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Phoebe
Pedagogic planner

JISC Design for Learning Programme

Phoebe Pedagogy Planner Project

Evaluation Report

Liz Masterman

Project team:

TALL, Oxford University Department for Continuing Education
Marion Manton
David Balch

Learning Technologies Group, Oxford University Computing Services
Liz Masterman

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EXECUTIVE SUMMARY

1. Research Questions

The evaluation of the Phoebe Pedagogy Planner project took place between January 2007 and April 2008 and covered both Phase 1 and Phase 2. A principal goal of the project was to prove the concept of, and develop the specification for, a pedagogy planning tool that would be useful in a variety of contexts, rather than strive to produce a fully functioning practitioner-ready system. The evaluation reflected this goal by seeking to make clear, and elicit participants' response to, the vision underlying the design of the tool as well as the tool itself.

The project set out to address six key questions:

1. Is Phoebe a tool that practitioners in post-compulsory education find usable, helpful and relevant to their needs, whether they are

    a) beginning or experienced teachers looking to use technology in their teaching for the first time, or

    b) are familiar with e-learning but are looking for new ideas re technology and pedagogy?

    Specifically, does it encourage teachers to think about their practice in a structured way?

2. Can one tool address all sectors of post-16 education, or are separate tools required for each?

3. Is Phoebe suitable as a tool for teacher education and/or for everyday practice?

4. What additional features and functionality are required to turn Phoebe from a proof-of-concept prototype into a tool for general use?

5. What is needed to support the community dimension of using learning design and make it possible to sustain learning designs as community artefacts?

6. What other potential issues of sustainability exist, and how might these be resolved?

2. Method

The Phoebe evaluation targeted four groups of **participants**:

a) The "broad church" of teaching staff: both those who were already familiar with the use of technology in their practice and those who were new to technology.

b) Staff responsible for the dissemination of technology in pedagogic practice: i.e. staff developers (CPD), teacher trainers (ITT), IT support officers learning technologists.

c) Teachers and students undergoing CPD and ITT respectively.

d) Policy-makers and others from strategic agencies (e.g. HEA, , NIACE, ALT).

Participants were recruited from practitioners involved in the preceding Learning Design Tools project and the Design for Learning programme (some of whom hosted evaluation events with their colleagues or students) and volunteers who discovered Phoebe serendipitously. Six of the nine "practitioner-informants," who contributed to the design of Phase 1 also participated in the evaluation of the first prototype.

Much of the evaluation data were collected in association with events specifically organised for the purposes of the project. The **schedule** of these events and their associated **data collection instruments** are summarised in Table 1.

Table 1.Phoebe evaluation programme

Date	Event	Factor(s) evaluated	Method(s) [+ no. of respondents]
Phase 1			
23/01/07	Design review	Acceptability of tool to wider D4L community	Demonstration of tool; feedback via paper-based survey [9]
Feb '07	Meetings with individual practitioner informants	Usability and usefulness of prototype tool	Walkthroughs by participants; feedback via interviews [6]
22/02/07	Workshop at University of Greenwich	Embedding	Demonstration and hands-on experience; feedback via discussion [3]
Phase 2			
31/10/07	Trainee teachers' workshop (HE), University of Greenwich	Usability; embedding in ITT; suitability for novice teachers	Demonstration and hands-on experience; feedback via online survey [15]
14/01/08	Experienced practitioners' workshop for staff in FE, HE, ACL, WBL	Sustainability; suitability for experienced practitioners; customisation; support for collaborative planning	Pre-workshop online survey to elicit current practice [12] Demonstration and hands-on experience; feedback via discussion and online survey [12]
29/01/08	"E-learning intensive" at the University of Brighton led by Oxford Brookes University	Sustainability; suitability for experienced practitioners; customisation; support for collaborative planning	Pre-workshop online survey to elicit current practice [11] Demonstration and hands-on experience; feedback via discussion [no figures]
06/02/08	Trainee teachers' workshop (FE), Swansea College	Usability; embedding in ITT; suitability for novice teachers	Demonstration and hands-on experience; feedback via online survey [20]
Feb-Mar '08	Online evaluation by volunteer users	Usability; usefulness	Pre-evaluation online survey to elicit current practice [14] Hands-on experience; feedback via online survey [8]
04/03/08	Strategic review meeting with representatives from HEA, Becta, ACLearn: joint event with the London Pedagogy Planner project; organised by JISC	Viability of the concept of pedagogy planning tools; suitability across sectors and domains	Pre- and post-meeting online surveys to elicit general perspectives [22, 9] Demonstration and hands-on experience; feedback via paper-based survey [30]

3. Summary of findings in relation to the research questions

3.1 Is Phoebe usable, helpful and relevant to practitioners' needs?

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 easy to learn to use, and to use for creating an actual pedagogic plan. Trainee teachers were more likely to have a higher initial learning curve, although most were able to get to grips with the tool in the short time which they were given to work with it.

For both groups, though, the reference part of the tool was probably more helpful than the planning functionality itself. In terms of individual preferences, Phoebe would suit teachers who already adopt a systematic approach, but not those who prefer to map out ideas graphically. Also, as some evaluators noted, use of the tool alone is not sufficient to bring about good practice, and if it maps too easily to teachers' existing practice without encouraging them to move forward from this "comfort zone," then the desired innovation will not happen.

The majority of practitioners who completed the "preliminary" online surveys normally tended towards a structured approach in planning individual learning sessions, and some commented positively on the degree to which Phoebe encouraged them to think about the task in a structured way. However, structure can be seen as a weakness as well as a strength, particularly where it restricts the possibilities for creative thinking.

At the institutional level, the tool needs to map to the kinds of practice that are supported and promoted generally. Generally, the structured approach appears to predominate at the course and module level, with more freedom allowed at the session level. A distinction needs to be drawn, however, between supporting *planning* processes and supporting *quality* processes, and how Phoebe might address without compromising teachers' creativity.

3.2 Can one tool address all sectors of post-16 education?
Phoebe was well received by the FE community in particular, although both the complexity of the plans and the nature of the content were criticised by some for tending to support the HE sector more. However, planning is currently not considered to be a cross-sector activity: indeed, a "not invented here" culture can militate against the sharing of learning designs and resources even across institutions within the same sector. However, customisable templates and content that will allow Phoebe to be used in different institutions in different sectors would open up the possibility of cross-sector fertilisation in principle, even if practice lags behind.

3.3 Is Phoebe suitable as a tool for teacher education and/or for everyday practice?
Phoebe was perceived to have value both in formal ITT and CPD programmes and in "informal" professional learning, where teachers are motivated to try out alternative methods or generally in search of inspiration. A particularly strong point of the tool in this respect is the priority that it gives to pedagogy over technology. It was also considered useful to individual teachers working in isolation (e.g. in the ACL sector), particularly if preceded by an introductory face-to-face workshop at their "home" institution.

A number of experienced teachers felt that they would use Phoebe primarily for reference and reflection. Those who thought they would use it to plan would probably do so in conjunction with existing tools. In particular, it is important to acknowledge the continued importance – even superiority – of pencil-and-paper (i.e. handwritten) techniques in supporting particular kinds of cognitive process (notably brainstorming and idea formation) and in providing a greater expanse of physical space for mapping out ideas.

Motivation is a key factor in users' uptake of any tool, and the evaluations suggested that teachers might respond to the tool more positively if they could discern its intrinsic benefits to themselves. They would not welcome having it imposed on them by the institution, particularly as part of a top-down drive to improve quality.

A sub-theme of this question is the role of theory in professional development and everyday practice, and the extent to which Phoebe should provide guidance in such matters. The findings suggest that pedagogy planning tools have a role in prompting teachers to think about their approach – be it grounded in a "formal" theory of learning or in a personal "intuitive" model – as part of the planning process, and to engage in some form of reflection after an actual learning session.

3.4 What additional features and functionality are required for general use?

The development map produced alongside the project completion report lists desirable enhancements derived from the evaluations as well as from other meetings. This document is available online at http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/ProjectOutputs.

3.5 What is needed to support the community dimension of learning design?

The evaluation data have suggested that Phoebe will function best as a community artefact, both in terms of propagating and supporting its use within individual institutions and in terms of providing customised terminology, learning design templates, guidance (e.g. regarding teaching approaches), and examples relevant to users' contexts (be those institution-based or subject-based).

However, success in this respect will depend upon the general acceptance of the tool by practitioners, and upon support within the tool for collaborative planning as a blended process, with the emergent plan both shaping, and being shaped by, communications among practitioners that take place both online and in face-to-face settings. IPR of shared designs is another key concern. Barriers that lie outside the control of the project team are buy-in to the concept of design for learning at the institutional level and, in particular, cultural resistance to sharing learning designs and resources.

3.6 What other potential issues of sustainability exist, and how might these be resolved?

Discussions about the sustainability of Phoebe have uncovered the following major concerns:

- Maintaining the currency of the reference and guidance system.
- Preserving the customised parts of Phoebe when the "core" product is updated.
- Ongoing financial support for developing, maintaining and hosting the tool..

Proposed "social" models of sustainability include a low-cost subscription service and a Wikipedia-style approach to maintaining the reference and guidance system, in which moderation by the project team would be essential to preserve its integrity and consistency. A proposed "technical" model is a modular one, such that the core product could be updated without impinging on the customised sections.

4. Conclusion

In exploring further the problem space revealed by its predecessor project (Learning Tools Design) Phoebe has both advanced our understanding of that space and indicated where further work needs to be done.

There is virtually no argument over the usefulness of pedagogy planning as a general concept, although greater clarity is needed in the terminology used to articulate it. Also generally recognised is the value of digital technologies in supporting the process of pedagogy planning, both to initiate trainee teachers into good design-for-learning practice and to provide inspiration and alternative approaches, tools and methods for experienced staff. Dedicated pedagogy planning tools can provide enhanced support through guidance, advice and examples, and, potentially, interoperability with other pedagogic and administrative systems. However, the success of future endeavours will crucially rely on close collaboration in research and development with the teaching community.

CONTENTS

1. INTRODUCTION

1.1 Aims of the Phoebe project

This document reports on the evaluation of the Phoebe Pedagogy Planner project, which investigated the design, development and evaluation of a prototype online tool to support the design of learning activities that make appropriate use of digital technologies. The project was sponsored by JISC as part of its Design for Learning programme and was a collaboration between the Technology-Assisted Lifelong Learning (TALL) Unit of the University of Oxford Department for Continuing Education and the Learning Technologies Group at Oxford University Computing Services (OUCS). Initially funded for the period May 2006-February 2007, the project was subsequently extended until February 2008. Henceforth in this report these two periods are referred to respectively as Phase 1 and Phase 2.

The present report is supplementary to the main project report and should be read in conjunction with that report.

As defined in the project plan, the aims of the Phoebe project were to:

1. Develop a prototype online planning tool to guide practitioners working in post-16 and higher education in designing effective and pedagogically sound learning activities.

2. User-test the planning tool for functionality and usability.

3. Investigate the feasibility of further development and the integration of the planning tool into pedagogic practice by:

    a) Linking the planning tool to specific guidance, models of practice, case studies, learning designs and other appropriate support material;

    b) Embedding use of the planning tool into specific contexts for piloting and evaluation, e.g. continuing professional development, initial teacher training

Specifically, our aim was to develop a tool that propagated the principles of effective practice to as wide an audience as possible, by allowing them to develop new pedagogical approaches while still using the planning tools with which they are familiar.

1.2 Background and rationale

The context in which the Phoebe project unfolded was a widespread interest in design for learning in the post-compulsory sector. This interest was motivated by several factors, including a shared belief, among researchers and practitioners, of a learner-centred and activity-focused model of learning (Beetham, 2004); the difficulty of realising this model within VLE areas that are primarily structured around content; the desire among practitioners themselves for practical guidance on designing for e-learning as well as a means to theorise about, or describe, their practice; and the Government's E-learning Strategy, which seeks to promote experimentation through the use of simple e-learning tools.

Design for learning has been defined as:

> "a set of practices carried out by learning professionals, defined as: designing, planning and orchestrating learning activities as part of a learning session or programme [with] a new emphasis on those aspects of the process that can be 'designed' in advance, and articulated and shared across different contexts of practice" (JISC, 2006).

The notion of "design" was intended to embrace, inter alia, the design-like professional practices now being required of teachers in creating effective technology-mediated learning experiences (e.g. innovation, interpretation in new contexts, an iterative approach to planning and continuous evaluation of process and product) and the potential of design-based learning systems such as LAMS and ReLOAD (cf. Beetham, 2008). The crucial role of design in the effective use of technology by teachers is further underlined by Sharpe and Oliver:

> E-learning is often talked about as a "trojan mouse", which teachers let into their practice without realizing that it will require them to rethink not just how they use particular hardware or software, but all of what they do (Sharpe and Oliver, 2007, p. 49).

The function of planning in particular is forcefully articulated by this teacher, speaking at a workshop held as part of the JISC eLISA project in 2006:

> "It fundamentally made me think about what I actually do in the class. … The VLE really made me think about 'how am I going to project what it is that I give to a lesson when I'm face to face on this screen?'… Usually I don't have to plan my lessons, I just go in and do it.… What it brought me back to was the actual lesson plan, you know, like when you first started off.… it was like that all over again" (Masterman, 2006a, p. 31).

Following on from our research into practitioners' use of "generic" productivity tools for planning in the Learning Design Tools ("LD Tools") project (Masterman, 2006b; Masterman & Vogel, 2007), we based the design of Phoebe on the belief that successful innovations in IT reflect, and build on, the ways in which users actually work, rather than requiring them to adapt their practices. Therefore, we argued, a planning tool should take as its starting-point the tools and processes in current use. By meeting practitioners on their "home ground", we could then introduce them to new, more effective, tools and processes and thereby lead them to espouse the emergent technologies where these are appropriate to their situations. While acknowledging the power and potential of the new generation of tools and players conformant with the IMS Learning Design specification, we noted that they constitute only one of a repertoire of tools at teachers' disposal. Moreover, even in 2008 they still have only a very limited user base, while a large number of practitioners need assistance getting started with e-learning.

Phoebe was developed in parallel with another pedagogy planner tool, the London Pedagogy Planner (http://www.wle.org.uk/d4l/) from the London Knowledge Lab at the Institute of Education. In contrast to Phoebe, this tool tackled the planning task at two levels: course/module and session. As the two projects progressed, they shared experiences, problems and ideas with a view to exploring how the two tools might be integrated.

1.3 Phoebe as a proof-of-concept prototype

A principal goal of the Phoebe project was to prove the concept of, and develop the specification for, a pedagogy planning tool that would be useful in a variety of contexts, rather than strive to produce a fully functioning practitioner-ready system. Critically, this meant that the vision underlying the design would be on trial as much as the design itself. Of course, all designs embody their underlying vision, but in a proof-of-concept tool that vision is necessarily much larger than its embodiment, and so we would need to project this in our evaluations.

1.4 Acknowledgements

The Phoebe project team would to thank a number of individuals and groups who have contributed to the evaluation, including:

- Helen Beetham, e-learning consultant to JISC

- Diana Laurillard, Jonathan San-Diego, Kevin Walker and other members of the London Pedagogy Planner project team

- Glenaffric Ltd., Design for Learning programme evaluation team

- Sarah Knight, Design for Learning Programme Manager, JISC

- Other projects participating in the D4L programme, who contributed their wisdom at various review meetings

- Gerard Barker, Thomas Box, Nicola Warren and David White of TALL

- Our practitioner-informants and evaluators.

  For the most part these people have to remain anonymous, but we are able to name and thank the following for enabling us to incorporate evaluations of Phoebe into their own staff development events: Simon Walker (University of Greenwich), Richard Francis and Greg Benfield (Oxford Brookes University), and Priscilla Dawson, Rob Newton and Penny Palmer (Swansea College).

1.5 Abbreviations used in this report

ACL	Adult and community learning
CPD	Continuing professional development
D4L	Design for Learning
FE	Further Education
HE	Higher Education
ITT	Initial teacher-training
LD Tools project	The Learning Design Tools project (Masterman, 2006b; Masterman & Vogel, 2007)
LPP	London Pedagogy Planner (http://www.wle.org.uk/d4l/)
WBL	Work-based learning

2. METHOD

2.1 Research questions

The project set out to address six key questions:

1. Is Phoebe a tool that practitioners in post-compulsory education find usable, helpful and relevant to their needs, whether they are

    a) beginning or experienced teachers looking to use technology in their teaching for the first time, or
    b) are familiar with e-learning but are looking for new ideas re technology and pedagogy?

    Specifically, does it encourage practitioners to think about their practice in a structured way?

2. Can one tool address all sectors of post-16 education, or are separate tools required for, say ACL, WBL, FE and HE?

3. Is Phoebe suitable as a tool for teacher education and/or a tool for supporting everyday practice?

4. What additional features and functionality are required to turn Phoebe from a proof-of-concept prototype into a tool for general use?

5. What is needed to support the community dimension of using learning design and make it possible to sustain learning designs as community artefacts?

6. What other potential issues of sustainability exist, and how might these be resolved?

These questions were adapted in each of the two phases, as will be outlined in sections 3.1 and 4.1.

2.2 Participants

A proof-of-concept evaluation requires a specific type of evaluator: one who can see past the present limitations and imperfections of the tool to the tool as it might be. Thus, the tool is not merely the object of the evaluation; rather, it serves also to mediate the evaluator's mental projections. In this respect, we initially decided that novice users of e-learning technology would not be the most appropriate evaluators: as Scaife and Rogers (1999) suggest, it can be more productive to work with people who are a few stages in advance of the target audience as they can recall, and reflect critically on, their own experiences as novices. However, with the extension of the project into a second phase, we were able to design a version of the tool with sufficient functionality and robustness to trial it with e-learning novices (both experienced and beginning teachers) in an appropriately scaffolded setting.

The Phoebe evaluation thus targeted four groups of users:

a) The "broad church" of teaching staff:

□ Teaching staff who were already familiar with the use of technology in their practice

□ Teaching staff who were new to technology

b) Staff responsible for the dissemination of technology in pedagogic practice:

□ Staff developers with responsibility for promoting e-learning

□ Tutors in ITT who were actively promoting the use of technology with their trainee teachers

  □ IT support officers and learning technologists responsible for disseminating the use of technology in their institution/department

c) Teachers and students undergoing CPD and ITT respectively (Phase 2 only)

  □ Teachers undergoing continuing professional development (CPD) programmes aimed at introducing them to e-learning

  □ Students undergoing initial teacher training (ITT) and who might have differing levels of expertise in digital technologies.

d) Policy-makers and others from strategic agencies, including the HEA, Becta, NIACE, ALT, JISC Regional Support Centres, LSN and TechDis (Phase 2 only)

These individuals were recruited in a number of ways, outlined in sections 2 and 3. We envisaged recruiting only a small minority of evaluators from the D4L programme itself as we felt that the evaluation would be more fruitful if evaluators came from outside the D4L "community."

A note about practitioner-informants:
"Practitioner-informants" were carefully selected individuals whom we asked to provide input into the design of Phoebe and to act as sounding boards for our own ideas. The term "informant" comes from the framework of "informant design" put forward by Scaife and Rogers (1999). Although they developed the framework primarily for working with children as design partners, an early version did acknowledge such a role for adults. In our conceptualisation, informant design involved the input of various representatives of the e-learning community at the specific stages of the project where their contribution would be of the most value. The nine Phoebe practitioner-informants were selected from participants in the LD Tools project, course authors who work with TALL and recommendations by the JISC Programme Manager.

We worked with our practitioner-informants primarily in the Phase 1 design process, but six of them were involved in the Phase 1 evaluation.

2.3 Schedule of evaluation events

Much of the evaluation data were collected in association with events specifically organised for the purposes of the project. The programme of events, their associated data collection instruments and the research questions addressed is summarised in Table 2.1.

The internal usability tests are not reported in this document.

In Phase 1 we also designed an online evaluation of the tool; however, the striking consistency of feedback regarding the usability of Phoebe obtained from the review meeting and our interviews with PIs made it clear that this exercise would add little to the data already collected.

Table 2.1   Phoebe evaluation programme

Timing	Event	Factor to Evaluate	Broad questions addressed	Data collection method(s)	Measure of Success
Phase 1					
Aug/Sept 2006	Internal usability tests	UI and functionality of prototype tool	Consistency, usability, error-free functioning	Walkthrough by project team members	Number of issues identified and resolved
Nov 2006	Internal usability tests	Usability of revised prototype	Usability, error-free functioning	Walkthrough by project team members	Extent to which issues raised in evaluation with PIs have been resolved satisfactorily
23 Jan 2007	Design review meeting	Acceptability of tool to wider D4L community	Overall vision and functionality of tool	Demonstration of tool; feedback via paper-based questionnaire	Extent to which the tool is judged to be of use to the community
Feb 2007	Meetings with individual practitioner informants	Usability and usefulness of prototype tool	Consistency, usability, mapping to real-world task	Walkthroughs by practitioner-informants; feedback via interviews with structured questions similar to those used at review meeting	Quality of feedback and suggestions for improvement; minimal number of bugs and UI/functionality issues
22 Feb 2007	Workshop at University of Greenwich	Embedding	Suitability for embedding in staff development and/or initial teacher-training context	Demonstration and hands-on experience; feedback via discussion	Quality of feedback re suitability
Phase 2					
Oct-Nov 2007	Internal usability tests	UI and functionality of prototype tool	Consistency, usability, error-free functioning	Walkthrough by project team members	Number of issues identified and resolved
31 Oct 2007	Trainee teachers' workshop (HE), University of Greenwich	Usability; embedding in ITT; suitability for novice teachers	Usability; value of structured support for the planning process; value of the reference materials in inspiring thinking	Demonstration and hands-on experience; feedback via online questionnaire	Levels of satisfaction and acceptability expressed by participants; extent to which the tool is judged to be of use to trainees

Timing	Event	Factor to Evaluate	Broad questions addressed	Data collection method(s)	Measure of Success
14 Jan 2008	Experienced practitioners' workshop held at Oxford University Dept of Continuing Education; attended by practitioners in FE, HE, ACL, WBL	Sustainability; suitability for experienced practitioners; customisation; support for collaborative planning(?)	Integration into personal pedagogic practice; integration into institutional practice	Pre-workshop online questionnaire to elicit current practice Demonstration and hands-on experience; feedback via discussion and online questionnaire	Levels of satisfaction and acceptability expressed by participants; knowledge about the ways in which practitioners might want to customise Phoebe; input on the additional functionality needed to support customisation at an acceptable level
29 Jan 2008	"E-learning intensive" at the University of Brighton led by Oxford Brookes University)	Sustainability; suitability for experienced practitioners; customisation; support for collaborative planning(?)	Integration into personal pedagogic practice; integration into institutional practice	Pre-workshop online questionnaire to elicit current practice Demonstration and hands-on experience; feedback via discussion	
6 Feb 2008	Trainee teachers' workshop (FE), Swansea College	Usability; embedding in ITT; suitability for novice teachers	Usability; value of structured support for the planning process; value of the reference materials in inspiring thinking	Demonstration and hands-on experience; feedback via online questionnaire	Levels of satisfaction and acceptability expressed by participants; extent to which the tool is judged to be of use to trainees
Feb-Mar 2008	Online evaluation by interested (mainly experienced?) users	Usability; usefulness	Integration into personal pedagogic practice	Pre-evaluation online questionnaire to elicit current practice Hands-on experience; feedback via online questionnaire	Positive feedback on tool + constructive suggestions for future directions (both functional and in terms of deployment)
4 Mar 2008	Strategic review meeting with representatives from HEA, Becta, ACLearn: joint event with the London Pedagogy Planner project; organised by JISC	Viability of the concept of pedagogy planning tools; suitability across sectors and domains	Embedding and sustainability	Pre- and post-meeting online questionnaires to elicit general perspectives Demonstration and hands-on experience; feedback via paper-based survey	Quality of feedback re suitability

3. EVALUATION OF PHASE 1

3.1 The Phase 1 prototype

The Phase 1 prototype of Phoebe was developed using an open-source wiki, powered by Trac (Edgewall Software: http://www.edgewall.com/), with the addition of a "notepad" feature to enable users to start building their plans (see Figure 3.1). The wiki structure and the use of tagging were intended to allow the guidance materials to be extended and customised relatively easily by users, so that "socially" developed content could be written for different contexts of use.
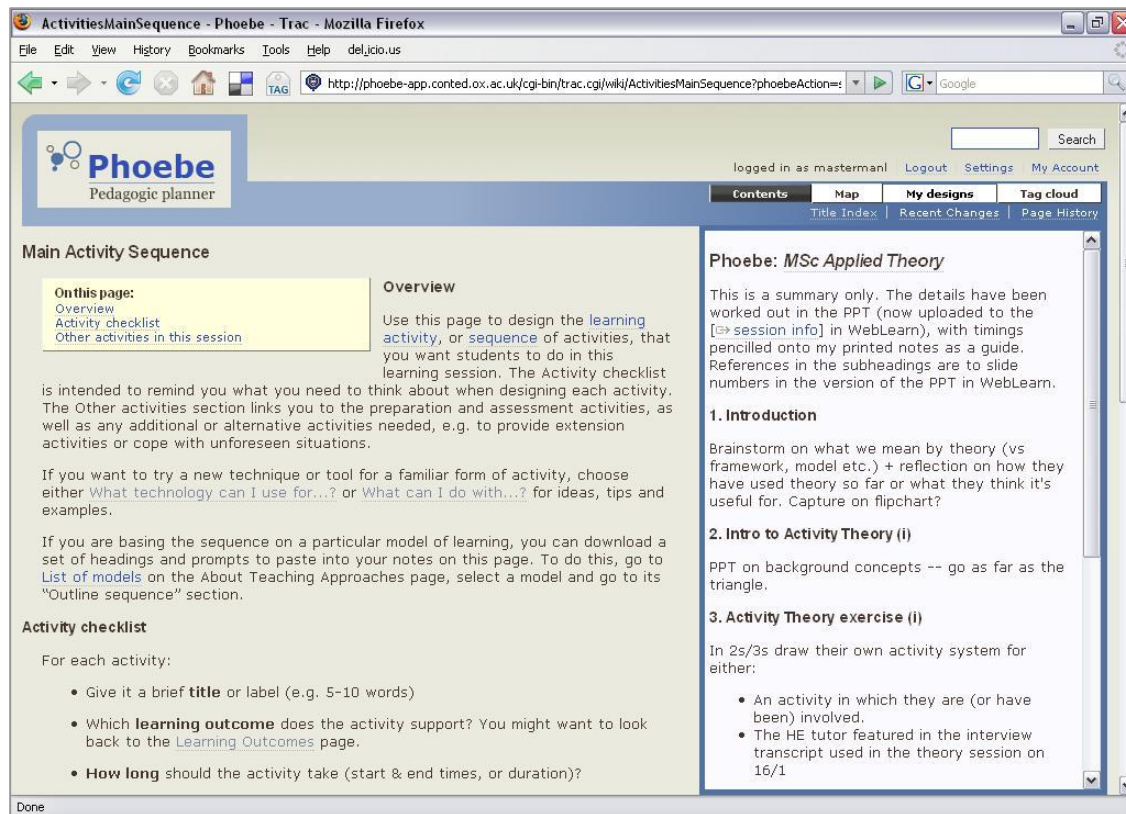
Figure 3.1. A page from a Phoebe learning design, showing the guidance for the component being described (the learning activities) and the notes typed by the user.

3.2 Phase 1 evaluation questions

In evaluating Phase 1 the research questions were simplified to the following:

1-1. Do evaluators endorse the concept underlying Phoebe?

1-2. To what extent does the tool operationalise the concept in terms of

- Usability:
  - How easy is it to learn to use the tool?
  - How easy is the tool to use for the actual task of constructing a pedagogic plan?

- Usefulness:
  - Would the tool be viable in their organisation for planning at the lesson level?
  - In what contexts could they envisage its use?

□ Could the tool function as a "community artefact," owned and customised by individual institutions or departments?

1-3. What would be useful/desirable/essential for its wider acceptance?

- What shortcomings need to be overcome?
- What additional features or functions would be helpful?

3.3 Overview of evaluation events in Phase 1

3.3.1 Design review meeting

This meeting was held on 23rd January 2007 to elicit the perspectives of the e-learning community on the future course of both the Phoebe and London Pedagogy Planner projects. It was organised by the JISC D4L programme management team, together with Glenaffric Ltd, which was responsible for the programme-level evaluation. The review was attended by volunteer members of projects in the programme (even though this was contrary to our original intention), one member of the evaluation project team and a number of individuals specifically invited by the JISC programme management. These individuals were not part of the D4L programme.

The design review took the form of a walk-through of the prototype planner tool and a question-and-answer session. Participants were then instructed to complete the following set of open-ended questions prepared by Glenaffric:

1. What are your first impressions of the planner?

2. Who do you think could/should make use of the planner, and for what purposes?

3. What in your view are the advantages of using the planner, and who will benefit?

4. What, if anything, could help the intended users make effective use of the planner (e.g. training, guidance, time...)?

5. Do you foresee any technical limitations in using the planner?

6. What (if any) organisational issues do you foresee?

7. Please give your views on the future development plans outlined by the projects. What (if any) improvements or revisions would you like to see?

8. Do you have any other ideas or views about piloting or promoting the pedagogic planning tool?

3.3.2 Interviews with practitioner-informants

We conducted individual interviews with practitioner-informants in February and March 2007 to obtain their feedback on the prototype tool which we had developed partly on the basis of their original input. Although conducted in an open manner in order to elicit each informant's unprompted reactions and suggestions, the interviews also included the same set of questions that had been posed in the design review, modified slightly to suit the different context.

1. What are your first impressions of Phoebe?

2. Who do you think could/should make use of Phoebe, and for what purposes?

3. What, in your view, are the advantages of using Phoebe, and who will benefit?

4. What, if anything, could help the intended users make effective use of the planner (e.g. training, guidance, time?)

5. Do you foresee any limitations (technical, practical, logistical, philosophical) in using Phoebe?

6. What (if any) organisational issues do you foresee?

7. What (if any) improvements or revisions would you like to see?

The interviews were audio-recorded and subsequently written up: We did not transcribe the interviews verbatim; rather, we paraphrased the general gist and made a full transcription only of the key segments. Responses to the structured set of questions were then collated with the responses to the corresponding questions in the design review.

3.3.3 Staff development workshop

This workshop, organised by one of our practitioner-informants in his home university (Greenwich) on 22nd February 2007, was intended for trainee teachers in the FE sector to explore Phoebe as a tool for their own planning. However, the invitation was subsequently extended to academic teaching staff within the university. The two-hour workshop consisted of an introductory presentation and demonstration of Phoebe, followed by hands-on exploration and a closing discussion of participants' experiences.

3.4 Results of Phase 1 evaluation

3.4.1 Data collection

Nine responses were handed in on paper at the end of the design review and were subsequently collated into a summary document by Glenaffric. However, anonymisation of the respondents by Glenaffric meant that we could not distinguish between members of the Design for Learning programme and invited external reviewers.

Interviews were conducted with five practitioner-informants. We omitted three others both through lack of time and because the number of common points that had already emerged from the first six interviews led us to concluded that little more would be gained from these additional meetings, especially as lengthy travel would be involved. The final informant helped to organise the workshop outlined in section 3.2.3.

No student teachers and only three experienced teachers attended the staff development workshop in addition to the organising practitioner-informant.

We used the summary document of design review responses as the basis of our own analysis. We first extended it by inserting the responses of practitioner informants to each of the questions posed, and then analysed the combined data.

The next few sections report briefly the responses to each question. The final question also includes additional data from the interviews, together with criticisms and suggestions made by participants in the staff development workshop.

3.4.2 First impressions

Question 1: What are your first impressions of the planner?
All 13 respondents to this question made positive comments; for example:

"Great tool, help and guide for new tutors and tutors that are studying."

"Looks good. The types of content – not come across anything that does that type of thing before, things that people do need to think about but don't always do it."

"I found the tool to be easily accessible at the top level, providing a really helpful structure to guide the design process. This guidance is combined with very high level of 'personalisability' with its free form note making tool."

However, five people also expressed reservations about its complexity and possible usability issues; e.g.

"Potentially very powerful and flexible but also perhaps confusing, especially for the novice user. Could function at many levels,. Highly theoretical, perhaps too much so for 'rank and file' teachers. Needs some judicious editing and would benefit from some simple guidelines.."

"The potential is huge. It's just tempered by getting started."

3.4.3 Intended users and purpose

Question 2: Who do you think could/should make use of the planner, and for what purposes?
Responses fell into the following categories:

Practising lecturers, incl. those wishing to explore e-learning:	6
Staff developers, trainers:	5
Student teachers; new lecturers:	5
People interested in Learning Design and/or theory, , incl. developers of Learning Design systems:	3
Learning technologists:	2

Writing about specific categories of potentially interested parties, one person noted:

"[Staff developers & student/new teachers] – to help formulate pedagogically sound designs – to see types of tools/activities available
[Lecturers & learning technologists] - to help design new modules/courses etc or revise existing ones"

Some respondents gave more general responses, such as:

"...anyone who is motivated to consider alternatives or needs inspiration."

"Anyone who needs to understand the theoretical underpinning of learning design."

However, one person expressed concern about the cross-sector applicability of the tool as it stood:

"I have concerns over the proposed breadth of audience. I think the level of choice presupposes an understanding of the options which would apply better to HE than an ACL or FE audience."

3.4.4. Advantages and beneficiaries

Question 3: What in your view are the advantages of using the planner, and who will benefit?
Perceived advantages included:

- Simplicity; step-by-step approach
- Structure, incl. making available the "whole picture" of what needs to be considered in planning a lesson
- Flexibility: can accommodate planning at multiple levels from an entire curriculum down to individual learning objects
- Support for reflection
- Range of materials; clearly written

- Provenance ("safe")
- Online environment

Perceived beneficiaries were much as in question 2, plus "communities of practice":

> "I like the proposal of Phoebe supporting communities of practice rather than being left open ended. Its use could then be introduced & supported by an informed person who is a trusted or significant others for non-informed members."

3.4.5 Support and training issues

Question 4: What, if anything, could help the intended users make effective use of the planner (e.g. training, guidance, time...)?
Responses fell into the following categories:

Training; integration into staff development programme; pedagogical support:	6
Support materials:	2
"Getting started" guide with animations:	1
Technical support:	1

Other suggestions related more to the functionality of Phoebe, and thus are included in the results of question 7.

3.4.6 Technical issues

Question 5: Do you foresee any technical limitations in using the planner?
Issues related to inherent restrictions within the technology clustered mainly around the limited access to the internet in some ACL and FE environments and, in particular, the fact that Phoebe did not run satisfactorily in Microsoft Internet Explorer 6: "We're still on IE6. It's an issue for a lot of organisations. Not likely to update to IE7 soon (only went onto XP last year)."

The text-based nature of the wiki was seen to militate against visual design and to limit incorporation of graphical forms of representation, and the inability to link to documents stored locally (other than on an intranet) was also a drawback.

Issues stemming from conceptual design and its implementation in the chosen environment included a sense of "tension" between the wealth of information provided and the efficiency with which users could navigate through it. In this respect, it was thought that the tool could become "unwieldy." Also, another evaluator felt that planning should be a "seamless process" involving a single tool.

3.4.7. Organisational issues

Question 6: What (if any) organisational issues do you foresee?
The principal perceived "needs" were:

- Getting design for learning practised in the first place.

- Integration of the tool into practice through staff development.

- Allocating responsibility for supporting the tool: e-learning teams, staff development teams and VLE support staff were all mentioned.

- Ability for institutions to include their own learning design templates, examples, learning approaches etc. in Phoebe.

3.4.8 Improvements and revisions

Question 7: Please give your views on the future development plans outlined by the projects. What (if any) improvements or revisions would you like to see?

Table 3.1 summarises the principal suggestions for improvements and revisions to the Phoebe prototype made by the reviewers and evaluators. These have been selected on the basis of their specificity (i.e. they are explicit about what kinds of improvements they would like to see) and their general applicability: i.e. they are desiderata for pedagogy planner tools as a genre, not just the version 1 prototype of Phoebe.

Table 3.1. Evaluators' suggestions for enhancements to Phoebe

Details	No. of suggestions
a) Content	
Need for more practical examples, including institution-specific templates and exemplars	5
Need for graphics as well as text	3
Handle broken links to online resources, e.g. by	2
◆ Including in each link identifying information about the site, so that if the link is broken users can search for it	
◆ Including a mechanism on each page for reporting broken links	
Terminology: sort out [a consistent] terminology / use a structured vocabulary.	2
Export content to other online support environments (e.g. other wikis) [presumably for customisation]	1
b) Functionality	
Make the tool interoperable with other systems and tools: e.g.:	7
◆ Upload learning designs in any format	
◆ Upload documents and other resources into the learning design	
◆ Map output to IMS LD	
◆ Output to Word docs (NB these are in customised tabular format)	
◆ Links into/out of course and student management systems	
Allow users to customise the tags associated with specific pages	5
Provide support for sharing and reusing/repurposing designs	2
c) Representational issues	
Include an overview of the plan (gestalt view):	4
"The atomisation/fragmentation of keeping notes seems a bit wearisome - a different 'page' for name, time, location, etc."; "At the moment the design is not the central piece. The central piece is the structure of the contents. And then the designs have to be brought together from the notes by the user."	
Draw explicit visual links between components: e.g. activities and learning outcomes; location and tools	2
Provide a graphical design interface	1
Provide multiple representations of learning design: what you need to run the session, what the students need to see, what management needs to see for audit purposes	1
d) Help and support system	
Help system and/or assistance for getting started: e.g. an animated guide (in CamTasia or Wink) or a "wizard" for creating simple basic plans	7
Online community	1

e) Platform

Support for the "lowest common denominator" of browsers (in this case, Internet Explorer 6)	4
Availability in an off-line version	1

3.4.9 Other ideas

Question 8: Do you have any other ideas or views about piloting or promoting the pedagogy planning tool? (design review only)

The principal suggestions were to trial the tool in teacher-training or staff-development sessions (two reviewers expressed interest in doing so themselves) and to explore synergies with other JISC development projects.

3.5 Findings and outcomes

The answer to our first evaluation question – "Do evaluators endorse the concept underlying Phoebe?" – appeared to be a resounding "yes." There was a generally perceived need for tools of this kind, both to initiate trainee teachers into good design-for-learning practice and to provide inspiration and alternative approaches, tools and methods for experienced staff. This was no less true among evaluators and reviewers coming from outside the Design for Learning programme, as shown by these two extracts from interviews with practitioner-informants (not quoted above as they fell outside the actual questions):

> "This is the kind of excitement that doesn't come along very often, when you see something and think this is going to be absolutely so useful" (practitioner-informant at FE college).[1]

> "[we] have a lot of systems in place to try to help people to construct meaningful e-learning experiences, but [are] still on the look-out for ways to organise learning activities, because [the] VLE is not ideal for designing learning activities online." (practitioner-informant in university)[2]

The second evaluation question – the extent to which the concept of a pedagogy planner tool was operationalised in the Phase 1 prototype – was subdivided into its usability and usefulness.

In terms of usability, getting started was clearly an issue: people seemed attracted by the promise of the home page, contents and what they were shown of the guidance, but trying to use the tool in earnest proved a different matter. The project team fully accepted the different suggestions for helping beginning users.

The simplicity and flexibility of Phoebe's functionality in supporting a many-faceted process within a structured setting were clearly strengths of the tool. However, comments regarding the need for clearer navigation indicated that the balance between flexibility and structure needed to be struck more finely. Thus, even though the guidance and examples already incorporated into Phoebe appeared to meet practitioners' needs, the system functioned better as a resource with a note-taking facility than as a usable and useful tool for creating lesson plans.

In principle, then, Phoebe appeared be viable for planning individual learning sessions, having captured the key stages of the planning process, as well as the key components of the finished

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[1] Same person as RE08F in the remote evaluation (section 4.8).

[2] Same person as RE05H in the remote evaluation (section 4.8).

product. However, in the light of at least one comment, it would be worth exploring Phoebe's usefulness for design at coarser (module, course) and finer (learning object) granularity.

The potential contexts of use were very clear: viz. Phoebe was perceived to have a role both in training and in everyday practice, by the full range of practitioners. The doubts surrounding the cross-sector applicability of the tool may, in part, be a consequence of the HE environment in which the project team was working and of which it had the greatest knowledge.

Data from the evaluation led us to conclude, provisionally, that Phoebe would function best (if not exclusively) as a community artefact, both in terms of propagating and supporting its use within individual institutions and in terms of providing customised terminology, learning design templates, guidance (e.g. regarding teaching approaches), and examples relevant to users' contexts (be those institution-based or subject-based). Essential barriers to overcome, but which lay outside the control of the project team, were buy-in to the concept of design for learning at the institutional level and allocation of responsibility for day-to-day support for users.

Looking outwards to the wider acceptance of Phoebe, the limitations of the current tool in relation to the FE and ACL sector were clear, both in terms of relevance of content (which could be handled in part through customisation) and technology. Institutions in both sectors displayed unanticipated levels of technological conservatism (albeit for understandable reasons), and there was a pressing need to establish a lowest common denominator of functionality at which the tool would work without compromising its ability to capitalise on the features of more advanced hardware and software.

Although the brief to develop an online tool was non-negotiable, there were clearly shortcomings in a solely Web-based product, particularly where users may have restricted access to the internet and where resources are distributed across a number of locations. It would therefore be desirable to investigate a) how certain tasks in Phoebe might be carried out offline and b) how to enable teachers to link to resources stored on local intranets, and even to upload documents into Phoebe for storage as part of the learning design.

However, perhaps the major hurdle to overcome in Phoebe was the problem of representation. Although it is possible to upload graphics files into a wiki, this text-based medium militates against any kind of graphical display of the learning design itself and the interrelationships among specific components (e.g. showing how learning activities are mapped to their associated learning outcomes). Moreover, the output from Phoebe in the form of the finished plan was somewhat crude, and would require considerable manipulation in a word processor in order to fit the precise tabular formats demanded by many FE and ACL institutions in particular. Representation was a known shortcoming from the start, but it was also a necessary compromise when developing tool with limited time and financial resources. The evaluation therefore merely reinforced the need to dedicate proportionately greater resources to this aspect of the tool in Phase 2.

4. EVALUATION OF PHASE 2

4.1 The Phase 2 prototype

The principal change to Phoebe in Phase 2 was the replacement of the note-taking functionality based on the Trac platform by a design-centric tool built using PHP & MySQL. As part of this change, we separated the design editing functionality from the guidance platform and materials, giving users a more coherent view of the design as a whole, and a system better suited to individual and institutional customisation (see Figure 4.1). User accounts were implemented using a self-registration system, and the OpenID registration and authentication system could also be used. However, the ability to tag the guidance pages was lost.
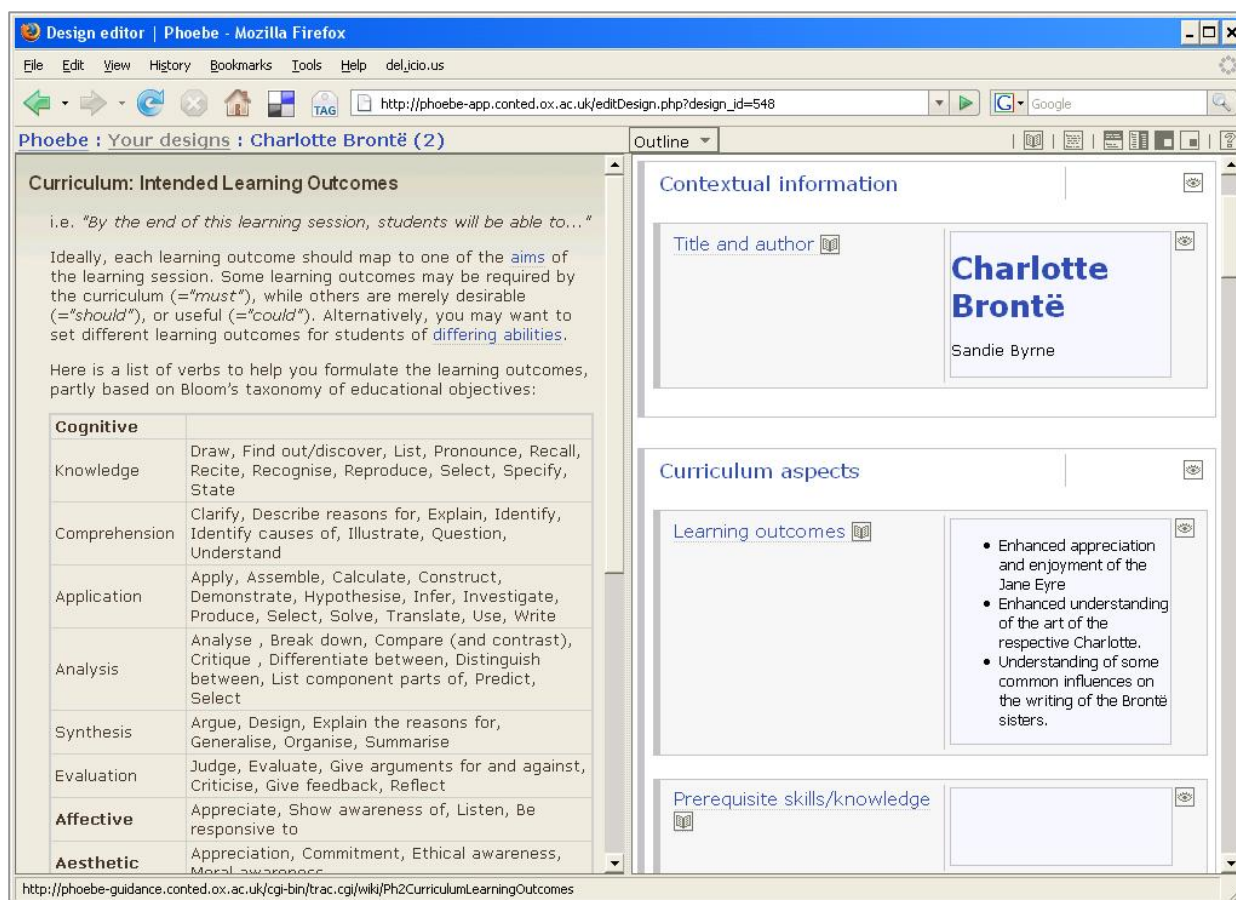
Figure 4.1. The editing page of the Phase 2 Phoebe prototype

The content of Phoebe was reorganised to reflect this new structure, with new materials authored and existing ones revised. We had hoped to integrate a substantial proportion of learning designs produced by other projects in the Design for Learning programme into the tool, but few examples proved to be suited to our needs.

Other additions to Phoebe that took into account the findings of the Phase 1 evaluation included:

- "Getting started" guide available online

- Introduction of templates - subsets of the components of a learning design - to enable users to customise designs according to the requirements of their institution. Three default templates were created: basic, mid and full.

- Easier navigation through a learning design

- Provision for looking at learning designs created by other users of Phoebe and, conversely, to share one's own learning designs with them.

- Output a design in tabular format (for pasting into a Word document), HTML format (as a hierarchy of components) and XML.

However, it was not possible to address and rectify all of the shortcomings highlighted in Phase 1. Significantly, we were unable to explore the implementation of graphical representations of the learning design, and the output options were somewhat limited. Thus, we embarked on the evaluation of Phase 2 still with a number of known Achilles' heels.

4.2 Phase 2 evaluation questions

In Phase 2 we continued to evaluate Phoebe as a proof-of-concept tool; however, this time we tested it in more authentic environments, in order to address the following areas:

2-1. Usability

2-1.1 How easy is it to learn to use Phoebe?

2-1.2 How easy is it to use Phoebe to accomplish the required tasks?

→ What does Phoebe do well?
→ Conversely: what are the shortcomings in its functionality?

2-1.3 What is users' affective response to Phoebe?

→ Do they enjoy using it?
→ Would they recommend it to others?

2-2. Integration into individual pedagogic practice

2-2.1 How well does Phoebe's underlying model of learning design map to users' established practice?

2-2.2 How useful is Phoebe at the different levels of design: i.e. course/scheme of work, module/topic, session?

2-2.3 To what extent does Phoebe encourage users to think about their practice in a structured way?

2-2.4 What is the relationship between the use of Phoebe and practitioners' continued use of existing tools? Otherwise put, do practitioners combine the use of Phoebe's planning functionality with their familiar tools?

2-2.5 Could practitioners envisage using Phoebe in their normal work?

→ If yes, what role would Phoebe play?

2-2.6 Do they consider Phoebe to be useful to other practitioners? If yes, at what stage of one's career, and at what level of experience vis-à-vis e-learning might it be useful?

2-3. Integration into pedagogic practice of the institution (community dimension)

2-3.1 Can Phoebe be used by practitioners working alone or does it work best in an institutional setting, as a community artefact?

2-3.2 To what extent does Phoebe facilitate or, conversely, impede established practice relating to session planning in the user's institution?

→ For staff trainers: does it map to the models of pedagogy which they are trying to communicate to their trainees?

2-3.3 Is there a perceived need for Phoebe to be customised to meet the needs of individual organisations in order to function as a community-owned artefact?

→ Could simple customisation options (e.g. ability to edit "default" guidance, add own case studies and examples, components of plan, terminology?) be sufficient, or would they need a totally customised tool?

2-4. Sustainability

What are the issues in sustaining Phoebe in terms of maintaining the currency of guidance and examples, hosting, support for individual users and communities, and further development?

4.3 Overview of evaluation events in Phase 2

In total, five separate evaluation events with potential users were organised by the project team in Phase 2 (see Table 2.1), although team members were not always present at, or in control of, each one. Each event was intended to explore one or more of the Phase 2 evaluation questions with an identifiable group of practitioners: trainee teachers (ITT), teachers undergoing continuing professional development (CPD) and experienced e-learning practitioners. The sixth event, the strategic review meeting, was organised by JISC.

Participants in the experienced practitioner, continuing professional development and trainee FE teacher workshops all signed consent forms agreeing to the use of their data for research purposes. Those taking part in the online evaluation were explicitly asked to respond "yes" or "no" to a statement authorising the project team to use their responses.

Since each event differed slightly from the others in format and data collection instruments, the first five evaluation events are described and analysed separately in sections 4.4 to 4.8. The strategic review meeting is described in section 4.9, but the data from it are not analysed separately. Instead, they are used to inform the discussion, in Section 5, of the common themes that have emerged from the Phase 2 evaluation in relation to the main project research questions listed in section 2.1.

In reporting the evaluation of Phase 2 we focus on the usefulness and relevance of the tool (the "proof-of-concept" dimension of the evaluation), rather than on issues relating to functionality, robustness and usability. This is not to deny that the latter existed, or that we recorded them for rectification; however, there seems little value in recording transient problems that would either be fixed or rendered obsolete in a future revision of the tool. What is of interest, though, are those aspects of functionality and usability that we identify as being central to any tool of this type, and these we have highlighted.

Note: Participants in the Phase 2 evaluation are identified by alphanumeric codes in the format **XXNNY**, where:

XX denotes the evaluation event:
GR   Trainee teachers (HE) at the University of Greenwich
EX   Experienced practitioners' workshop
BT   CPD at the University of Brighton
SW   Trainee teachers (FE) at Swansea College
RE   Remote evaluation
PP   Strategic review meeting

NN denotes the individual participant: e.g. 01, 02, 14

Y denotes the nature of that person's work (there may be more than one such code if that person has multiple roles):

A   Teacher or manager in ACL
F   Teacher or manager in FE
H   Teacher or manager in HE
S   Head of high (secondary) school (USA)
T   Trainee teacher
V   Adviser, consultant
W   Teacher or manager in WBL

4.4 Trainee teachers: HE

Evaluation questions addressed:

2-1.1 How easy is it to learn to use Phoebe?

2-2.3 To what extent does Phoebe encourage users to think about their practice in a structured way?

4.4.1 Method

The first event was held at the University of Greenwich, as part of a session its postgraduate diploma programme (PGDIP/Cert) for probationary staff learning to teach in HE. Students were learning to plan in the traditional way, by completing a pro-forma plan on paper, and as part of a session on using ICT in teaching, a Phoebe practitioner-informant who teaches at Greenwich gave the students a 1½-hour introduction to pedagogy planner tools, including 40 minutes' hands-on experience with Phoebe. Students had a portfolio task on how they used technology in their teaching, and the purpose of the session was to plan a lesson in Phoebe.

4.4.2 Data collection

No-one from the Phoebe project team was able to attend this session; however, we designed an online questionnaire in SurveyMonkey to collect students' demographic information and feedback on their brief experience with Phoebe. The questionnaire is included in the Appendix.

4.4.3 Results

Subject domains and IT skills

Responses were received from 15 trainee teachers and one experienced tutor (who is excluded from this analysis). Most were new staff at Greenwich, but some came from Goldsmiths University of London and South Bank University. The subjects that they were training to teach were:

Business, Management and/or Economics: 5
Social work: 4
Education: 3
Healthcare: 3
Creative arts: 1

Asked to rate their ICT expertise on a four-point scale, 9 rated themselves as "quite" or "very" experienced, although some qualified this assessment by commenting that they were experienced in "the basics:" that is, they had a restricted range of skills, but felt competent in these. Six rated themselves as "fairly" or "very" inexperienced.

In answer to the question "At the moment, what uses can you see for ICT in your teaching?" the majority envisaged using it to illustrate lectures and post lecture notes on the university's VLE, as Table 4.1 shows.

Table 4.1: Envisaged uses of ICT by trainee teachers in HE

Use	No. of respondents (N=15)
Illustrating lectures (e.g. with PowerPoint)	12
Making lecture notes etc. available on the VLE	10
Electronic submission of assignments	3
Electronic communications with students	2
Online learning activities e.g. quizzes	2
Podcasts	1
Teacher's blog for FAQs (to save responding to individual emails)	1
Student blogs	1
LAMS	1
For projecting students' work	1
Negative attitude	1

The prevalence of the first two uses (illustrating lectures and posting content to the VLE) may be in part a consequence of the fact that they were cited as examples in the question. However, electronic submission and electronic communications were also given as examples, yet did not appear popular. Thus, it is possible that the top two items in Table 4.1 genuinely represent the majority conception. Interestingly, one person wanted to use ICT in more creative ways, but pressure of time and lack of familiarity with the content risked militating against experimentation:

> "I have been happily using PowerPoint, am just learning to load resources onto WebCT, and have recently been introduced to using things like podcasts in lectures. I get quite excited about differing opportunities to use IT, but when pressured for time, or unfamiliar with teaching subject will revert to more familiar approaches." (GR04H)

One student expressed a negative disposition vis-à-vis ICT:

> "IT is a crutch. A few technological advances have improved the delivery of teaching, for example PowerPoint over overhead transparencies. Even for this however, problems with equipment and greater amount of prep time often outweighs the benefits. Online materials in theory should save trees. Instead the same materials are printed out. Students use these as an excuse not to read textbooks or attend lectures." (GR05H)

Such views may be in the minority nowadays, but nevertheless they need to be acknowledged and accommodated in e-learning initiatives.

Reactions to Phoebe
During the time available to them, four students managed to create a more or less complete lesson plan in Phoebe, another 10 had started work on a plan, and only one had just looked at the reference materials.

What are your first impressions of Phoebe, in terms of usability and relevance to your own teaching?
Positive impressions centred on the advice and guidance contained within Phoebe (9 mentions); for example:

> "It's very helpful to have the place to TYPE in the info and the guidelines all in one place, as well as the structure. As I am new to teaching I have been struggling with

lesson planning – it would take all day to plan one [because] I have so many things to reference and take on board. I wish I'd had access to this sooner." (GR08H)

Five people appreciated the structure provided by the planning part of the tool, and another one felt that Phoebe helped him to understand the *process* of planning: "Very, very useful as it has helped to enhance my understanding of creating lesson plans with much [ease]." (GR03H)

However, three people criticised the tool on usability grounds, and other negative reactions included perceptions that it was too prescriptive, not easily modifiable, and that a lot of time would be needed for training. It should be noted, though, that the students were working with an early version of the Phase 2 prototype, before templates had been introduced and before we had written the "getting started" guide.

Do you think that there is a future for online tools (such as Phoebe) that help you plan your teaching, give you advice and allow you to look at other people's plans for inspiration?
Looking ahead, 13 out of the 15 respondents felt that they could envisage a future for pedagogy planner tools, with help and advice featuring as a key benefit. One person felt that such tools could support teachers who themselves have learning difficulties (she has mild dyspraxia). Another felt that, to be useful, planner tools would need to be "improved considerably so as to reduce and not increase time for planning" (GR01H). The session facilitator also reported the suggestion, made during a general discussion of the tool, that certain elements of the design (e.g. aims and outcomes) should be generated directly into PowerPoint.

4.5 Experienced practitioners

Evaluation questions addressed:

2-1. Usability
    2-1.1 How easy is it to learn to use Phoebe?

    2-1.2 How easy is it to use Phoebe to accomplish the required tasks?

2-2. Integration into individual pedagogic practice
    2-2.1 How well does Phoebe's underlying model of learning design map to users' established practice?

    2-2.3 To what extent does Phoebe encourage users to think about their practice in a structured way?

    2-2.4 What is the relationship between the use of Phoebe and practitioners' continued use of existing tools?

    2-2.5 Could practitioners envisage using Phoebe in their normal work?

    2-2.6 Do they consider Phoebe to be useful to other practitioners? If yes, at what stage of one's career, and at what level of experience vis-à-vis e-learning might it be useful?

2-3. Integration into pedagogic practice of the institution (community dimension)
    2-3.1 Can Phoebe be used by practitioners working alone or does it work best in an institutional setting, as a community artefact?

    2-3.2 To what extent does Phoebe facilitate or, conversely, impede established practice relating to session planning in the user's institution?

    2-3.3 Is there a perceived need for Phoebe to be customised to meet the needs of individual organisations in order to function as a community-owned artefact?

2-4. Sustainability
What are the issues in sustaining Phoebe in terms of maintaining the currency of guidance and examples, hosting, support for individual users and communities, and further development?

4.5.1 Method

The second evaluation event was an invitation-only workshop at TALL for experienced teaching staff in HE, FE and ACL, most of whom had already used e-learning with their students. The 12 evaluators who attended included two of the original practitioner-informants, two members of one of the other Design for Learning projects (ALeD) who had expressed interest in holding an evaluation event with their own students (see section 4.7), and a number of other teachers who had heard about Phoebe through other routes and wanted to participate in the evaluation.

The workshop was led by the project team, and opened with an introduction to the project and a "getting started" demonstration of Phoebe. Participants then had two hours to use the tool to develop a lesson plan, with a break for lunch. They had been advised in advance to bring any materials that they might need for this purpose. Printed "Getting Started" guides[3] were available, and members of the project team were on hand to provide assistance.

4.5.2 Data collection

Data from the workshop were collected in three ways:

- **Preliminary questionnaire.** Participants completed this online questionnaire in advance of the workshop and solicited essential demographic information, together with data about how they normally approached course and lesson planning. Some of these questions were derived from the questionnaire used in the LD Tools project, in part because they had yielded helpful background data in that project, and in part to allow for comparison between the two projects (should we so wish).

- **Review questionnaire.** Participants completed this second online questionnaire at the end of their practical session with Phoebe. This captured their individual experiences with Phoebe, together with their views on the prospects for pedagogy planner tools. These the latter questions were derived from Glenaffric's survey for the Phase 1 evaluation (see section 3.3.1).

- **Plenary discussion.** This took place at the end of the workshop after participants had filled in the review questionnaire, and addressed these questions:

  1. Is Phoebe usable, helpful and/or relevant to your needs?
  2. Is Phoebe suitable for teacher education and/or for supporting everyday practice?
  3. Do you think that there is a future for general-purpose online pedagogy planning tools (such as Phoebe)?

  The discussion was audio recorded and the key contributions transcribed.

The two questionnaires are included in the Appendix.

4.5.3 Results from the preliminary questionnaire

Roles, sectors and subject domains
Of the 12 participants, 6 were involved in teaching, including consultancy, and 7 had a management or co-ordination role (one person had both role types). They came from the principal sectors of post-compulsory learning; viz. FE (7), HE (6), ACL (3), WBL (2).

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[3] The most recent version of the guide is included in the tool itself and is also available as a PDF document at http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/ProjectOutputs.

In terms of subject, 6 people taught (or had taught in the past) in a specific knowledge domain, 3 specialised in teaching general skills (e.g. information literacy), 5 had staff-development responsibilities, and one person (an ILT co-ordinator) did not respond.

Designing and revising learning: how often?
Participants were asked how frequently they were involved in designing or revising learning at three levels, defined as:

- **Course:** A complete programme of study normally (but not necessarily) leading to a particular qualification: e.g. BA, City & Guilds, BTec, A Level
- **Module:** Part of a course: e.g. 19th-century British history as part of a history degree
- **Lesson:** Individual tutorial, seminar, practical class, lab class or lecture

Table 4.2 summarises the responses, which reflect the LD Tools project data in that design and revision at the lower two levels are more frequent than at the course level.

Table 4.2. The frequency of design and revision by participants at the "experienced practitioners" workshop

Unit	Design new	Revise existing
Course		
Every 6 months or more	2	2
Every 6-12 months	0	1
Every 1-5 years	6	5
Every 5 years or less	0	0
Never	4	4
Module		
Every 6 months or more	5	4
Every 6-12 months	2	1
Every 1-5 years	3	3
Every 5 years or less	0	1
Never	3	3
Lesson		
Every 6 months or more	9	7
Every 6-12 months	1	3
Every 1-5 years	2	0
Every 5 years or less	0	1
Never	0	1

Reusing existing plans
In answer to the question "when creating a new lesson plan, do you ever make use of an existing plan?" respondents were more likely to look at their own previous work than at others':

I sometimes adapt an existing lesson plan of my own:	10
I sometimes look at one of my old plans for ideas:	11
I sometimes adapt an existing lesson plan written by someone else:	8
I sometimes look at someone else's plan for ideas:	8

Only one person never looked at anyone else's plans.

In a follow-up question asking how they located lesson plans created by others, seven practitioners responded citing the following methods:

Ask people:	6
Look on the Web:	4
Look at material held by the institution in shared folders on the network, intranet etc.	2
Look in books:	2

It is not clear whether "ask people" refers primarily (or exclusively) to colleagues within the same institutions.

Tools used to create a lesson plan

Respondents were given seven "genres" of tool and asked which genres they used, and for what purpose. The quantitative data from their responses are summarised in Table 4.3; however, the qualitative data was less informative in comparison with the same question in the LD Tools project, and therefore is not reported here.

Table 4.3. Tools used in pedagogy planning ("experienced practitioners" workshop)

Genre of tool:	*No. of respondents using genre:*
Paper-based (pens, paper, index cards, Post-it pads, acetates)	7
E-tools	
Word processors: Word, Googledocs	9
Presentation software (e.g. PowerPoint)	6
VLE (for collaboration and/or trying out the design)	6
Web page design tools, HTML	2
Course design tools (e.g. "plug-ins" to Word)	2
Spreadsheet	1
Mind-mapping, diagramming (e.g. MindManager, Inspiration)	1
Learning Design tools (LAMS: as part of D4L project)	1
Other	1

As in the LD Tools project, paper-based materials were used by over half of respondents, with word processors and presentation software the most used digital tools. The affordances of paper-based tools are clearly described by one practitioner thus:

"Individual lesson plans are created with pencil/pen and paper to rough out and develop structure and ideas - think better with a pencil in my hand. Use margin to highlight activity e.g. writing notes on whiteboard. Coloured pens or highlighter used to emphasise structure. Phases of the lesson are numbered and approx timings noted. Comments, actual timings, point reached in the lesson, reminders and general feedback as so how it went are added after." (EX03FW)[4]

Nevertheless, the information must still be transferred to digital format: "Complete programme plan – i.e. the whole programme of delivery for that module is entered into a Word template" (EX03FW).

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[4] See section 1.5 for a guide to the conventions adopted in this report for identifying individual participants in the evaluation.

The finished plan

In order to ascertain the likely requirement for Phoebe to output structured plans in specified formats, we repeated the question in the LD Tools project questionnaire asking participants to rate their finished plans on a seven-point scale of ascending formality. Table 4.4 shows the data:

Table 4.4. Gradations of formality in the completed lesson plan ("experienced practitioners" workshop)

1 *= "Back of envelope"*	*2*	*3*	*4*	*5*	*6*	*7* *"Formal structured plan"*
0	0	0	2	3	4	3

The overwhelming majority produced plans that tended towards formality. The figures involved are small, but it seemed that respondents who worked wholly or partly in the FE, ACL and WBL sectors were more likely to produce formal plans than those who worked purely in HE (of whom there were three in all, two rating their plans at 4 and one at 6).

Collaborative planning

Half (i.e. 6) of the participants were involved in collaborative planning: for example, for team teaching or when different teachers cover the same material with different groups of students.

In terms of the tools and media of communication used in such activities:

- 3 respondents said they worked primarily face to face, with Word documents mediating their discussions

- 1 respondent appeared to collaborate mainly online:

  "Roles and responsibilities are planned using online communication tools including email, VLE forums; wikis and Googledocs for collaboratively developing and sharing co-training session plans."(EX04FHAW)

- 2 respondents were involved in blended collaborations:

  "email ideas or talk on phone, meet at least once to detail plan, exchange word documents in agreed format as email attachments OR post word documents to google or moodle group." (EX05A)

Institutional attitudes toward pedagogy planning

The final question in the preliminary questionnaire asked respondents how much importance was placed their institution on a structured approach to the planning of a) whole courses or modules and b) individual learning sessions (lessons).

In 7 cases, planning was taken very seriously, with major initiatives/frameworks at the organisational level; for example:

  "Much of my work involves delivering training that is also being delivered by others in the team; therefore it is very important that there is a consistent standard of delivery. The team is involved in whole course development and individual trainers / co-trainers are expected to develop individual session plans so that resources and responsibilities are clear on the day of delivery." (EX04FHAW)

  "It has invested in an internal research and development project to build prototype tools and support." (EX01H)[5]

Seven respondents talked about an organised framework at course level, but with room for flexibility:

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[5] This is the Compendium project at the Open University.

"Very important that a structured format is followed - not always 100% as set out originally as you tend to adapt slightly to get a good 'flow' but it remains within bounds. This makes it easier for others to take over, they know where to locate information" (EX05A)

"The approach to the whole course is very structured, collaborative and subject to formal approval. Individual modules are less structured and down to the individual tutor or possibly team (usually two people); they are also subject to formal approval. Individual lessons are designed by the tutor but allow for individual academic freedom and may be subject to interpretation, changes and additions though the basic information must be delivered and tested." (EX09H)

"Existing teachers (as distinct from 'new') often run the same basic lesson over several years with some adaptations; detailed lesson plans are seldom required except in the case of Inspection preparation or Peer Assessment. All Staff Development session require a detailed lesson plan." (EX02F)

Only 2 respondents felt their institutions placed little or no importance on a structure approach: "There are no frameworks for course or lesson planning used here, that I can find." (EX11H)

4.5.4 Results from the review questionnaire

During the time available to them, all 12 participants started creating a learning design (lesson plan) but only three created a more or less complete design. In addition, 10 people explored the information and guidance provided in Phoebe and 8 tried editing a template.

Learning to use Phoebe

How easy was it to learn to use Phoebe? What, if anything, is needed to help intended users to make effective use of it (e.g. training, guidance, time)?
Everyone found it reasonably easy to learn to use Phoebe, although 3 felt that some initial training would be needed and one felt that time was needed to explore the tool. One person was unclear about the granularity of information sought by the tool (i.e. course or session?), and one referred to a potential mismatch of terminology:

"when you are looking for certain outcomes or are used to planning in a particular way, it can take a while to get used to different use of terminology and understanding Phoebe well enough to realise that it can do a lot more of what you want than is first apparent in the template structures." (EX03FW)

Relevance of Phoebe to participants' own practice

How well does Phoebe's functionality support your approach to planning (i.e. can you still do things in the familiar way)?
Of the 12 respondents, 10 wrote positively, the key messages being:

- The quality of the guidance

- The imposition of structure on the planning task: "It makes me think about lesson planning in a more structured way" (EX09H)

- The tool's "mnemonic" function: "nothing will fundamentally change, but I can 'fill in the blanks' where this planner identifies them e.g. it will remind me to put in appropriate learning activities into each session. It will also act as a reminder to consider different learning methods and to consider technological solutions." (EX09H)

- Support for customisation (templates were appreciated as a step along the road).

One person definitely felt that Phoebe matched her personal styles:

"…it suits my approach to lesson planning well. I am quite a systematic person and my background before lecturing is from a business management background where structured planning tools and techniques are the norm." (EX07FH)

However, another person's experience was somewhat different:

"My approach is to my to sketch my initial thoughts graphically, either on a bit of paper, or using some sort of graphics or mind-mapping package. Producing textual descriptions of an activity is always necessary, but is never the first thing I do. Today, I have had to use text earlier than I would normally have done. I can see Phoebe being useful, but for me it is not so useful for the iterative early stages of creating a design. (EX01H)

If Phoebe were to be available for widespread use, would you want to use it to plan your teaching?
Nine people thought they would use Phoebe in their own practice, one said they would not, and two were undecided, suggesting that they might use it for certain tasks only, or just refer to the guidance.

- If YES, would you use it as well as, or instead of, the tools which you currently use to design a lesson?
Three people thought that they would Phoebe instead of their current tools, while we inferred from the other six that they would continue to use their familiar tools too.

One person was quite explicit: "I still think my 'big picture' would need to be created on paper. A computer screen just hasn't got the 'creative space' for me." (EX03FW)

- If NO, why not? What, if anything, might induce you to change your mind?
The sole "No" correspondent explained his view thus: - "too confusing for staff. Much richer tools which support the ability to include student resources are already available." (EX08FH)

Potential users of Phoebe

Who do you think could/should make use of Phoebe, and for what purposes?
User groups whom respondents felt might benefit from using Phoebe included:

- CPD (4 respondents):

  "This is an excellent staff development tool and is likely to be very valuable in helping people plan for new approaches to teaching and learning - e.g. blended learning where advance and detailed planning of resources and use is essential." (EX03FW)

- ITT (5):

  "I certainly think it would be most useful for new lecturing staff going through their TQFE, like myself as I am currently studying the teaching theories and this way of planning is particularly useful as it is a good prompt and reminder of theories and also hosts valuable resources (I am sure as it progresses we can add more) that can spur ideas as you are going along. I certainly found it made me think of different ways of doing things, in particular IT based classroom ideas." (EX07FH)

  "I would like to see ALL new staff using this as a way of: a) developing a real appreciation of the learning process b) gaining confidence in their delivery because of a comprehensive planning process which they will then be able to use again c) develop relatively high level ICT skills." (EX12F)

- Experienced teachers, as part of their regular practice (9):

  "Creating a bank of on-line resource material could save a great deal of work for colleagues within or even between organisations (why are we always working in

isolation and re-inventing the wheel over and over?! Teachers in schools have a bank of resources and it's time we did in HE and FE). I have colleagues teaching my modules in franchise centres and a structured lesson plan could assist their teaching and ensure a more consistent approach" (EX09H)

"I would like EXPERIENCED lecturers to use Phoebe to: a) develop a better appreciation of how technology can be used to enhance traditional learning approaches b) develop the courage to move out of their comfort zone and 'have a go' - the Guidance notes for this are an essential part of this requirement c) use it to work more collaboratively with their subject colleagues" (EX12F)

- Teachers working in isolation (1): "Very useful for marginalised staff/teachers who do not have access to quality support to hand." (EX05A)

Other suggested beneficiaries included administrative staff and students - although presumably as "consumers" of learning designs - "to provide greater clarity and openness" (EX06A).

However, one person felt that, whoever the user, "institutional support would be necessary to exploit the full benefit" (EX01H).

Could Phoebe be used by teachers working alone, or would it work best in an institutional setting?
Only one person envisaged Phoebe being used by lone practitioners, while 10 felt it could be used in both types of setting (the twelfth person's attitude was unclear); for example:

"BOTH would benefit. Institutions would be better able to support staff in identifying ways of working SMARTER - where staff are delivering the same subject/unit they should be sharing the designing and so produce a richer experience for the learner INDIVIDUALLY - they are developing a repository of lesson plans which they can clone and build on; if someone is very disciplined in updating the lesson plans for future use they can also ensure that where problems arise the lesson plan can be updated very easily to ensure that this problem is resolved (if possible) for use the following year." (EX12F)

Two people gave more weight to the benefit to individual practitioners within that setting: "Equally effective for both, but would have more value in an institutional setting, e.g. for consistency, sharing, re-purposing, etc." (EX02F)

Three people gave more weight to the institutional benefits: "I think that it would work in both but sometimes when in an institutional setting the fear might be that it becomes too 'customised' to that institution and the 'free' nature of it is lost." (EX07FH)

Organisational issues in the introduction of pedagogy planning tools

What (if any) organisational issues would there be in introducing an online pedagogy planning tool such as Phoebe into your institution? e.g. technical, practical, logistical, philosophical...
Responses to this question were categorised as follows:

- Philosophical (3): "the tension is between introducing an institutional approach and yet ensuring flexibility is retained to allow creativity." (EX12F)

- Organisational culture (9):

  "existing teachers with fixed habits might resist it as making unnecessary additional work. However it could be introduced gradually, first for teachers in training and on probation and for areas coming up for Inspection, then gradually replacing existing Word Lesson Plans." (EX02F)

  "Within the WEA there are a variety of paper-based tools already existing, to which there is substantial commitment. An online tool like Phoebe would have great

advantages but this version would need to be customised. With over 4000 tutors across the UK Phoebe would provide some standardisation & improved quality, but it would take time to overcome these legacy systems (which work) and more traditional attitudes." (EX06A)

"I think it would be best not to be forced upon people as this could crush creativity. However, it could likely assist a large number of people who are 'planners' at heart!" (EX07FH)

- Technical (5):

"Technically I think the college would prefer to download the programme and retain ownership of it BUT we then immediately face the problem of how to keep the guidance documents up to date. I think we will need a central body that maintains the general resource and guidance document and possibly user institutions subscribe to this. It would also be useful to have some form of user group community page etc" (EX12F)

- Logistical (3): "My personal view would be to work with new staff and staff involved in the current Blend2Learn project and gradually introduce it." (Ex12F)

- Training (3): "Some training would be necessary as well to ensure that everyone engages with the process" (EX09H)

The vision beyond the prototype tool

Do you think that there is a future for general-purpose online pedagogy planning tools (such as Phoebe)? Or do you think that it's best for each organisation to create its own tools e.g. Excel spreadsheets or Word tables?

The overwhelming majority of respondents replied "yes," the one exception explaining his dissension thus: "From experience most organisations eventually adapt their own tools" (EX08FH).

The benefits and key enabling factors offered by such tools were considered to be:

- Sharing and repurposing within and, especially, across institutions (4 respondents):

"…if it is introduced sensitively I think it would support a lot of work that is currently taking place in colleges. We need to work collaboratively - the current demands of our job are increasing with not increase in time in which to do it; if we can help staff to work together and to create an ethos of support and be provide CONSTRUCTIVE feedback to improve things then we are creating a body of Organisational Expertise/Knowledge. It is IMPERATIVE that managers understand what this is about: sharing and creative learning design!" (EX12F)

"There needs to be cross-country fertilisation - Colleges etc. can get mislead into having just one style and one ruling (especially if have a strong quality leader) and that is not good for learners and their own diverse needs" (EX05A)

"Any system that is within its own organisation is liable to become culturalised and the beauty of a GP on line version is that you can share with others [outside] your organisation." (EX07FH)

- Spreading effective practice and driving up quality (3):

"Spreadsheets and word documents have their place but a systematic approach, with a tool like Phoebe, has the advantage of spreading good practice and driving up quality. With Inspections always on the horizon, this is a good argument." (EX06A)

- To avoid "reinventing the wheel" in researching and providing advice, guidance and resources (4): "I think that there is merit in generic tools that are linked to quality and can avoid each institution 're-inventing the wheel'." (EX11H)
- Customisability (2)

4.5.5 Qualitative data

Although the closing plenary discussion was intended to address three specific questions, participants covered a range of relevant topics, including:

Phoebe as a tool to engage staff in e-learning through doing e-learning themselves:
"A teacher engaging with Phoebe (and the tools that underlie it [i.e. the tools it links to?] is doing similar things to students when they are engaging with e-learning: they're getting into the spirit of it – it's almost done by stealth. If a teacher could be persuaded to say [looking up guidance, case studies etc. with Phoebe] is useful, then you could say that the process of discovery with Phoebe mirrors the learning process that the students go through with e-learning. [Phoebe is] doing it by stealth. It's a very good paradigm." (EX02F)

Phoebe as a tool to engage staff in e-learning through putting pedagogy before technology:
"If I was to take this to tutors who have been resentful of e-learning, it would be nice as it puts teaching first and e-learning second (it's there in the guidance, but not in your face)" (EX05A)

"It's good because it comes from teaching and leaning rather than technology first." (EX04FHAW)

Using Phoebe to promote good teaching at the same time as giving guidance re technology:
EX12F noted that Phoebe brings together good teaching with information about technologies – support which was missing from all the other tools she had been looking at.

Supporting the lone practitioner:
EX05A felt that the guidance is useful for people who don't have access to quality discussions because they are on their own, and as such Phoebe would be a "great resource" for lone self-employed ACL tutors in need of resources for quality teaching and learning. EX02F expressed the same view in terms of support for "private brainstorming."

Sustainability:
EX12F felt that Phoebe will only be sustainable if there is a central body to keep the guidance notes up to date. She suggested a Phoebe user group with a subscription system to fund it. This user group would support the central development group and would contribute case studies, examples of new technology etc. EX05A was prepared to pay £25 per year, but not £500. EX12F proposed individual and organisational subscriptions; however EX05A questioned whether an organisation would want to pay for advice that its own staff (e.g. the quality department) already give. EX06A proposed a free service for organisations up to a certain number of people, then above that amount charge for the number of users (e.g. £5 per head); this is a well accepted model.

EX01H suggested making the reference pages self-sustainable along the lines of Wikipedia, although edits would need to be moderated.

Hosting was another issue in sustainability. As EX12F pointed out, what if the organisation hosting the server on which your learning designs are stored withdraws the service. On the other hand, as EX06A noted, if a college hosts and customises its own version of Phoebe this can create problems of consistency when the main product is updated.

Role of the learning technologist vis-à-vis Phoebe:

EX12F viewed the learning technologist as the link person between their college and the Phoebe user group: they have a central role in customising the guidance for their institution, and in aligning their amendments to the updates of the core guidance system. Course teams could be involved at the curriculum level: for example, by designing their own templates.

Blog post made by EX06A on 31st January 2008
One participant shared his reaction to Phoebe with the wider e-learning community throught his blog:

> "[Phoebe] could have substantial potential for adult and continuing education and FE. When there's so much out there already, is there room for more? Yes I think so, but I'll backtrack a bit to explain why.

> When we set up a server and website in the WEA Manchester office in 1996 with a high speed JANET link, I was excited at the prospect of developing a distributed learning network. […] The potential was there to build a new kind of learning community - sharing resources, collaborating, swapping experiences, building on good practice. […] Bringing life to this early adult education electronic network [led in 2002 to the setting of] the Community Grid for Learning (CGfL). […] The CGfL website still has good interactive courses, games and activities to stimulate learners, but funding dried up; and although over 2000 people enrolled for this online learning, there's been only limited use of the material by tutors.

> Since then learning platforms like Moodle and Blackboard have been widely introduced across all sectors […] But they still haven't gone far enough to transform the way that most tutors plan, design and run their courses.

> Which is where Phoebe comes in . […] It's a simple idea, but this is its strength. […] It was better than a Word document or spreadsheet because it had so much other support material available to draw on; and enabled users to build on others' work. It could make more use of social networking tools to encourage more sharing and communication between tutors […] but these features could be added at a later stage."

(http://transforming.wordpress.com/)

4.6 Continuing professional development

Evaluation questions addressed:

2-2. Integration into individual pedagogic practice

    2-2.1 How well does Phoebe's underlying model of learning design map to users' established practice?

    2-2.2 How useful is Phoebe at the different levels of design: i.e. course/scheme of work, module/topic, session?

    2-2.5 Could practitioners envisage using Phoebe in their normal work?

2-3. Integration into pedagogic practice of the institution (community dimension)

    2-3.2 To what extent does Phoebe facilitate or, conversely, impede established practice relating to session planning in the user's institution?

    2-3.3 Is there a perceived need for Phoebe to be customised to meet the needs of individual organisations in order to function as a community-owned artefact?

4.6.1 Method

The evaluation by teachers undergoing CPD was embedded in a three-day "intensive" on e-learning course design run by staff from Oxford Brookes University at the University of Brighton. Most of the participants were experienced lecturers, some of whom were accompanied by their course teams. Others attending included learning technologists and librarians.

The first day, at which the Phoebe team was not present, was taken up with an exploration of good practice in blended learning and a group activity to storyboard the curriculum that each team wanted to redesign. The storyboards were handwritten on large mobile whiteboards, of which Figure 4.1 overleaf is an example.
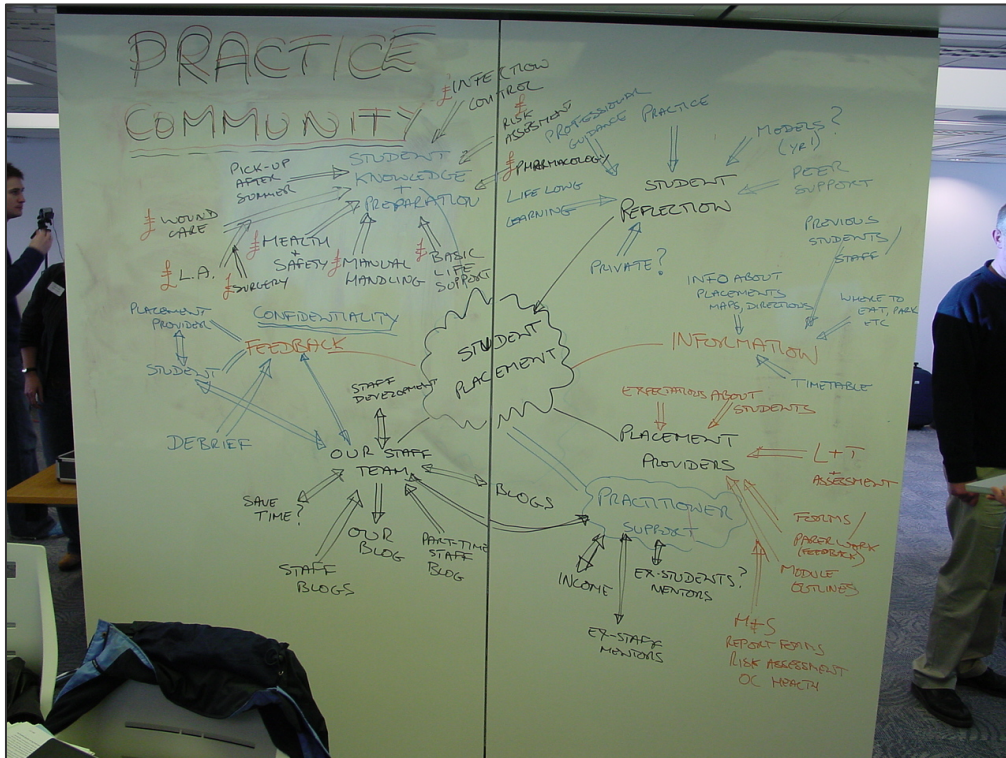
Figure 4.1 Storyboard produced by a curriculum design team at the University of Brighton

On the second day the teams built activities from their storyboards, and at this point they were introduced to Phoebe and a number of other frameworks for activity design (the JISC "Effective Practice" planner, Salmon's five-stage model of e-moderating and the AUTC "swim-lanes" approach: JISC, 2004; Salmon, 2004; AUTC, 2003). The teams worked with Phoebe for an hour in order to create learning designs from their storyboards.

4.6.2 Data collection

As with the experienced practitioners' workshop, participants completed a preliminary online survey. This was identical to the one used at the earlier event, but omitting the demographic information already known. We had also intended them to complete a review questionnaire and to capture their comments in a discussion (i.e. as previously); however, the session overran and there was no time for participants to complete the review questionnaire before the plenary discussion. They were asked to fill it in later, but despite a reminder, none did. The size of the room made impossible to record the discussion, and so we relied on handwritten notes.

4.6.3 Results from preliminary questionnaire

Although we collected only a fragmentary set of data from this event, we have analysed the preliminary questionnaire in full as it contributes to the general picture of current pedagogy planning practice that we built up during the Phase 2 evaluation.

Roles and subject domains

Responses were received from 11 people, but it is not clear how many of them actually attended the session. In any case, many more attended than completed the questionnaire. Of these respondents, 10 were lecturers or senior lecturers, and one was a learning technology adviser. The teaching staff were spread across disciplines as follows:

Medical sciences	4
Social sciences	4
Engineering	1
Management	1

Designing and revising learning: how often?

Participants were asked how frequently they were involved in designing or revising learning at three levels: course, module and session (see section 4.5.3 for the definition of these terms). Table 4.5 summarises the responses, which again reflect the LD Tools project data in that design and revision at the lower two levels are more frequent than at the course level.

Table 4.5. The frequency of design and revision by respondents to the preliminary questionnaire of the CPD workshop

Unit	Design new	Revise existing
Course		
Every 6 months or more	0	0
Every 6-12 months	2	2
Every 1-5 years	4	6
Every 5 years or less	3	1
Never	0	0
No response	2	2
Module		
Every 6 months or more	1	1
Every 6-12 months	3	5
Every 1-5 years	5	3
Every 5 years or less	1	0
Never	0	0
No response	1	2
Lesson		
Every 6 months or more	7	7
Every 6-12 months	3	3
Every 1-5 years	1	0
Every 5 years or less	0	0
Never	0	0
No response	0	1

In answer to the question "when creating a new lesson plan, do you ever make use of an existing plan?" respondents were more likely to look at their own previous work than at others':

I sometimes adapt an existing lesson plan of my own:	11
I sometimes look at one of my old plans for ideas:	10
I sometimes adapt an existing lesson plan written by someone else:	5
I sometimes look at someone else's plan for ideas:	8

In a follow-up question asking how they located lesson plans created by others, nine practitioners responded citing the following methods:

Ask people:	7
Look on the Web:	3
Look at material held by the institution in shared folders on the network, intranet, VLE etc.	2
Look in books:	1
From inheriting the module:	1

Tools used to create a lesson plan
Once again, respondents were given seven "genres" of tool and asked which genres they used, and for what purpose. The quantitative data from their responses are summarised in Table 4.6 overleaf and show a now familiar pattern.

Table 4.6. Tools used in pedagogy planning (CPD respondents)

Genre of tool:	No. of respondents using genre:
Paper-based (pens, paper, index cards, Post-it pads, acetates)	7 (incl. 1 "rarely")
E-tools	
Word processors: Word, Googledocs	11
Presentation software (e.g. PowerPoint)	6
VLE (for collaboration and/or trying out the design)	2
Web page design tools, HTML	0
Course design tools (e.g. "plug-ins" to Word)	0
Spreadsheet	0
Mind-mapping, diagramming (e.g. MindManager, Inspiration)	4
Learning Design tools (LAMS: as part of D4L project)	
Other	1

The qualitative data indicated that paper-based methods are suitable for recording initial ideas, taking notes when reading, and noting down ideas when a computer is not available. However, word processors were also considered useful for recording initial ideas, as well as firming them up and producing the actual plan. PowerPoint was mostly used for creating presentations; only one person appeared to use it "to experiment with ideas" (BT08H).

One person appreciated the benefits of mind-mapping for "collating ideas, concepts and themes; modelling outlines" (BT09H), but another found that "these serve only to confuse me."

Two interesting findings were the use of the VLE as a planning tool ("design structure, then move things around and rewrite bits of it": BT09H) and NVivo: "fantastic for breaking down texts/literature into key thematic groupings" (BT11H).

The finished plan

Table 4.7 shows responses to the question asking respondents to rate their finished plans on a seven-point scale of ascending formality:

Table 4.7. Gradations of formality in the completed lesson plan (CPD respondents)

1 = "Back of envelope"	2	3	4	5	6	7 "Formal structured plan"
0	1	1	1	5	3	0

In contrast with the experienced practitioners and the LD Tools project, respondents from this university tended to produce less formal plans.

Collaborative planning

Nine of the respondents were involved in collaborative planning. In terms of the media of communication used in such activities, 2 said they worked primarily face to face and 4 worked in a blended pattern. This time, however, we were also able to identify two broad approaches to collaboration in terms of roles and interactions:

- No clear leader "Work the whole process through together and then individuals take responsibility for areas of delivery" (BT08H).

- Formal leader: "Through meetings and discussions led by CL; people volunteer to do the things they are good at/knowledgeable about; share and comment via email" (BT05H)

- Ad-hoc leader: "Range of approaches dependent on time and resources: group planning sessions; planning via e-mailing drafts and ideas; sharing literature. Decisions usually based on expertise with the session leader being nominated beforehand and having the final say." (BT11H)

Institutional attitudes toward pedagogy planning

As in the "experienced practitioners" workshop, responses to the question enquiring into the importance placed institutionally on structured planning revealed relative rigour at the higher (course and module) levels, but more freedom for individual sessions: "Whole courses and modules go through a rigorous validation process and are regularly reviewed. Individual lessons are left to the teacher, with student evaluations for feedback" (BT06H)

A distinction was also made between "quality" processes and the actual "planning" process: "We have good quality processes but we are trusted to achieve good planning processes. This is vital when illness means someone else must cover lessons etc." (BT10H)

Some people, however, were unclear about the university's attitude towards planning, and one person wryly turned our question round: "Is this question assuming that a structured approach is the only good approach?" (BT08H).

4.6.4 Qualitative data from various sources

Plenary discussion

A number of learning designs were produced, which participants presented to the whole group (see Figure 4.2).
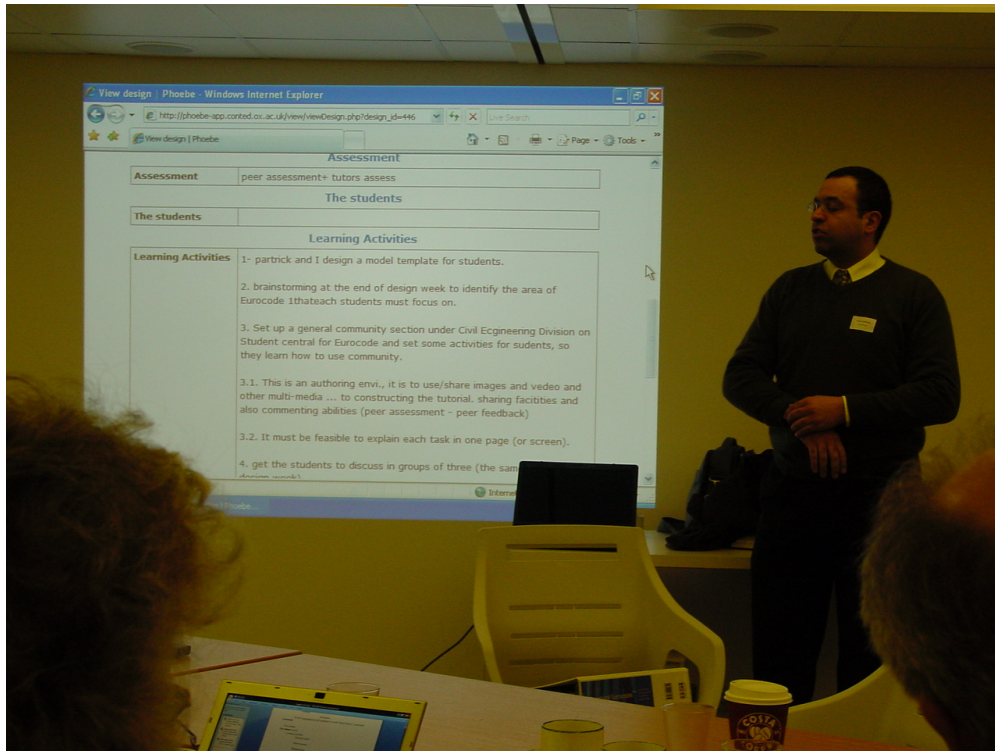

Figure 4.2 Part of a learning design created during the e-learning "intensive" at Brighton and projected on the wall for sharing during the discussion.

A group of lecturers in podiatry saw an opening for Phoebe as a means for students to plan their own learning. They run a module "by learning objectives," in which students design their own learning plan in negotiation with the module leader. This requires them to identify their learning objectives and map out the strategies by which they will achieve these objectives in terms of resources and activities. Each student then agrees the assessment method with the module leader. The information is entered on a "learning agreement" form, of which an adapted extract is shown in Figure 4.3. The learning agreement is reviewed as students progress through the module. One advantage of creating and storing the learning agreements in Phoebe would be that they could be made available to help future students plan their learning.

Follow-up email from one participant:

One lecturer shared her thoughts with the Phoebe project team after the event:

> "[Phoebe is] the first planning tool of its kind that I can actually imagine using myself and recommending to colleagues. […]   I'm particularly looking forward to using it to develop a local 'curriculum design toolkit' for staff. My current plan is to adapt the relevant Phoebe templates to mirror our standard University templates for module descriptors and programme specifications etc. – so that staff are working with something that is as close as possible to the forms they will have to fill in anyway for validation – but of course with the additional prompts to discussion and reflection and links to online support.

The idea is that the final version could then easily be transferred into the official documentation."

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LEARNING AGREEMENT

Module Leader:

Module Adviser:

Student:


Brief description of the desired learning experience and how it might enhance your career:



LEARNING OUTCOMES
On successful completion of this module I will be able to:
•
•


STRATEGIES FOR ACHIEVING LEARNING OF MODULE CONTENT:
•   Learning resources: what might I use to help me – people, places, equipment, literature,
    expenses


•   Learning activities: what might I do to achieve these learning outcomes – clinical work,
    placement visits, conference attendance, practical skills, interviews, research


•   Other:



MODULE LEADER/STUDENT AGREED ASSESSMENT (including weighting, number of
words, timings etc)
•
•
```

Figure 4.3. Learning agreement from the University of Brighton (adapted)

4.7 Trainee teachers: FE

Evaluation questions addressed:

2-1.1 How easy is it to learn to use Phoebe?

2-2.3 To what extent does Phoebe encourage users to think about their practice in a structured way?

4.7.1 Method

The second of the two "trainee teacher" evaluations was held under the auspices of Swansea College, and was integrated into the ITT programme for new teachers. The trainees, who were learning "on the job," had already received tuition in lesson planning, and the two-hour session was intended to familiarise them with the concept of an online planner tool. Their tutors had become interested in Phoebe through their involvement in another Design for Learning project (ALeD) and had attended the "experienced practitioners" evaluation.

The session followed the familiar format of introduction and demonstration by two Phoebe team members, followed by hands-on experience in which they were supported by printed "Getting Started" guides, their tutors and the Phoebe team.

4.7.2 Data collection

As in the first "trainee teacher evaluation," students completed a review questionnaire at the end of the hands-on session. This was similar in most respects to its predecessor, but with changes to some of the later questions (see the Appendix).

4.7.3 Results

Subject domains and IT skills

Responses were received from 20 trainees, one of whom already appeared to have some teaching experience. The subjects they were training to teach fell into the following categories:

Creative arts:	5
Electronics, engineering:	5
English as a second or other language (ESOL):	3
Law, law enforcement:	3
Vocational subjects:	3
Childcare, education:	2

Asked to rate their ICT expertise on a four-point scale, 13 (65%) rated themselves as "quite" or "very" experienced and 7 as "fairly" or "very" inexperienced.

In answer to the question "At the moment, what uses can you see for ICT in your teaching?" the majority use was, once again, PowerPoint, as Table 4.8 shows.

Table 4.8: Envisaged uses of ICT by trainee teachers in FE

Use	No. of respondents (N=19)
Illustrating classes with PowerPoint	14
Interactive whiteboard	7
Multimedia incl. YouTube	5
Making lecture notes and other resources available on the VLE	4
Online resources	4
Online learning activities e.g. quizzes, learning objects, games	4
Electronic voting systems	3
Electronic submission of assignments	2
Domain-specific software (run locally: not Web-based)	1
None as yet	1

(One person failed to respond to the question.)

The low envisaged usage of the VLE contrasts with the trainee teachers in HE (Table 4.1), possibly because Moodle is not yet fully embedded in the college. In relation to interactive whiteboard (IWB) use, in most cases it was not clear whether the technology was to be used for more than projecting PowerPoint presentations or other visual materials. However, at least two people – both ESOL teachers - already appeared to have gone further than this:

"saving and retrieving elements as necessary" (SW03F).

"I use PowerPoint on the interactive whiteboard to create interactive activities, show images from the Internet/clip art to explain vocab, Grammar websites" (SW08F).

Reactions to Phoebe
During the time available to them, 11 students managed to create a more or less complete lesson plan in Phoebe, another 7 had started work on a plan, and 2 had just looked at the reference materials.

How easy was it to learn to use Phoebe?
Nine students seemed to have little trouble learning to use Phoebe (one even describing it as "quite intuitive"), while 7 alluded to some kind of initial hiccough, either in usability ("Initially confusing, the terminology was not familiar, but soon got the hang of it:" SW05F) or in perceived usefulness ("At first I did not see how I could benefit from it, however once I got into the designing of a lesson I found it very useful:" SW13F).

From three responses, it appears that some initial guidance – whether face-to-face or online – would be desirable, especially for users less confident in IT. One such person definitely struggled, but despite this could see through their difficulties to the potential value of the tool: "I find computers the most frustrating things on the planet so not easy for me. Need the patience of a saint which I don't possess today. Looks like it could be useful in the future" (SW18F).

How easy was it to use Phoebe to create a lesson plan in the way you have been taught
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: "I think that for someone completely new to teaching or that may have been teaching for years and is not so familiar with the theories etc may find all this information very daunting and could feel overwhelmed" (SW08F).

Four students commented on the differences between a "Phoebe" plan[6] and their accustomed approach: "the plans do not readily lend themselves to the training structure I work within" (SW05F). Moreover, one person felt that another person would find it hard to make sense of their plan: "I also feel that anyone else who wanted to use my lesson plan would find it quite difficult to follow" (SW08F) (the implications for sharing and reuse should be noted).

If Phoebe were available for widespread use, would you want to use it to plan your teaching?
Fourteen indicated that they would, or probably would, use Phoebe in their practice, while another 6 indicated that they would not (one person was unsure). However, one of the 14 "yes" verdicts commented that they would probably only use it for reference and reflection: "I may use it as a reference tool for my own research and general reflection but we already have a template that we are required to use in Swansea College which I am used to" (SW12F).

Reasons for using Phoebe included flexibility and the improved visual appearance of one's plans. However, department-wide adoption would be a factor "Yes if it became the accepted format and was widely used within the department allowing lesson plans to be shared and developed" (SW04F). The theme of sharing was echoed by two others; for example: "if access to other peoples' lesson plans were available - save me reinventing the wheel once again" (SW11F).

Reasons given for not using Phoebe were the perception that it was time-consuming in comparison with their customary pencil-and-paper method, and poor fit with one's personal style: "Probably not, I prefer to plan lessons chronologically using timeframes" (SW10F). The person who found it time-consuming was already an experienced teacher, but nonetheless felt that it would have been useful as a training tool: "I would have found this useful during my 1st year of the PGCE when we had to relate our lesson planning to theory...this tool would have really helped with this." (SW08F)

Do you think that there is a future for online tools (such as Phoebe) that help you plan your teaching, give you advice and allow you to look at other people's plans for inspiration?
Nineteen students could see a future for pedagogy planning tools – even those who had struggled with Phoebe on this occasion) – and only one person was unsure.

Envisaged benefits of such tools included opportunities for sharing ideas and inspiration, and the ease of updating plans in comparison with pencil-and-paper plans. However, three critical success factors were also identified; i) the tool had to be less time-consuming than existing methods, ii) it needed to capture enough detail if it was to prove useful to others, and iii) it had to be available in students' homes.

Possible barriers included resistance and "natural scepticism" (SW04F). A barrier that we had not encountered before was a ban on the use of the internet imposed by certain organisations - in this case, a government agency with which one respondent was working.

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[6] They had been advised to use the "basic" template provided with Phoebe.

4.8 Online "remote" evaluation

Evaluation questions addressed:

2-1. Usability

    2-1.1 How easy is it to learn to use Phoebe?

    2-1.2 How easy is it to use Phoebe to accomplish the required tasks?

2-2. Integration into individual pedagogic practice

    2-2.1 How well does Phoebe's underlying model of learning design map to users' established practice?

    2-2.4 What is the relationship between the use of Phoebe and practitioners' continued use of existing tools?

    2-2.5 Could practitioners envisage using Phoebe in their normal work?

    2-2.6 Do they consider Phoebe to be useful to other practitioners? If yes, at what stage of one's career, and at what level of experience vis-à-vis e-learning might it be useful?

2-3. Integration into pedagogic practice of the institution (community dimension)

    2-3.1 Can Phoebe be used by practitioners working alone or does it work best in an institutional setting, as a community artefact?

    2-3.2 To what extent does Phoebe facilitate or, conversely, impede established practice relating to session planning in the user's institution?

    2-3.3 Is there a perceived need for Phoebe to be customised to meet the needs of individual organisations in order to function as a community-owned artefact?

4.8.1 Method

The online "remote" evaluation was devised in order to capture feedback from interested practitioners who were unable to attend a workshop in person. We sent invitations by email to individuals who had expressed interest in Phoebe over the preceding year (some had contacted us after encountering Phoebe while searching the Web) and to a number of JISC mailing lists. The invitation included instructions for carrying out the evaluation, together with technical information about Web browsers. Also attached was a special version of the Phoebe "Getting Started" guide[7] which a set of suggested tasks for evaluators to familiarise themselves with the tool. However, free exploration was also strongly encouraged. Participants received no individual remuneration; however, they had the option to enter a draw with two prizes of "Amazon" vouchers.

4.8.2 Data collection

We asked participants to complete a preliminary questionnaire similar before they started working with Phoebe. (This questionnaire also asked for permission to use their data in our reports and publications.) We asked them then to spend at least an hour exploring the tool, and then complete a second ("review") online questionnaire. Both questionnaires were similar in most respects to their predecessors and are included in the Appendix.

4.8.3 Results from the preliminary questionnaire

Responses were analysed from 14 people, with three others discarded because they had also attended the workshop on 14th January. We did, however, include two respondents who had been practitioner-informants in Phase 1 and two who were involved in other pedagogy

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[7] Available at http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/ProjectOutputs.

planning projects outside the D4L programme. Four respondents were based overseas in Italy, the USA, Australia and New Zealand.

Roles, sectors and subject domains
Of our 14 acceptable respondents, 6 currently had a teaching role, 5 were learning technologists, 5 had managerial roles and one was an adviser.

In terms of sector, 8 worked in HE, 3 in FE, 2 were from advisory agencies and one was president of an online high school in the USA who was also studying for a PhD and was using Phoebe in his research project.

Subjects taught by respondents were:

Education, incl. e-learning:	5
ICT, computer science:	3
Study-related skills:	2
Geography and related subjects:	1
English as a second or other language (ESOL):	1
Marketing:	1
Maths	1
History	1

Designing and revising learning: how often?
Once again, we asked respondents were asked how frequently they were involved in designing or revising learning at the course, module and session levels (see section 4.5.3 for definitions) – with the now familiar pattern reflected in Table 4.9:

Table 4.9. The frequency of design and revision by participants in the remote evaluation

Unit	Design new	Revise existing
Course		
Every 6 months or more	1	6
Every 6-12 months	3	4
Every 1-5 years	5	1
Every 5 years or less	1	1
Never	1	1
Module		
Every 6 months or more	3	8
Every 6-12 months	6	2
Every 1-5 years	4	3
Every 5 years or less	0	0
Never	1	0
Lesson		
Every 6 months or more	11	11
Every 6-12 months	1	1
Every 1-5 years	1	0
Every 5 years or less	0	0
Never	0	0

Reusing existing plans

In answer to the question "when creating a new lesson plan, do you ever make use of an existing plan?" respondents were, in line with participants in our earlier evaluations, more likely to look at their own previous work than at others':

I sometimes adapt an existing lesson plan of my own:	13
I sometimes look at one of my old plans for ideas:	12
I sometimes adapt an existing lesson plan written by someone else:	7
I sometimes look at someone else's plan for ideas:	9

Three people never looked at anyone else's plans.

In a follow-up question asking how they located lesson plans created by others, six practitioners responded, but giving insights into their attitudes to planning rather than the sources of their ideas:

"It isn't as structured as this. I tend to think of what I want to do - look on the internet for other examples, and then 'cobble something together'" (RE03H)

"Generally speaking, I work with other people's course/module/lesson planning. Explicitly stated lesson plans are not usually available and often need teasing out in a workshop or other support setting." (RE05H. He is a learning technologist who has a support role rather than an active teaching role, but his comment about the lack of concrete plans is telling.)

"I find the term 'lesson plan' an odd one to use in the HE context. I'm not sure precisely what it refers to here. I look at resources etc. from elsewhere for ideas but I wouldn't call them lesson plans." (RE14H)

"I often explore how others have put things together (not necessarily same subject) and try out different approaches" (RE06V: this is an unusual example of cross-curricular searching)

The finished plan

Table 4.10 shows responses to the question asking respondents to rate their finished plans on a seven-point scale of ascending formality:

Table 4.10. Gradations of formality in the completed lesson plan (remote evaluation)

1 = "Back of envelope"	2	3	4	5	6	7 "Formal structured plan"
1	0	1	1	5	2	2

Again, there is more evidence of informal plans than in our earlier work (the LD Tools project). Unsurprisingly, perhaps, given his comment in response to the previous question, the rating "1" was given by RE03H.

This time we also asked respondents whether they had to submit their lesson plans for approval by others. Ten people replied that they did, but there is no correlation between their responses to this question and the formality of the plans that they create.

Collaborative planning

Twelve respondents replied in the affirmative to the question on collaborative planning; however, mindful of the amount of work we were asking them to do, we did not make a supplementary request for further information.

Institutional attitudes toward pedagogy planning

Responses to the question enquiring into the importance placed institutionally on structured planning followed a similar pattern to the two previous preliminary questionnaires, viz::

- Planning taken very seriously, with major initiatives/frameworks at the organizational level: 6 respondents:

  "We have a structured lesson template which is used for observed lessons and a structured template for termly schemes of work. Structure is very important in my institution." (RE02F)

- An organised system/framework, but with room for flexibility: 5 respondents

  "Different in different aspects of teaching - a lot in some parts e.g. curriculum and timetabling for some courses, apparent freedom for tutorials" (RE13H)

- Little or no importance given to planning: 1

Four people commented on the role of planning in relation to QA, inspection and/or validation; for example: "Colleges place a great importance on the planning process and use it as an integral part of their quality process and as evidence for self assessment and inspection." (RE12F, speaking in his capacity as adviser).

One person – an adviser on accessibility – noted that "the specific approach is less significant than the professionalism and thoroughness used to arrive at a solution." (RE09V)

Two respondents explicitly referred to the greater part that planning needs to play in e-learning:

"paradoxically, colleagues who 'preach' the need for planning, student involvement etc. in blended/online contexts often ignore this when doing face to face"(RE04H, writing from Italy)

"its importance may be underestimated, particularly in relation to blended learning designs" (RE05H)

4.8.4 Results from the review questionnaire

Responses to the review questionnaire were analysed from 7 people who had also filled in the preliminary questionnaire and one who had not (learning technologist in HE). Two other respondents were discarded, again because they had already taken part in the "expert practitioners" workshop.

Of the 8 acceptable respondents, 5 tried out Phoebe on their own and 3 worked on it with a colleague. The length and nature of their experimentation varied as follows:

One hour or less:	3
1–2 hours in a single stretch:	0
More than 2 hours in a single stretch:	2
"Dipping in and out" in spare moments over a number of days/weeks:	3

All eight had at least started to create a learning design, but only one had produced a complete design. Six people had also experimented with the templates.

Learning to use Phoebe

How easy was it to learn to use Phoebe? What, if anything, is needed to help intended users to make effective use of it (e.g. training, guidance, time)?
Everyone found Phoebe reasonably easy to use, although (as before) it was felt that less experienced IT users would need initial training, and one person found the terminology unfamiliar.

Key concerns regarding its usability and usefulness were:

- Representation: "I'm used to a slightly different macro/micro visualization of plans so it was slightly disorienting at macro level initially." (RE04H)

- Institutional embedding: "The challenge is in embedding its use at institutional level. This will depend on a balance of requirement and incentive and must include adequate workload planning time for its sustained use by course teams." (RE05H)

- Tension between structure and creativity:

  "It seems quite formulaic and could be seen as a bit of a sausage machine that doesn't leave much room for spontaneity (or makes people feel like they have to fill every bit in). I guess that's a problem with many of these kinds of design tools though." (RE14H)

Relevance of Phoebe to participants' own practice

How well does Phoebe's functionality support your approach to planning (i.e. can you still do things in the familiar way)?
Six responded positively to this question in relation to either their own or their institution's approach. The other two did not feel that Phoebe supported their current practice.

Key concerns emerging from the responses were:

- Mapping of the form of representation used in Phoebe to their preferred forms. Here are two contrasting views:

  "it's pretty linear, which most of my designs already are" (RE14H)

  "One of the issues that we need to address with respect to use of technology in learning and teaching is the relationships between all the different activities that can occur in class/module/course, in the online environment and in-class. We were therefore looking for something that visually might help us to develop this for staff. We felt that Phoebe was more linear than we might be used to in our approach to planning and therefore wasn't exactly what we were expecting for an online planning tool." (RE10H)

- Greater suitability for sharing than for helping the individual lecturer:

  "There was a lot of the information I think I'd find it annoying to write down – for instance I can't imagine writing my name as author each time! Similarly with things like teaching approach – it seems very much designed for sharing designs and I can see it could be useful for that, but it's not really designed to help the lecturer." (RE15H)

If Phoebe were to be available for widespread use, would you want to use it to plan your teaching?
Only 4 people were confident that they would want to use Phoebe in their everyday practice; two were ambivalent and two definitely would not use it.

One person commented on its usefulness as a tools for change management: "I would also use it as a review tool for our Access to HE course which is coming up for renewal. It would help the team focus on what we want to change." (RE08F)

- If YES, would you use it as well as, or instead of, the tools which you currently use to design a lesson?
Three people stated clearly that they would Phoebe in addition to their current repertoire of tools:

I'd use it as well as ours, experimenting with (a) different fields/field clusterings to see how they respond to different situations (b) different context-sensitive references. […] I couldn't see it as a total replacement. (RE04H)

- If NO, why not? What, if anything, might induce you to change your mind?
The "No" respondents cited the lack of linkage between components (cf the quotation from RE10's response to the previous question) and the generic nature of the tool (this from a maths lecturer who wanted a subject-specific version).

Potential users of Phoebe

Who do you think could/should make use of Phoebe, and for what purposes?
 The views expressed in answer to this question appear to reflect the respondent's role and the range of staff with whom they have contact (hence the comprehensive list provided by RE05H).

    CPD:
    ITT: 6
    Students: 1
    Librarians, repository managers: 1

RE14H issued a caveat, which could be an extreme outcome of Phoebe's role in raising quality standards:

> "I can see that it has potential to be used in a top-down, institutional level fashion as a way of checking up on people/ QA type procedure (because theoretically you can see what everyone has prepared) and I would strongly resist this. Sharing not checking is the way forward." (RE14H)

Could Phoebe be used by teachers working alone, or would it work best in an institutional setting?
Three people said they could envisage it being used alone, one of whom was actually planning to use Phoebe in a research experiment involving teachers working alone:

> "I am going to test Phoebe with a select group of instructors at my high school as part of my PhD dissertation project. They will be working alone and they will have access to reference materials if needed. The quality of their completed modules or lessons will be measured using an instructional design rubric that I am developing for this project. These outcomes will be compared to designs created by instructors not using the application." (RE07S)

One felt Phoebe would <u>only</u> work as a support tool in an institutional setting. Three could imagine it being used both by individual practitioner and in institutional settings, of whom one person gave more weight to the benefit to individual practitioners within that setting, and one gave more weight to the institutional benefits. RE14H her concern about its use as a bureaucratic tool:

> "I suppose it could be used in a more institutional setting as well - e.g. for sharing designs across an entire (large, core) module on which a number of people teach. I would react against it being used in an top-down bureaucratic way, which it has the potential to be deployed for." (RE14H)

Organisational issues in the introduction of pedagogy planning tools

What (if any) organisational issues would there be in introducing an online pedagogy planning tool such as Phoebe into your institution? e.g. technical, practical, logistical, philosophical...
Responses to this question were categorised as follows:

- Philosophical (sharing, creativity:

  "Philosophical – some people might not like the idea of sharing what they have produced with others – it can be quite a personal thing. Also, could be seen to inhibit creativity and spontaneity – some people operate well when doing things more 'off the cuff'." (RE14H)

- Organisational culture and policy:

  □ Lack of a culture of planning, except when inspections are due (2 respondents):

  "In the college where I work, we do not have to submit lesson plans except for observed/inspected lessons. I think staff would resent having to submit formal plans for lessons either paper based or using a pedagogical planner like Phoebe." (RE02F)

  □ Change management – creating a sustainable, supportive organisational framework and building a critical mass of <u>willing</u> users:

  "The primary challenge is establishing a sustainable organisational framework for its use. The approach I am hoping to adopt is to link Phoebe with the building of searchable/retrievable good practice exemplar designs through an ongoing programme of intensive course redesign workshops and other development collaborations. We are fortunate in having an attitude to staff and course development which means that course teams come or are put forward for support by central, university-funded teams. However, it will be a challenge to create sufficient opportunities and incentives for this development work to reach critical mass." (RE05H)

  "All the issues associated with staff development in HE! A tool like Phoebe requires time and commitment on the part of the academic and needs support from educational development/learning technologists. If that isn't easily available then uptake could well be limited to enthusiasts only, who themselves may already have their own ways of working in creating learning designs." (RE10H)

  "If it were compulsory then all the lecturers would revolt at any of the places where I have taught!" (RE15H)

- The need for training, particularly where teachers are unused to working in an online environment (1 respondent)

The vision beyond the prototype tool

Do you think that there is a future for general-purpose online pedagogy planning tools (such as Phoebe)? Or do you think that it's best for each organisation to create its own tools e.g. Excel spreadsheets or Word tables?
Four people felt that pedagogy planning tools have a future, two felt that they do not, and two seemed reasonably optimistic but identified tensions to be overcome.

The enthusiasts were represented by RE07S, writing from the USA:

"A tool like Phoebe has long been needed in academia as well as in the training development industry. It is a true design tool that focuses on pedagogy and not the GUI side of online learning. These applications focus on appearance and not actual content." (RE07S)

Reasons why there is not a future for these tools were:

- It is better for individual institutions to develop their own

- Although teachers need examples and an overview of the process, they may not require the actual planning functionality:

"Staff ask for assistance in planning & developing teaching with technologies, however, they seem to respond more to examples (e.g. with visual images, representation). Therefore although these planning tools could be useful for providing an overview of all the aspects of course design that staff need to consider, we felt it was unlikely that staff would go through the process of actually completing the planners." (RE10H)

Note, however, that this was something that we envisaged even before the project started and highlighted in our proposal in February 2006.

Tensions between the institution and the individual can show themselves in two ways:

- Ownership: "I think general purpose tools that have a shareable functionality are definitely the future, although whether institutional/personal ownership imperatives prevent this happening is another issue." (RE14H)

- Supporting planning by lecturers vs meeting quality requirements at the institutional level:

"I think there are two different problems here – one is making it easy for institutions to do QA type stuff for which I can see that some standard templates might make life simpler for some institutions, and the other is how to help people plan their teaching." (RE15H)

Two further messages regarding future development are also worth quoting:

- Preserving flexibility

"I would urge the development team to safeguard the open-ended, investigative, non-formalised approach Phoebe takes to pedagogic planning when considering how it can be developed further." (RE05H)

- Recognising that there may be no "one size fits all" planning tool (also a finding of the LD Tools project):

"we had an idea of what an online pedagogic planner would do and we were all thinking (independently) that it would be a more visual representation of a learning design and I think this has very much influenced our thinking. We therefore approached the tool from a different mindset that might have been intended by the developers. It is perhaps these different approaches to course design that will make developing tools to support the process really quite difficult to design." (RE10H, speaking on behalf of her team)

4.9 Strategic review of the pedagogy planning tools

This one-day invitation-only meeting was organised by JISC for those practitioners and researchers considered to be leading thinkers in e-learning, as well as JISC's key partners from agencies in post-compulsory education. From JISC's perspective, its aim was to:

▪ Review the development of the two pedagogy planning tools that had been developed as part of the D4L programme;

▪ Consult with participants regarding a) the relevance and potential of the two tools for the communities that they represent, and b) how to resolve some of the challenges posed to the implementation of pedagogy planning tools;

▪ Explore collaborative opportunities for further development.

From the perspective of the Phoebe project team, the aim of the meeting was to meet the requirement in the project brief to explore with strategic partners – for example, the Higher Education Academy and Becta and other relevant organisations – the feasibility of future development and usage of the tool in supporting effective pedagogic practice.

The strategic review started with an historical overview of the D4L programme, which was followed by hands-on sessions with both planning tools (one hour each). The two project teams then presented the results of their individual evaluations and outlined a combined future vision for both tools. The day closed with group discussions and plenary feedback.

Data from the review were collected by means of online questionnaires before and after the meeting, and a set of questions on paper which participants received on their arrival and answered in writing over the course of the day. Data were received from 22 respondents to the pre-meeting questionnaire, 9 respondents to the post-meeting questionnaire and answers from 30 participants to the questions posed at the meeting itself. All sets of data were subsequently made available in raw form to the project teams. It was possible to identify the questionnaire respondents, but not the authors of the handwritten responses, so it was not possible to link comments made during the meeting to their authors' thoughts before and after the event.

We chose not to treat the review as an evaluation event for two reasons. First, the questions being asked were devised largely by others (albeit in consultation with us) and thus were not consistent with our previous events. Second, participants were evaluating two tools, which meant that some responses were comparative in nature. We therefore used the review instead to elicit data that might clarify our own research questions, and to identify new ones that we might take forward into future work. Therefore, the final two sections of this report (Sections 5 and 6) include contributions from participants where appropriate.

5. SYNTHESIS: FINDINGS IN RELATION TO THE RESEARCH QUESTIONS

5.1 Introduction

In this section we review the evaluation of Phoebe, primarily Phase 2, and synthesise the findings from the five evaluation events in order to address in a more systematic way the principal research questions of the project as a whole and to indicate areas of future work. In so doing, we draw also from the contributions of participants at the strategic review. Unidentifiable quotations from review participants are identified by the code "PP-Anon."

5.2 Is Phoebe usable, helpful and relevant to practitioners' needs?

> **Research question 1:**
>
> Is Phoebe a tool that practitioners in post-compulsory education find usable, helpful and relevant to their needs, whether they are
>
> a) beginning or experienced teachers looking to use technology in their teaching for the first time, or
>
> b) are familiar with e-learning but are looking for new ideas re technology and pedagogy?
>
> Specifically, does it encourage practitioners to think about their practice in a structured way?

5.2.1 Usability, helpfulness and relevance

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. Trainee teachers were more likely to have a higher initial learning curve (probably because they were lesser familiar with the task being supported), although most able to get to grips with the tool in the short time which they were given to work with it. It is important, though, to remember that the learning curve can be attitudinal as well as technological: "At first I did not see how I could benefit from it, however once I got into the designing of a lesson I found it very useful" (SW13F).

The principal benefit in terms of usability and productivity was undoubtedly the combination of tool and guidelines within the same interface:

> "It's very helpful to have the place to TYPE in the info and the guidelines all in one place, as well as the structure. As I am new to teaching I have been struggling with lesson planning – it would take all day to plan one [because] I have so many things to reference and take on board." (GR08H)

In terms of individual preferences, Phoebe would suit teachers who already adopt a systematic approach, but not those who prefer to map out ideas graphically:

> "…it suits my approach to lesson planning well. I am quite a systematic person and my background before lecturing is from a business management background where structured planning tools and techniques are the norm." (EX07FH)

"My approach is to my to sketch my initial thoughts graphically, either on a bit of paper, or using some sort of graphics or mind-mapping package. Producing textual descriptions of an activity is always necessary, but is never the first thing I do." (EX01H)

For both groups, the reference part of the tool was probably more helpful than the planning functionality itself. The prospect of easy access to other people's plans was particularly valued by trainee teachers, and "not reinventing the wheel" was a common refrain among experienced

teachers too. Yet, a distinction is to be drawn between learning designs as aids to personal planning and learning designs that are intended for sharing with, and reused by, others. The latter require considerably more effort in terms of information provided and the forms of representation adopted if others are to make sense of them:

> "[In Phoebe] there was a lot of the information I think I'd find it annoying to write down – for instance [...] things like teaching approach – it seems very much designed for sharing designs and I can see it could be useful for that, but it's not really designed to help the lecturer." (RE15H)

> "anyone else who wanted to use my lesson plan would find it quite difficult to follow" (SW08F).

The sharing and reuse of designs is discussed further in section 5.6.2

The most frequently quoted barriers to use were terminology ("I find the term 'lesson plan' an odd one to use in the HE context": RE14H) and time in terms of learning to use Phoebe, using Phoebe to develop plans and, significantly, exploring the innovatory possibilities of technology: "I get quite excited about differing opportunities to use IT, but when pressured for time, or unfamiliar with teaching subject, will revert to more familiar approaches" (GR04H).

As some evaluators noted, use of a pedagogy planning tool alone is not sufficient to bring about good practice, and if it maps too easily to teachers' existing practice without encouraging them to leave their "comfort zone," then the desired innovation will not happen: "I am concerned that, like with VLEs, practitioners will only map existing practice; we need tools to challenge their assumptions and promote new practice <u>where</u> relevant" (PP-Anon).

5.2.2 Supporting a structured approach to planning

The majority of practitioners who completed the "preliminary" online questionnaires tended to produce formalised plans,[8] and some commented positively on the degree to which Phoebe encouraged them to think about the process in a structured way. However, structure can be seen as a weakness as well as a strength, particularly where it restricts the possibilities for creative thinking – hence the questioning (by BT08H) of the assumption that "a structured approach is the only good approach," and RE14H's critique that Phoebe:

> "seems quite formulaic and could be seen as a bit of a sausage machine that doesn't leave much room for spontaneity (or makes people feel like they have to fill every bit in). I guess that's a problem with many of these kinds of design tools though."

At the institutional level, the tool needs to map to the kinds of practice that are supported and promoted generally. As PP01H noted: "If we get the course/module design right then there is a good chance that we can deliver a good course/module and the student experience will be so much better." The structured approach appears to predominate at the course and module level, with more freedom allowed at the session level: i.e. the level at which the majority of practitioners work.[9] A number of evaluators, though, drew our attention to the difference between "quality" processes and "planning" processes:

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[8] Of the 34 questionnaire respondents who rated the formality of their plans on a 7-point scale, 24 (76%) placed themselves in the range 5–7: i.e. towards the "formal" end (see Tables 4.4, 4.7 and 4.10).

[9] Aggregate figures for designing and revising at the course, module and lesson levels more than once a year (derived from Tables 4.2, 4.5 and 4.9) are:

	Design new	Revise existing	(N=37)
Course	8	15	
Module	20	21	
Lesson	32	32	

> "I think there are two different problems here – one is making it easy for institutions to do QA type stuff for which I can see that some standard templates might make life simpler for some institutions, and the other is how to help people plan their teaching" (RE15H).

In practice, however, there appears to be some elision of the two: "Colleges place a great importance on the planning process and use it as an integral part of their quality process and as evidence for self assessment and inspection." (RE12F, speaking as an adviser to the FE sector). For PP01H, though, it is planning – not quality procedures – that provides the real key to improving quality: "Our validation and QAA processes simply do not examine the right things! These planners will help us to focus on the important things, and to specify things in much more detail."

Given that several evaluators commented on the potential role of Phoebe in making it easier to satisfy quality and inspection criteria, more investigation is needed into the compatibility between the needs of institutions and of individuals in this respect.

5.3 Can one tool address all sectors of post-16 education?

Research question 2:

Can one tool address all sectors of post-16 education, or are separate tools required for, say ACL, WBL, FE and HE?

Phoebe was well received by the FE community in particular, although both the complexity of the plans and the nature of the content were criticised by some for tending to support the HE sector more – despite the fact that we had received richer data about planning during our initial investigations from the FE and ACL sectors than from HE. However, as an anonymous contributor to the strategic review noted, curriculum planning is currently not considered to be a cross-sector activity. Another "PP-Anon" was unsure that the different funding models of the two sectors would facilitate collaboration. Moreover, a culture that shuns anything "not invented here" (a different PP-Anon) can militate against the sharing of learning designs and resources even across institutions within the same sector.

Thus, it seems that the vision of "seamless collaboration between sectors leading to more coherent approach to e-learning" proposed by one of the strategic review questions is likely to remain unrealised, at least in the short to medium term. Even so, customisable templates and content that will allow pedagogy planning tools to be used in different institutions in different sectors would at least open up the possibility of cross-sector fertilisation in principle, even if actual behaviour lags behind. It is also arguable that a more pertinent question is the extent to which one tool can address all the levels of granularity and stages in the planning process in whatever sector it is used (addressed in section 5.5).

5.4 Is Phoebe suitable as a tool for teacher education and/or for everyday practice?

Research question 3:

Is Phoebe suitable as a tool for teacher education and/or a tool for supporting everyday practice?

5.4.1 A tool for teacher education

Participants in the strategic review had much to say on teachers' continuing need for professional development and the potential role of pedagogy planning tools in supporting design; for example:

"The modern role of the teacher is to scaffold the learner experience, providing activities that encourage learning insights to happen; to coach the learner, helping them to reflect on their experiences and advise how they can build on them; and to provide a model of someone who understands the domain in question and has thus successfully undergone a learning experience. To be able to incorporate these three roles in creating learning experience requires careful design. Technology tools should enhance design, not restrict it" (PP09H).

"Learners also need clear guidance and pathways through their learning, but so do teachers" (PP06H).

Emergent learner-centred models do not mean that the teacher now takes a back seat: "The recent focus on learner-centred environments has tended to ignore the teacher's perspective. This recognition is essential to encourage more academics to see the enhancement of their teaching practice as a priority" (PP10H).

Moreover, learners are often more skilled than teachers in their use of technology: "Consequently, staff often feel under more pressure and it is therefore even more important to support planning" (PP20V). Nonetheless, teachers remain the domain experts – at least in the early stages: "Maybe even more important since they are in a stronger position to recognise the potential uses in their own specialisms than are at least early stage learners" (PP08H).

Phoebe itself was perceived to have value both in formal ITT and CPD programmes and in "informal" professional learning, where teachers are motivated to try out alternative methods or are generally in search of inspiration (the extensive comments made by EX12F on pages 27–28 are particularly perceptive in this respect). Strong points of Phoebe in relation to teacher education are the perceived priority that it gives to pedagogy over technology, and the model of e-learning that it offers:

"A teacher engaging with Phoebe (and the tools that underlie it is doing similar things to students when they are engaging with e-learning: [...] you could say that the process of discovery with Phoebe mirrors the learning process that the students go through with e-learning. [Phoebe is] doing it by stealth. It's a very good paradigm" (EX02F).

The data from the trainee teachers (FE) event showed that people may be competent in their use of IT, but in relation to a narrow range of tools only. Such individuals in particular may be receptive to, and benefit from, encouragement to become more adventurous. Comparing the possibilities for using IT envisaged by the two groups of trainee teachers, we might speculate that the disparity in responses is a product of what is available in their institution. This raises implications for helping teachers to go beyond the familiar and to envisage new possibilities through using tools that are not currently provided by the institution. These implications include free availability, institutional permission to use them, and ease of use so that teachers can use them without support.

However, the usefulness of Phoebe to individual teachers working in isolation (e.g. in the ACL sector), 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.

5.4.2 Supporting everyday practice

In terms of everyday practice, a participant in the strategic review noted:

"The capturing of explicit learning designs for sharing, discussion and evaluation seems important for a) developing the skill base of practitioners; b) continuing to develop our understanding of what good practice in e-learning looks like; c) involving

wider groups of stakeholders – students, learning technologists, librarians, administrators – in the design process" (PP02H)

Other evaluators shared the opinion that the types of resources offered by Phoebe could be of benefit to staff working in support capacity such as learning technologists and librarians.

A number also stressed that Phoebe should support the design of *all* learning, regardless of whether technology is involved:

"Personally, I think that a focus on the more general, less IT-specific options is both most interesting, and most important for the future of teaching and learning. [...] To me, the biggest challenge is finding ways for teachers to design, or 'choreograph', new ways of learning that take into account the full range of flexibility available now. (With ICT being an important - but by no means the only source of this flexibility.)" (PP-Anon).

This echoes the project team's own approach to designing the advice and guidance within Phoebe.

Those evaluators who thought they would use the planning functionality within Phoebe indicated that they would probably use it in conjunction with existing tools. In particular, it is important to acknowledge the continued importance – even superiority – of pencil-and-paper (i.e. handwritten) techniques in supporting particular kinds of cognitive process (notably brainstorming and idea formation) and in providing a greater expanse of physical space for mapping out ideas: "I still think my 'big picture' would need to be created on paper. A computer screen just hasn't got the 'creative space' for me" (EX03FW).

A number of experienced teachers – and also trainees – felt that they would use Phoebe primarily for reference and reflection, although some participants at the strategic review believed that teachers reflect anyway, regardless of whether they have a tool to remind them. One even felt, on the basis of experience in the hands-on session, that "a lot of the reflection [...] arose from using the tool with someone, not just the tool itself" (PP-Anon).

RE10H concluded, after exploring Phoebe with her colleagues:

"Staff ask for assistance in planning and developing teaching with technologies; however, they seem to respond more to examples (e.g. with visual images, representation). Therefore, although these planning tools could be useful for providing an overview of all the aspects of course design that staff need to consider, we felt it was unlikely that staff would go through the process of actually completing the planners."

The project team recognised from the outset that practitioners might only use the reference part of Phoebe, or use it just at certain stages in the process or, even, only use it as scaffolding during the early stages of their learning design practice, and then leave it aside. However, to preserve Phoebe's value as a medium for sharing learning designs, institutional efforts would be needed to ensure that designs deemed to represent effective practice, but which were created using other tools, were accessible from within Phoebe as well. Moreover, the patterns of partial usage outlined here might prompt institutions to question whether they should invest resources in hosting, customising and supporting a tool that is used only in an *ad-hoc* or fragmented manner.

5.4.3 Institutional and motivational factors in uptake

Functionality is not the only key factor in the uptake of Phoebe among practitioners. Motivation within their socio-cultural context is also powerful: "the technology by itself cannot do this. It is about people and events which encourage practitioners to engage with such tools. It is also about institutional encouragements to use them" (PP02H).

Motivation is crucial, particularly where it is intrinsic: i.e. practitioners sense the potential benefits of such tools *to themselves*: "Getting staff to recognise the need/benefits of such tools is probably the cultural challenge. Unless the tools explicitly address this issue, they'll sit there unused by the majority of staff" (PP05H). This potential was recognised by, inter alia, RE08F during the Phase 1 evaluation: "This is the kind of excitement that doesn't come along very often, when you see something and think this is going to be absolutely so useful." EX07FH was more explicit about how the tool matched her personal style: "…it suits my approach to lesson planning well. I am quite a systematic person and my background [is] business management [...] where structured planning tools and techniques are the norm."

Extrinsic motivation is exemplified by a top-down approach, such as that envisaged by PP04H who stated "institutional obligations" would make him use a pedagogy planning tool "if doing so would save me work later on, or if I needed to provide a representation of my design (e.g. for discussion with a support team or for assessment as part of a CPD portfolio)."

The possible mandatory deployment of Phoebe would not be welcome among some evaluators, particularly as part of a drive to meet quality or inspection criteria:

> "I can see that it has potential to be used in a top-down, institutional level fashion as a way of checking up on people/QA type procedure (because theoretically you can see what everyone has prepared) and I would strongly resist this. Sharing not checking is the way forward" (RE14H).

> "If it were compulsory then all the lecturers would revolt at any of the places where I have taught!" (RE15H).

Within this institutional context, it is unsurprising that a number of evaluators felt it important for teachers to feel a sense of ownership over the tool: "As always it depends on whether they are able to engender a sense of 'ownership' of a genuinely creative process which puts the learner at its heart, rather than create the impression of a mechanistic process" (PP10H). This comment touches on a tension that has emerged at the heart of Phoebe's functionality: namely, providing a structured yet flexible planning environment which in the socio-cultural context translates to a tension between the institution and the individual: "the tension is between introducing an institutional approach and yet ensuring flexibility is retained to allow creativity" (EX12F). Designing "for" this balance in any future tool will be challenging, yet an important factor in its acceptability.

5.4.4 The role of theory in professional development

The place of theories of learning in teachers' professional development was a theme that emerged spontaneously from the five evaluation events, and was also the explicit subject of questions in the online questionnaires associated with the strategic review. It therefore merits exploration in relation to the third of the project research questions.

How to provide guidance on different theories of learning was an aspect of the reference system that particularly taxed the Phoebe project team during development. Analysis of learning designs from previous projects (including those collected by the MoD4L project: Falconer et al., 2007) demonstrated that almost no learning design is a perfect implementation of a single theory. Moreover, teachers may explicitly or tacitly draw from different theories in the course of a single lesson and, even, multiple theories can be used to explain the same phenomenon at different levels of granularity (Masterman, 2004). Our solution was to adopt a "relaxed" approach to theory by giving guidance on a small number of widely accepted "pragmatic" models of learning that may have their roots in formal theories but are more easily translated into learning designs which – at least in principle – may be both more readily discoverable and more easily transferable to users' own contexts.

The guidance in relation to models of learning remained incomplete at the evaluation stage; nevertheless, sufficient material was available for evaluators to articulate a range of reactions. Some appreciated this form of guidance, while others felt that, for example, "someone completely new to teaching or that may have been teaching for years and is not so familiar with the theories etc may find all this information very daunting and could feel overwhelmed" (SW08F).

Turning to the participants in the strategic review for further illumination, it was clear, that for several, theory is a cornerstone of professional pedagogic practice: "Academic staff need to have an understanding of the underpinnings of their profession - that is pedagogic theory, just as doctors need to understand medical theory to be able to apply it safely" (PP09H). Its importance vis-a-vis e-learning was highlighted by another participant: "Without [theory] the danger is that the technology will drive the learning processes and tools rather than the other way round." (PP08H).

Although participants in the review were giving their opinions individually, there are clearly two main areas of contention vis-à-vis the relationship between theories of learning and learning design. The first of these is the extent to which teachers consciously espouse specific formalised theories of learning and the extent to which their practice is guided by private, "intuitive," theories based on their cumulative experience:

> "I think most academic staff already have an understanding of pedagogic theory relevant to e-learning. Trouble is, it might be their theory, rather than a Grand Theory™, and it might be totally unjustifiable. They might not even be able to articulate it. But that doesn't mean it isn't there" (PP04H).

> "empirical evidence suggests that teachers are driven by prior experience and work on an experiential basis rather than from specific pedagogical theories per se" (PP06H).

For PP04H, "a more useful question is to focus on cultivating or developing these theories so that they are better informed." Others articulated this focus on the personal in terms of reflective practice: "Assisting them to be genuinely reflective practitioners is the key issue. Do they need to know if they are being constructivist or connectivist in their approach is less of an issue" (PP05H). However, the value of reflection without some knowledge of formal theories is debatable (see, e.g. Lawes, 2004).

The second area of contention is over the distinction between theories of learning in general and theories of e-learning in particular, a division which at least one participant at the strategic review meeting did not accept. According to another, "e-learning theory is at best 'in its infancy', is contested and far from 'singular' (i.e., many 'theories')" (PP02H). Moreover, theory alone is not a guarantee of successful e-learning experiences:

> "Well-planned, well-resourced, 'pedagogically-sound' lessons can fall flat for a multitude of reasons, some of which are inexplicable, while lessons developed on the hoof or by intuitively and carefully responding to the immediate demands of the leaner can work brilliantly (though the same trick might not work the next day with a different group of learners)" (PP15V).

A possible third way is a combination of knowledge of theories and the skills to evaluate the pedagogical benefits of different technologies with reference to one's own context (or if the skills are lacking, access to the findings of evaluations by others):

> "...it is more important that they have an understanding of pedagogic theory per se and are able to either evaluate technological resources available to support learning and teaching or to draw on existing evaluations in order to select appropriate tools for their particular context i.e. institutional, discipline, student profile and learning outcomes." (PP10H)

It is clear, therefore, that further investigation into teachers' relationship with theories of learning, both formal and intuitive, is needed.

5.5 What additional features and functionality are required for general use?

> **Research question 4:**
>
> What additional features and functionality are required to turn Phoebe from a proof-of-concept prototype into a tool for general use?

The development map produced alongside the project completion report lists desirable enhancements derived from the evaluations as well as from internal project discussions, meetings with JISC representatives and meetings with related projects. This document is available online at
http://phoebe-project.conted.ox.ac.uk/cgi-bin/trac.cgi/wiki/ProjectOutputs.

Long-term developments suggested in that document include (in no particular order of priority):

- Interoperability with other learning design tools through mappings between the Phoebe design structure and the structure used in the target tool.

- Interoperability with wider institutional and extra-institutional systems and tools that interface with the areas covered by Phoebe (e.g. student record systems, e-portfolios).

- Aggregating designs into a module or course, or in other ways determined by users.

- Exploring other forms of representation for learning designs: e.g. concept maps (possibly through integration with Compendium LD).

- Integration with virtual learning environments such as Moodle or Sakai.

- Redesigning the software architecture in accordance with standard or in-house XSD schemas as a design foundation, enabling database schemas, object models, and Web Services interfaces etc. to be derived from a single foundation. This would result in more options for flexibility, interoperability and integration.

- Exploring the option to associate groups of sessions: e.g. to enable export of the type "Export all my session planning documents for Maths 101 Course for Term 3 to MS Word."

- Developing and testing installation packages for institutions to host Phoebe locally and customise it accordingly.

- Developing outputs from Phoebe that conform to standards such as IMS LD and others yet to be identified.

We should also bear in mind the message, first articulated by a participant in the LD Tools project and repeated by a number of the Phoebe evaluators, that the activity of pedagogy planning may best be supported by a number of tools and services that address different stages in the process and different preferences among users:

> "In my opinion there is no one perfect design tool that will meet all needs – design works at different levels of granularity at different moments in time and different individuals have different preferences for how they go about the design process" (PP06H)

"The lesson from e-portfolio is that one application is not sufficient – these complex domains require a set of loosely connected services. The next iteration phase needs to emphasise that the software is a 'service' and not an 'island'" (PP-Anon).

5.6 What is needed to support the community dimension of learning design?

> **Research question 5:**
>
> What is needed to support the community dimension of using learning design and make it possible to sustain learning designs as community artefacts?

5.6.1 Collaboration within and across institutions

From their research among academics in higher education, Lucas and her colleagues have concluded that staff who work collaboratively – whether formally or informally – are more likely to be involved in innovative teaching and learning (Lucas, 2008). From the perspective of promoting "effective practice" it is therefore promising that, out of 37 Phoebe evaluators who were asked whether they engaged in collaborative planning, 27 (i.e. 73%)[10] said that they did. However, the distribution of roles and the media of communication (face-to-face and/or wholly online) varied, although the activity was invariably mediated by some form of electronic document (usually in Word).

The Phase 2 version of Phoebe did not support the technicalities of collaboration such as monitoring workflow or handling communications among collaborating practitioners. Nevertheless, the evaluation data suggest that Phoebe will function best as a community artefact, both in terms of propagating and supporting its use within individual institutions and in terms of providing customised terminology, learning design templates, guidance (e.g. regarding teaching approaches), and examples relevant to users' contexts (be those institution-based or subject-based).

However, success in this respect will depend upon the general acceptance of the tool by practitioners and support for collaborative planning as a blended process, with the emergent plan both shaping, and being shaped by, communications among practitioners that take place both online and in face-to-face settings. However, there exist a number of obstacles, not the least of which is supporting and sustaining communities within and across institutions, since "talking about a community doesn't create it" (PP-Anon). Other institutional barriers that lie outside the control of the project team are buy-in to the concept of design for learning at the institutional level, and allocation of responsibility for day-to-day support for users. There is also the risk that a customised version of Phoebe could be "locked down" by an individual institution, thereby impeding individual creativity and innovation: "sometimes when in an institutional setting the fear might be that it becomes too 'customised' to that institution and the 'free' nature of it is lost" (EX07FH).

5.6.2 Cultural attitudes towards the sharing and reuse of learning designs

Learning design/D4L distinguishes itself from equivalent forms of pedagogic practice in part through the emphasis placed on the *sharing* of learning designs with a view to their adaptation and use ("repurposing"). This is also one of its most problematic aspects, with both cultural and practical barriers.

Cultural barriers relate primarily to teachers' readiness to open up their work to others and, conversely, to borrow from others. Although, for understandable reasons, the trainee teachers

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[10] This compares with 51% of respondents to a similar question in the LD Tools project questionnaire.

wanted to see other people's plans, another practitioner expressed scepticism regarding the attitudes of experienced teachers in this respect:

> "Whether or not they actually need this, most of them don't seem to think they need it. Even if these facilities are provided (and many are already available – e.g. the JISC has extensive case studies that are of high quality) they may not be used. Making these discipline-specific seems to help, but I don't think that it resolves the fundamental issue that many people wouldn't choose to look for these things in the first place" (PP04H).

Others differed, claiming for example: "[teachers] want easy access to recognisably peer-reviewed resources which immediately tell them whether a resource will work, or not, in their context with or without adaptation" (PP10H).

Practical barriers include locating others' designs and making sense of the form in which they are represented:

> "Although there is often a cry for 'give me examples' the reality is that examples and case studies are not extensively taken up – this is due to a complex set of factors – such as different repositories being in different formats, teachers are unable to find what they are specifically looking for at an one moment in time, adapting and repurposing materials is far from trivial" (PP06H).

> "...most of the time, trying to review, revise and incorporate other people's designs is more hassle than it's worth, and it'd probably be easier just to make up something new" (PP04H).

There is, additionally, an epistemic issue: viz. what it is that is being shared. In making the observation that "practice is more disseminable than content" PP05H appears to suggest that the process that the designer has gone through is of more use to others than the product (i.e. the finished learning design). However, as he goes on to add, "[practice] is traditionally not described such that anyone could reuse" (PP05H). Communicating the context in which the original design was created and used is another issue: "Concern is the pushing of resources without appropriate context" (PP-Anon).

In this light it is unsurprising that the respondents to the Phoebe questionnaires were more likely to consult their own previous learning designs than those of others. However, the fact that 25 out of 37 experienced practitioners at least looked at other people's designs for inspiration[11] indicates that the desire for sharing is not confined to novice teachers.

Asking other people was the most common way for the Phoebe questionnaire respondents to locate other designs.[12] If we presume that most colleagues were in the same institution, then there *is* value in the provision of shared spaces in pedagogy planning tools to which users can upload and share designs, even if the "telling about" happens face-to-face.

Indeed, despite efforts to automate the search process through, for example, federated searches and metadata, to direct teachers to "the most useful resources which can yield the maximum benefit for the minimum of time expended" (PP15V), it seems that human mediation will retain a key role in sharing and reuse, and this will need to be taken into serious consideration in the

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[11] Figures collated from the data reported in sections 4.5.3, 4.6.3 and 4.8.3 show that 34 people (92%) had adapted their own designs, 33 (89%) had looked at their own designs for ideas, 20 (54%) had adapted other people's designs and 25 (68%) had looked at other people's designs for ideas (N = 37).

[12] i.e. 13 out of 29 responses (data collected from the same sections as in the previous note). The next most frequently cited means to locate learning designs were: searching the Web (9 responses), searching the institutional VLE or intranet (4 responses) and books (3 responses).

design of future pedagogy planning tools: "Exemplars, case studies, etc. [...] are unlikely to be found 'just in time' without humans encouraging, co-searching and sharing practice." (PP02H).

5.7 What other potential issues of sustainability exist, and how might these be resolved?

> **Research question 6:**
>
> What other potential issues of sustainability exist, and how might these be resolved?

Discussions about the sustainability of Phoebe, particularly at the expert practitioners' workshop, uncovered the following major concerns:

- Maintaining the currency of the reference and guidance system: sourcing new examples and ideas, and checking the integrity of existing links.

- Preserving the customised parts of Phoebe when the "core" product is updated.

- Ongoing financial support for developing, maintaining and hosting the tool. Users are hesitant to invest resources in a tool for which such support might be withdrawn at short notice, especially where their learning designs are stored on an external host and cannot readily be exported in a usable format.

Proposed "social" models of sustainability include a low-cost subscription service and a Wikipedia-style approach to maintaining the reference and guidance system, in which moderation would be essential to preserving its integrity and consistency. A proposed "technical" model is a modular one, such that the core product could be updated without impinging on the customised sections.

The evaluations have shown that, above all, the relationship between Phoebe and its communities of users will be central to its sustainability. This relationship is symbiotic in that Phoebe must genuinely be useful to a community in terms of functionality, guidance, output and interoperability with neighbouring pedagogic and administrative systems (hence the importance of customisable, if not locally hosted, versions) if that community is to continue to use it, yet Phoebe will be dependent on those communities to maintain the currency of, and expand the content of, its reference and guidance system.

6. CONCLUDING REFLECTIONS

Phoebe as successor to the Learning Design Tools project: how has our understanding of the problem domain moved forward?

The Phoebe Pedagogy Planning project was a direct successor to the LD Tools project in two ways. First, in the design of a dedicated pedagogy planning tool it built on the recommendations of its predecessor regarding the specific features and functions that might be desirable for such tools. Second, it explored further, in both the initial research phase (discussions with practitioner-informants) and the evaluation of the prototype tool, the broader socio-cultural challenges facing the deployment of such tools that the LD Tools project had already identified.

In relation to these socio-cultural challenges, Phoebe has, like LD Tools, reinforced Martin Oliver's characterisation of curriculum design as "a social practice that involves orientation to historical precedents, accessible resources [and] local values," rather than one that is governed by a "rationalistic and linear" model (Oliver, 2002; 2003: quoted in Masterman, 2006 p49). During the evaluation of Phoebe this opposition between the situated and the rational surfaced as a set of tensions: principally between structure and creativity in the cognitive task of pedagogy planning (of which we were already aware in the LD Tools project), and, in the institutional context, 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 (extrinsic vs. intrinsic motivation). Buy-in at all levels is essential for the uptake and sustainability of any pedagogy planning tool. The challenge confronting us now is whether it is possible to design a tool in such a way that it can accommodate the opposing needs and perspectives of management and teaching staff, and thus maximise the chances of securing this buy-in.

The sharing and reuse of learning designs, which form a lynchpin in the conceptual frameworks of both the D4L programme and the wider Learning Design movement, continue to be a problematic area from the technological, socio-cultural and cognitive perspectives, with demographic data on current practice remaining broadly similar across the two projects. The Phoebe prototype demonstrated in a very rudimentary way how a "repository" of shared learning designs might work within a pedagogy planning tool, but the technological challenges persist in how to search for, locate and (re-)represent in an intelligible format learning designs that are locked away in other repositories (often subscription-only) or in specialist tools like LAMS. Making the contents of such environments discoverable through a search engine goes only part way towards a solution. In socio-cultural terms, the creation of communities whose members not only co-design learning experiences but also voluntarily share and reuse each other's learning designs is another major *sine qua non* for the sustainability of pedagogy planning tools like Phoebe. However, while collaboration is common, the second activity is still has still to become established and supported at a formal level within, as well as across, institutions.

The cognitive dimension of the sharing and reuse issue addresses the nature of the task being undertaken: viz. planning a series of learning activities that are intended to meet one or more specific learning outcomes. Within the present discussion, it relates primarily to the distinction, first drawn within the D4L programme by the MoD4L project (Falconer et al., 2007), between *runnable* learning designs and *inspirational* learning designs. The former are learning designs (lesson plans) created by teachers themselves for use with a specific cohort of students studying a particular topic, often at a determined time and location (i.e. they are bound to a specific context). The latter are intended for reference purposes, for teachers to look at as a source of

ideas for techniques and tools that they can use in their own teaching. They may either be designs for a specific topic and level or student, or they may be generic, decontextualised designs (*models of practice*: Falconer et al., 2007). The key question is whether the same learning design can serve both functions: that is, whether a runnable design can also be inspirational. The barriers to this dual function are twofold. The first is *informational*: how much additional information the creator of a runnable design needs to provide in order for another teacher to be able to decide whether they can use it with their own students. The second is *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 to a reader, especially where that reader may not have access to the same technology as that in which the learning design was created. Both of these barriers hampered endeavours by the Phoebe team to provide links from the tool to learning designs created by other projects in the D4L programme.

Finally, some areas for further research which were identified by the LD Tools project remain unexplored (or under-explored) at the end of the Phoebe project. Despite our own interviews with practitioner-informants, and work with practising lecturers both by the LPP and Compendium projects (Laurillard et al., 2006; Conole, 2008), the practice of pedagogy planning and, in particular, teachers' relationship to theories of learning, our understanding of the domain is still only inching forward. Building pedagogy planning tools based on what we already know, and then testing them with teachers who can articulate the extent to which the tools map to their own practice is currently the most practical means to increase that understanding. However, it is both painfully slow (each iteration of the design→develop→ evaluate→redesign cycle takes many months), practitioners have at most a few hours to evaluate the usefulness and relevance of the tool (often in an inauthentic work setting) and, as we have seen, their reactions are diverse and often conflicting (especially in relation to theory). A range of loosely coupled tools is more likely to further the aims of D4L than a single system, but nevertheless orchestrating an understanding of the nature of the practice being supported: its abstract cognitive model. From previous work conducted by the author (Masterman, 2004), it may help us to think in terms of pedagogy planning as an *ill-defined* domain (Lynch et al., 2006) that we cannot fully apprehend, and in which problems have both multiple solutions and multiple paths to those solutions.

Phoebe: proving the concept of a pedagogy planning tool

The Phoebe project set out to explore the conceptual and technological space that a pedagogy planning tool might inhabit. There is little argument that both the concept and practice of pedagogy planning are widespread at both the institutional and individual levels, even though a small number of individuals may still "cobble something together" or draw up plans in their heads on the way from staff room to classroom. The introduction of digital technologies into teaching and learning has made careful planning all the more important, and the impact of "learner-centred" or "learner-directed" approaches has tended only to make it more subtle (i.e. to make the teacher's hand less conspicuous to the students), rather than banish it altogether. However, we do need to be clear about our terminology: in terms of process, where "pedagogy planning" stands in relation to designing a course (or learning session) and running it with a specific group of students and, in terms of product, what distinguishes a pedagogy plan from a learning design or even a traditional lesson plan. A blurring among terms is inevitable in an emergent and dynamic field, but clarity of definition is essential if the concept is to appeal to those who currently reside outside the learning design/D4L community.

Moving from concept to technology, both Phoebe and LD Tools have clearly demonstrated the role of a diverse range of digital tools to mediate the activity of pedagogy planning, although issues regarding forms of representation continue to loom large: viz. the affordances of "traditional" pencil-and-paper techniques for brainstorming, and challenges in supporting multiple forms of representation that map to the task, the desired output and users' preferences.

However, the key question facing Phoebe was: is there a place for *dedicated* digital pedagogy planning tools? What qualitative and quantitative benefits do they have over, say, a neatly tabulated Word document, or an Excel workbook with formulae to propagate data from a course-level "master" worksheet to worksheets for individual lessons, a PowerPoint presentation that can double as planning tool and teaching resource, or, even, a VLE area containing links to exemplar learning designs and other useful resources? The answer is that, in theory at least, a pedagogy planning tool can enfold within itself all of these benefits, which currently may be dispersed over a number of tools, *and* interoperate with institutional systems such as student records, e-portfolios and room bookings. The prospect has indeed appeared attractive to many of the evaluators involved in Phoebe, but others remain doubtful. Technological challenges notwithstanding, listening to voices on *both* sides of the pedagogy planning tool debate will be essential as we move into the next phase of research and development together with the teaching community.

REFERENCES

AUTC (2003). *Learning Design*.
http://www.learningdesigns.uow.edu.au/project/learn_design.htm [Accessed 6th June 2008,].

Beetham, H. (2004). *The Human Domain*. Presentation at the JISC/CETIS Conference on eLearning Tools, Standards and Systems, Oxford, November 2004. www.unfold-project.net/providers_folder/providers_resources/beetham/link.2004-12-06.2877299947 [Accessed 8th April, 2008].

Beetham, H. (2008). *The promise and progress of the pedagogy planning tool projects*. Presentation at the strategic review meeting of the D4L pedagogy planner projects organised by JISC, Birmingham, 4th March 2008.

Conole, G. (2008). Using Compendium as a tool to support the design of learning activities. In A. Okada, S. Buckingham Shum & T. Sherborne (Eds). *Knowledge cartography – software tools and mapping techniques*. London: Springer.

Falconer, I., Beetham, H., Oliver, R., Lockyer, L., & Littlejohn, A. (2007). *Mod4L Final Report: Representing Learning Designs*. http://www.academy.gcal.ac.uk/mod4l/mod4lreportfinal.doc [Accessed 8th June, 2008].

JISC (2004). *Effective Practice with e-Learning*. Bristol: JISC.

JISC (2006). *Background to the JISC Circular 1/06: Design for Learning Programme* (briefing document). Bristol: JISC.

Laurillard, D., Boyle, T., Bradley, C., Lian, D., Neumann, T., & Walker, K. (2006). A User-Oriented Planner for Learning Analysis and Design: Report on current practice and lecturer requirements. http://www.wle.org.uk/d4l/ [Accessed 15th June 2008].

Lawes, S. (2004). Practice makes imperfect. In D. Hayes (Ed.), *The RoutledgeFalmer Guide to Key Debates in Education* (pp. 197-201). London: RoutledgeFalmer.

Lucas, L. (2008). *Towards a Socio-cultural understanding of academics' experiences of linking research and teaching*. Seminar given at the Oxford Learning Institute, 29th May 2008.

Lynch, C., Ashley, K., Aleven, V., & Pinkwart, N. (2006). Defining ill-defined domains; a literature survey. In V. Aleven, K. Ashley, C. Lynch, & N. Pinkwart (Eds.), *Proceedings of the Workshop on Intelligent Tutoring Systems for Ill-Defined Domains at the 8th International Conference on Intelligent Tutoring Systems* (pp. 1-10). Jhongli (Taiwan), National Central University. http://www.cs.cmu.edu/~aleven/publications.html [Accessed 15th June 2008].

Masterman, E. (2004). *Representation, mediation, conversation: integrating sociocultural and cognitive perspectives in the design of a learning technology artefact for reasoning about historical causation*. Unpublished PhD thesis, University of Birmingham.

Masterman, L. (2006a). *JISC eLISA Independent Lifelong Learning Project: Evaluation Report*. Unpublished report, University of Greenwich & University of Oxford, UK.

Masterman, L. (2006b). *The Learning Design Tools Project: An Evaluation of Generic Tools Used in Design for Learning*. Bristol, UK: JISC. http://www.jisc.ac.uk/uploaded_documents/LD%20Tools%20Report%20v1.1.pdf [Accessed 8th April, 2008].

Masterman, L., & Vogel, M. (2007). Practices and processes of design for learning. In H. Beetham & R. Sharpe (Eds.), *Rethinking Pedagogy for a Digital Age: Designing and delivering e-learning* (pp. 52–63). London: Routledge.

Salmon, G. (2003). *E-Moderating*. 2nd Edition. London: RoutledgeFalmer.

Scaife, M., & Rogers, Y. (1999). Kids As Informants: Telling Us What We Didn't Know or Confirming What We Knew Already? In A. Druin (Ed.), *The Design of Children's Technology* (pp. 27-50). San Francisco, CA: Morgan Kaufmann.

Sharpe, R., & Oliver, M. (2007). Designing courses for e-learning. In H. Beetham & R. Sharpe (Eds.), *Rethinking Pedagogy for a Digital Age: Designing and delivering e-learning* (pp. 41–51). London: Routledge.

APPENDIX: PHOEBE EVALUATION QUESTIONNAIRES

This appendix reproduces the online questionnaires created by the project team for Phase 2. It does not include the instruments designed for the Strategic Review meeting.

Trainee teachers: HE

Review questionnaire: *Phoebe at Greenwich 31st October 2007*

Experienced practitioners

Preliminary questionnaire: *Phoebe Evaluation Workshop 14th Jan: Preliminary Questionnaire*

Review questionnaire: *Phoebe Evaluation Workshop 14th Jan: Review Questionnaire*

Continuing professional development

Questionnaires not included. The preliminary questionnaire was similar to the questionnaire used for the "experienced practitioners" workshop, and no participant not completed the review questionnaire.

Trainee teachers: FE

Review questionnaire: *Phoebe at Swansea 6th February*

Online "remote" evaluation

Preliminary questionnaire: *Phoebe Remote Evaluation: Survey 1*

Review questionnaire: *Phoebe Remote Evaluation: Survey 2*

Phoebe at Greenwich 31st October 2007

About this survey

Now that you have tried out Phoebe, we would be grateful for your feedback. Please take a short time to complete this survey.

When you have finished, click Finish at the bottom of the screen (NOT the Cancel message in the top right corner).

Thank you!
The Phoebe Development Team

1. What subject(s) are you training to teach?

2. How experienced do you consider yourself to be in using IT?

- Very inexperienced (almost a beginner)
- Fairly inexperienced
- Quite experienced
- Very experienced, competent user of IT

Feel free to clarify your answer here:

3. At the moment, what uses can you see for IT in your teaching? Examples might include illustrating your lectures with eye-catching PowerPoint slides; uploading lecture notes, reading lists and other resources to the VLE; and having students submit their assignments electronically.

4. What did you manage to do in Phoebe in the time available? (You can click more than one response.)

- Explored the information and guidance
- Started a learning design (lesson plan) but didn't complete it
- Created a more or less complete plan
- Other (please specify)

5. What are your first impressions of Phoebe, in terms of usability and relevance to your own teaching?

6. Did you have any specific problems or find any bugs? If so, can you tell us briefly here?

7. Do you think that there is a future for online tools (such as Phoebe) that help you plan your teaching, give you advice and allow you to look at other people's plans for inspiration?

8. Phoebe is still being developed. Would you like to be involved in testing the tool over the next few months? For example, you might be invited to an expenses-paid workshop in Oxford, or to take part in an "distance" evaluation.

jn Yes
jn No

If you answered yes, please type your name and email address here:

Thank you very much for giving us your feedback. Now click the "Finish" button to save your responses and exit.

Phoebe Evaluation Workshop 14th Jan: Preliminary Questionnaire

About this questionnaire

Dear Phoebe Workshop participants,

This questionnaire is intended to collect information about how you normally go about planning courses and/or individual learning sessions. The information will help us to understand the context in which you normally work, and to relate your experience of using Phoebe to that context.

(If you have problems completing the questionnaire before the workshop on 14th January, there will be an opportunity to do so on the day.)

Thank you!
Marion and Liz

1. Your name

2. The organisation for which you work

3. Your role (job title)

4. The subject(s) which you teach

5. The educational sector(s) in which you teach (You may tick more than one answer)

- ⊝ FE
- ⊝ HE
- ⊝ ACL
- ⊝ Work-based learning
- ⊝ Other (please specify)

In questions 5 and 6 we use the following terms:

<u>Course</u> = A complete programme of study normally (but not necessarily) leading to a particular qualification: e.g. BA, City & Guilds, BTec, A Level
<u>Module</u> = Part of a course: e.g. 19th-century British history as part of a history degree
<u>Lesson</u> = Individual tutorial, seminar, practical class, lab class or lecture

6. How frequently are you involved in DESIGNING A NEW...

	Every 6 months or more often	Every 6-12 months	Every 1-5 years	Every 5 years or more	Never
Course	◯	◯	◯	◯	◯
Module	◯	◯	◯	◯	◯
Lesson	◯	◯	◯	◯	◯

7. How frequently are you involved in REVISING AN EXISTING...

	Every 6 months or more often	Every 6-12 months	Every 1-5 years	Every 5 years or more	Never
Course	◯	◯	◯	◯	◯
Module	◯	◯	◯	◯	◯
Lesson	◯	◯	◯	◯	◯

8. When creating a new lesson plan, do you ever make use of an existing plan? Please tick all the statements that apply to you.

- I sometimes adapt an existing lesson plan of my own.

- I sometimes look at one of my old plans for ideas.

- I sometimes adapt an existing lesson plan written by someone else.

- I sometimes look at someone else's plan for ideas.

- Other/additional comments:

9. If you ever adapt or look at plans written by other people, how do you locate those plans (e.g. ask those people, look on the Web)?

10. What tools do you usually use in order to create the lesson plan, and for what purpose do you use each tool?
(NB we are only interested in the plan itself, not in any supporting materials which you create for students.)

Paper-based tools (e.g. pens, paper, index cards, Post-it pads, acetates):	
Word processor (e.g. Word)	
Presentation tool (e.g. PowerPoint)	
Mind-mapping or other diagramming tool (e.g. MindManager, Inspiration)	
VLE (e.g. WebCT, BlackBoard)	
Course design tools (e.g. CourseGenie)	
Web page design tools (e.g. DreamWeaver)	
Other (please specify)	

11. What is the typical product of the lesson-planning process? Please indicate where your finished plan would lie on the following scale:

Rough notes ("back of an envelope")　·　·　·　·　·　Formal structured plan

12. Do you ever create lesson plans in collaboration with others (e.g. for team-teaching or when different teachers cover the same material with different groups of students)?

jn Yes

jn No

13. If you answered "yes" to the previous question, how do you approach planning collaboratively? For example, how do you decide who plans what? How do you share your notes and sub-plans?

14. How much importance does your college or university place on a structured approach to the planning of a) whole courses or modules and b) individual learning sessions (lessons)?

Phoebe Evaluation Workshop 14th Jan: Review Questionnaire

About this survey

Now that you have tried out Phoebe, we would be grateful for your feedback. Please take a short time to complete this review questionnaire. As well as telling us your opinions, it will help you assemble your thoughts in advance of the group discussion.

When you have finished, click Finish at the bottom of the screen (NOT the Cancel message in the top right corner).

Thank you!
The Phoebe Development Team

1. Your name

2. Name of the design which you created in Phoebe

3. What did you manage to do in Phoebe in the time available? (You can click more than one response.)

- Explored the information and guidance
- Started a learning design (lesson plan) but didn't complete it
- Created a more or less complete design
- Tried editing a template
- Other (please specify)

4. How easy was it to learn to use Phoebe? What, if anything, is needed to help intended users to make effective use of it (e.g. training, guidance, time)?

5. How well does Phoebe's functionality support your approach to planning? (i.e. can you still do things in the familiar way?)

6. If Phoebe were to be available for widespread use, would you want to use it to plan your teaching?

- If YES, would you use it as well as, or instead of, the tools which you currently use to design a lesson?
- If NO, why not? What, if anything, might induce you to change your mind?

7. Who do you think could/should make use of Phoebe, and for what purposes?

8. Could Phoebe be used by teachers working alone, or would it work best in an institutional setting?

9. What (if any) organisational issues would there in introducing an online pedagogic planning tool such as Phoebe into your institution? e.g. technical, practical, logistical, philosophical...

10. Do you think that there is a future for general-purpose online pedagogical planning tools (such as Phoebe)? Or do you think that it's best for each organisation to create its own tools e.g. Excel spreadsheets or Word tables?

Thank you very much for giving us your feedback. Now click the "Finish" button to save your responses and exit.

Phoebe at Swansea 6th February

About this survey

Now that you have tried out Phoebe, we would be grateful for your feedback. Please take a short time to complete this survey.

When you have finished, click Finish at the bottom of the screen (NOT the Cancel message in the top right corner).

Thank you!
The Phoebe Development Team

1. What subject(s) are you training to teach?

2. How experienced do you consider yourself to be in using IT?

- ◯ Very inexperienced (almost a beginner)
- ◯ Fairly inexperienced
- ◯ Quite experienced
- ◯ Very experienced, competent user of IT

Feel free to clarify your answer here:

3. At the moment, what uses can you see for IT in your teaching? Examples might include illustrating your lectures with eye-catching PowerPoint slides; uploading lecture notes, reading lists and other resources to the VLE; and having students submit their assignments electronically.

4. What did you manage to do in Phoebe in the time available? (You can click more than one response.)

- ◻ Explored the information and guidance
- ◻ Started a learning design (lesson plan) but didn't complete it
- ◻ Created a more or less complete plan
- ◻ Other (please specify)

5. How easy was it to learn to use Phoebe?

6. How easy was it to use Phoebe to create a lesson plan in the way you have been taught?

7. If Phoebe were available for widespread use, would you want to use it to plan your teaching?

8. Do you think that there is a future for online tools (such as Phoebe) that help you plan your teaching, give you advice and allow you to look at other people's plans for inspiration?

Thank you very much for giving us your feedback. Now click the "Finish" button to save your responses and exit.

Phoebe Remote Evaluation: Survey 1

About this survey

Dear Phoebe evaluator,

Thank you for agreeing to take part in the "remote" evaluation of the Phoebe pedagogic planner tool. If possible, please complete this survey before you start using Phoebe itself. It is intended to collect information about you, and how how you normally go about planning courses and/or individual learning sessions. The information will help us to understand the context in which you normally work, and to relate your experience of using Phoebe to that context.

When you have completed the survey, please click the "Thank you" message after the last question (<u>not</u> the Cancel button at the top right of this window; otherwise you'll lose all your responses).

If you have problems completing the survey, please email either [Marion](#) or [Liz](#).

Thank you!

Marion Manton, Project Manager
Liz Masterman, Lead Researcher

* 1. Your name

[   ]

* 2. For which university, college, school or other organisation do you <u>currently</u> work? *(If outside the UK, please tell us the name of the country as well.)*

[   ]

* 3. This evaluation of the Phoebe pedagogic planning tool is part of a research project being carried out by the Oxford University Department of Continuing Education and Oxford University Computing Services. We may therefore wish to include the data which you supply to this evaluation in our project reports, conference presentations and/or refereed publications. By "data" we mean your responses to the two online surveys, the learning design(s) you create in Phoebe and any additional relevant information which you give in email correspondence with the Phoebe project team.

Strict confidentiality will apply and all quotations will be anonymous.

Please can you tick Yes or No with respect to the following statement:

I give permission for the data which I contribute to this evaluation to be used in reports and publications associated with the Phoebe project. I understand that some of the data I contribute may be quoted verbatim, but that nothing identifying me will be made public.

ⓘ Yes
ⓘ No

4. Your email address *(We need to know this if you would like to enter the prize draw.)*

[   ]

5. Are you…

- A teacher, lecturer or tutor?
- A student who is training to teach or who does some teaching?
- A learning technologist?
- A manager?

Other (please specify)

If you no longer work as a teacher, please answer the remaining questions in relation to your last teaching position.

6. What subject(s) do you teach?

In the next two questions we use the following terms:

<u>Course</u> = A complete programme of study normally (but not necessarily) leading to a particular qualification: e.g. BA, City & Guilds, BTec, A Level
<u>Module</u> = Part of a course: e.g. 19th-century British history as part of a history degree
<u>Lesson</u> = Individual tutorial, seminar, practical class, lab class or lecture

7. How frequently are you involved in DESIGNING A NEW…

	Every 6 months or more often	Every 6-12 months	Every 1-5 years	Every 5 years or more	Never
Course					
Module					
Lesson					

8. How frequently are you involved in REVISING AN EXISTING…

	Every 6 months or more often	Every 6-12 months	Every 1-5 years	Every 5 years or more	Never
Course					
Module					
Lesson					

9. When creating a new lesson plan, do you ever make use of an existing plan? Please tick all the statements that apply to you.

- I sometimes adapt an existing lesson plan of my own.
- I sometimes look at one of my old plans for ideas.
- I sometimes adapt an existing lesson plan written by someone else.
- I sometimes look at someone else's plan for ideas.
- Other/additional comments:

10. What is the typical product of the lesson-planning process? Please indicate where your finished plan would lie on the following scale:

Rough notes ("on the back of an envelope")   Formal structured plan

11. Do you ever have to submit course/lesson plans to others for approval, quality assurance or inspection purposes?

jn Yes

jn No

12. Do you ever design courses or create lesson plans in collaboration with others (e.g. for team-teaching or when different teachers cover the same material with different groups of students)?

jn Yes

jn No

13. How much importance does your organisation place on a structured approach to the planning of a) whole courses or modules and b) individual learning sessions (lessons)?

Phoebe Remote Evaluation: Survey 2

About this survey

Now that you have tried out Phoebe, we would be grateful for your feedback. Please take a short time to complete this survey.

When you have finished, click Finish at the bottom of the screen (NOT the Cancel message in the top right corner).

Thank you!
Marion and Liz

* 1. What is your name?

[   ]

2. Have you been working in Phoebe...

- ◌ On your own?
- ◌ With someone else?

3. Approximately how long have you spent trying out Phoebe?

- ◌ One hour or less
- ◌ 1-2 hours in a single stretch
- ◌ More than 2 hours in a single stretch
- ◌ I have been dipping in and out of Phoebe in spare moments over a number of days/weeks
- ◌ I have been using Phoebe in intensive bursts over a number of days/weeks

4. How far did you get in Phoebe? (You can click more than one response.)

- ⬡ Explored the information and guidance
- ⬡ Started a learning design (lesson plan) but didn't complete it
- ⬡ Created a more or less complete plan
- ⬡ Tried editing a template
- ⬡ Other (please specify)

[   ]

5. If you created a plan (learning design) and made it public, what name did you give it?

[   ]

6. How easy was it to learn to use Phoebe? What, if anything, is needed to help intended users to make effective use of it (e.g. training, guidance, time)?

[   ]

7. How well does Phoebe's functionality support your approach to planning? (i.e. can you still do things in the familiar way?)

[   ]

8. If Phoebe were to be available for widespread use, would you want to use it to plan your teaching?

- If YES, would you use it as well as, or instead of, the tools which you currently use to design a lesson?
- If NO, why not? What, if anything, might induce you to change your mind?

9. Who do you think could/should make use of Phoebe, and for what purposes?

10. Can Phoebe be used by teachers working alone, or would it work best in an institutional setting?

11. What (if any) organisational issues would there in introducing an online pedagogic planning tool such as Phoebe into your institution? e.g. technical, practical, logistical, philosophical...

12. Do you think that there is a future for general-purpose online pedagogical planning tools (such as Phoebe)? Or do you think that it's best for each organisation to create its own tools e.g. as Excel spreadsheets or Word tables?

13. Finally, do you have any other comments to make about Phoebe in particular or the concept of pedagogic planner tools in general?

Thank you very much for giving us your feedback and for taking part in the evaluation. Now click the "Finish" button to save your responses and exit.