a technical nature including interoperability
Usability	User requirements for new learning design tools
Innovation	Identify areas of successful innovation or emerging good practice from the projects which could be built on by JISC and the wider community
Progress	Assess the progress of the projects towards realising the overall aim of the Design for Learning Programme
Gaps	Identify gaps in the work carried out by the projects which could be addressed in a future funding call in order to meet the aim of the programme
Sustainability	Make recommendations on sustainability and continuation of the programme
D4L Projects	
Mod4L	
Pedagogic Planner	
Phoebe	
Sharing the LOAD	
eLIDA CAMEL	
DeSILA	
Edit4L	
AleD	
LD4P	
D4LD	
Constructing2Learn	
DoL	
CetisD4L	
Stakeholders	Stakeholder groups as identified in Evaluation Plan
JISC	JISC as a specific stakeholder
Sector	Sectoral interests including: Policy Makers Funding Bodies Support Agencies Wider Community
Organisations	Organisational interest including those in: Further Education Colleges Higher Education Institutions Adult & Community Learning

Appendix B – Coding Frame

Node	Description
Learners	Students and those engaged in learning process
Instructional designers	Interests of instructional designers and other learning technologists
L&T Practitioners	Learning and teaching practitioner interests
Project Teams	Interests of project teams
Deliverables	Deliverables as intended by D4L Programme
Resources	Resources, guidelines and other training or workshop materials
Evaluation	Project evaluation instrument or report
Report	Report from project but not formal JISC requirement
Learning Design	Exemplar learning design
Tool	Technological tool developed or enhanced through the D4L Programme
Case Study	One or more case studies of good practice or other exemplar
Web	Project or other dissemination website, wiki or web links
Evaluation Questions	Evaluation questions as determined by Evaluation Team
Support	To what extent have the programme evaluation and support mechanisms facilitated and enhanced the outcomes of the programme?
Precepts	To what extent do the conceptual precepts of the Design for Learning Programme support its implementation?
Ethical	To what extent do ethical and legal issues affect design for learning?
Elegant	How pleasing are design for learning approaches in use?
Efficacious	Do design for learning approaches work?
Effective	What is effective design for learning?

Appendix C – Design for Learning Programme Objectives and Deliverables mapped to Projects' Planned and Actual Outputs

Objectives	Deliverables	Planned Project Outputs	Actual Project Outputs	
Models of practice – A				
<ul style="list-style-type: none"> Develop a range of practice models in the form of generic learning designs, exemplars or patterns based on observations of practitioners current practice in design for learning; Identify the problems and barriers practitioners currently experience in their use of learning design tools; Map these practice models to one or more conceptual framework(s); Derive additional practice models to fill any gaps indicated by the conceptual framework(s) chosen; Indicate how these models may be mapped to case studies and/or examples of real practice in post-16 and higher education contexts; Make these models available to practitioners in an accessible, coherent and usable form, with appropriate guidance on their use; Make these models available to the project developing the Pedagogic Planner for inclusion in the online planning tool. 	1. A practitioner-focused resource describing a range of practice models and offering guidance on how these may be chosen and applied in practice	Project website ¹	http://www.academy.gcal.ac.uk/mod4l/	
			Community discussion website ¹	http://mod4l.com/tiki-index.php
			Report on exemplars, case studies and learning designs ¹	http://www.academy.gcal.ac.uk/mod4l/reportcsv1.doc
	2. A document mapping these practice models onto one or more relevant conceptual framework(s) as identified by the project team	Report on effective forms of representation ¹	http://www.academy.gcal.ac.uk/mod4l/mod4lreportfinal.doc	
	3. A final report indicating <ol style="list-style-type: none"> how the practice models and conceptual framework(s) were developed or chosen in what ways they are generic and/or exemplary how they can support effective practice in design for learning, and how they can support the development of effective tools, standards and systems with a learning design capability 	A range of practice models represented in usable ways that will feed into the pedagogic planner projects and guidance notes on the use of these ¹	http://www.academy.gcal.ac.uk/mod4l/mod4lreportfinal.doc	
Pedagogic Planners – B				
<ul style="list-style-type: none"> Develop prototype online planning tools to guide practitioners working in post-16 and higher education in designing effective and 	1. A practitioner-focused online planning tool, available for piloting in the post-16 and higher education sectors which will assist	Pedagogical planning tools for course level and session level ²	http://code.google.com/p/londonpedagogyplanner/	

Project Codes – 1:Mod4L 2:London Pedagogy Planner 3:Phoebe 4:Sharing the LOAD 5:eLIDA CAMEL 6:DeSILA 7:Edit4L 8:AlēD 9:LD4P 10:D4LD 11:Constructing2Learn 12:DoL

Appendix C – Design for Learning Programme Objectives and Deliverables mapped to Projects' Planned and Actual Outputs

Objectives	Deliverables	Planned Project Outputs	Actual Project Outputs
<p>pedagogically sound learning activities;</p> <ul style="list-style-type: none"> • User test the planning tool for functionality and usability; • Investigate the feasibility of further development and the integration of the planning tool into pedagogic practice, for example by: <ul style="list-style-type: none"> a) linking the planning tool to case studies and learning designs; b) embedding use of the planning tool into specific contexts for piloting and evaluation; c) integrating the planning tool with specific learning design tool(s) in development or use d) further developing the planning tool. 	<p>practitioners in making decisions about designing effective learning activities with technology. The tool will include information and guidance on the following key elements of effective learning design:</p> <ul style="list-style-type: none"> • The learners • Types of technology • Types of learning activities • Pedagogical approaches • Learning environment both physical and virtual • Learning outcomes • Roles of those involved in the learning activity 	<p>The prototype pedagogic planner tool³</p>	<p>http://phoebe-app.conted.ox.ac.uk/</p>
		<p>Source code³</p>	<p>http://code.google.com/p/londonpedagogyplanner/ http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/PhoebeDownloads</p>
		<p>Technical documentation: requirements specification, functional specification³</p>	<p>http://code.google.com/p/londonpedagogyplanner/ http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/TechnicalDevelopment http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/RequirementsSpec</p>
		<p>Project wiki containing up to date project information and code as appropriate³</p>	<p>http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi</p>
	<p>2. A small-scale usability study of the tool with a brief report</p>	<p>Report on lecturer requirements²</p>	<p>http://www.wle.org.uk/d4l/index.php?option=com_docman&task=doc_download&gid=53&Itemid=27</p>
		<p>Report on case studies²</p>	<p>http://www.wle.org.uk/d4l/index.php?option=com_content&task=view&id=44&Itemid=23</p>

Project Codes – 1:Mod4L 2:London Pedagogy Planner 3:Phoebe 4:Sharing the LOAD 5:eLIDA CAMEL 6:DeSILA 7:Edit4L 8:AleD 9:LD4P 10:D4LD 11:Constructing2Learn 12:DoL

Appendix C – Design for Learning Programme Objectives and Deliverables mapped to Projects' Planned and Actual Outputs

Objectives	Deliverables	Planned Project Outputs	Actual Project Outputs
		User documentation ³	http://phoebe-app.conted.ox.ac.uk/help/
		Evaluation instruments ³	http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/PractitionerInvolvement
		Usability report ³	http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/EvaluationPhase2
	3. A final report indicating (a) principles governing development of the planning tool (b) guidelines for its embedding and use, taking into account the outcomes of the usability study, and (c) recommendations for further development	Report on existing LD tools ²	http://www.wle.org.uk/d4l/index.php?option=com_docman&task=doc_download&gid=10&Itemid=27
	Additional outputs not identified above	Resources produced by the project team ³	http://www.wle.org.uk/d4l/index.php?option=com_docman&task=doc_details&gid=31&Itemid=27 http://phoebe-app.conted.ox.ac.uk/browseGuidance.php
		Links to resources created by other Design for Learning projects ³	http://delicious.com/oxphoebe
Implementing and evaluating learning design tools – C			
<ul style="list-style-type: none"> Implement and evaluate tools and systems that support design for learning in a range of real learning and teaching contexts within post-16 and higher education institutions by: <ol style="list-style-type: none"> rolling out existing tools more 	1. Implementation and evaluation of one or more learning design tools in a specific learning and teaching context within a post-16 or higher education institution	Practitioners & students exposed to learning design theory and RLO concepts in workshops ⁴	http://www.ucel.ac.uk/load/workshops.html
		Tools evaluation (RELOAD and WCKER); analysis and report ⁴	http://www.rlo-cetl.ac.uk/evaluation.htm
		Training materials created for the practitioner training workshops ⁵	http://dfl.cetis.ac.uk/wiki/index.php/ELIDA_CAMEL

Project Codes – 1:Mod4L 2:London Pedagogy Planner 3:Phoebe 4:Sharing the LOAD 5:eLIDA CAMEL 6:DeSILA 7:Edit4L 8:AlaD 9:LD4P 10:D4LD 11:Constructing2Learn 12:DoL

Appendix C – Design for Learning Programme Objectives and Deliverables mapped to Projects' Planned and Actual Outputs

Objectives	Deliverables	Planned Project Outputs	Actual Project Outputs
<p>extensively, supporting their use in design for learning specifically, and evaluating their impact; or</p> <p>b) carrying out user evaluations on innovative tools with a learning design functionality; or</p> <p>c) developing or further developing, innovative or emergent tools to enable their wider uptake and implementation;</p> <ul style="list-style-type: none"> • Produce a range of learning designs, exemplars and case studies to illustrate effective pedagogic use of the relevant tool(s); • Investigate the potential for re-use of learning designs across the other implementation projects and from other relevant projects in this area and explore the issues regarding their re-use; • Explore the use and requirements of different learning design players in the re-use of learning design; • Investigate the potential for sharing effective practice via communities of users of such tools, for example by sharing pedagogic designs or design guidelines; • Evaluate the impact of this implementation and/or development on 'design for learning' practice. 		<p>Implementation and evaluation of LAMS in a specific, real-life 'case study' context of pedagogical development and innovation for IBL⁶</p> <p>LAMS training materials created for workshops, one-to-one support⁶</p>	<p>http://www.lams.group.shef.ac.uk/wiki/index.php/Main_Page</p>
		<p>Guides to using DPT and LAMS for workshop participants⁷</p>	<p>http://www.edit4l.soton.ac.uk:8081/wksp_res/</p>
		<p>A methodology for evaluating the Learning Design tools and systems that support design for learning⁸</p> <p>Training materials for staff use in how to create learning design⁸</p> <p>Learning design staff development module⁸</p>	<p>Unable to verify resources at http://aled.swancoll.ac.uk/mediawiki/index.php</p>
		<p>An evaluation of the RELOAD IMS LD editor in use by practitioners, in real teaching and learning situations⁹</p> <p>An evaluation of IMS LD in use by learners in a variety of situations⁹</p> <p>A prototype user interface for an IMS LD editor⁹</p> <p>A set of training materials for the use of RELOAD⁹</p>	<p>http://bsd1.phosphorix.co.uk/ld4p/index.php?option=com_content&task=view&id=19&Itemid=34</p>
		<p>Enhanced release of the SLeD learning design player and CopperCore LD Engine under open source¹⁰</p>	<p>http://sled.open.ac.uk/tech/download.php</p>
		<p>Evaluated use of the learning design tools¹⁰</p>	<p>http://sled.open.ac.uk/project/d4ld.php</p>
		<p>Source code and compiled distribution of simulation construction toolkit¹¹</p>	<p>http://df1.cetis.ac.uk/wiki/index.php/Simulation_construction_kit</p>
		<p>Documentation for technical and pedagogical audiences made</p>	<p>http://df1.cetis.ac.uk/wiki/index.php/Constructing2Learn#The_Software:_The_Beh</p>

Project Codes – 1:Mod4L 2:London Pedagogy Planner 3:Phoebe 4:Sharing the LOAD 5:eLIDA CAMEL 6:DeSILA 7:Edit4L 8:AleD 9:LD4P 10:D4LD 11:Constructing2Learn 12:DoL

Appendix C – Design for Learning Programme Objectives and Deliverables mapped to Projects' Planned and Actual Outputs

Objectives	Deliverables	Planned Project Outputs	Actual Project Outputs
		available through an open access wiki ¹¹	aviourComposer
		Technical design and implementation of open-source blogging system with institutional integration ¹²	http://confluence.rave.ac.uk/confluence/display/SCIRC/Blogs+Documentation
		Training materials for practitioners, and supporting information for learners ¹² A wiki containing all documentary outputs that encourages participation, comment and review ¹²	http://confluence.rave.ac.uk/confluence/display/SCIRCDoL/Home
	2. A report on the impact of that use on 'design for learning' practice Recommendations, either	Use and evaluation; analysis and report ⁴	http://www.ucel.ac.uk/load/
	<ul style="list-style-type: none"> for effective embedding and use of similar tools in design for learning, or for further development and embedding of the specific tool(s) under investigation 	Individual and collaborative case studies ⁵	http://df1.cetis.ac.uk/wiki/index.php/ELIDA_CAMEL#Outputs
		20 in-depth case studies selected to illustrate key themes related to embedded pedagogic use ⁶	http://df1.cetis.ac.uk/wiki/index.php/DeSILA
		Evaluation report on the usability and effectiveness of DPT and LAMS ⁷	Summary of feedback in Completion Report: http://www.edit4l.soton.ac.uk:8081/prj_docs/EDIT4Lcompletion_report_final_2_1.doc
		A minimum of 5 case studies from a range of curriculum and support areas ⁸ Report on the impact of the outcomes of the project ⁸	Case studies all available in Jorum: http://www.jorum.ac.uk Unable to verify report at http://aled.swancoll.ac.uk/mediawiki/index.php
		A report on the impact of the team's experience in using RELOAD and the prototype user interface on design for learning ⁹	http://bsd1.phosphorix.co.uk/ld4p/index.php?option=com_content&task=view&id=19&Itemid=34
		Report on the impact of the software on design for learning and its relation to the pedagogic planner and other strands of work within the	http://www.elearning.ac.uk/features/sledproject

Project Codes – 1:Mod4L 2:London Pedagogy Planner 3:Phoebe 4:Sharing the LOAD 5:eLIDA CAMEL 6:DeSILA 7:Edit4L 8:AleD 9:LD4P 10:D4LD 11:Constructing2Learn 12:DoL

Appendix C – Design for Learning Programme Objectives and Deliverables mapped to Projects' Planned and Actual Outputs

Objectives	Deliverables	Planned Project Outputs	Actual Project Outputs
		programme ¹⁰	
		Recommendations for proven tool-sets and guidelines on tool-use ¹²	http://confluence.rave.ac.uk/confluence/display/SCIRCDoL/Tools+Summary
	3. A range of learning designs, exemplars and case studies developed through use of the relevant tool(s)	Learning designs captured digitally and archived to website ⁴	http://www.ucel.ac.uk/load/outputs.html
		Learning designs and templates uploaded to JORUM ⁴	http://www.jorum.ac.uk
		A portfolio of 25 LAMS-based IBL learning designs ⁶	http://www.lams.group.shef.ac.uk/wiki/index.php/Downloads
		Sample <i>designs for learning</i> created by participants in the workshops ⁷	http://www.edit4l.soton.ac.uk:8081/wksp_res/
		A minimum of 18 Learning Design exemplars that illustrate best effective pedagogic practice ⁸	http://delicious.com/design_for_learning/ALED?tags=on
		A set of exemplar learning designs that have been created and used in a real teaching and learning context and at least two case studies in different subject areas ⁹	http://bsd1.phosphorix.co.uk/ld4p/index.php?option=com_content&task=view&id=19&Itemid=34
		At least 4 designs for learning by constructing model expressed as LAMS sequences ¹¹	http://dfl.cetis.ac.uk/wiki/index.php/Integration_of_LAMS_with_the_BehaviourComposer
		A corpus of exemplars, model designs, and case studies ¹²	http://confluence.rave.ac.uk/confluence/display/SCIRCDoL/Learning+Designs http://confluence.rave.ac.uk/confluence/display/SCIRCDoL/Fat+Case+Studies
	4. Recommendations on the sharing of effective design practice and re-use of learning designs	Review of existing mature reusable content; analysis and report ⁴	Learning Object Attribute Metric tool (LOAM): http://www.ucel.ac.uk/load/taxonomies.html
		Practitioner long-term impact interview; analysis and report ⁴	Appendix 2 of Final Report
		A final report on the impact of using LAMS on designing for IBL in the case study context ⁶	http://dfl.cetis.ac.uk/wiki/uploads/0/01/Using_LAMS_for_IBL_-_staff_development_FCS.pdf

Project Codes – 1:Mod4L 2:London Pedagogy Planner 3:Phoebe 4:Sharing the LOAD 5:eLIDA CAMEL 6:DeSILA 7:Edit4L 8:AleD 9:LD4P 10:D4LD 11:Constructing2Learn 12:DoL

Appendix C – Design for Learning Programme Objectives and Deliverables mapped to Projects' Planned and Actual Outputs

Objectives	Deliverables	Planned Project Outputs	Actual Project Outputs
		Recommendations for successful embedding of DPT and LAMS into staff development programmes ⁷	Low workshop numbers and lack of engagement with design and instantiation resulted in insufficient data to produce a meaningful report
		Recommendations on how design for learning tools can be used and embedded effectively ⁸ Recommendations on how Learning Designs can be shared and re-used effectively ⁸	http://www.jisc.ac.uk/media/documents/programmes/elearningpedagogy/aledfinal.pdf
	Additional outputs not identified above	Workshop poster templates ⁴	http://www.ucel.ac.uk/load/workshops.html
		Further development of RLO-CETL Evaluation toolkit ⁴	http://www.rlo-cetl.ac.uk/evaluation.htm
		Baseline survey of practitioners' level of knowledge; analysis and report ⁴	http://www.ucel.ac.uk/load/docs/LD_Workshops_report.pdf
		Learning objects developed from the designs ⁴	http://www.ucel.ac.uk/load/outputs.html
	A final data collection which will be made available to the JISC and to other DfL/LD projects ⁵	http://dfi.cetis.ac.uk/wiki/index.php/ELIDA_CAMEL#Outputs	

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Appendix D – JISC Design for Learning Programme Evaluation Matrix with Projects' Evidence

Evaluation Questions	1: What is effective design for learning?	Evidence
Stakeholders		
Practitioners: • D4L Project teams	Detectable influence on ongoing and future D4L and other projects ¹	Meetings and ideas exchange with both the London Pedagogy Planner and Phoebe. Subsequently though involvement of key investigator with User & Innovation Programme PLANET project: http://patternlanguagenetwork.org/2008/09/17/organising-structures/ ¹
Practitioners: • Learning and teaching professionals	Discussion on website ¹	Specific discussions in project forum and by topic: http://mod4l.com/tiki-forums.php ¹
	Effective use by lecturers over two terms ²	Prototype tool tested with lecturers from three different universities (London Metropolitan, Thames Valley and Coventry), in collaborative workshops
	Awareness of Learning Design theory ⁴ Willingness to reuse Learning Designs ⁴ Evidence of retention and use ⁴	Multidisciplinary groups of practitioners and students engaged in creative workshops in order to distil and extend their learning design knowledge. The resulting learning designs, hand-drawn onto specially developed templates in the form of laminated A0 posters, were captured digitally and archived to the project website. Four designs were then selected for their “generalise-ability” to be developed as reusable pedagogical patterns and these were, in turn, developed as prototype generative learning objects. http://www.ucl.ac.uk/load/workshops.html
	Staff do not rule out the sharing and reusing of their LAMS learning designs in general and more specifically, agree to sharing of their own ⁶	Practitioners’ attitudes to reuse suggested that they might be more open to reusing whole-sequence LAMS-based activity designs when the content is perceived as generic and therefore also directly transferable. There was some indication that repositories of LAMS-based designs should be as closely integrated as possible with other practice-sharing platforms in the context of community-focused development and innovation for IBL, so that practitioners have a ‘one-stop’ interface to exploring and sharing different pedagogical resources and tools.
	Effectiveness of DPT and LAMS 70% satisfied ⁷	Low numbers of workshop participants, and their lack of engagement with design and instantiation didn’t realise sufficient data to produce a meaningful report of this nature.
Practitioners make effective use of tools and techniques ¹²	The project has had great success encouraging practitioners to consider blogging as part of their elearning toolkit, it has been less successful in promoting what might be described as “web 2.0 values”,	

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Appendix D – JISC Design for Learning Programme Evaluation Matrix with Projects' Evidence

Evaluation Questions	1: What is effective design for learning?	Evidence
Stakeholders		
		and, therefore, a transformational approach to creative education
Practitioners: <ul style="list-style-type: none"> • Instructional designers • Developers 	Outputs used by RELOAD team ⁹	The early designs allowed the project to assist the Reload team in the development of the TENCompetence LD editor, which was also evaluated by practitioners through the project.
Learners	Improvement of students' learning reflected in questionnaires and focus groups ⁴	The workshops have fulfilled their objective of introducing participants to the principles of learning objects and have given them first-hand experience of creating learning designs. They have attracted the requisite number of participants and students.
	Students judge that the support provided by staff in enabling them to use the IBL activities in their learning has been effective ⁶	Students' responses to using LAMS were mixed but there were clear indications of positive engagement and beneficial impact on learning experiences. Negative responses often related to limitations on the ability to independently move freely back and forward through a sequence.
	Quality, complexity, and variety of models construction by students ¹¹ Quality of reports and forum discussions between learners ¹¹ Modelling and programming skills acquired by learners ¹¹	<ul style="list-style-type: none"> • ... it is difficult to assess the extent to which this aim was successful, given that a) students' interactions with the BehaviourComposer were heavily directed (through the worksheets) so they did not have opportunities to experiment freely with it, and b) the activities were not formally assessed. • Evidence from learner discussion forums not reported • ... some found working with the tool relatively straightforward despite their lack of previous programming experience, while others who had done programming before felt that they would not have progressed without that existing knowledge.
	Students' learning is enhanced ¹²	An important – and initially underestimated – finding is that a part of the appeal of social software systems such as blogging is precisely because they are extra-institutional. We are not suggesting that the cause of this appeal is universally that learners may more easily interconnect with extra-institutional communities of practice. Rather, the use of extra-institutional software ensures an escape from institutional systems.

Appendix D – JISC Design for Learning Programme Evaluation Matrix with Projects' Evidence

Evaluation Questions	1: What is effective design for learning?	Evidence
Stakeholders		
Organisations: <ul style="list-style-type: none"> • Further Education Colleges • Higher Education Institutions • Adult & Community Learning 	Stakeholders recommend LAMS for IBL and other pedagogic approaches and encourage its wider use in the institution ⁶	While LAMS is not preferred to WebCT, many recommend continued use of LAMS in the pedagogical context in which they have encountered it, and most indicate that they would like to use LAMS again.
Sector: <ul style="list-style-type: none"> • Policy Makers • Funding Bodies • Support Agencies • Wider Community 	Citation in literature ¹	Google Scholar search term 'mod4!' yields 45 results of which 9 are third party citations – mod is also a term in mathematics hence the high search response
	Resource encourages participation and generates community interest ¹²	http://confluence.rave.ac.uk/confluence/display/SCIRCDoL/Home

Appendix D – JISC Design for Learning Programme Evaluation Matrix with Projects' Evidence

Evaluation Questions	2: Do design for learning approaches work?	Evidence
Stakeholders		
Practitioners: • D4L Project teams	Proof of concept of a means of including these indicators in practice models developed ¹	Identified conceptual issues with: <ul style="list-style-type: none"> representing learning designs for sharing, reuse and problems with the concept of practice models requirements teachers have of effective representations see http://mod4l.com/tiki-index.php?page=representing+learning+designs for further discussion ¹
	Approval from stakeholders and Programme members ²	Evaluation report on the usability of the tools within selected curriculum areas, at both university and college sites, and a Design Report for the London Pedagogy Planner ²
Practitioners: • Learning and teaching professionals	Positive feedback from focus group ¹	Focus group of 12 teachers used throughout project and evidence gathered through project wiki: http://mod4l.com/tiki-forums.php ¹
	Approval from JISC Pedagogy Experts Group ²	Presented at JISC Pedagogy Experts meetings: <ul style="list-style-type: none"> 26 October 2006 http://www.jisc.ac.uk/whatwedo/programmes/elearningpedagogy/elearningexperts/oct06.aspx 24 October 2007 http://dfl.cetis.ac.uk/wiki/index.php/Design_bash²
	Quality of feedback and suggestions for improvement ³ Extent to which the tool is judged to be of use to the community ³ Quality of feedback from practitioners re suitability and acceptability ³	The Phase 2 version of the tool addressed most of the usability shortcomings revealed in Phase 1, and was generally judged by experienced practitioners to be i) easy to learn to use and ii) easy to use for creating an actual pedagogic plan. However, the usefulness of Phoebe to individual teachers working in isolation as opposed to just creating plans on their own within an overall community setting, is unclear. Some kind of institutional support would be needed, perhaps starting with an introductory workshop.
	Satisfaction of participants ⁴ Uptake of Learning Designs ⁴	Learning design workshops held at the beginning of the project were very well attended (all were full to capacity) and evaluated very highly. Pro-active and prolonged championship of resources is vital to raise awareness and maximise uptake; it is not sufficient to host materials in a VLE or repository in the hope that they will be used.
	#Practitioners participating ⁵	Individual (14) and collaborative (7) case studies from practitioners and other team members

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Appendix D – JISC Design for Learning Programme Evaluation Matrix with Projects' Evidence

	<p>Staff have had positive experiences in using LAMS IBL activities in the context of their wider IBL activity in their module/course⁶</p> <p>Staff do not rule out future use of LAMS in the curriculum, either for IBL or in the context of other pedagogies and may have plans for further uses⁶</p>	<ul style="list-style-type: none"> Practitioners were much more likely to identify LAMS as a tool for creating strongly teacher-led IBL designs than to recognise potential for creating more student-led designs The project suggested the value of 'decoupled' design and orchestration functionality in design for learning tools, and of future exploration of requirements for tools for students as (co)designers of their own learning. ... positive about their implementations of LAMS in terms of both impact on the student experience and achievement of pedagogical objectives and were enthusiastic about the potential future role for LAMS in their teaching
	<p>1,000 users will visit the website, 50 will contribute to the discussions with 75% satisfied⁷</p> <p>200 workshop participants over the year with 75% satisfied⁷</p>	<ul style="list-style-type: none"> Not specifically reported - project website reviewed for activity and found 3405 members but most of these were from malicious attacks; there was no evidence of discussion forums. The numbers of participants in workshops, and the number of workshops, was less than anticipated in the original project plan. Two national workshops had to be cancelled due to low numbers. The original proposal overestimated the interest of the community as a whole. However a large amount of data was still gathered by conducting deeper and richer analyses with the participants who did take part.
	<p>Evidence of added value and or distance travelled⁸</p>	<p>The work carried out ... has motivated staff within both institutions to look closely at the methods adopted in their teaching and learning and prompted practitioners to question which pedagogical approach is best used to achieve the desired learning outcomes. The learning design tools themselves have allowed staff to easily explore and test different approaches within real situations and then easily adapt designs according to the desired outcomes.</p>
	<p>Functioning units of learning⁹</p> <p>Positive evaluation by practitioners⁹</p>	<ul style="list-style-type: none"> The project has developed a set of IMS LD units of learning and case studies and disseminated experience widely. The team produced a prototype user interface based on feedback and evaluations from earlier projects, and the Reload evaluations. This was used as the initial design for a practitioner centred interface to an IMS LD editor. These designs were then evaluated by practitioners and the feedback used to further develop the prototype interface.
	<p>Planned or actual uptake of LD Player¹⁰</p>	<p>1814 downloads from https://sourceforge.net/projects/ldplayer/</p>

Appendix D – JISC Design for Learning Programme Evaluation Matrix with Projects' Evidence

	Software works ¹² Learning designs are used or adapted ¹²	As a result of the project, there has been a measurable change in the institution's use of blogging (indeed, evidence from briefs and project packs suggests requiring students to blog has become a commonplace), the project was less successful at placing blogging within a coherent framework or intellectual context, despite a concerted effort by members of the project team and other champions to do so. http://confluence.rave.ac.uk/confluence/display/SCIRCDoL/Learning+Designs
Practitioners: • Instructional designers • Developers	Satisfaction of instructors ¹¹	... increased interest on the part of our "target" communities. Our academic collaborators at Oxford have expressed strong interest in continuing with the work; Beyond Oxford, research projects at MIT, Northwestern University, and the Santa Fe Institute have all expressed interest in the Constructing2Learn project and the tools, libraries, and learning designs
Learners	Quality of feedback from students re suitability and acceptability ³	From our analysis of the qualitative data, 13 students seemed to find it reasonably easy to create a lesson plan, while another 3 referred to initial difficulties. Three more felt that it could seem daunting, or the information overwhelming.
	#Students participating ⁵	Feedback from participants & students was excellent – actual number of students who participated not reported.
	Students have had positive experiences in using LAMS IBL activities in the context of their wider IBL activity in their module/course ⁶ Students have undertaken the LAMS IBL activities as intended and have achieved the intended learning outcomes ⁶	There are some clear indications of positive student engagement with LAMS. Students report having enjoyed the LAMS activities in which they participated, and perceive beneficial impacts on their learning. Many feel that in using LAMS they carried out some useful research.
Organisations: • Further Education Colleges • Higher Education Institutions • Adult & Community Learning	Internal experts judge that it is possible to scale up the use of LAMS in the institution ⁶	Interviews with pilot users indicated that experiences of LAMS were often sufficiently positive to lead them to envisage using the system beyond the pilot. This was confirmed in the five responses to the feedback questionnaire, in which three pilot users recommended that LAMS should be rolled out to the wider University; one was unsure; and, one considered that it should not be rolled out. Three said that they would personally use LAMS again if it was adopted by the institution, and two said 'maybe'.
	Adoption of tool by institution ¹⁰	SLeD is going to form part of the broader OU Learning Design project now. The initial focus is on developing a pedagogic planner, and we will then focus on the player side. The intention is to use SLeD as the basis for integration into the OU Moodle VLE.

Appendix D – JISC Design for Learning Programme Evaluation Matrix with Projects' Evidence

Evaluation Questions	3: How pleasing are design for learning approaches in use?	Evidence
Stakeholders		
Practitioners: • D4L Project teams	Number of issues identified and resolved ³	A development map, outlining Phoebe's current, short term, and long term development options http://phoebe-project.conted.ox.ac.uk/roadmap
Practitioners: • Learning and teaching professionals	Completeness of the tools to facilitate usage ⁴	RELOAD4 and the WCKER5 extension tools have been assessed for their effectiveness in packaging and managing the resulting content and further work with the RELOAD team is planned.
	Logs of usage in LAMS, Moodle and RELOAD ⁵	The individual and collaborative case studies provide exemplars of detailed practitioner use of LAMS, Moodle and reflections on the use of RELOAD in design for learning sequence preparation, trialling, uptake and reflections on classroom use in lifelong learning environments.
	Usability of DPT and LAMS 70% satisfied ⁷	As a tool from a development project, DPT needs further refinement and development before it could be widely taken up. LAMS has been widely used for a limited range of learning approaches, and individuals need to have a matching requirement before it becomes viable for their institutions to invest in making it available.
	Interface meets commonly understood usability criteria ⁹	The project has developed a vision of interoperable learning design tools and has fed user requirements and the results of practitioner evaluations into other projects such as TENCompetence.
	20% improvement in LD Player performance times ¹⁰	Extensive performance improvements were conducted, and then rigorous performance testing undertaken. The system ran very well with up to 100 simultaneous users over a nine hour period, with requests every 30 seconds. ... The test thus represents an extreme case, and the system gave response times of less than 5 seconds 95% of the time, which met the project aims.
	Ease with which third parties can add their own model behaviours ¹¹	... feedback is mixed: some found working with the tool relatively straightforward despite their lack of previous programming experience, while others who had done programming before felt that they would not have progressed without that existing knowledge.
	Software usable ¹²	Blogging (and the wider use of social software) has quite taken root at Ravensbourne College, appearing in many project briefs (the principal vehicle of learning activity), and becoming part of the institution's routine discourse in a way that elearning in general is not.

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Appendix D – JISC Design for Learning Programme Evaluation Matrix with Projects' Evidence

Evaluation Questions	3: How pleasing are design for learning approaches in use?	Evidence
Stakeholders		
Practitioners: <ul style="list-style-type: none"> • Instructional designers • Developers 	Minimal number of bugs and UI/functionality issues ³	Trac used to report and resolve issues – 55 reported at: http://phoebe-project.conted.ox.ac.uk/report/6
	Learning support staff judge that the time and effort needed to support LAMS has been of an acceptable level, including in relation to WebCT ⁶	Most consider that the LAMS activity engaged them in a new approach to learning and that using LAMS is quite different from using WebCT. Most report learning to use LAMS quickly and that it is easy to use. While LAMS is not preferred to WebCT, many recommend continued use of LAMS in the pedagogical context in which they have encountered it, and most indicate that they would like to use LAMS again.