Supporting design pilot: May 2012

Using a learning design approach to supporting evolving design practices at the OU

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Abstract

The Open University Learning Design Initiative (OULDI) project started five years ago, and was aimed at building on and consolidating a tradition of learning design activity at the Open University. The Initiative was originally funded institutionally and then successfully secured four years of JISC funding which is due to finish in July 2012.

At the OU, our approach to the development of a learning design methodology has been characterised by a focus on three aspects of design:

1 The use of representational frameworks as a formal means of describing learning activity (whether that be at task, module or whole programme level).

2 Mechanisms to encourage the sharing and discussing of learning and teaching ideas.

3 The development of a body of empirical research and conceptual tools to help guide the design decision-making process.

This pilot is one of nine (four based in the OU and five in other HE institutions) which have provided us with valuable feedback about the tools, resources and approach, across a variety of contexts.

This pilot focuses on identifying and monitoring evolving changes in design practice across the University and examines the impact of changing perceptions of design roles and relationships between non-academic and academic teams. Finally, it attempts to discover whether the OULDI tools and approach have any role to play in improving the efficiency and effectiveness of new practices.

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1. Introduction

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2. Context

2.1 The University

The OULDI project began with a comprehensive benchmarking exercise where a visual representation was developed of the Open University's formal curriculum design process – called the 'Stage Gate process' - via a set of flowcharts:

- Institutional curriculum design
- Programme level curriculum design
- Designing an Award within the stage gate[1] process
- Designing a Course within the stage gate process

This representation set was validated by review interviews with three faculties and the Strategy Unit. The flowcharts identified the complexity of the process and illuminated the variation of formal and informal processes across the university. The exercise also revealed the ways in which design processes have evolved over time to meet new challenges.

One change that has become apparent is that as modules have moved to being primarily online rather than printed, the university's non-academic support units - particularly Library Services and the Learning and Teaching Solutions unit (LTS) - have re-positioned themselves so that they can become involved in the design process much earlier. Broadly, the reasons for this are cited as being related to the very different learning and teaching environment and experience that the VLE creates, and the design complexities it is perceived that this environment creates. Below, a LTS Media Project Manager (MPM) explains why one faculty began working with them in a different way:

[1] The 'stage gate' framework is an approval and production process which aims to support "*curriculum investment decisions*" throughout the lifecycle of a qualification or module. There are 5-stages to the process, three of which are prior to the module launch and are of particular interest to this project.

> *"We'd done a couple of online courses where the primary delivery was through the web and it became obvious when we were doing this that you couldn't operate on waiting for a course team to hand over the material and then put it online, because they were thinking in terms of creating material in the way that they've always created material, which is writing units with the material giving it to us, identifying here and there some images and it was just too texty, not structured correctly [...] we needed to get involved in the course team at a much earlier stage and make them part of the production as well as us part of their development and to help them look at the structure of the courses and think about the delivery of the different elements"*

The shifting role of non-academic staff in technologically rich learning and teaching contexts is not unique to the OU and similar experiences are reported across the HE sector. The rich discussion in the literature review Cloudscape '*The positioning of educational technologists in enhancing the student experience*'[2] highlights the ways in which roles are perceived to have changed, and the impacts of this of working patterns and relationships as suggested by the literature:

> *"X says that* 'a major innovation in human resources management now required of HE is a re-examination of the role and organisational position of educational technologists...' *This does, though, beg the question of how institutional academic cultures are resisting the post-fordist vision, and particularly the role of ICT/TEL. [Learning Technologists] are politically as well as organisationally in a complex position".*
>
> **Cloudscape participant**
>
> *"I found it a really interesting study on how people in different roles can 'see' a situation very differently, even though they are allegedly working towards the same goal. It also raises some of the challenges that educational technologists have to negotiate between being at the 'disruptive periphery', where arguably much innovation takes place, and promoting the central enterprise systems"*
>
> **Cloudscape participant**
>
> *"The Hixon reference makes much of the merit of 'bringing together faculty and a variety of instructional support staff' noting that: "collaborative*

[2] See http://cloudworks.ac.uk/cloudscape/view/1872

course development is a significant departure from how many faculty members approach course design and development". How true!"

Cloudscape participant

As new processes evolve, differences in understandings about the process and practice can lead to challenges in working together and inefficiencies. The benchmarking activity at the OU highlighted some shifts not only in practice but also staff perceptions about ownership, role and responsibility in the design process, including some territorial tensions between academic and non-academic staff in relation to the design of online learning activities and what might be described broadly as 'student experience'. This was noticed by academic and non-academic staff across the university but is seen to impact particularly on the role of LTS MPMs, who work directly with module teams and sit at the tricky interface between module team design and the institutional approval and production 'stage gate' process (see section 5).

And yet, as the development of online modules becomes the norm across the university, clear, efficient and collaborative design and production processes are being seen as being increasingly important:

"If you are going to be making less stuff as you probably are, if you are producing fewer words which you are if you are moving online [...] your design needs to be better".

"We're getting courses now where there are very few components, very few bespoke OU components, and so that is why learning design is important because it used to be that through the nature of those components that we ensured good design, now we can have courses that are almost 'Empty Box' where the resources are drawn from elsewhere and it is literally a process of orchestrating student activity, and so you can't just leave the products to do it. You've got to be clear what it is you are trying to do."

2.2 Pilot focus

This pilot intends to discover how far the OULDI tools and resources may help support the curriculum design process, and in particular support dialogue, collaboration and sharing across non-academic and academic roles, in a context of new and developing design practices. It was intended that the OULDI team would observe the process of the design of just one new online module, and interview key academic and non-academic team members to discover what the design and

collaboration issues were perceived to be, where key design and production decisions were made, and identify any ways improvements could be made to the process. However, issues relating to design role and responsibility in the development of online modules have emerged strongly from OULDI work across the university and are more complicated than initially thought. Although this pilot will still focus on exploring changing design practices and processes, we will combine experiences from three separate engagements, and by doing this we will take a broader cross-university view than was originally intended.

The dual focus of this pilot is therefore:

Success criterion 1: To examine the assumptions and beliefs held by academic and non-academic teams about what the design and production processes is/should be like, the constraints they feel act on the design and production of modules, and the ownership of design roles and responsibilities.

Success criterion 2: To discover how the OULDI and other learning design tools might support the design and production of online modules - for example, how far they can be seen to support a pedagogically focused design dialogue, with shared understandings and language about the design.

2.3 Institutional barriers, challenges and enablers

- There are significant variations in design practices and processes across the university however there are a number of shared challenges. For example in relation to the university's shift in focus from individual modules to whole qualifications, the move of modules from print to online, and tightening production schedules. It has been found that there is generally a shared consensus across the university about what the challenges facing module design teams are.
- Faculties are in different places in relation to change processes. For example some faculties have made more online modules and as a consequence have had more experience of working in new ways, and more awareness of the issues.
- Tightening production schedules and smaller core module teams have left many academic staff feeling anxious that any disruption to usual processes and practices might lead to missed deadlines and is therefore high-risk. This has seen to be a barrier to some faculties engaging with the OULDI tools and approaches.

- There is no tradition of - or forum for - openly discussing tensions in design relationships or even role boundaries and responsibility. Much of the data gathered has been 'off the record' and therefore has needed to be de-contextualised to ensure anonymity or paraphrased entirely. For this reason - unlike the other OULDI-JISC pilots - we have chosen not to write three personal narratives, but have instead chosen to explore four thematic motifs that have reoccurred in interviews, focus groups and workshops (see section 5)
- Issues around perceptions, role and responsibility have emerged strongly from other OULDI work, often not linked to the OULDI-JISC internal pilots directly. This has enabled us to combine experiences from a number of engagements so as to reveal cross-university practices and issues whilst suitably anonymising the comments.

3. Methodology

The OULDI team began by setting up a focus group forum to discuss perceptions of learning design processes and practices across the university. They then facilitated two smaller focus groups to explore impacts on specific roles with an eye to capturing and revealing assumptions and beliefs so that these could be critically explored and reflected upon. They facilitated a learning design workshop to trial the OULDI tools with a focus on the ways in which they might support cross-role understanding and dialogue. Finally, they conducted a series of more than 10 short semi-structured interviews with academic and non-academic staff members about their broad perceptions of the process, the constraints they feel act on the design and production of online modules, and the ownership of process roles and responsibilities.

Data gathered from the questionnaires and interviews were analysed using thematic analysis (Boyatzis, 1998; Joffe & Yardley, 2004) to identify key themes. Key findings and results are presented in Sections 4 and 5.

4. Overview of interventions and activity within the project

4.1 Learning design focus group

The OULDI team had become aware that the term 'learning design' was increasingly being adopted and used across the university, for example in policy and strategy documents, staff development workshops and role descriptions. They were keen to capture how far there was a shared understanding about what

the term meant and to gain a better understanding about perceptions of where learning design fitted into university processes and practices. Following conversations with LTS and the Curriculum Business Modules project (CBM)[3] team, the OULDI team proposed a focus group to review and contrast the perceptions and use of 'learning design' across the university. The intention was to bring together key OU stakeholders associated with learning design and to begin a process of exploring perceptions, reviewing use and looking forward to the role of learning design in the university.

Four questions were developed as prompts for the focus group discussion:

- What is learning design and how do we use it?
- What do we think the impact of embedding learning design institutionally could be?
- How do institutional processes need to change?
- What are the anticipated resource implications? What systemic requirements might be required?

A group of stakeholders were invited including IET[4] representatives from the OULDI and CBM projects, the LTS' Learning Media Design (LMD) project and Library Services. This group was deemed to represent a range of interests in learning design, including those who regularly worked directly with and in module teams. No intentional attempt was made to exclude other parties and it was acknowledged that the number of those interested in learning design was likely to be greater than this group.

Participants at the focus group discussion raised a number of important issues:

- Learning design was becoming embedded in university policy documents, advocated by a range of interested groups, and introduced at a number of moments in the module development process
- There was no curriculum design or learning design process owner with responsibility to manage process improvement, provide guidance and ensure both process coherence and observance.

[3] A parallel institutionally funded project. For a description of the CBM project see http://www.open.ac.uk/blogs/OULDI/?page_id=833
[4] The university's Institute of Educational Technologies (IET)

- An agreed, common institutional definition of the term 'learning design' was required
- Resource to lead and support the embedding of learning design at the University remained a central concern
- Learning design could support the development of a new or amended curriculum design process, especially in respect to further focus on pedagogy.
- The existing 'module team' model may not be the most appropriate for new methods of module development, especially in respect to its organisation, practise, core learning design expertise and accountability.
- Learning design was seen to offer a variety of benefits including: greater focus on pedagogic principles; more rigorous review of products and services; potential reduction in cost and effort; developing a shared pedagogic language; support for negotiating new more complex pedagogic models; responding to the new financial and education context; and facilitating better and more widespread communication of module design, intent and content.
- There was interest from those attending in creating a more formal 'learning design group' that could consult on future learning and curriculum design related projects

In the first part of the focus group meeting, unit representatives were asked to deliver a ten-minute presentation outlining their understanding of what the term 'learning design' meant to them in practice, their use of the approach in the university and the perceived benefits of a learning design approach. The presentations by the stakeholder participants revealed significant alignment and overlap between groups in their conceptualisations of learning design. However, often different language was used to describe where learning design 'fitted-in' and it is interesting to note the different emphases of each group:

- The CBM perspective presented a three tier framework which situated learning design in the middle; against a higher level curriculum design and finer level product design. It was stressed that learning design was 'about the components' but that both intent and learning were important.
- The OULDI project also imagined the design process across three levels but offered a broader definition with learning design encompassing all

three: the macro, meso and micro levels of design. Pedagogy (teaching), learning (student views of profile) and resources (technology, tools) were mentioned although there was no direct mention of intent.

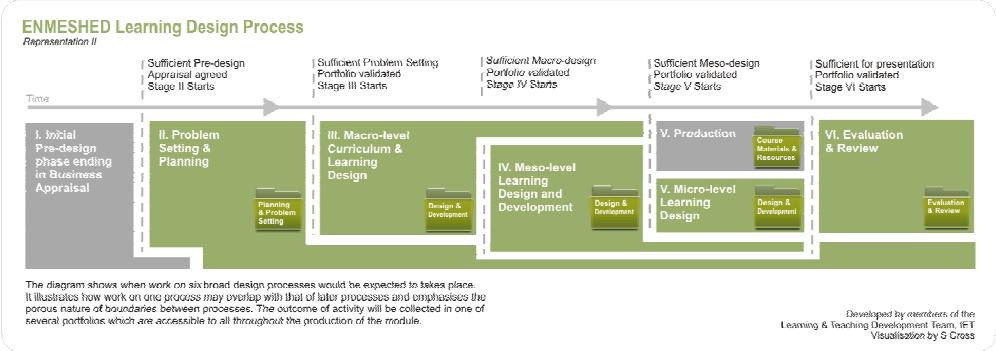
- In their presentation, LTS emphasised the production phase of design with particular mention of interest in resources, and resource specification, throughout the process. Here too, a three tier framework was used with particular emphasis for the unit situated in the lower two. They also stressed the importance of getting the 'right balance of activities' in the meso level of the design.
- Library Services focused more on the value of learning design for delivery of specific goals. Less was said about the definition of learning design and as such the concept was not organisationally 'situated'. However, Library Services were keen to be included in the 'bigger picture' (curriculum level) discussions with a focus on the using the four 'Module Map' dimensions (Support and Guidance, Content and Experience, Communication and Collaboration, and Reflection and Demonstration), prompting use of library services and delivering an experience equivalent to traditional study. It was also clear that library services were designing and developing generic learning activities (which would fit in the lower tier associated by others as creating products). In between, they also expressed a desire to engage with the teams developing the student learning in respect to the activity (developing information literacy skills etc) and resources.

There was a clear split in the discussion group around where leadership of module development should lie. Some thought that the curriculum design process might more effectively sit in a unit rather than in faculty committees, with academics, IET, LTS, Library Services and others contributing to the process as appropriate. However, others felt that the leadership of the module development process should remain in the faculties but be supported by improved systems and processes.

Following the focus group, the OULDI team worked on developing a set of hypothetical process principles and models suggested by the group[5]. In particular

[5] Blog postings relating to these can be found at 1) http://www.open.ac.uk/blogs/OULDI/?p=340 2) http://www.open.ac.uk/blogs/OULDI/?p=338 3) http://latestendeavour.wordpress.com/2011/02/24/reflections-on-learning-design-process-models-1/

these attempted to pay attention to the points in the process where design and production intersected, and to improve mechanisms for collaboration and communication at these points. The figure below diagrams an amended stage gate processes that recognises the increasingly porous nature of the 'gates' and suggests a portfolio mechanism for supporting communication.



4.2 Learning design workshop, Oct 2011

The OULDI team designed and facilitated a learning design workshop with two Health and Social Care (HSC) module teams and their associated LTS and Library Services teams. The faculty had been working with LTS to design and produce online modules for some time and there was recognition that the way they worked together was changing, and that therefore their practices had to change:

> *"The module team and the LTS team - were learning at one and the same time through the shared realisation that we couldn't go on working in the old paradigm"*

> *"When you are working on a traditional print course and you have that first meeting, there's a little bit of anxiety [...] but the [module team] can visualise [...] what is coming along the line. In these new meetings that awareness of the outcomes is very much less clear [...] Another driver was trying to get modules to market – to use that expression – very quickly. More quickly than they had done in the past and for very targeted audiences [...] and there was no model within the old print paradigm to do that very quickly and very specifically within a targeted timeframe"*

It was hoped that working with the OULDI tools would enable a clearer shared vision of what the module was going to be like, and enable more efficient and faster production. This workshop aimed to 'kick-off' learning design activity by introducing the OULDI tools and approaches to the teams, and provide them with

an opportunity to use the tools and plan how they would use them in the process moving forward.

Both teams were engaged in designing modules for primarily online delivery, but they were at very different stages in the design process with one team beginning to 'hand-over' units for production (i.e. some units had already been completely written and sent to LTS for production) whilst the other team had just had their initial module specification accepted and were starting their design process 'proper'. The workshop was structured around six activities where the teams were able to review the design of their modules so far, and then consider how they might continue to use them together:

Purpose of activity	**Activity**	**Resources**	**Output**
Introduction to project and workshop	**1. Welcome and introduction**	3 slides	None
Explore how far the team shares an expectation about the pedagogic nature of the module, and is able to communicate this.	**2. Key words card sort**	Learner experience sorting cards Module descriptor (ie from REP03) Wordles	A broad brush stroke representation of the key pedagogic features of the module
Identify all learning and teaching artefacts and map to 4 aspects of the module's design Begin to identify implicit roles, responsibilities and expectations across 4 aspects of the module's design	**3. Module Map 'At a glance'** **Pt 1: Learning and Teaching artefacts,** **Pt 2: Roles, responsibilities and expectations**	A3 paper module map Module documents REP03s, Business Appraisals, study calendars Learning outcomes LTS specifications (where they exist)	A detailed outline of all the planned learning and teaching artefacts and their purpose An explicit review of the implicit assumptions around role, responsibility and expectations
Consider and review how learners will spend their time and check alignment between this and the 'top level' representations already mapped out	**4. Activity overview 'think-pair-share'**	A4 'Predict' pedagogy profiles A3 'Plan' pedagogy profile Study guides (where they exist) and study	A series of individual views of what the students' activity distribution will/ should be and a refined view which represents the team's plan

		calendar	
Review how level and topic appropriate Information Literacy outcomes might be embedded into the module (activity and assessment)	**5. Information Literacy Learning Outcomes View**	IL cards at appropriate level (2 and 3) A3 mapping grid Level 2 IL outcomes Level 3 IL outcomes	A list of IL outcomes grouped with appropriate module outcomes, mapped to suggested activities and assessment opportunities.
Identify any key themes or issues arising from the collaborative design activities, and plan next steps.	**6. Wrap-up and review in teams**		List of key themes and design issues Short action plan

4.3 FELS pilot

In parallel, the OULDI-JISC team were also conducting a seperate pilot in the Faculty of Education and Language Studies (FELS)[6]. This pilot aimed to trial a new faculty design process which featured learning design workshops prior to submission of the Business Appraisal and early module specification documents. The module being developed in this case was designed to be delivered primarily online and members of staff from LTS and Library Services were invited to participate in these early workshops.

Feedback was gathered from participants engaged in this pilot by way of a series of semi-structured interviews about how the approach was seen to impact on the way academic and support teams worked together on designs.

5. Thematic motifs

The following four sections explore four thematic motifs that have been seen to reoccur through the interviews, focus group discussions and workshops in relation to what the barriers are perceived to be to effective collaborative design and production practices, and attempt to tease out what the perceptions and assumptions are around these.

5.1 Institutional systems impact on design relationships

The baseline mapping of university curriculum design processes and practices carried out at the start of the OULDI-JISC[7] project highlighted a misalignment

[6] For the full FELS pilot report see http://www.open.ac.uk/blogs/OULDI/?page_id=742
[7] Cross, S. et al (2009) OULDI Baseline report (c.60pp) for a summary see *Interim Project Report to JISC Number 1: Sept 08 – Oct 09*, 16pp available from

between the requirements of the stage gate process and a logical or coherent curriculum design process. For example, module teams are required to answer detailed questions about the design of a module for the Business Appraisal and module specification approval process before the module team is formally convened or any design work has been done. In addition, the terminology used in the documentation is often not well understood by module teams, and module teams often report having to 'best-guess' or even make up the answers. The first quotation below is from a senior faculty based academic manager and the second from a non-academic staff member:

> *"The thing [module teams] usually do is start by putting in a Business Appraisal without planning [...] they lead that bit of the process with things that they have plucked from the air and put it into a form that hasn't got much meaning for other people, then when you actually start the planning for the [module specification] you start with bits and pieces that don't actually make sense"*

> *"…and even if [the module specification] is filled in, it usually [contains] misunderstandings. I mean, course teams don't know the difference between some of those terms. What do you mean when you ask whether it's 'offline'. What do you mean? They don't know."*

The LTS MPMs, who work directly with module teams, can be seen as positioned between these two non-aligned systems. They need accurate and detailed information about the module in order to design and build the VLE space, tools and audio, visual and textual materials so in the absence of reliable specification documents emerging from the formal curriculum design process, they generate their own 'LTS Specification' document. Sometimes this document is completed by first reviewing and verifying information from the module specification document with the module team and then asking specific questions to fill in the gaps, but often it is done from scratch because the initial module specification is seen as too unreliable:

> *"Somebody does a [module specification] where they do a whole load of [thinking] about the structure of the course, or the media mix. If a [media project manager] then goes away and has a meeting with a course team and writes out a specification for LTS, that can be done with no reference to*

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http://www.jisc.ac.uk/media/documents/programmes/curriculumdesign/ouldiinterimreport.pdf

the [module specification] whatsoever. So, the thinking that's gone into getting that bit of approval just isn't carried forward or doesn't have a great deal of meaning as a result to many people"

The module team can feel frustrated that they are being asked to duplicate information, or they can still not feel confident enough to be specific about their design ideas so early in the design process. It is felt that module teams see the drawing up of the detailed specification as a pointless exercise from their perspective:

"Our [LTS] specifications don't have a great deal of meaning to anybody. We have to create these documents. I wouldn't say that I had come across a course team that had ever read one or signed it. I've had one signed in the whole time I've been doing it"

This can impact on the working relationship between the media project manager and the module team, and in turn is seen as impacting on the effectiveness and efficiency of the design process, particularly when there are significant design challenges that need to be resolved. One module team chair said:

"It's interesting. My perception is that there is a particular difficulty with how the structures between academic teams and LTS have been set up. So, there has been a lot of misunderstanding about roles and duplication and that I think leads to suspicion. It feels like for what ever institutional reason, I haven't seen that work as a very creative process usually"

And this perception is built on by a media project manager:

"So, if you take that atmosphere of anxiety - and mutual suspicion is probably too strong a word, but there is always a certain shiftiness in those meetings- and then to have introduce into that context quite serious doubts about how the material will be structured. Fundamental things like what is going to go into the Core Text, or what's going in the Learning Guide or even how are we going to call 'Activities' - are we going to call them activities or are we going to call them something else? Where is the discussion going to go? Where are we going to put the Learning? You know really fundamental building blocks of what we normally put in a module. If there're question marks over those things, and you are an [academic] author, facing your media team [it can be difficult]"

There are some suggestions that more recent changes in processes and practices have impacted on multi-disciplinary design practices but more research would need to be done to establish whether this is the case, and what these changes were:

> *"The structure of the way we work has changed back to a much more 'us' and 'them' attitude [...] I [hark] back to a previous regime where that would not have been an unusual intervention from us. So it always takes me back when they are quite antipathetic to us [...] I was going back to a previous way of working [...] where the [LTS] editors were much more part of the academic team and respected and valued as another equal member of the team"*

5.2 Role perspectives on learning and design

The initial stakeholder focus group detailed in section 4.1 revealed some differences across the university in perspectives about what learning design was, and who it was for. Similarly - and perhaps unsurprisingly - interviews with staff mirrored these differences in relation to views on what learning was '*made*' from, and what constituted a '*quality student experience*'. For example, academic staff tended to focus on the importance of well-founded, authentic and logically sequenced 'content' (i.e. research, ideas and academic arguments). LTS staff tended to focus on the importance of good looking, interactive and easily navigable media artefacts (i.e. audio-visual assets, structured content and interactive software). Library services and Learning and Teaching Development (LTD) staff tended to focus on student activities and opportunities for active engagement with the materials.

These perceptions are closely aligned to the role descriptions and responsibilities mapped at the time of the initial benchmarking exercise see Appendix 1.

In interviews and focus groups, staff often commented on how they believed other roles perceived learning or learner experience, and their own responsibilities in relation to this. In the following quotes staff comment on other people's roles:

> *"[For module teams] the academic writing is the actual content, everything else is just peripheral. When actually it's about trying to shift that sort of thinking".*

"Quite often [module teams] simply want to know "how many hours have I got to fill and how many words does that mean". That's what quite a lot of conversations come down to"

"Actually [LTS] have quite a different role so it's all about specification and management of specification rather than throwing things up into the air – convergent thinking rather than divergent thinking".

These judgements about what other roles think are important in learning and teaching appear to underpin somewhat what staff members say design processes and practices *should* be like. So for example, non-academic staff said that they wanted to work with module teams at an earlier stage to '*stop them*' from thinking about content too early, and module teams wanted to restrict early access to meetings because they did not want to be '*tied down*' in their thinking too early. These positions appear to impact on the design relationship, particularly in relation to levels of trust between staff members. The first quotation below is from a module team chair, and the second from a non-academic staff member:

"There is a cultural divide between academic and non-academic in module team production"

"I think there is always a nervousness when we meet module teams at the start of production of modules. There's always a sense of 'them' and 'us'- a coming together of individuals from different corners of the University with different roles, and different responsibilities [...] I've always detected an anxiety between authors and editors because there's a certain shared own... no, there isn't a shared ownership...the authors produce the text and see editors as, perhaps, interfering with what they've done and worried that the editors going to change what they've written or mess it up in some way or try and stamp his or her own authority on the text"

Some non-academic staff reported being able to overcome these barriers by becoming more proactive in their working style, and limiting the number of less significant decisions that have to be made by the module team. They felt that this approach enabled them to build both credibility and trust:

"[We create] a mock up [...] so that the module team can visualise the solutions that we've described in meetings. And that's a critical point [...] in that initial difficult relationship because it immediately gives you some credibility because the course team can visualise what you're suggesting. They are relieved because certain decisions have been made - for them in

some cases – and they can then begin to negotiate other decisions with you and begin to change things so "can we have a box that says something else, in another style". So that's the basis for further negotiation at a more detailed level. But it's also reassuring for course teams because they can sense that we are not going to tear their material to pieces. That's where we bring value to the relationship, and that's the first instance where they see that value and from that point on, if you get unit-zero 80% right, you've got a reasonably good working relationship. It is at that point that course teams start to be relaxed and to enjoy it".

"[There was this issue] it was about navigation [...] and it was quite tricky because we didn't want it to look like suddenly they had been given a new team of people to work with who were criticising everything that they had done up to that point. So we made it as friendly [as possible], and getting the idea that this was a new way of involving ourselves, and hope we weren't treading on their toes [...] and I think there was resistance. You could sense resistance and "Oh my God, we already have course team meetings with X authors that we have to take all their ideas on board. Now we've got another X people with their ideas. How are we going to incorporate all that as well in the time available?" [...]In fact quite a lot of the other authors that were there said "I'm really glad we've done this, because this has been worrying me" [...] they felt that there was much more of an overarching structure of the course and [a sense of] how it was going to hang together. So I think they appreciated that, particularly the new ones and by the end of the meeting the atmosphere was quite good and we went away, basically, with the promise to work out a structure for them [...] that was the outcome of that meeting".

Where multi-disciplinary design teams work well, the benefits are cited as both personal and professional by academic and non-academic staff members alike:

"Hugely challenging but brilliant fun because you were doing something new and you could see the results very quickly and just working with a very tight knit group of very focused people was a fantastic experience"

"And it's nice from my point of view if nobody else's that I actually got to read the material [...] and have some input into content, or at least a view of what was in the content rather than just be a form filler and schedule writer and re-writer

"A very positive and enriching way of working - great, from the point of view of being an academic, not to be trussed up in my ivory tower and to have many of my assumptions challenged"

5.3 Who represents the learner?

The OU is different from many HE institutions in that there is a distance between students and those involved in the design of qualifications and modules. It can be very challenging for staff that do not have direct contact with students to perceive of them in a real sense:

"It's one of those things at the OU in comparison with other learning institutions is that the module teams are very isolated from the students and they don't always see students in terms of groups"

However, a keen sense of responsibility for the learners emerged as a key theme in the interviews and focus groups. Media project managers in particular saw themselves as being '*closest*' to the student, because they are the first to '*see*' the module as the student will see it:

"To my way of thinking, going back to the editor being closer to the student, it doesn't matter if one student or 100 students sees it, it's that student's individual experience of that material [that is important]"

One media project manager explained how she attempted to maintain her ability to see the module from the perspective of a learner:

"I thought it was better not to be a subject specialist. Some editors thought the opposite that they could improve it if they were subject specialists but I thought it was better to be completely ignorant and if they could make me understand it then they could make anyone understand it".

Non-academic staff often suggested that they felt it was part of their role to make the student experience more engaging:

"They have 7 books that used to be in print and they convert them into structured content and that's your module, pretty much. And the idea that you would have interactive online activities kind of goes out the window because there's no space for them [...] and that can be difficult"

"I think there is another stage where we think about what is a good mix of different sorts of activities to meet that learning outcome."

> *"And the other thing I think we were probably looking for is taking out words and delivering that information in a different way. Either graphically or in an audio or just to vary delivery and to […] pay some kind of credence to different learning styles"*

Whereas the perception of many module team members is that this intervention is not always appropriate, and that non-academic staff do not always have a clear view of what the module contains, and do not have access to the key information about the students that would inform the pedagogical decisions they would like to be more involved in making. This issue is one the non –academic staff also recognise:

> *"[It] makes you feel slightly fraudulent that you are supposedly the [media project manager] of this course and you haven't got a clue what's in it sometimes".*

> *"[We don't always know] who [the module] is being aimed at and what is their opinion of what this offering will give them"*

In addition, non-academic staff say that they do not get to see student feedback on the module, except where there are technical problems, and that this impacts on their practice:

> *"We don't actually get very good feedback when we finish something - to feed into the next one, to make the next one better. We do get it if it is negative - if it's very negative it does get through to us but it takes a while"*

> *"We get a certain amount of fine grained response. In other words you get requests where something is not quite clear [...] very detailed analysis that you get coming from student support or by the service delivery people where there are occasionally problems [...] but we don't get a very good holistic rounded picture of the feedback quickly enough really to be able to hone what we do"*

5.4 Who owns pedagogy?

At the time that the initial project bench marking activity was done, no role description included taking a lead on the development of learning and teaching strategies, although some roles had a limited remit for consulting on, or evaluating teaching approaches (see Appendix 1). Since that time, in part as a response to the OULDI project, the following responsibility has been added to the role description of the Module Team Chair:

> *"Responsibility for constructing the overall vision for the module, its learning outcomes, its structure, pedagogic approach and coherence, and the contribution of these to student retention and student progression to completion of qualifications".*

However, this change appears to have taken time to filter through to practice, and the theme of 'who owns pedagogy' continued to emerge strongly from the data, and in particular the sense that no one was taking the lead:

> *"One thing that really came out of it to me was that no one [...] seemed to have ownership of pedagogy – no one was really claiming ownership. And in a way someone's got to drive it because however much you try to work together at the end of the day there's got to be someone that really will take a lead."*

Interestingly, it was generally felt by both academic and non-academic staff that the academic module teams should not necessarily be seen as responsible for pedagogy (e.g. the development teaching strategies) but that the institutional structure was not conducive to non-academic staff taking the lead. The following two quotes are from academic staff members who work on module teams:

> "*Culture that says that valid academic outcomes are mainly around the production of books or book type products. Not learning sequences for students"*

> *"What I would have thought when I came to the OU that someone from LTS […] would probably do but it seems to me that the roles have been carved out in a very instrumental/ technical way which is divorced from the pedagogical"*

LTS staff have become aware of shifting expectations in some faculties about where the responsibility for the formulisation and consistent application of the pedagogical approach lies:

> *"I have picked up from course team chairs and from authors that they see it increasingly as the editors role [...] I can cite a couple of incidences quite recently where authors and course teams or module chairs have said pretty well you'll sort it out. [...]And so, one of the [issues with the] new ways of working is where does the responsibility for that element of learning design live? Is it in the course team? Is it in the production team? I don't think we've got an answer to that. It is who ever picks it up I suppose and makes it their*

property but there's an expectancy I think increasingly among editors that I work with that the media developer will be on top of that, will ensure some measure of [pedagogical] consistency."

However staff in other faculties are concerned that faculty cultures would not yet support this. The following quotation about whether LTS MPMs should take a lead on pedagogical design comes from a module team chair:

"It's tricky because institutionally there is this friction between the academic teams and […] non-academics that would make it a change of culture to have that role from LTS and that doesn't mean that it shouldn't be but there would need to be some work done to make that positive, I think".

In a number of interviews, the issue of whether any specific staff groups could be said to all hold pedagogic expertise was raised. For example:

"[Production staff] are not recruited for their expertise in these areas necessarily, indeed even academics are not necessarily recruited for their expertise in teaching or indeed learning design"

6. Impact analysis

6.1 Success criterion 1: To examine the assumptions and beliefs held by academic and non-academic teams about what the design and production processes is/should be like, the constraints they feel act on the design and production of modules, and the ownership of design roles and responsibilities.

Across the university, the module design process is generally talked about in negative terms, for example as being over-systematised, problematic or difficult. The JISC baseline synthesis report (Beetham, 2009) highlighted that this is broadly a shared experience across the sector and is not a university specific problem. In interviews, staff suggested that existing curriculum design processes and role boundaries are seen as impacting negatively on the design relationships between academic and non-academic staff. Although, some non-academic staff have found that these tensions can be alleviated and resolved if they adopt a more proactive facilitative working style because they feel that this enables them to more quickly build credibility and trust.

Evidence from the pilot suggests that staff groups tend to perceive of learning and teaching from a clearly defined role perspective which closely aligns with role descriptions and responsibilities. This perspective influences how they feel about

the practice of staff other roles (often referred to through a '*them and us*' construct), and this in turn is seen as impacting negatively on cross-boundary – and particularly multi-disciplinary - design relationships.

It is generally recognised across the university that the development of online and technology-rich modules requires people from different roles to work together more closely. However, it is not seen as the university norm to work in multi-disciplinary design teams, and it is felt that working in this way disrupts usual design practices:

> *"Nobody quite knew how they were supposed to behave. I guess it was setting up a different relationship. I guess that is what it was. And we were setting up a different sort of conversation"*

Design cultures in some faculties appear to be better at supporting multi-disciplinary design work. In faculties where multi-disciplinary design practices are more established, it is felt to be important that team expectations of the design process are clearly articulated, and the expertise of different roles is recognised and utilised. Where this is done well, all staff report clear personal and professional benefits.

All roles see themselves as representing the interests of the learner in the design process; however the media project managers interviewed were most likely to see this is a core feature of their role. Conversely no staff groups saw themselves as leading on pedagogy, and there was no consensus about who should (although the importance of a coherent and engaging pedagogy was often mentioned).

6.2 Success criterion 2: To discover how the OULDI and other learning design tools might support the design and production of online modules. For example, how far they can be seen to support a pedagogically focused design dialogue, with shared understandings and language about the design.

Evidence from the pilot showed that the OULDI tools and resources can be used effectively to mediate collaborative design dialogues across roles; however, the timing of learning design interventions appears to be crucial in enabling a successful outcome. In particular, these design conversations appeared to be considered more constructive by all staff when they happened early in the design process.

For example in one workshop it quickly became clear that views on the OULDI tools and approaches were highly polarised between two design teams, with one

team who were at the beginning of the design process finding the workshop very useful, and another who were nearly at the end of the process generally finding it not useful:

> *"From my perspective this was kind of a waste of time [...]. The objective of the workshop seemed to be getting the module teams to think about communication with the student and the student experience of pedagogy. From the perspective of [this module], which is mostly written now, this workshop took place too late in the production process to be of any real use".*

> *"I think the workshop came at precisely the right time for the [module team]; it gave them a good opportunity to step back and reflect on the content they've produced for the module [...]. It was a good way of testing and challenging our perception the module".*

Not all the feedback from the first module was negative - for example one participant noted that it was '*helpful to see the module as a whole, with all the pedagogic elements' and 'a useful stimulus for writing module description and content for module guide'* - however, the broad consensus was that the workshop was not useful primarily because of its timing in the design process. During the workshop, the facilitator noticed some reticence in the team to look critically at the module, and thought this impacted on the way they engaged with the tools. She noted in her reflective log:

> *"One module team were clearly very confident about their module when they arrived but overall did not have the same positive experience as [the other]. It seemed as though they were nervous about saying anything that might be perceived as critical of the module, and seemed unwilling to fully enter into any activity which might have uncovered design problems too late to do anything about them".*

The first team split themselves into two groups to complete the first activity and seemingly by chance, one group was made up entirely of non-academic staff members and the other primarily academic staff. After the activity the groups shared their findings with one another. One workshop participant commented that the groups appeared to work differently to one another and expressed relief that they had not revealed any issues with the design:

> *"Interesting to see different approach of academics and media teams. Glad we didn't find any real problems with [the module]!"*

Much of the feedback from this team focused around the tools not being 'fit for purpose'. Particular criticism was voiced about the Module Map which in other pilots and trials has been the representation that has received the most positive feedback in relation to its impact in enabling new ways of thinking about and discussing the design:

> *"Interesting to see how the pedagogy profile was not useful in getting across the feel of the module. 'Module Map' isn't a map and it wasn't clear how it could be used to check the coherence of the module"*
>
> *"[I] struggle[d] with the abstract conceptions and did not find the module map at all helpful"*
>
> *"The 2nd Activity [Module Map] didn't really function as a 'map'"*

The facilitator reflected that the timing of the activity for this team may have impacted on their reaction to it:

> *"I was really surprised by the level of resistance to engaging with this activity [...] and also the resistance in the discussion afterwards to properly engage in a critique of the tool. It kept coming back to "Well, it's not a map". Whilst not wanting to disregard the feedback from this team, I think the fact that the activity came at entirely the wrong time for them is significant. Certainly the module is too far down the line to be changed now and finding a design problem would be very challenging. I can't help thinking that (out of awareness so I guess we'll never know) it was easier to discredit the tool than risk the design being found to be faulty in some way"*

The second team also split themselves into two smaller groups but in this case there was a mix of academic and non-academic staff members in each group, and then they worked together as one group in subsequent activities. This team fully engaged in using the tools, even adapting the Pedagogy Profile template so that it was able to show variations in student activity type across the module:

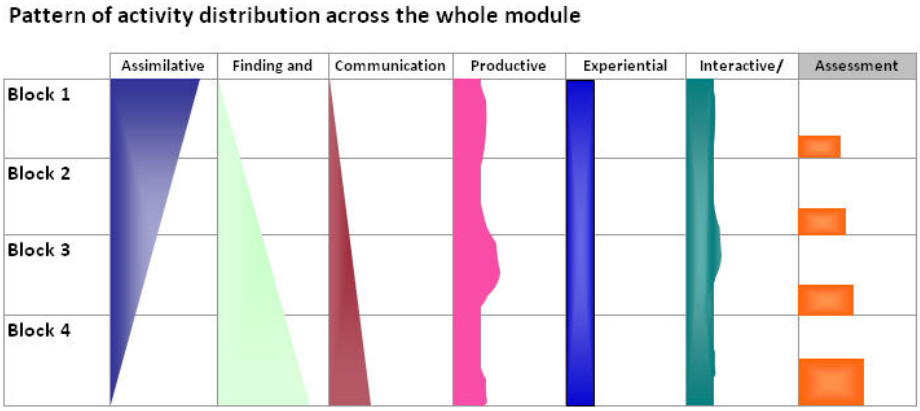

Figure 1: Module team B adaption of the Pedagogy Profile representation

This team voiced no difficulties with concepts and terms, and discussion appeared to centre on what the students' experience should be like. Feedback from this team focused on the experience of working together rather than on the tools:

> *"It was helpful to have the kind of headspace and time to think in detail about these sorts of things in a way which we don't get a chance to during module team meetings. It's almost like that stuff is usually very basically given lip service in the business appraisal and planning stages, then kind of forgotten and only revisited when trying to fill in the student workload planning tools at the end, whereas this was a much more constructive and creative way of looking at it. I think given that we were fairly small groups anyway, working without splitting each team up into two seemed to work better, it meant we could all work through ideas and questions together which again was very helpful. It was also excellent that people from the library and LTS were able to be there, so all in all a very productive and helpful afternoon!"*

> *"I found the workshop very useful. In particular, it gave us an opportunity to discuss the pedagogy profile with colleagues in LTS and to think about creative ways in which we could address this. Often such discussions occur much later in the production process, so it was really useful to start the conversation early."*

Participants in the multi-disciplinary design workshops in FELS also found the learning design process enjoyable and productive. The team was seen as working very cohesively together and the module team chair was seen as an important factor in this. The first two quotes below are from academics, and the third is from a non academic staff member:

"It did [...] have a very positive impact (I think) on the academic related [non-academic] team members because those first workshops ensured that there was an equal (and valued) contribution from everybody, not just the module academics".

"[It's been] good to have different 'constituencies' around the table"

"This has been very useful [...]. I've been disappointed it hasn't happened previously, even to the extent of [non-academic staff] knowledge and experience not being requested/ accepted so it is extremely refreshing to find a team open to this. It is essential we consider what we want to achieve rather than starting from "we will have 4 books and a DVD..[etc].""

The module team chair also recognised the value of the approach in enabling academic and non-academic staff to work more creatively together but emphasised the importance of being explicit about the ways in which the team would work together, because it was so different to the 'norm':

" [Module design] tends to be very them/us in general so that to set up a system which is more about acknowledging different contributions actually goes against the reality of how it usually works [...] so I would say instead of assuming that this can bring different people together – maybe it has – but in order for it to work well it would need to explicitly say "we are deliberately doing this[...]for this pedagogical purpose we want to look together at what this was trying to achieve and what we want to be different". So maybe it's about acknowledging that this is a shared enterprise."

Overall this project found that the OULDI representations (Module Map, Pedagogy Profile, and Learning Outcomes View) are likely to work well as a framework for collating information about a module in a way that better reflects the priorities of all staff groups, enabling all module information to be held in one place and developed iteratively:

"What I'd like to see is the documents that we do have: the business appraisal, the [initial module specification], the spec that we produce - rather than them being separate documents that we constantly copy one lot of information from one to another and then add a bit is to have a single - the ideas that are going into those individual documents - together creating a single course specification which is built, and built and built so that you are just adding more and more detail with the end being the asset list at the end

which can then be handed over and checked with a set of discrete assets that can be picked off and reused"

Used within an amended stage gate process that allows for richer collaboration at the intersections between stage gates (such as the theoretical model shown at the end of section 4.1), it is likely that the OULDI representations will better support verification of the product against the specification because they offer a richer-picture of the module than the existing documents are able to. For example the Module Map can better communicate the pedagogical requirements and context of an asset than existing asset lists:

"We don't have an evaluation of ...well we've developed this product. There's a specification but the specification doesn't enable me to tell me whether the product is fit for purpose. It exists and its got in it what the specification says its got in it but in qualitative terms does it come up to the mark?"

"In terms of module team practice, [we had] the pedagogy driving the process not the 'bits and pieces' [texts, readers, videos etc] and we actually integrated what we could call progression and presentation into one overall picture".

It is recognised that staff groups will still maintain clear priorities but this pilot suggests that using the OULDI tools and approaches will enable staff to share these more effectively and balance these priorities against a more holistic set of concerns:

"Content is still precious to academics and they cannot function without that and you can understand that – it's not that they will focus on the activity completely – but it just brings out that balance that otherwise the traditional way of developing our modules is heavily led by the content. At least it enables them to be more reflective about what [students] do with this content".

7. Conclusions and recommendations

7.1 Recommendations for the institution

- That the role descriptions of staff involved with the module design process are amended so that all roles have clear and explicit responsibilities in relation to pedagogy and student experience, and that one role is identified as being responsible for leading on pedagogy.

- That in order to better respond to shift towards online and technology-rich qualifications and modules, multi-disciplinary design teams become the university norm
- The stage gate process is under review and it is recommended that the revised stage gate process provides early opportunity for collaborative design activity
- It is recommended that the stage gate review considers how each role will operate within the revised system the revised stage gate, and ensures that documentation and activities are coherently aligned. There is evidence form this project that the OULDI representations and templates are likely to be effective as providing a framework for these

7.2 Recommendations for the sector

- That institutions engage in a comprehensive curriculum design bench-marking activity so that they are able to more clearly establish process, practice and relational pinch-points in the design process, and monitor and respond to emerging shifts in process and practice
- That multi-disciplinary teams are used to design online or technology-rich modules i.e. that library, educational technology and media staff (and indeed students and employers) are routinely included in design activity
- That roles and responsibility in relation to student experience and pedagogy are clearly and explicitly stated, and that one role is given lead responsibility for pedagogy through the design process

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Appendix 1: Institutional learning design roles and responsibilities

The following text is taken from section 2.4 of the OULDI End of Phase Two Institutional Report and outlines the university's key roles and responsibilities in relation to learning design, production and delivery.

The Module Team is a group of academic and other staff appointed by the Central Academic Unit (CAU) to devise and produce an Open University module. Each module is produced and supported by a team that includes a Module Team Chair and a Curriculum Manager (who leads on organisational, budgetary and support issues). Apart from the module content, they also produce the assessment material for each presentation and form the examination board. Module teams may also be involved in briefing tutors, monitoring scripts and evaluating the module, particularly when it is new. The precise nature of module team membership varies between CAUs.

The module team is listed on the Module Specification Plan report (PLANET - REP03) for approval by the committee of the CAU. However, in the unusual circumstances where a module manager is to assume the role of Module Team Chair, approval is required from the Curriculum and Awards Validation Committee. Changes to the Module Team Chair must be approved by the committee of the academic unit. Changes to the module team must be approved by the head of unit.

Roles of team members and potential contributors to module production

Module teams might draw on some or all of the following personnel depending on the nature of the module and available resources.

a. Module Team Chair

The Module Team Chair has overall responsibility for the work of the module team and the maintenance of academic standards.

b. Curriculum Manager

The Curriculum Manager role varies between faculties although they all have organisational/ project management responsibilities such as:

- Arranging and servicing meetings
- Negotiating and updating drafting schedules with the academic unit's production and presentation administrators

- Negotiating production schedules with LTS media project managers
- Ensuring that deadlines are met before handover to LTS
- Acting as a liaison point both for and within the module team
- Managing and monitoring module budgets

Some Curriculum Managers have varying degrees of creative influence, such as:

- Commenting on or preparing various parts of the module material
- Ensuring a proper degree of co-ordination and cohesion between the components of the module
- Briefing consultants and associate lecturers
- Arranging developmental testing and feedback

c. Academic Staff

May be either *authors* who:

- Write main texts and assessment materials
- Develop the academic content presented in other media such as video and audio
- Devise practical activities where appropriate

Or *readers* who:

- Critically assess the module materials
- Comment on subject matter, its presentation and educational effectiveness

d. External Assessor

A reputable academic subject specialist is appointed, usually from another University, with responsibility for ensuring that the academic standard of the module is consistent with the rest of the sector and acknowledges current thinking in the subject area.

e. Module Team Secretary

This role will vary between the academic units and between module teams, but may include:

- Responsibility for ensuring that all module materials are keyed in the correct style for electronic publishing
- Attendance at and support of module team meetings
- Provision of other secretarial support for the module team

f. Institute of Educational Technology

The Institute has a client manager who is responsible for liaising with the faculties. IET does not normally work directly with module teams for the duration of the production process but may provide some advice as part of its wider remit on:

- The teaching strategy
- The use and mix of media to be used
- The testing of materials prior to first presentation
- The evaluation of the module during presentation in order to provide data for revising or remaking the module or some of its components

g. Learning and Teaching Solutions

LTS provide a range of media experts, some of whom will work directly with module teams, whilst others have an advisory role.

An LTS media project manager may:

- Advise on the use and mix of media
- Plan and schedule production or buy-in of media components
- Deploy and manage media developers to produce the module
- Manage module production processes to time, cost and quality standards

A media developer may:

- Advise the team on the structuring and styling of the text
- Be responsible for the in-depth and detailed editing of the text, ensuring clarity, coherence and accuracy
- Develop educational software to meet module team needs or advise on the availability of appropriate commercial software
- Develop online materials and services

- Design the overall appearance and presentation of module material as a total teaching package
- Produce artwork
- Produce audio-visual components of the module

Media assistants may:

- Search and clear copyright on third party material for use in module layout
- Render text and images to print and interactive media

h. Library

The library has assigned Subject Information Specialists to each CAU. A Subject Information Specialist may:

- Support the information needs of academics writing module materials
- Develop students' information literacy skills by writing module material or facilitating access to digital information sources such as bibliographic databases and full-text journal and newspaper articles, electronic books and reference works
- Advise on ways to reduce rights costs if existing Library resources are used
- Co-ordinate the clearance of rights on materials sourced through the library

i. Consultants

If the necessary skills and/or staffing resource are not available in-house for academic authoring, consultants of recognised academic standing could be contracted. Consultants produce draft materials under the direction of the Module Team Chair and revise their contributions in line with feedback from the module team members so as to ensure that the learning materials produced by them support the relevant learning outcomes.