

LEARNING DESIGN TOOLS PROJECT:

DESIGN FOR LEARNING IN VIRTUAL LEARNING ENVIRONMENTS - INSIDER PERSPECTIVES

PROJECT REPORT

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EXECUTIVE SUMMARY

The purpose of this project is to develop a better understanding of how Virtual Learning Environments (VLEs) are used in designing for learning in blended or face-to-face settings. Accelerated by Open Source initiatives, VLEs have recently become a standard feature of post-16 educational institutions. They offer a range of affordances which demand varying investment of time, imagination and effort. By focussing on the experiences of teachers, learners and learning technologists, this project explores how VLEs are being incorporated into educational practice.

People from ten institutions, using Moodle, Blackboard or WebCT, were involved in the project. E-learning leads (ELs) gave background to the circumstances of VLE use in their institution via interview, and mediated contact with teachers. The experiences of sixteen teachers were explored in two questionnaires which covered the background to their course areas. A subsample of nine teachers from six institutions, in eight separate subject areas, were interviewed at their workplace to explore their VLE designs further. To understand the learner perspective better, three focus groups of learners studying with three of the above teachers were carried out. The perspectives of support staff were invited, but it emerged that the teachers interviewed were not delegating their VLE work. All interview data were transcribed and analysed to generate models of the different aspects of designing for learning with virtual learning environments. Some key findings emerged:

- Designs for learning in VLEs are not necessarily represented on VLEs;
- The designs themselves and whether or not they are represented depend on many diverse factors, with implications for the reusability and sharing of designs;
- There is a perceived dichotomy between learner-centredness and technocentricity in the use of VLEs; and
- Differences were observed between free and commercial VLEs with respect to procurement, support, and contingency plans.

The ensuing report was then negotiated with all participants prior to wider publication.

1 BACKGROUND

Uptake of learning technology is a slow process and moves through several phases. For most educational institutions across the Higher Education (HE), Further Education (FE) and Adult and Community Learning (ACL) sectors there are two main drivers for its adoption. One is the thorny issue of creating, distributing, monitoring and assessing learning in the face of increasing learner numbers and reductions in contact time. The other is the advances in technology which present exciting new possibilities. Addressing these issues has involved experimenting with portals and intranets, and is currently focussed on the unification of tools offered by Virtual Learning Environments (VLEs).

E-learning strategies at a national and institutional level are increasing across sectors and are often explicit drivers for technology uptake (JISC 2004). The rationale section (Holyfield, 2005) of the E-Learning Programme web site links to two national e-learning strategies (DFES and HEFCE) as origins behind the current drive to incorporate technologies into teaching and learning. These were produced to maximise returns on a considerable investment of public money and effort into post-compulsory learning technologies and infrastructure, in a time of rapidly developing technologies, commercialisation, and broadening participation. Anticipating a transformation in learning and teaching, their preoccupations are that learning technologies should be exploited and embedded in practice, that storing and sharing of practice, products and tasks should be enabled through standards and cultures, that what is shared should be quality-assured, and that learners should be motivated and empowered to learn, rather than being taught.

In Higher Education many institutions' exploitation of learning technologies to these ends is dominated by a centrally supported VLE. Once a VLE is in place, there is a great variety of approaches to supporting its adoption (Oliver & Dempster, 2003). In HE, economies of scale allow intensive and institution-specific top-down staff development strategies to be adopted to raise awareness, address cultural issues and (usually under-prioritised) to promote good pedagogy. These often take the form of workshops, programmes and resources, allowing close work with individual teachers. For some of the earlier adopters, a more grass-roots dissemination of good practice by example is becoming evident. FE tends to be at an earlier stage of VLE development than HE (JISC, 2003); support for VLE use is often less readily available than in HE, where resources for dedicated VLE support staff tend to exist. Consequently, and as a result of a greater openness to incorporating e-learning materials created elsewhere, the uptake of generic learning objects – for example those offered by the National Learning Network (NLN) – is higher. For FE and ACL, staff development tends to be arranged by consortia or centrally provided by services like Ferl (Further Education Resources for Learning) and the NLN. ACL, a particularly diverse sector, has a different set of challenges and pressures (Hillier and Jameson 2005; NIACE, 2003) including a large body of part-time teachers with limited access to computers and related equipment, and limitations on staff development which tends to be centralised rather than institution-specific. To compensate, an E-Guides national training programme, open to all ACL staff, focuses on grass-roots dissemination of good practice.

1.1 DEFINITIONS OF 'DESIGNING FOR LEARNING'

'Design for learning' has different interpretations. JISC defines it as 'designing, planning and orchestrating learning activities as part of a learning session or programme.' (JISC, 2006). This implies to '...plan out in systematic form; intend or have as a purpose; execute in an artistic or highly skilled manner; an iterative conversation with your materials' (Beetham, 2005). What emerges as crucial in any project studying designing for learning, is that in order to be comprehended by others, designs must also be represented or articulated. In a VLE, the only way for teachers to articulate their designs is in the form of explicit connections between elements – order, priority, orientation, relationships between the different resources and activities which comprise the course area. Moreover, since the very presentation of elements in a course area implies relationships, there is a risk that learners may apprehend a design which is a function of the VLE rather than the teacher's intentions,

which means that the absence of relationships must also be explicit. If these connections and divisions are not expressed, the course area appears, as teacher put it, as “the teacher’s knowledge repository”, and it is difficult to understand the design without participating in the course.

When delivering learning via a VLE a teacher makes a number of conscious or unconscious design decisions. These include: overall structure of the course; interface (for the learner); which tools to use for which aspects of learning; how to produce content and into activities; pacing and inter-relationship of course elements and the degree of learner and teacher control of different course elements.

Different VLEs support the design process in different ways; by making some approaches more obvious than others, or by ruling out certain approaches entirely, they affect how designs are represented. For example, though the claim has since been widely rejected (for example Britain and Liber, 1999; JISC Assist, 2002), in the early days of WebCT and Blackboard, their pedagogical neutrality was often asserted. In contrast Moodle makes a feature of its intrinsic social constructivism, a set of values which permeates its help files and informs its interface and tools. Another example is that while WebCT and Blackboard offer their learning tools in a single menu, Moodle invites teachers to distinguish between content and activities, and by default its front page is divided into blocks assumes a thematic or chronological organisation. WebCT’s Content Pages facilitate a deep hierarchy of interconnected pages, while Moodle invites a shallow hierarchy with access from its front page. This report focusses on three VLEs – Moodle, WebCT, and Blackboard. Beyond anecdotal observations, the difficulties and effort involved for a teacher in gaining insight into multiple VLEs while attempting to control conditions means that reliable comparisons between them are few. A small study with this approach at Humbolt State University found that Education learners slightly preferred Moodle to Blackboard while the facilitator found Blackboard superior in its Gradebook and organisation of discussions, and Moodle superior in individualising feedback and tracking activity (Munoz and Van Duzer, 2005). For an overview of what these three VLEs offer, see Edutools’ Product Comparison at <http://www.edutools.info/course/compare/>.

2 AIMS AND OBJECTIVES

The purpose of this project was to develop a better understand of how teachers are using VLEs in their designs for learning, to advance JISC’s aims in the Designing for Learning strand of the E-Learning Programme:

- to provide the post-16 and HE community with accurate, up-to-date, evidence- and research-based information about effective practice in the use of elearning tools; and
- to promote the application and development of elearning tools and standards to support effective practice better.

With these aims in mind, this project had the following objectives:

- to recruit diverse teachers from different regions, sectors and subject areas;
- to complement the contributions of teachers with contributions from e-learning leads and learners, broadening the project’s viewpoint to include teacher contexts;
- to understand the role of a VLE in different teachers’ overall designs for learning;
- to identify and disseminate good and interesting design for learning practice within VLEs; and
- to identify and disseminate the implications of the project findings for the wider community.

3 RESEARCH METHODS

3.1 OVERVIEW

The concept of ‘designing for learning’ is still being developed. It refers to a social practice, but is related to curriculum design, to technical concerns about the reuse of digital materials and also to learners’ experiences of

study. Given this complex and ambiguous status, it is necessary to approach the topic in an exploratory manner. It would be inappropriate, for example, to attempt to control or test hypotheses about it at this point.

Consequently, a Grounded Theory approach was adopted (Lincoln and Guba, 1985, p38-43). Our emphasis was upon eliciting accounts from staff so as to provide a rich, situated narrative that could give an insider perspective on this work (Cohen and Manion, 2000, p150-2; Denzin and Lincoln, 1998, p15; LeCompte et al, 1984, p108).

Working across different types of HEIs was a requirement of all proposals. In addition, although we initially proposed to study the use of Moodle, subsequent negotiations broadened this to consider commercial VLEs as well. Consequently, our initial sampling frame involved identifying HEIs of different kinds who, between them, used a selection of different VLEs.

The purpose of this research was to study the practice of designing for learning with Virtual Learning Environments. It was clear from previous research that the success of practices can be influenced by the teachers' actions, the tools available and the learners with whom they are working. This led to the identification of three groups (teachers who use VLEs, those who procure and support them and the learners on these courses) that needed to be involved in the work. This acted as a sampling frame within each institution.

The empirical work was carried out on an iterative basis. Initial fieldwork was undertaken with technical and support staff. On the basis of each interview, themes were identified, the interview schedules extended (refining the focus of the study as it progressed) and a preliminary model of procurement and support developed. Once this model appeared saturated (relatively speaking, given the practical constraints of the work) the data collection shifted to the next group – teachers – as a way of challenging and extending the model. In fact, the new phase of work led to the creation of a parallel model rather than an extension of the first; the discontinuity between the two sets of accounts left little obvious room for overlap. Again, this phase continued until the model seemed plausible and robust, at which point focus groups were undertaken with learners. This time, the learner account was more easily integrated with the existing model (produced with the teachers' data), although there were some elements that remain separate.

This process helped us to produce a model of the practices involved in designing for learning. In addition, it generated a series of rich case studies that illuminated and contextualised this analytic but fairly abstract model. In combination, we hoped that these representations of practice would be able both to illustrate and explain designing for learning with VLEs.

We have not sought to identify and badge 'good' practice, however. The studies made it clear that practices are socially situated; they reflect local values and are rendered 'good' by their fit with resource constraints and the social context, which varies from person to person, institution to institution and from time to time. The evaluation is thus socially situated. The inductive and descriptive analysis aimed to take account of the multiple influences that are present in such design processes; the resulting accounts will then be grounded in the data themselves. This process allowed us to refine the focus of the study as it progressed, and it is our intention that this refined account will contribute to the 'goodness' of other practices by sensitising practitioners to the complexities and issues involved in designing for learning.

3.2 RECRUITMENT

Recruitment was mediated by primary contacts at each institution – e-learning leads who were identified using the researchers' established networks within the FE and HE sectors, by liaising with JISC RSCs (Regional Support Centres), and by posting invitations to participate on appropriate email discussion groups. Recruitment criteria included HE, FE or ACL provision, establishment of either Blackboard, Moodle or WebCT with institutional support in place, or ongoing testing of one of the three VLEs with a representative sample in the institution. At the project design and recruitment stage, Blackboard had not yet announced that it was to purchase WebCT. Contacts at ten institutions were recruited from different regions of England. These contacts mediated the recruitment of teachers in their respective institutions, and teachers in turn recruited their learners for focus groups.

This strategy probably yielded an atypical sample, in terms of motivation and skills. As Luca, a participating learner, remarked, “I think the fact that we’re all here means that we can all use it...” However, it should be noted that the purpose of this project was to understand successful practice, not ‘typical’ practice; representativeness was therefore less important than effectiveness.

Figure 3.1 shows the teachers, learners and e-learning leads who participated in interviews for this project. There were several other teacher participants who completed the questionnaires, but time limitations made it impossible to interview all the respondents. All participants were promised refreshments and a thumb-drive with integrated MP3 Player, radio and voice recorder, in acknowledgement of their participation, a strategy suggested by JISC RSCs in a number of regions.

3.3 ANONYMITY

Creating an environment which would encourage participants to freely share their experiences involved giving assurance that contributions would not be identifiable. Because names of the institutions involved could compromise this anonymity, these have also been replaced with aliases.

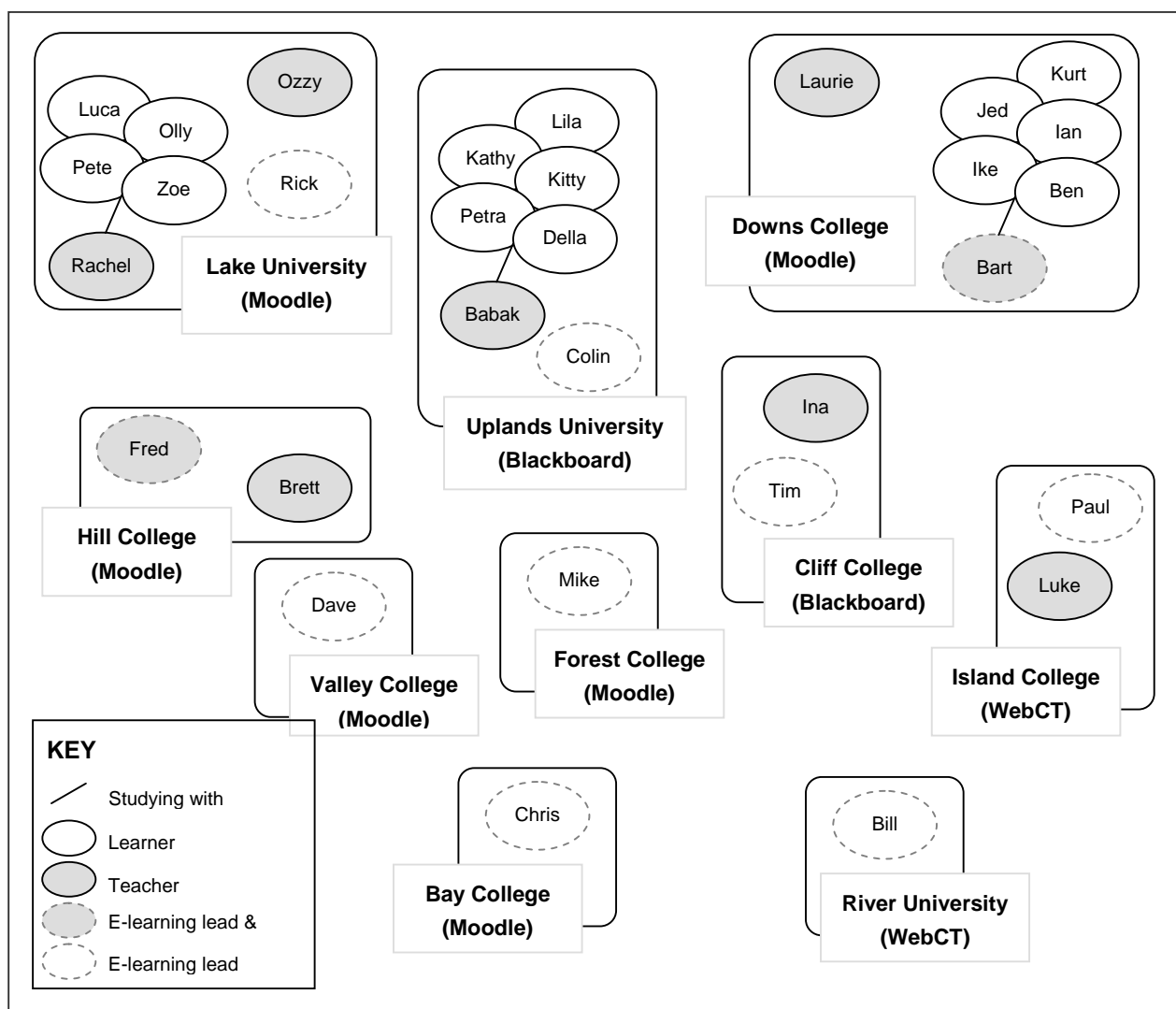


Figure 3.1 Map of interview participants, their roles, institutions and VLEs

3.4 DATA COLLECTION

Interview and focus groups schedules and questionnaires can be found in Appendix 2 - interview schedules.

Background information was collected from e-learning leads and teachers to contextualise and develop the richer teacher and learner interviews and focus groups to follow. E-learning leads were asked about the history of the VLE, and to give insights about its current place in the institution, through a semi-structured 90-minute interview carried out over the phone or in person. Teachers gave background on their expectations, motivations and circumstances regarding their course areas via a questionnaire developed for the LAMS evaluation which was adapted as two separate instruments and completed online. The first was completed prior to the start of the course, and covered course background. The second covered the experience of designing and producing the course. Access to each course area was also given to the researchers.

The above background was used to generate interview and focus group questions for teachers and learners.

The 90-minute interviews with teachers were scheduled after they had completed the two questionnaires and once their courses had been underway for some weeks. The semi-structured schedule for the interview was designed to gain understanding of how teachers aim to represent their courses in VLEs, the motivations and intentions behind the course area and the impact the VLE had on teachers' practice. Focus groups with learners, also 90 minutes, followed the interviews with teachers and were shaped by them. They aimed to explore learners' impressions of their teachers' designs, and unearth any other issues in VLE use which might affect how these worked in practice.

3.5 DATA ANALYSIS

Quantitative data from the questionnaires were processed and analysed with a spreadsheet software package. Interview data were captured with a digital voice recorder (with informed consent), downloaded, transcribed, and analysed. The analysis approach was based on Grounded Theory; the responses of the participants were coded - assigned to categories and subcategories emerging from the data themselves. New data were checked against existing codes as they were added, looking either to saturate, link or extend the categories. This process was carried out using QSR NVivo, a qualitative data analysis software package. The resulting codebook can be found in Appendix 4 – Codebook for teacher interview data.

As they emerged, the collation of data into related categories generated an evolving model of designing for learning with virtual learning environments.

4 MODEL OF PROCURING AND SUPPORTING VLES – INTERVIEWS WITH E-LEARNING LEADS

The interviews with the e-learning leads provide important context for teachers' practice. The interview schedule, covering background to adoption, experience with the VLE, and the broader context of use, can be found in Appendix 2 - interview schedules.

There are several contrasts in the processes of adopting commercial and free VLEs. Adoption of commercial VLEs invariably predates Moodle, whose earliest appearance in this project is 2003. Related to this, three of the five institutions currently using Moodle had previously used a commercial VLE. In 2005 at an earlier stage of use, enthusiasm for Moodle was high; this could not be said of the longer-established commercial VLEs, which were regarded more dispassionately by the e-learning leads. The recent UCISA report of VLE usage in HE (Jenkins et al, 2005) found that in 2005, 43% of institutions had Blackboard, 34% WebCT and 8% Moodle. Data from an informal survey of FE colleges in 2005 suggests that Moodle is far more prevalent in FE – “44% and rising”. Of 72 responses, 32 expected to be using Moodle in 2006, 17 Blackboard and 6 WebCT (Trethewey, 2005). Figure 4.1 shows how long VLEs have been established at the participating institutions.

	1998	1999	2000	2001	2002	2003	2004	2005
Bay College (M)	None	None	None	None	None	Oct		Jan
Cliff College (Bb)	?	?	Intranet	Summer				
Downs College (M)	?	Intranet	Intranet	Intranet	Intranet	Summer		
Forest College (M)	?	?	?	?	WCT	WCT		
Hill College (M)	?	?	?	Intranet	Intranet	Intranet	May	Jan
Island College (WCT)	?							
Lake University (M)	?	?	?	WCT/LE/ir	WCT/LE/ir	WCT/LE/ir	Jan	Sep
River University (WCT)	?		Mid-year					
Upland University (Bb)	?	WCT						
Valley College (M)	?	?	other VLE	other VLE	other VLE	Summer		
						Key		
							Pilot	Adoption
						WebCT		
						Bb		
						Moodle		

Figure 4.1. History of VLEs at each institution

4.1 DECIDING ON A VLE

E-learning leads were asked how and why their current VLE was chosen.

Figure 4.2 presents the reasons (coded from the original free response) mentioned by the e-learning leads for their institution’s choice of VLE. Although these are presented in the order in which they were mentioned, it is not safe to assume that this order corresponds to the participants’ perceived importance of each reason, nor that all relevant reasons occurred to them at the time.

	Order mentioned						
Bay College (M)	price	flexibility	usability	faith	pedagogy	support_community	
Cliff College (Bb)	sharing	communication	usability	neighbours			
Downs College (M)	exploring	usability	features	support_community			
Forest College (M)	price	review_systematic					
Hill College (M)	price	flexibility	usability	pedagogy	response_tutor	cultural_issues	
Island College (WCT)	review_systematic	price	reputation	neighbours			
Lake University (M)	creep	price	exploring	demonstration	usability	flexibility	pedagogy
River University (WCT)	demonstration	expansion					
Upland University (Bb)	review_systematic	features	usability				
Valley College (M)	end_of_contract	review_ongoing	exploring	review_systematic	usability	response_tutor	support_expert

Figure 4.2. Processes and reasons for choice of VLE, in the order mentioned.

The e-learning leads involved in this project had all been largely influential their institution’s choice of VLE – shortlisting options to be weighed up by senior management teams, or given the authority to make this decision themselves. Moodle’s uptake was notable in that, at Downs, Lake and Valley, it took root while institutions were stalled in tortuous tendering and licensing processes with commercial VLEs:

Rick: Buy-in was fortuitous... I ran upstairs to the directorate and said we’d come up with some open source software and why didn’t we use it in the meantime...

Most responses implied that the need for a VLE was established and no longer under debate. Related to this and looking broadly at the factors mentioned, educational concerns - though hinted at in references to flexibility, features and usability - are largely absent from the e-learning lead responses or referred to very vaguely. 68 separate factors were coded from their interview responses about choice and use of VLE, and of these roughly one third could be categorised as educational concerns (the others being operational). These proportions may indicate that VLE adoption predated specific plans for its application in the institutions; in fact no strong impression emerged from the e-learning lead interviews that teachers were impatient to actualise designs for learning with VLE technology. Again, this is everyday knowledge, but to recognise it helps to explain the way VLEs are used at this stage of their existence. The diversity of these ten e-learning leads’ concerns is also notable, signalling that difference in circumstances exert significant influence on strategies for and approaches to VLE use.

Flexibility

All participants discussed ways in which flexibility could be achieved through the use of a VLE, but the particular kinds of flexibility that were desired varied. They included:

- Teaching being less bound to the institution's buildings (flexibility of teaching).
- Fit with learners' lifestyles.
 - Fred: "I expect the adult learners will say it helped them to stay on course and found it really useful. My private research with the learners suggests that they couldn't give a monkey's about their grades but what they did say is that it suited their lifestyle." (Fred)
 - Fred: "Lifestyle is the key word here. They can study when they want to, they don't have to stay quiet when they study but they can listen to music. If you go in youngster's bedrooms they're going three or four things at once, and Moodle's in keeping with that."
- Being able to re-develop the tool so that it does slightly different things (flexibility of open source tools).

Control

In what might be seen as a contrast to flexibility, participants also placed a lot of importance on a sense of control of what was going on. They wanted to understand how the system worked (because if they couldn't, they couldn't rely on it working again). Open Source tools had an obvious advantage in this respect.

Chris: Very flexible, being Open Source... I had faith – you could see the progress from earlier versions.

There was also evidence of local development to shore up off-the-shelf systems, for example by providing extra desired functionality. This gave the controllability of an Open Source tool, but with an added sense of local expertise. A related development at one institution was to have one licensed VLE, but to install instances of it on faculty-level servers to allow local control.

A third sense was about giving teachers control over their courses:

Paul: Once someone requested a course and got a course, their environment ... wasn't dependent on anyone, didn't have to ask anyone to do anything for them. And that's probably the biggest strength but that's not unique to WebCT.

However, there were parallel countervailing tendencies in some institutions; one was the use of templates to standardise the appearance and structure of VLE course areas:

Bill: All comments on the template have been positive – it's approved and everybody agrees that the template is the way to go – for consistency. The template is the way a course should be set up *and* the look and feel.

Another was the establishment of central repositories for course resources so that 'content' became an institutional resource rather than a personal one.

Cost

Unsurprisingly, e-learning leads claimed that the costs associated with VLEs influenced their decisions about which system to buy. Open Source systems had obvious advantages here in terms of licences. These issues were not one-off, either; stepped licence costs (e.g. if the number of users rose above a certain figure) meant that the choice was re-evaluated at certain strategic points. Cost was also relative – a system was seen as expensive if others like it were cheaper, rather than (say) in terms of a percentage of annual turnover.

Paul: The cost of it – it goes up, especially in the climate where you hear so much about Moodle and others.

Participants also identified other sources of costs, such as staff (including secondments) and the servers required. However, this was only an issue if direct costs were involved – if it were simply a matter of hosting the application on an existing server, managers seemed relatively unconcerned about the hidden costs involved.

Bart: Senior management are aware of it but happy to let us get on with it because there have been no major resource implications so far.

Risk

The category of risks brought together discussions about control and cost. Things were seen to be risky where resources were invested against an uncertain outcome. Where there were no major resource implications, senior managers were not perceived to be concerned; one striking theme of adoption for Moodle was interim use - Moodle's early adoption was straightforward with little or no deliberation by each institution's management team, whereas even piloting a commercial VLE could be convoluted, involving much preparation. This is revisited in section 5.7 on Support. However, other staff sometimes saw hidden resource implications associated with decisions, such as the cost of buying an expensive system no-one would use.

Off-the-shelf commercial systems were seen as being less risky by those who bought them, because the responsibility for technical smooth-running lay elsewhere.

One unusual incident concerned the possibility of outsourcing hosting of the VLE to a commercial organisation in another country. Although the situation was unresolved at the time of the study, the argument involved playing off the relative cost savings against the loss of control.

Pedagogy

There was discussion of pedagogic issues, particularly in terms of available functionality, although mostly these were high-level claims rather than being about the practicalities of day-to-day teaching practice. Particularly common were comments about Moodle's commitment to constructivist teaching or about problem-based learning, and claims about efficiency (e.g. the automated marking and feedback on quizzes, for all VLEs).

However, much of the discussion concerned the VLE's ability to monitor page use or provide aggregated statistics on learner progress. This was seen as something that could be useful to teachers, although some participants were sceptical about how much value this feature actually brought.

Paul: The page tracking is undoubtedly a strength for those that want to use it but I don't know how many people are really making use of that – it's always been sold as one of the kind of reasons for using VLEs, whereas actually most teachers aren't worried about it. Somehow tracking progression and attainment and stuff – yes, but I don't think you necessarily need those automated tools inside courses to do that.

Peers / Community

The decisions of others influenced VLE choices. Some institutions chose to adopt the same system as was being used by other institutions locally, whereas others were influenced by how similar institutions nationally were discussing this issue.

Fred: We were just starting to see the word Moodle cropping up again and again with other colleges talking about it.

In some cases, this was because partnerships with such organisations implied the possibility of support or troubleshooting when establishing the new service.

However, this was not just about going with dominant fashions. Status could be acquired through differentiation from peers – for example, by being seen to be doing things that others were not yet able to do.

Fred: Hill College is not the centre of things but we've stolen a march – that's never happened before – we're now seen as an up and coming college in terms of what we're doing with the VLE and that's good for the college reputation.

Usability

Usability holds a slightly problematic place as a criterion for decision-making. This is because usability issues were typically found with experience, which is only really possible once the system has been bought and installed. However, it was a criterion for considering the continued use of systems, and raised awareness about this issues in relation to future purchases.

The issues discussed were less to do with bad design *per se* and more to do with familiarity. Learner displeasure because Moodle did not look like a Microsoft Office application, the unfamiliarity of off-the-shelf systems compared to established, home-grown application and the gradual learning of “themes” that allowed users to interpret the system were all mentioned.

Paul: One generally cited is that it's not as intuitive as it could be. But some of that is historical and certainly it's improved no end compared to how it was when we first got it. And some of our primary users can't lose that history of it. Whereas staff who are brand new to it don't seem to have that.

There were some functional issues of usability that were identified, however. Customisability for accessibility was one such, as were problems of authentication.

4.2 THE STAGES OF ADOPTION

A number of distinguishable phases were mentioned in relation to the adoption of a VLE. Not all participants mentioned each of these; indeed, some institutions seem to have bypassed some stages or revisited others repeatedly, making it clear that this is not a simple, linear process. However, for the purposes of clarity, the stages will be discussed in turn as if they were simply linear.

Awareness

The first step in the process of adoption is simply to be aware of the product. People described both intentional processes (looking around for products of this type; surveys of products and their functionality/usability) and accidental ones:

Bart: I came across links to Moodle on the web in late 2002 and just kind of stumbled into it by accident. I thought this looks good, I'll install it.

Playtime

In many cases, awareness was followed by a period of low-risk experimentation in which a cheap or free version of the software was set up on an old server without official technical support. In some variations, a school server was used. Several participants referred to this as ‘playtime’, describing a process of learning about the system by trying it out. This was seen as an important part of the decision-making process, providing insight without substantial commitment.

Fred: A year ago unofficially onto an old server which used to have games on it – published to college server in secret.

Piloting

Piloting was seen as a way of introducing a system in a managed way. Pilot projects were described as being not quite formal, but formative – they often involved steering groups (or the equivalent) made up of representatives of a range of staff groups (e.g. academics, librarians, technical and media staff). Lack of such a group was described as an impediment, preventing the discussions necessary for formalisation from taking place.

However, there were potentially negative consequences to piloting. The fixed-term commitment could result in systems being formally dropped even though individuals were still using them. This left support staff in a difficult position of trying to help people without dedicated resources.

Formalisation

At some stage, most organisations committed to supporting a particular application. This was less about the purchase of a licence (since typically, any necessary outlay for this had already been made at the playground or pilot stage) and more about assigning responsibilities.

Having developed an understanding of the work required to support the application, formalisation involved the agreement of divisions of labour. This could be complicated if the ‘bottom up’ emergence of need for the tool had resulted in complex, organic roles developing.

Adoption by central support services (who then took over responsibility for upgrades, backups *etc*), hosting shifting to a central server, discussions about quality assurance procedures were all topics for discussion at this point, although it was clear in some cases that existing politics (e.g. competition between rival support services) meant that formalisation could be problematic. In these cases, the VLE could be used as a way of forcing change, although this was seen as being more likely at a technical level (e.g. replacing servers) than an organisational one.

Several things could prompt formalisation – the end of a formal pilot, lack of adequate resources (e.g. disc space), “confession” to the IT manager about previous playtime or simply confidence leading to demonstrations that then pique interest.

Fred: So we had the playtime on the server which allowed it to get [established]. We came out of the closet quite spectacularly and I said “We want Moodle, we’re in love and it won’t cost anything”. They were fine with it and bought two new servers

The attempt to move straight to formalisation without previous piloting was not described as being successful, with one participant describing a procurement process that took two years and failed.

Status quo

After formalisation, many institutions experienced a period of status quo. There were few changes technically or organisationally, and users tended to have a certain ‘inertia’, continuing to use the VLE but rarely trying out new features.

Fred: We risk the comfort zone of settling back into ILT as a way to do what we’ve always done but quicker. We use it not to buy time to improve quality but just to do more quicker.

The proportion of staff believed to be using the VLE in a sophisticated way (e.g. in consciously designing for learning, as opposed to using it as a repository for materials or a course notice board) was typically felt to be low – figures quoted were between 10% and 25%, although these were obviously just impressions of use.

Status quo: training

Although not a separate phase as such, training was the dominant area of work discussed in relation to the period of steady use. Although the main discussion was of formal programmes (e.g. workshops or part of the FERL practitioners’ programme), there was consistent mention of informal support and training, usually by using peer support groups or champions.

Training was differentiated in various ways. Many participants distinguished between awareness-raising sessions (informative) and training sessions (hands-on); it was also possible to view ongoing support services (e.g. help lines) for staff as a kind of training opportunity. Some was offered in-house, and other formats involved external participation (e.g. JISC-supported regional workshops – seen as particularly appropriate for specialist staff groups such as librarians). One institution mentioned an hour a week teaching release. Training was also aimed at teaching staff; senior managers were generally ignored even if their understanding of the VLE was disparaged.

Training for learners was positioned as the responsibility of teachers.

Replacement

There was some mention of replacing existing supported systems, although this possibility was not necessarily widely acknowledged:

Colin: ... I think the university does expect it to stand still – their attitude towards to technology is that “The technology that we had last year, we’ll have next year won’t we? We’ll have it the year after that”...

There was a sense that, as licences ended, or as circumstances changed and new software became available, it might become necessary to re-evaluate existing commitments, especially as some perceived off-the-shelf commercial packages to be “dying out now”.

Paul: WebCT remains a focal part of that at the moment but who knows in the future whether we’re going to need it, even, because of the other things that are there. We have staff trialling stuff like Moodle – I’m very keen for our ICT staff to try LAMS and anything else that comes up in the future.

4.3 SUMMARY

The conversations with the e-learning leads can be summarised according to Figure 4.3.

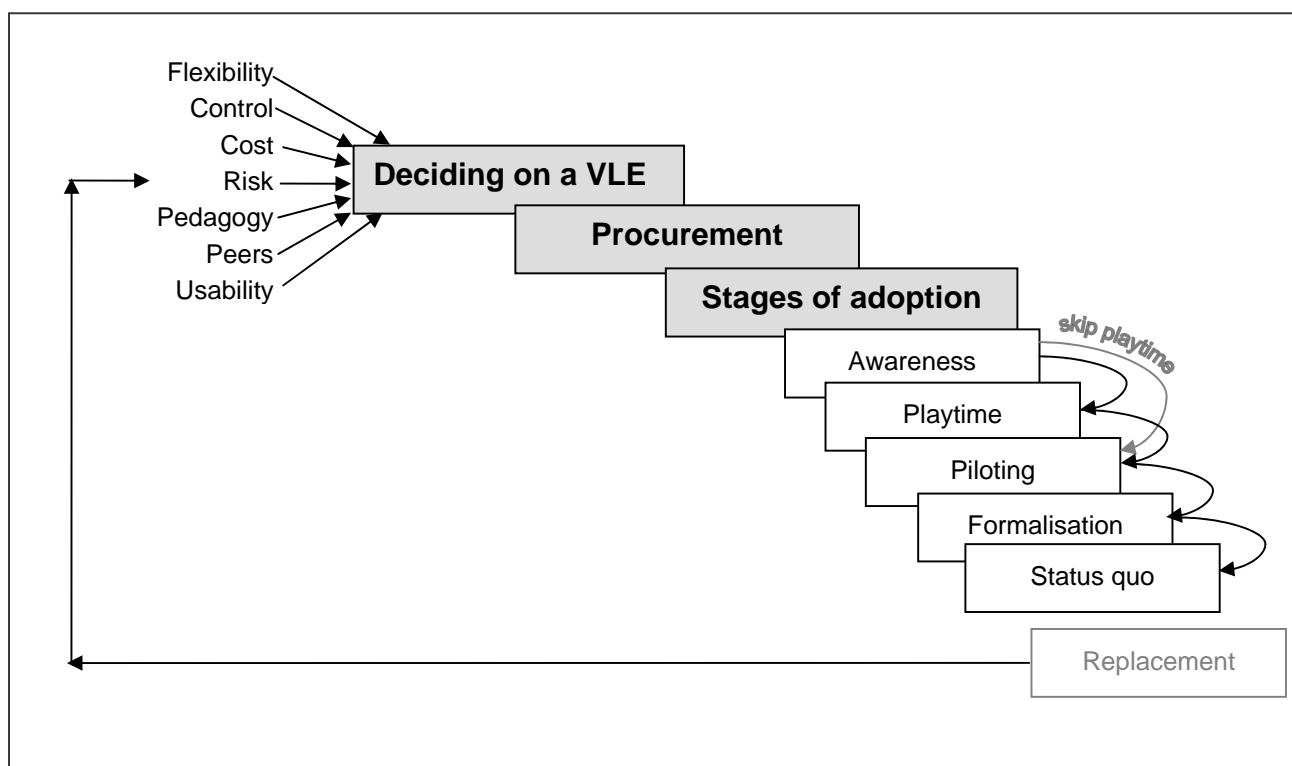


Figure 4.3. Deciding on a VLE

5 MODELS OF DESIGNING FOR LEARNING IN VLES

Based on the data, some models of design for learning in VLE are formulated below, supported by cases.

5.1 TEACHERS’ DIFFERENT ROUTES TO THEIR VLE

5.1.1 Teachers’ contexts

Although the scope of this project does not permit close attention to context, an understanding of their circumstances is necessary to understanding teachers as designers. Besides the constant consideration about how the course area would integrate with non-VLE designs for learning, VLE design decisions were affected by the availability of the equipment where learners could access them. Teacher knowledge of on-campus availability of computer rooms or online presentation equipment would influence whether they would design VLE work to take place, say, with learners interacting face-to-face at a computer, or at a distance through a computer, or with a projected presentation, or indeed at all. Teachers’ awareness of their learners’ ability to use the VLE at home (learner aptitude as well as access and connection speeds) would influence how online activities and

assignments were designed to interact with the face-to-face sessions. Responses to Survey 1 (16) revealed that almost all planned to use the VLE between contact sessions, and nearly half planned to also use it during sessions. The learner participants all had access to the VLE at home, though as one pointed out, their self-selection introduced bias - "...the fact that we're all here means that we can all use it".

Another obvious context variable is the subject area. Advanced computing learners like the group from Downs had a keen academic interest in their teacher Bart's use of Moodle. On the other hand, Babak saw limitations in Blackboard's potential for representing his MA Performance, a highly practical course essentially concerned with "bodies in space". A last context variable, individual decisions about appropriate investment of time and effort, loomed large. What influenced teachers most in this respect was the desire to meet their own high standards:

Bart: I mean maybe for instance learning objects in there should be SCORM compliant, so that they can be used almost anywhere but I can't be bothered [chuckle] - wrong way of saying it - I haven't got time to design them to the standard that I want.

Laurie: ...there has to be a space found in the week to actually do it, to make sure all dead it's correct and that it's actually working and to check the links ... to make sure that they're still operative...

Contexts here can be considered in two categories. Circumstances, such as teacher skills, the amount, organisation and quality of support available, and access to equipment, influenced design decisions. Educational contexts included the level of study, and the responses (or anticipated responses) of peers and learners.

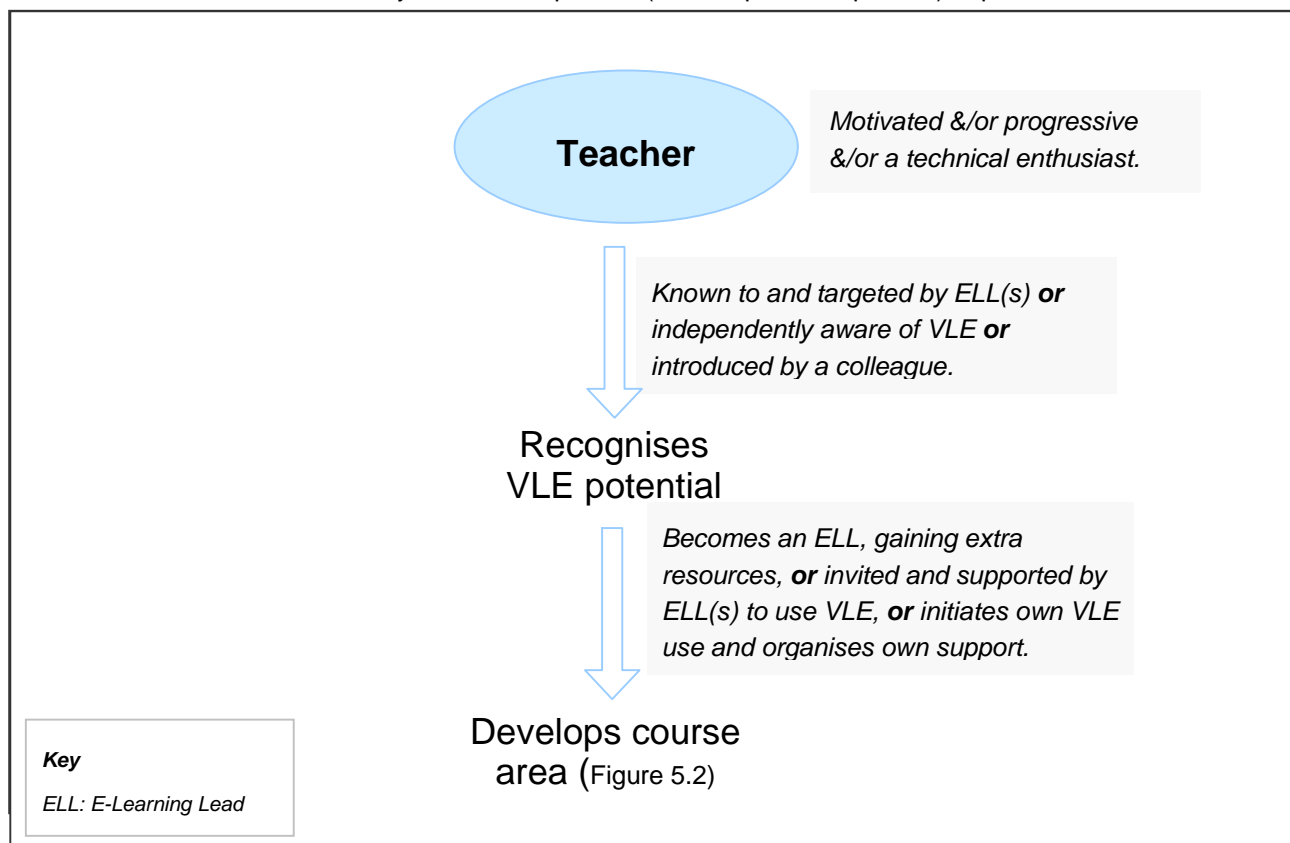


Figure 5.1. Routes to teacher VLE uptake

5.1.2 Teacher characteristics

As shown in

Figure 5.1, characteristics of teachers that emerged strongly in this project included motivation, progressiveness and technical enthusiasm (VLE use was not mandatory in the participating institutions). Motivation might arise

from a serious inadequacy in the circumstances before the VLE. For example, Ina was dissatisfied with the marking procedure:

“...we used to literally meet in car parks and hand over packets of scripts. And inevitably, one was lost and we've had some horrible nightmare situations where we can't find pieces of work.”

For others, the spur was more positive, such as the prospect of “hit[ting] the decks running” for the short hours of face-to-face contact. Ozzy was alive to “broaden[ing] the interface that I have with learners, on a communication level and on a task level”. Evidence that teachers considered themselves progressive tended to emerge in their references to peers:

Fred: ... this is attitude, this is style, this is approach to learning - what it requires is for people to change the way they think about learning...

Babak: ... this is its huge advantage, and this is what I'm going to present to my colleagues when - I have these very resistant, old-fashioned people who are all about recycling their own tradition...

Enthusiasm for the technology, as might be expected, was felt by several teachers:

Luke: ... I enjoy doing it, and I think that's part of it... you know... a lot of my colleagues are enthusiastic, without having any enjoyment... you know, they don't actually get pleasure from creating an icon.

However, some surprising ambivalences also emerged:

Rachel: ...the most Moodle-active member of staff after me, she hates it... she really doesn't like technology at all... she's a [Composer Name] specialist - she does very, very early [type of music] - “Computers, these new-fangled things?”... but she's fabulous in terms of actually using it and making it work and engaging with it, even though I know she doesn't like it, but she's been absolutely great...

Recognising the potential of the VLE

Figure 5.1 presents three ways teachers might become aware of a VLE.

Babak and Brett were independently aware of VLEs. Babak took a job role with a “brief” to get Blackboard “up and running” in his department. Bart, a Computing teacher, seeded Moodle in his institution.

Rachel, Ozzy and and Luke were initially introduced by central ELLs:

Rachel: ...the VLE support people ... basically dumped this delightful package in my lap and said “Go on, see what you can do with that” ...I like to just go in and mess around with things and see what happens. Suck it and see!

Ina, Laurie and Brett found out through a colleague:

Ina: ...partly because [Teacher Name] works with [ELL Name] so he introduced it to us... don't take this the wrong way but then I picked it up and ran with it. And I think if [Teacher Name] and I hadn't picked it up and run with it we wouldn't be as advanced with it as we are.

5.1.3 Circumstances of developing a first course area

As shown in

Figure 5.1, development of a course area takes place under different circumstances. Rachel and Ozzy were selected by their central ELLs at Lake University to become champions within their departments, gaining remission of 0.2 FTE. Babak and Bart also took dissemination roles, but without remission. At Downs, Bart initiated his own course area without formal institutional support. He and his colleague Laurie had a decision-making role with regards to their Moodle installation, though without formal resourcing by the institution. At Hill, Brett was invited and supported by an ELL but without formal resourcing. Time, and lack of it, are discussed in section 5.2.1.

5.2 ISSUES IN COURSE DESIGN

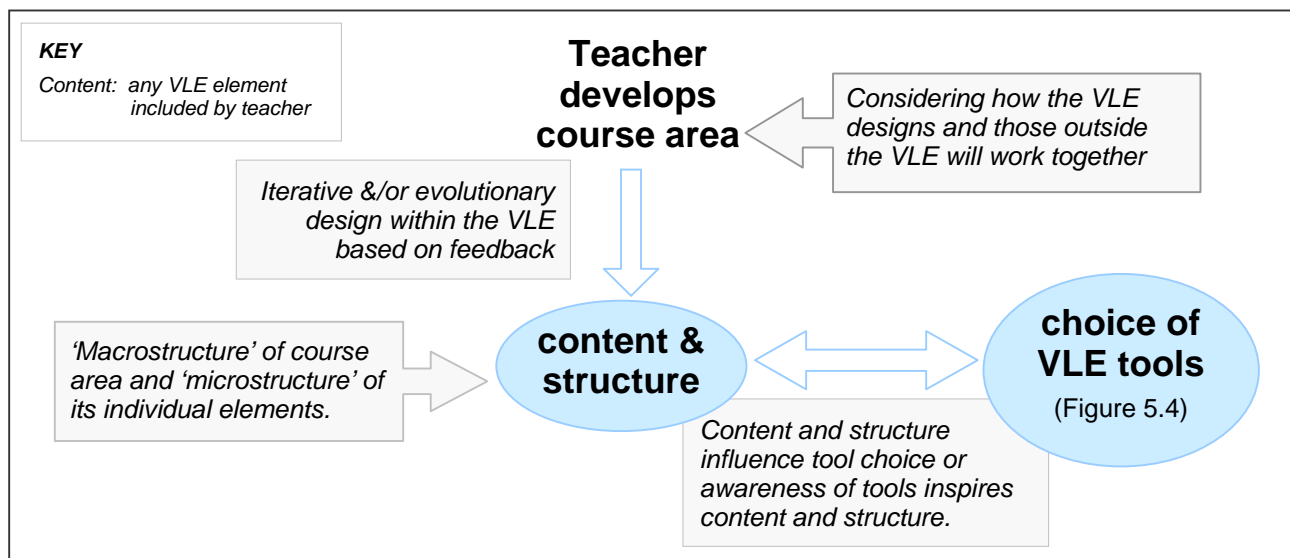


Figure 5.2 Building the course area

5.2.1 Time

Time emerged as a very important factor with many facets. One aspect was whether or not teachers had time to invest in familiarising themselves with the tools:

Babak: ...my teaching schedule this term is so heavy, I've actually taught half of my allocated teaching hours in 14 weeks. That's how heavy my teaching is ... So I haven't had time to sit and play, which is what I require...

Although there is increasing recognition that protected time is important for building skills and producing activities and resources, time is at an exceedingly high premium and looks set to remain so.

Another was that teachers were reluctant to make certain types of use of the VLE if they sensed they wouldn't have time to maintain them to proper standards. Standards were widely interpreted here and included maintenance, keeping current, building engagement and maintaining impetus. Making and justifying decisions about where to dedicate the little time available was clearly a delicate matter for several teachers, who took pains to emphasise that it was time, rather than lack of enthusiasm or imagination, which stood between their current and ideal VLE uses:

Similarly, this desire to do things well could also interfere with learners' use of the VLE:

Lila: ...I love learning what other people have to think about, I love seeing how other people have progressed, but if I were to sit there and do all of that, it's easily *many* hours ... and I want to put my thing up and I want to word it well ... cos that's the way I *am*, and that's like 10 minutes there for one post, and ... I *cannot* do that on top of the hours that I have ... that's why I have sort of *given up* on it, in a way...

Faced with the same shortage of time, some of Lila's more participative co-learners were comfortable with making less painstaking, hastier contributions and recommended that she do the same. However she remained unwilling to sacrifice this level of care.

The above experiences emphasise that where teachers and learners value certain qualities in their work which demand time, a lack of time inhibits them in designing or participating in optional online activities.

Teachers were well aware of the potential of VLEs for making the most of contact time, and most were setting assignments to be built upon in following face-to-face sessions. This worked well with the part-time courses or those with dedicated homework time, but for the full-time degree courses there was the issue of learners' time.

Ozzy, whose Radiography curriculum was particularly overloaded, observed how technology “enabled me to buy back some of those 270 hours of self-study. I did some of it with the video lecture disks, I’ve done more here, so we’re actually creating... almost more curriculum time”. Noted by other observers (e.g. Sharpe and Benfield, 2005), this incursion into formerly unstructured self-study time concerns him:

We’re encouraging people to go down this highly interactive route and by the time every single module they’re interacting with - if they all have this level of engagement I think the potential for expecting too much of the learners is very high, and at some point someone who has overall responsibility for the course ... is ... going to need to start mapping our utilisation of the learners’ study time to make sure that, one, it’s not overbearing, and two, ... to try and space it out.

The prospect of module leaders vying for the right to structure learners’ self-study time is a response to the rapid growth of the knowledge base in some subject areas. It also hints at an increasingly homogenous learning experience within courses, with possible implications for its diversity and dynamism, as well as learners’ ability to learn independently.

Timely, specific feedback is important for learning and motivation, and learning activity happening online therefore makes new claims to teachers’ time:

Laurie: ...it takes maybe five or ten minutes to get everything sorted ready so I can start marking, and then I can sort of do it, but if I get interrupted, it’s much more difficult than I would find with bits of paper - you sort of carry them round, and if you’ve got a spare fifteen minutes you can do a little bit of marking.

Ozzy, where he designed a discussion activity, felt it important to give prompt feedback:

...I tend to try and respond really quite quickly, within minutes. For example, even out of hours, I tend to be a bit of a ... so this one was done 7.01 pm I would have been at home and I replied at 7.14. I would say that’s a fairly typical response time 7 days a week, typically.

On a similar theme, a learner shared an anecdote:

Ian: ...my girlfriend’s parent is a teacher, and she was saying how she’s expected to pick up her emails every night she’s at home - it’s not just a tool she can use if she requires it, if she needs to - she’s required to for part of her work and she’s not thought of as doing her work if she’s not doing it.

Increasing learner interactivity online may demand extra involvement and dedication from teachers, beyond what could be expected at current staff levels, terms and conditions.

5.2.2 Educational considerations setting up a course area

As well as the teacher contexts introduced in Section 5.1.1, educational considerations influenced decisions about which aspects of learning could usefully be included in a VLE. Duration of the course and frequency of meeting were an influence; infrequent meetings – as in the case Rachel or Ina - indicated a need for bridging activities to maintain impetus between sessions, and to “hit the ground running” and make the most of the precious contact time. Subject area was another influence; the advanced computing learners from Downs had a keen academic interest in Moodle, and their teacher made extensive use of it in representing the domain and modelling good practice. On the other hand, Babak saw many limitations in Blackboard’s potential for representing his MA Performance, a highly practical course essentially concerned with “bodies in space”, and his learners felt a dislocation, pointing out that “IT isn’t really a part of our course...”.

5.2.3 The design process

The process of designing for learning was opaque and difficult to elicit. It had been hoped that observing teachers ‘in the act’ would shed some light on the design process, but because teachers work on their courses and VLE areas opportunistically, observation was either impossible to arrange or too contrived to faithfully reflect day-to-day experience.

Representations within the VLE

Representations within the VLE were created and used in a number of different ways. One pervasive and important finding, however, was a just-in-time approach where several teachers mentioned planning just in advance of running their designs. Often this was because they were using the outcomes of one session or activity to refine their plans for the next. For example, Bart selected one group's database from each previous week's session as the basis for the following week's. Fred's contact sessions shaped the course area for the following week and, in turn, learner activity on the course area influenced the subsequent contact session.

Most (9 out of 12) Survey 2 respondents were reusing or repurposing some of their own designs, while four were reusing or repurposing the designs of other people alongside their own. Three had created new courses entirely from scratch. Design and actualisation took place opportunistically at home, at work and, for one teacher with mobile access, on the train. Most were lone designers who found that it wasn't always easy to involve other stakeholders in early design decisions:

Ina: ... we – I – was told in July that a hundred learners were appearing in September, so I had the summer to sort it out. So I'm afraid consultation was not an option.

Babak: ...at the moment it's such a prototype for [this department] ... I have one member of staff who just flatly refuses... who is in a secretarial position and she persists in using notes, putting notes on the noticeboard – now bearing in mind they never check the noticeboard...

Teacher responses to feedback concerning the VLE, observed or solicited, played a large part in ongoing refinements, not only for continual fine-tuning of individual elements within the VLE, but for the organisation of the entire course area or course itself.

Laurie: I must admit, that's was my main reason for really trying to get involved with the VLE, was because it would give me some feedback on whether the resources that I was spending time producing, and putting together, were actually being accessed by the learners. And it's been a bit of a shock really.

Observation that the uptake of his materials was poor disinclined him from developing his course area; he judged that it would be hard to achieve learner participation. In contrast, Babak on the other hand, with his highly dedicated fee-paying learners, was able to solicit and receive feedback to shape the course.

Babak: ... the Discussion Board is about the running of the course and ... whether we're actually delivering the programme - because it's a brand new course ... So, imagine my delight when they actually introduced their own new thread! Because I had been prompting all the discussion up until this ... This provoked all this discussion, and the result of this discussion is that I have reinstated Character Analysis next term. Which I wasn't going to do.

In his assessment, this amounted to more than good customer service:

... the MA course has a tradition of rebellion - at *all* universities, not just *here* which [chuckles] *is* quite a passionate environment anyway... I feel that just by giving them a voice – be it a typed and read one – that actually we can diffuse a great deal of discontent... before it manifests itself physically...

Influencing teachers' online designs, tracking and records provided by a VLE could provide an extremely powerful, immediate type of feedback. Invariably, teachers who consulted logs and records during their interview showed intense interest and excitement.

Fred: I tried to draw other people in here to say, "What do others think about what [Name]'s said?" So that she was given encouragement to come back herself and have another go. And I got one... I got *two*... I got *three!* *Four!* Four responses! From learners.

This feedback affirmed his carefully planned approach. Ozzy was similarly affected when he looked at records of access for his module descriptor:

Ozzy: ... if I have a look if any of the learners have ever looked at the module descriptor let's have a look [browses to filter logs] I could be surprised couldn't I... Oh actually I *am* surprised! A large number of learners have - and some many times - have looked at the module descriptor.

During the interview, and partly as a result of looking at the logs, he came to the conclusion that learners wanted a philosophical overview of his course currently was lacking on the VLE, and undertook to reflect this in changes to the module descriptor. Feedback could therefore provide powerful positive or negative reinforcement of design decisions.

The frequency and scale of revisions could vary. There was the general feeling that designs would not “stand still”, rather evolve over time.

Ina: It's not a problem at all, but as we learn to do things [learners] don't always get the same experience in each module. But it doesn't upset me, because I think that they can see that it's not a fixed piece of kit, it's something that evolves. And we say that to them in induction – that each Blackboard site looks very different by the end of the course, and that's up to them and that's the direction that they take it in, as much as the direction we take it in...

This situation has major implications for the research of designing for learning. If designs are not static, then simply picking and analysing artefacts without reference to their historical context over-simplifies the situation. However, methods for studying the evolution of designs over time are lacking in this area and will need to be developed. The scope of this problem is significant - most designs were in fact “constantly evolving” in response to the outcomes of previous sessions, as teachers took opportunities after each session to include “something that's relevant to what's been discussed” (Fred). Teachers also tended to carry out major modifications before each new intake of learners, “ditching” what wasn't working, keeping the effective parts, and occasionally amalgamating course areas to share content and activities. Several teachers were conscious of, or had archived, iterations or course areas, which tended to correspond to roll-over of courses or modules. In contrast to the incremental growth of an evolving course like Luke's or Babak's which was not structurally integral to the course, the more integrated course areas tended to change structurally, with each iteration involving some kind of redesign. Restructuring might be prompted by a growing familiarity with the VLE. For example, Ozzy initially built his clinical imaging course around Moodle's Weekly (chronological) format. This helped with scheduling for that year, but when the following year brought a change in circumstances, it emerged that the granularity afforded by the Topics (thematic) format would have been more appropriate. He commented “...until you've had to roll it over and live with your own design choice, you don't necessarily know”.

During the interviews, teachers tended to gloss the details of their experiences. Their responses to questions barely touched on the *process* and *act* of design, but rapidly slid off into insights about the experience of *running* the designs. One theory which might explain this is that design on a VLE rarely follows the sequence of former off-line designs - initial conception, representation, refinement, actualisation, and further refinement. Instead, the immediacy conferred by the VLEs as both design and delivery medium encourages each stage to be left open so that course area concepts and contents develop incrementally, continuously and reactively - according to tacit principles which are difficult for teachers to articulate in retrospect. A similar effect has been claimed for word processing software on essay planning and writing (Hass, 1996, Chapter 4).

Representations outside the VLE

Teachers' responses to an interview question about non-VLE representations tended to fall into three categories – face-to face contact, hard-copy reading, and physicality.

Naturally, in this project face-to-face contact formed a prominent part of non-VLE representations of designs for learning. In some cases the VLE had changed the nature of these sessions. Fred gave an account of how, six weeks into his course, he observed activity shift from the classes onto the VLE:

So the class became *slightly* less important in terms of activity, but *more* important in terms of maintenance keeping things going - facilitating rather than teaching.

However, he could not eliminate teaching from his course, and since he was unwilling to allow a didactic approach to overwhelm his VLE area, “any transmission takes place in class, the activity takes place out of the class [on the VLE]”. Laurie was also delivering theory and explanations in class. Luke was using selective release to ensure that activities did not become available “before I’ve explained it properly”, illustrating that where prior knowledge is required for an activity, teachers may prefer to gauge learner readiness through face-to-face contact where they can check or intuit this, and respond appropriately. Ozzy felt that the “philosophy” of the module and the “role it plays” was something he currently conveyed through face-to-face contact, and which “probably doesn’t come across in here [the VLE]”, highlighting his role as teacher in weaving together the separate course elements to make a meaningful and cohesive course. Similarly, Babak mentioned a strong “oral tradition” on his course which was unrepresented elsewhere.

Hard copy was used to represent designs. All modules and courses had mandatory descriptors, although consumption of these by learners varied intriguingly. Ozzy was surprised by high levels of access recorded by his logs, though Laurie had the impression that “most of the learners come onto the course fairly blindly”. Ina had had to reintroduce a hard-copy handbook because of demand for “*some paper*” from many learners. She attributed this partly to their age (mature adulthood which she associated with technological unease) and the fact that the qualification, with its online delivery, was compulsory for many of her learners’ career progression, rather than chosen exclusively out of interest. Ozzy was making adapted lecture notes available on the assumption that they would be printed off and annotated during the lecture. Prior to Moodle, Bart had been teaching from a text book which mapped closely to the course. Although learners still had access to it, they said they rarely used it since the VLE area better met the requirements for their learning – “the teacher has actually designed it in the way he wants to teach it”. Ina had also “ditched textbooks” entirely and “saved ourselves a *fortune*”. Bart’s Computing learners (who possibly had comparatively little reading to do) were unanimous in favouring online material over hard-copy reading, and reported rarely printing. Bart was the only teacher who was representing designs for his own use outside the VLE, using mind maps with colour coding to sequence activities and associate each stage with supporting resources. This approach reflected the degree structure and constructivism in his course area (see Figure 5.5), and the evident need for precise orchestration of learning tasks.

Physical presence was a fundamental part of learning on several courses – manipulation of bodies and voices (the actors) and instruments (the radiographers and musicians), and interaction with others (e.g. the carers) – which was almost entirely absent from the VLE. There was a general feeling that attempting these aspects online would lethally compromise learning. However, teachers connected physicality and cognitive processes in less obvious ways - Laurie considered that his computer science learners benefited from “taking things... and physically moving them around” as a group. He demonstrated a learning task based on a physical reusable learning object on data normalisation sent by the DfES. He also had the impression that learners had lower expectations about the look and feel of off-line activities than they did about online ones, commenting that the DfES’ expensive magnetic tiles could be acceptably replaced with coloured post-it notes, whereas an online version could not be reproduced in-house to a high enough standard for learners to take it seriously. For him, the impact of the physicality of a task alongside the unavailability of a sufficiently sophisticated online alternative was important factor in keeping some activities off-line.

5.2.4 New tools and existing practice - conflicting bases for designs

Figure 5.3 presents teacher responses to Survey 2 about the range of different VLE tools and affordances exploited, and their distribution in course areas. The content affordances were widely recognised, with nearly all teachers both uploading and linking to content. Beyond this, uses were varied. Just over half the teachers were creating some elements – such as wikis, web pages, glossaries or blogs - themselves within the VLE, but it was rarer for learners to be creators within the VLE. Synchronous communication was less prevalent than asynchronous, which was widely used for learner-learner and teacher-learner communication. Groups were being used operationally to give information selectively within a course area – to learners as similar stages on a roll-on-roll-off course, for example – and to assign learners to different teachers. Some teachers were using VLE

groups in a specifically social-constructivist way, though this was acknowledged to make extra demands on their time.

	Ozzy	Luke	Ina	T4	T5	Brett	Rache	T8	T9	Bart	Laurie	Fred	Babak
File upload													
Linking													
Tutor elements*													
Learner elements*													
Chat L-to-L													
Forum L-to-L													
Chat L-to-T													
Forum L-to-T													
Self test													
Assignments													
Groups													
Selective release													

* eg wikis, web pages, glossaries, blogs

Figure 5.3 Thirteen teachers' reported use of various VLE tools (named teachers were interviewed).

Nine out of the thirteen respondents designed directly into the VLE, some of whom also used other design tools such as mind maps and lists. A question about whether and how the VLE tools influenced the design of the course area, included in the teacher interviews, divided the participants intriguingly:

- Luke: Yeah, not at all. I do it my own way, however I want to do it. And I'll exploit the tools that suit me and ignore the ones that don't. And nothing in here makes me do things in a different way.
- Ozzy: It was shaped... but it was a good fit. Because Moodle comes out of the body of knowledge of instructional design, it makes it very easy for you to do what you want because the two are convergent.
- Ina: Yes. Yes, because there are things we can't do and we've had to say "We can't do that".
- Fred: Totally... I think this interface – the Moodle interface – is much better for FE learners – younger learners.

Several responses revealed a perceived dichotomy between technocentricity and learner-centredness. Brett spoke at length about his development since first discovering Moodle. He described himself as initially diverted by Moodle's features:

...at first I was just sticking every tool and thing in that I could, just because I thought I should... for no good reason it was just "Wow! Ooh! I didn't know that could do... Ooh - I want one of those!" without really thinking "Well, what's this tool for, what are the benefits to the learners...?"

He went on to describe a turn-around during a staff development workshop he was leading with resistant participants:

I don't know where it came from but I just found myself saying to them, "Look, you're just looking at this in completely the wrong way. Go back to basics. Think about your lesson plan. Think about what the aim of each session is, what your objectives are, how you're going to deliver it and why you're delivering it that way, and then say to yourself 'Well, can Moodle do that for me in the way that if somebody doesn't turn up to that lesson they can near as damnit have the same experience?'"

This development is interesting - on the one hand here is a new tool affording new ways of learning which could stimulate a redesign of existing learning. On the other hand is the teacher-as-expert with a good sense of subject area and learners, who therefore knows what should be done with a new tool. Brett, focussing on what the new tools could do, was initially enthused and experimental. Although this approach with new technologies is most likely to lead to radical changes in practice, it is also a risky strategy because it ventures onto unbroken ground.

Consequently in staff development sessions, his promotion of Moodle - as a way to facilitate teachers in doing what they were already doing – took a more conservative approach than he had originally adopted himself but one which would significantly reduce the risk of problems being critical.

However, not all teachers recognised a conflict. Both Computing teachers at Downs were alive to the possibilities offered by technologies. Both also kept the learner firmly at the centre of their design decisions in Moodle. Bart had previously formalised his learning-outcomes-centred design approach, first listing outcomes, then using these to inform learning activities, producing a graphical mapping of each to each into which he incorporated a “natural match” from Moodle’s tools:

I've actually gone through and identified various bits and pieces in yellow [looking at the map] - in yellow those are the actual Moodle features, where I've decided what would be most appropriate, and you can see where I've got a choice of things...

As Helen Beetham notes (2006, in correspondence), “agile adopters’ of new technologies are simultaneously well-grounded in existing practice, and alive to experimentation with new technologies”. This is illustrated in Figure 5.4, where tool and teaching influence each other.

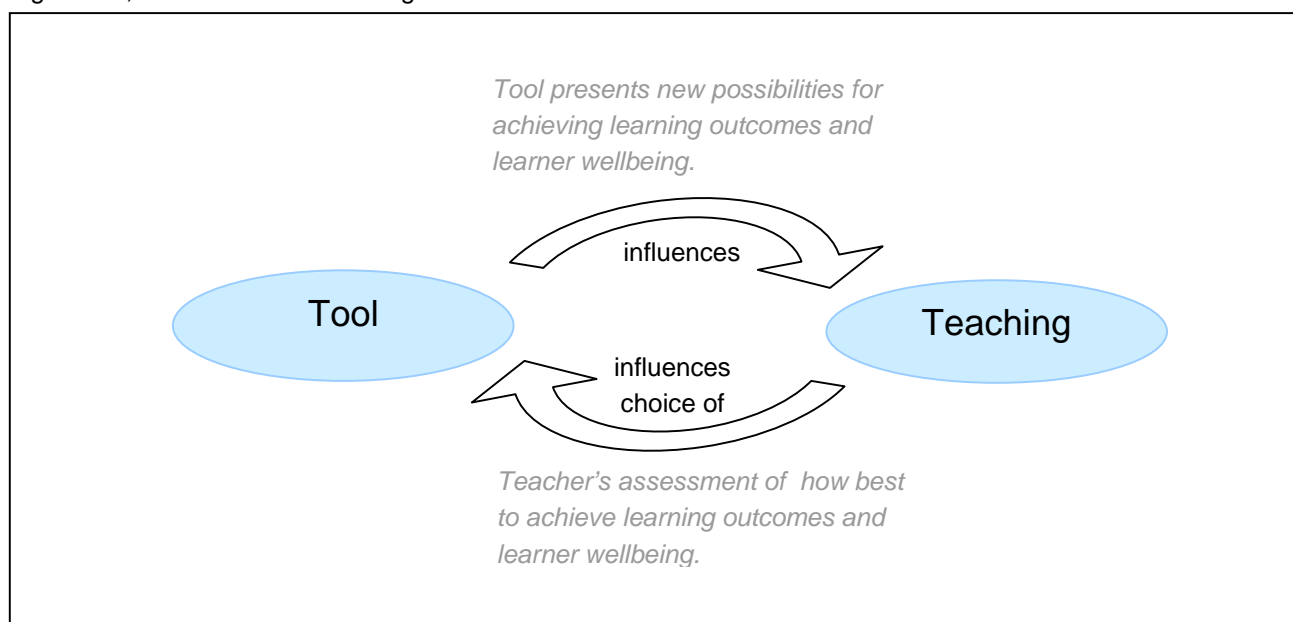


Figure 5.4. Choosing a tool

However, the impact of these different attitudes and approaches on designing for learning is poorly understood. To further explore this, interviewees were asked a trio of questions: how they approached the course prior to using the VLE; how or whether they could sustain the current learner experience if the VLE were withdrawn; and how they would explain the differences between the two approaches. These questions aimed to identify any changes in approach and explore the extent to which these could be associated with teachers’ experiences using the VLE. The latter two questions on VLE withdrawal depended on respondents’ imaginations, and as such were of uncertain value; however they felt appropriate here because, as Ina commented, “I need to think about that more. Because it’s a real possibility.” Indeed, during the interviewing phases of the project, Blackboard announced its takeover of WebCT, causing many institutions to reconsider renewing their license.

Again the responses to these questions were varied, a probable reflection of the diverse of subject areas and learners, and therefore difficult to generalise. However there were some features to note. Those with a good overview of the current learning technology climate were quick to fix on the availability of cost-free VLEs as a solution which could be exploited in different ways. Those with confidence could host their own VLE:

Luke: ...or I would get myself free website space and host Moodle independently. Now that's where I was heading before I found out about WebCT

Ozzy: Now in reality, and I don't say this lightly ... I would have my own personal server space. And I [laughing] would put Moodle on it. And I probably am in a position to do that.

Brett, in keeping with Moodle's culture of collaboration instead of competition, expected to be able to effortlessly arrange hosting at a neighbouring Moodle-using institution:

Ring a colleague at [Institution Name] and see if we could host it from there. Just back up the course and put it onto there. Learners really wouldn't notice any difference other than the change of address...

This implies a significant difference between free and commercial VLEs – in the case of commercial VLEs we would expect hosting to be arranged only through considerable effort, probably involving high-level negotiation and payment to the host institution.

Faced with the prospect of their VLE being withdrawn, some participants faltered in their response, initially unable to think of any other action than to return to their original, pre-VLE approach. This suggested they were overlooking or unaware of the free availability of most of the tools they had encountered within the context of their VLE:

MV: So how does that approach compare with the way you did things before the VLE?

Ina: Well we'd have to go back to it, wouldn't we? If it were taken away completely?

MV: Were you using Blogs and IT tools before?

Ina: No. No.

MV: So there'd be a bit of -

Ina: Yes. There'd be a bit of difference. I think if the worst came to the worst -

MV: Do you think you'd have to go back to the 12 weekly workshops?

Ina: No, probably not, actually. Probably not.

Assessing learners with Blackboard's Gradebook had drastically lightened this teacher's burden, and it is possible that this issue eclipsed all others and coloured her initial response. However, she was not the only teacher who required prompting – Rachel initially said she would return to her original approach of using a web site:

...it wouldn't have the interactive aspects, but it would have all the documentation. It would have all the links, and it would probably still allow me to get them to upload documents to the system so that we could give them feedback on them - we could probably still do something with some forms and stuff - I wouldn't be able to have the lessons and the Quizzes - I don't know if I'm capable of doing those...

On prompting, she identified CourseGenie as a way of replacing Quizzes, which she would use although it would be a "huge amount of work".

The uncertain responses to this question imply that some teachers regard a VLE as a single, given tool rather than an aggregation and integration of different tools, and consequently would not respond to the prospect of the VLE being withdrawn by looking for replacements for the individual tools they wanted to continue using. This suggests that even where teachers deny that the VLE has an influence on their design for learning, they unconsciously restrict e-learning to the scope of their VLE, rather than considering it to be just one more resource amongst many. In this sense, the VLE is both helping and hindering teachers: it provides an accessible set of resources with which to express their designs, but also creates a 'design blindness' so that other possibilities are not even considered. Less agile adopters receive new technologies on the technologies' own terms – they take on the design practices implied by the tools they are given. They do not play, experiment, disaggregate (though they can be prompted to do so). From these responses it seems that the introduction of the VLE has indeed changed teacher's approaches to course design, but that they may not be highly aware of or

reflective about the nature of these changes – associating them with ‘the tool itself’ rather than seeing new ways of doing things that could be translated into other technical contexts.

However, Fred's response identified the *integration* of tools, which is the essence of a VLE, as crucial, and the reason he didn't take a recognised opportunity to use other tools:

Presumably some free blog or smart groups maybe... something like that. But I think that because you can put all of this into the one place... makes it much more of a catch when you do this, and I think to use smart groups in isolation is almost making a lot of work for not getting as much return on your investment... It would almost be easier for me to slump back into the straight teaching approach.

In contrast to Ina's (for example), Fred's attitude may be to do with the increased options afforded by his higher proportion of contact time, in that he had opportunities outside the VLE to mediate his designs for learning. So the withdrawal of the VLE might be disappointing – teachers might even be “horrified” (Babak) or “angry” (Luke) – but VLE lock-in was not currently an issue for these teachers. Laurie who, like Rachel, anticipated a return to his original approach of serving files from a website if the VLE were withdrawn, illustrates this:

I'm not sure that what I've done has changed so much that it would be really difficult to go back to what I was doing before, and more importantly, the learners' way of doing things hasn't changed.

Again, the nature of this sample makes it difficult to draw conclusions about the ‘typical’ influence of the VLE on designs. What this does emphasise, however, is the great diversity of perspectives, awareness, and ideology which must be understood and addressed in working towards JISC's aim of sharing good practice.

5.3 MAKING DESIGNS EXPLICIT

Although all teachers design for learning, these designs may not be articulated and made explicit. Even where they are explicit in some form, they may not be manifested to learners. Engestrom (1999, p70) argues that fixating on representations or recordings, as instantiations of current phenomena, is an inherently conservative approach to teaching and learning. The implication for designing for learning is that representations of designs, particularly detailed ones, militate to some extent against a flexible response to the particular circumstances of a given group of learners at a given time in a given environment. Luke, an experienced teacher from Island College, illustrates this view as he describes the fluidity of his designs:

“I have a tendency to plan everything in my head. I think I can run my lesson plan in my head - know what my objectives are... know what I'm trying to achieve and know how I'm going to do it... and I tend not to favour detailed schemes of work... because it's not how I function - I like to be flexible - I change from week to week...”

Learners, however, may receive a VLE representation as evidence of their teacher's attention and effort, which lends that teacher extra credibility:

Olly: ... gives me confidence in what they're about to teach because they're not going on Sunday evening “Oh, what am I going to teach tomorrow?” - you know that they've planned something. And that someone has worked hard for however long to prepare this lecture, so it's worth listening to what they're going to say [chuckles] basically.

This implication that not all teachers plan effectively is also made by Brett who observes:

... I've got no proof but I've got a suspicion that because [a course area is] there and it can be seen that those teachers who are leaving things till the last minute and perhaps not planning as well as they might... perhaps not planning at all in some cases, are frightened, because if you're not doing that then it's going to show.

He hints at two fears in teachers - that the VLE will create a demand for records of preparation, and that it will become the only recognised means of demonstrating preparation.

Related to this is a point about the burden imposed by the highly structured, interactive, embedded VLE course areas which are often held up as exemplary. Such designs require meticulous checking, testing and maintenance because there are more opportunities for problems, greater repercussions if where they occur, and a lasting, potentially embarrassing, record of errors. During a learner focus group’s discussion about a forum with what they had assumed to be a “technical flaw”, but which was actually more likely a misconfiguration, one affected learner was unforgiving:

“... when someone places an email on there saying “Reply to this Forum”, then that - without sounding rude - shows technical... mild incompetence... in not knowing that we can’t reply. If they’re asking us to do something that we can’t physically do... then what’s the point in asking us?”

This type of response to an imperfect representation is one reason why teachers might feel inhibited about committing their designs to VLE.

Where, designs are represented, there are two aspects to manifestation, considered here in turn – what intentions teachers represent, and how they represent them.

Figure 5.5 shows the manifestation of interviewed teachers’ designs for learning – as observed in the relationships between elements – in the context of their courses on a scale from least to most manifest.

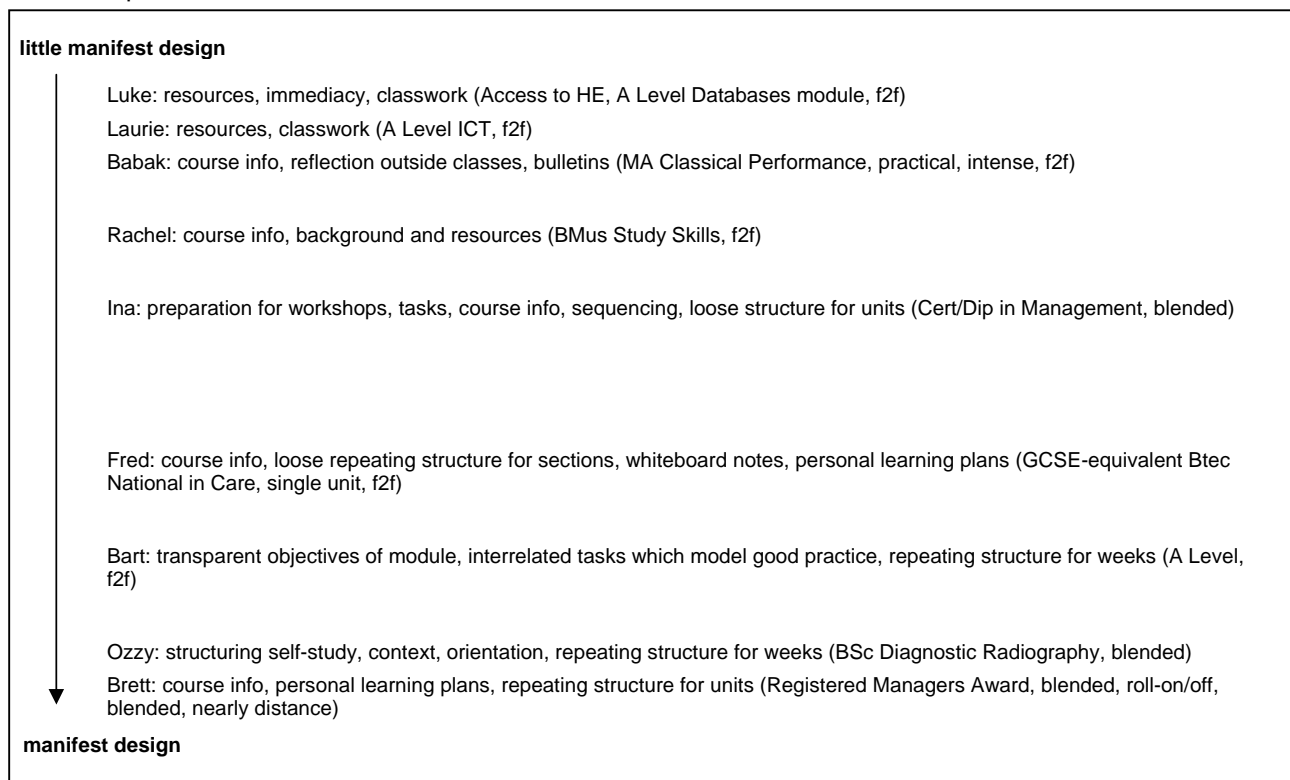


Figure 5.5. Manifestations of teachers’ designs

In VLEs, design can only be *observed* in the relationships between content elements. In some cases these relationships are articulated, whereas in others elements of content are represented without explicit connections between them. In this project, explicit connections were observed where contact was infrequent. As Luke explains:

“... if this was a distance course then much of this would be sorted into sub folders... with more direction on the home page. I do do another course that’s partly delivered by distance, and all my directions, week by week, come on the home page. But with History, I direct them in class so I use this as the basis of my weekly work.”

Laurie, whose A Level course was also face-to-face, explained his VLE area, the design of which was opaque, but which supported a course which, it strongly emerged in his interview, he designed and structured meticulously. In contrast, Rachel and Ina with their infrequent face-to-face sessions, could not use contact time to structure the VLE-based learning during class, and compensated by including explicit instructions on the VLE itself:

Ina: We had to think about those instructions quite carefully though. I'm sure other people must say this but we're very conscious that we nip back and find documents incredibly easily... and it's trying to put ourselves in the mind of a learners for whom this isn't intuitive...

Ozzy and Fred had regular contact with learners, but a significant amount of learning was intended to occur at a distance on placements or attachments. Scaffolding this learning involved a greater manifestation of design:

Ozzy: ...there's a lot of structure on the page and there's a high use of ... instructional labels, such as "You must view the following video lecture before the session", and the weeks are there, and there's a link to the PowerPoint that's on the disk - "If you wish to print these slides..." - and there's instructions there... weekly formative tasks and then there's Any Questions, and again there's a label underneath...

Although infrequent contact and learning at a distance indicated manifest designs, explicit connections were sometimes included even where contact time was frequent. Bart represents a highly defined structure in his Moodle area on Databasing. Although like Luke, he was using it in a face-to-face setting, Bart's course had the extra dimensions of modelling good practice and building technical skills, both of which are readily – indeed, necessarily – externalised compared to the non-technical skills and knowledge associated with, say, A Level History. Each week of Bart's course adhered to a repeating pattern based on a template he has developed from a social-constructivist learning model.

Ozzy's and Ina's areas, on the other hand, had a ordered, repeating pattern using colour coding and other signals. In contrast again with Luke's, Laurie's and Bart's, these areas were intended to structure and schedule the learning of learners in the workplace or on placements, working as a communication tool, and were not being used during contact time. Both VLE areas played a significant role in the overall course. In contrast, Babak's MA, whose design was relatively inscrutable, had 35 taught hours each week with five more for self-study, explaining the smaller – "completely optional" – part played by the VLE.

Whether or not learning designs are manifest within the VLE depends on a number of factors, including contact time with learners, and the teacher's educational approach. Some felt it was important that learners were made aware of the overall design and structure of the course, while others felt preferred not to commit their designs to the VLE in advance, or for them to be only gradually revealed. These choices may relate to time shortages, to the definitiveness of committing a design to the VLE, and/or to learner autonomy i.e. how much choice learners are given about navigating the course, and how far they are teachered through it. Where teachers do not perceive a need to use the VLE for representing their designs for learning, that is not to say the designs are non-existent – but they may be tacit or represented outside VLE. whether or not learning designs are manifest within the VLE depends on a number of factors, including contact time with learners, and the teacher's educational approach.

A second aspect of manifestation is how teachers reveal their designs using their VLE's selective release tools. A strong theme emerged about overwhelming learners:

Ozzy: ... If they're not at the end of whatever it is you've got presented, that's the work that they think they've got to do - they're behind, some of them. So I feel a bit more relaxed about putting stuff up in smaller chunks as we go, to stop that overload. I mean the overload should be a choice but it does seem that not all learners take that view - they just think it's there, they've got to get through it, and if they're not through it then they're not doing what they should be doing, so...

Bart opted to unfold the course week by week, which his learners appreciated:

Jed: Otherwise you start bricking it, as Ben said... Cos it was quite nicely set out it didn't look like as much work, I suppose, as it would've done if we'd had the whole thing there. Cos you don't really appreciate that that's a whole years work, and it's a long time... It's going to be quite a lot of work, I suppose.

The decision of what to represent, what not to, and when is a particularly sophisticated example of decision-making about representation.

Also affecting how designs were revealed was the fear that learners would not attend taught sessions if the VLE met all their learning needs. Ozzy's learners had successfully made a case for their lecture notes being available on the VLE before the lecture, and consequently he had to take measures to "buy their attendance", as explained below in Section 5.5.5. This kind of manoeuvring emerged strongly during this project. It also raises an interesting point about the pedagogic purpose of different parts of the course: if taught sessions are simply for information dissemination (transmission), then learners might be right to skip these in favour of online materials if they can, say, read these in less time. It was not possible to follow up the consequences of such manoeuvring within this project, but the adaptation of pedagogy in response to learners' decisions to engage or disengage with parts of the course echoes Section 5.2.3, and the influence of tracking or recording use on subsequent course design.

Also taken up in Section 5.5.5, Luke, among others, used selective release to pique learners' interest and warm them to the VLE.

Others teachers, whose preparation time was limited, aimed to keep just ahead of their learners, and would prepare and reveal just-in-time. In this sense, not representing course content (including its absence) could be interpreted as being useful because it created the impression of being in control of the course.

5.4 LEARNERS' COMPREHENSION OF TEACHERS' DESIGNS

The learner focus groups explored the relationship between the manifest VLE design and learners' understanding of their teacher's intentions for their learning. The Music learners (Year 1 and only half-way through their first term) did not feel they had an full understanding of their module, either from the VLE or other sources.

Olly: Not a *good* understanding – I think I have *an* understanding in that they tell us what we're going to be studying in the lectures. I don't think I have a good understanding in that... there isn't a definitive... "This week we're going to look at these composers and we're going to look at this section of their work".

According to their teacher "...that is a feature of [Department], in that they're not here to be academics – they're here to be performing musicians", suggesting that the rationale for the Study Skills module may not have been obvious to the learners, and there was a general lack of enthusiasm. The titles of the module and course area also caused initial confusion.

Bart's highly defined structure and internal consistency was well-received by his Databasing learners as he intended:

Jed: I like it when it's the same.

Ben: Mm.

Jed: Easier to follow.

MV: Consistent...

Jed: Spend less time, like, trying to work out -

Ike: Jumping around.

Jed: - why we're doing this... "Oh, we've got to go there now"... But we just go through in order -

Ike: It flows -

Ben: It flows nicely.

- Ike: - All in order, So... This... Then that... then that... Next one down, work through systematically -
Jed: So using the skills you've built up before, in the class we did before, you need them in the next task, you need those skills again and again and again... And you keep building up your skills, until you get to the end, really...

Babak's learners were also unanimous that his intentions were clear; he was using VLE to focus and consolidate practical learning in a way which was successfully interpreted by learners within the culture of the course. There was no perceived need for explicit instructions on the VLE, whose role here consisted of an embryonic video and audio record of their performances over time, and a discussion forum where he used brief single-line questions to trigger reflective discussion about their development as performers:

Della: I mean we understand them as very guided, specific questions, and we know kind of exactly how we can go about answering them...

Kitty: I mean, they might be short little questions, but they're also very big –

Their confidence was a further indication that learning which occurs within a VLE can be successfully directed and coordinated outside the VLE. As representations of their intentions for learning, Babak's, Laurie's and Luke's VLE areas were relatively inscrutable (see Figure 5.5) and could only be grasped by the researcher, as an outsider, during conversation with their authors. Clearly, some VLE designs exist outside the VLE and this has implications for how successful designs can be recognised and shared.

5.5 CHOICE AND USE OF VARIOUS VLE TOOLS

VLEs are designed to provide a range of tools for use in designing and running courses. However, in many cases, teachers would use only a subset of these for any given course. One question that arises is how particular features are exploited to actualise teachers' designs and intentions. This section explores the pedagogic applications and affordances of particular VLE tools, as evidenced within the cases studied for this project.

5.5.1 *Preparing for face-to-face sessions*

Moodle's Journal (subsumed into Assignment in later versions) allows teachers to trigger a private dialogue with individual learners. Ozzy directed his 100 learners to Journals at specific and regular stages – often between watching a video lecture and attending a workshop – which he used to prepare learners to gain maximum benefit from the face-to-face sessions. By posting a trigger (common to all learners) soliciting questions arising from the video, he was able to target the workshop at a particular group by responding to questions which were frequently raised or widely relevant. He could also individualise his response to learners who asked less widely relevant questions, by responding directly into the journal.

Another Journal function was to testing knowledge and consolidate learning with “weekly formative tasks” and revision questions. Ozzy believed that a quick response to these was very important to maintain learner motivation, and aimed to offer feedback within 15 minutes, seven days a week:

“...but I do think if you're putting Journals, or anything that requires interaction like that with learners... when I've talked to other members of staff about it I've referred to it as a chess game... and so you know if you're playing a game of chess and you make a move and the other person doesn't make a move for 2 days, you're probably going to lose interest or not want to play the game... so the quicker you can respond to it, the more they'll use it.”

Time is an important factor; although Ozzy reported success in assessment and learner satisfaction, he is almost certainly in a minority in terms of time available to him for this degree of individualisation. It is also uncertain that he would be able to sustain it with full participation from all 100 learners - at the time, the Journals were “elective”; Ozzy promoted them through his offer of feedback, and by making the formative tasks relevant to the summative assessment. One positive corollary of Journals was their contribution to benchmarking and shaping Ozzy's teaching, helping him to recognise and eliminate misunderstandings.

By using Journal Ozzy managed to individualise contact and check progress of far-flung learners in a confidential way which avoided the exposure learners can experience when using a Forum – an obvious alternative in this situation. A Journal also focussed contributions and afforded their organisation by trigger or by learner over time.

5.5.2 Reflection and peer review

Babak was using a discussion forum in conjunction with recordings of his 12 Classical Acting learners' performances to stimulate reflection. He had posted video recordings of each learner's performances, and attached a discussion thread to each seeking critique and reflection. There were some simple ground rules: no learner could assume the critic role until both they and the object of their critique had commented on their own recordings. This approach had a number of functions for Babak. For Classical Acting, which is entirely about externalising what is internal and communicating successfully it to others, this was felt to be enormously helpful and a powerful catalyst for reflection. In conjunction with the Forums, they permitted feedback which itself would endure as a text record. Because this feedback was no longer dependent on remembering a fleeting performance, but could refer to the recording, it could be more deliberate and more specific. As a record, he also hoped that over time this recording-and-forum combination would also demonstrate progress and learning – and made specific reference to value for money. Additionally, he intended learners to develop skills as sensitive critics and communicators.

The learners were simultaneously invigorated and mortified by the experience. Although they found an early set of performances difficult to watch in the context of their subsequent development, one learner commented, to the general agreement of the group, on the focus they lent the reflection activity:

Kathy: ... I think having a record of that makes you appreciate it, makes you kind of take note of what you were doing, what you *are* doing better, what you *should* be doing, and I think all those things make you reflect on it in a much more profound and...complex way than if you didn't have it.

Babak's trigger questions could hardly be more minimal and moderation was almost absent, yet the purpose and value of the activity was well understood. Members of the group had an ethos of support and took an active interest in others' thoughts, especially those from "left field", creating a fertile environment for ideas. The 35 taught hours a week limited time for reflection to evenings and weekends, and consequently another VLE advantage identified by the learners was spontaneity. In the light of the common conception, confirmed by Fred's experience for example, that unmoderated learning Forums tend to lose impetus, it is interesting to observe these motivated learners maintaining their focus and their sense of community outside hours, and exploiting the VLE to spontaneously share valuable thoughts which would grow stale or, more likely, be abandoned without it.

5.5.3 Discussion and feedback

Babak solicited feedback via Forum to discuss and shape the course. He mentioned two reasons – the first was that the course was new and he was new to the institution. The other was was to diffuse what he referred to as a "tradition of rebellion":

I feel that just by giving them a voice – be it a typed and read one – that actually we can diffuse a great deal of discontent... before it manifests itself physically.

He gave examples of his responses to feedback, which were also registered by the focus group of his learners as "changes in approach" and in one notable case, an extra four hours of teaching.

Ina used discussion in a number of different ways. It was as an important part of structured activities which maintained learning and group cohesion between the infrequent contact sessions. She reported that these had changed the sessions – allowing them to "hit the ground running". This led to the amount of contact being reduced, a positive development for many of her full-time working learners. She had also provided a social 'café' forum with minimal intervention from teachers, which was active with deep threads and wide-ranging in subject matter including informal support on assignments and recommending resources.

For Fred, the Forum tool had another dimension of allowing him to become less of a teacher and more of a facilitator:

...rather than say “You got this wrong”, I tried to draw other people in here to say “What do others think about what [Name]’s said? So that she was given encouragement to come back herself and have another go.

This shows how the design of particular aspects of the course can reflect values or assumptions about the role of the teacher. The idea of the teacher as “guide on the side” has been popularised in research in the past decade; a course which is structured around discussions would be likely to emphasise the value of socially negotiated knowledge, in contrast to one structured around a central, authoritative text (such as a series of lecture notes). Thus the VLE as representation reveals aspects of the *roles* that are designed for learning, as well as the activities.

5.5.4 Presentation and peer review

In organising an exhibition of his four learners’ databases during each weekly contact session, Bart had chosen the Forum tool – when questioned about this choice, he explained that his learners could be reticent about debating in class:

I think with the Forums it’s about people making individual comments, and being identified for it it’s the easiest kind of approach. Use forums with them just informally and with that particular group the first time I introduced them to it, I said “Right, here’s a forum, here’s a discussion”, and off they went for about twenty or thirty entries in no time at all.

In these Moodle Forums, contributions appeared with the author’s distinctive icon (lending immediacy to their presence) and with replies in full and nested (showing the ‘shape’ of each conversation). This choice of medium enabled to some extent the connection of the evolution of each learner’s database to the comments of the others, although posts rarely exceed two lines, implying that a proportion of discussion took place outside the forum. Week by week, some of the Forums also recorded a joint decision about which database should be carried through as the basis for the following week’s activities.

5.5.5 Making content available

Laurie was using his VLE area to give access to content, while explaining his awareness that “that’s not making full use of all the facilities there in Moodle - to encourage communication both between learners and between learners and lecturers”.

As he pointed out, the main advantage of using the VLE – logging access to his resources - was for his practice rather than the learners’ learning.

...from the learners point of view there’s not a huge amount of difference, they still can access the resources, they can still view the resources, and they still have their links to external sites, and so on, from my point of view it’s an improvement because I can actually see what the learners have been doing – I must admit, that’s was my main reason for really trying to get involved with the VLE, was because it would give me some feedback on whether the resources that I was spending time producing, and putting together, were actually being accessed by the learners.

Despite criticism that many VLE areas are little more than content repositories, where a teacher decides content *is* appropriate, a VLE is undeniably a good place to make it available. An advantage over the Web alone, VLE logs can provide detailed feedback for teachers about the use of resources.

5.5.6 Assessment

The VLEs accommodated a wide range of assessment types, formative and summative, subjective and objective. They were used in a variety of ways to overcome distance, benchmark and direct learning, stimulate discussion in class, pique interest, acclimatise to the VLE, identify gaps in knowledge and respond with rich feedback.

Bart recognised the potential of the Quiz tool:

Bart: Yeah that is a matching question. Of all the multiple choice types I really like the matching Quizzes because they're the easiest to write, but if you have about seven things to choose from they can actually be really challenging, and you really get learners to say why these two things are slightly different.

Ozzy was also using Moodle Quizzes. To improve feedback – make it more visual rather than just text-based – he had linked to richer material outside the Quiz tool.

Luke used a Quiz at the beginning of the course as a way of piquing learners' interest and persuading them into WebCT. He organised his quiz in class by grouping learners, asking each group questions in front of the others, and getting them to debate and negotiate their responses. At the end, rather than telling them the answers, he directed them to the Quiz in WebCT, where they could get answers and feedback.

Ina was collecting free text assignments in Blackboard, as part of the course summative assessment. Automated submission had been helpful, but the biggest advantage was the opportunity for remote assessors and external examiners to access the assignments without travelling or the inconvenience of posting copies. One hitch was that if learners create their texts directly in Blackboard – allowing them to be integrated with the Gradebook - they risk losing their work if they lose the network connection. This was a risk she was unwilling to take, opting instead to have learners upload their assignments into the Dropbox. Collecting them online as discrete files in this way had its advantages – she was able to easily open and compare them which helped to standardise the marking.

5.5.7 Instruction

Since it is in direct opposition to the tenets of social-constructivism, instruction – the presentation of content as it is to be learnt - is a less prevalent teaching method than it used to be. However it remains a useful, often crucial, part of teachers' repertoire of pedagogies, especially when teaching technical skills, mechanisms and procedures. Moodle offers a dedicated tool for instruction, called Lesson, which allows teachers to present pages of content, consolidate learning with a multiple-choice question at the end of each, gate progress depending on their response and, provisionally, direct their progress along branching pathways through the content.

Three teachers were using the Lesson tool, and all the examples involved simple, linear progress through the content, the same for each learner. Rachel's Lesson was on the departments house style for referencing – a good choice of subject area for instruction, since it aimed to address a clear need which had hitherto been poorly addresses, to inform about a well-defined practice and to change behaviour. Her Lesson presented small units of information, linking technical terms with an existing Glossary - and tested learner knowledge at the end of each, including a body of questions which required the learner to identify the correct referencing format. Rachel reported that the results were dramatically positive, and through the Logs and Tracking, she identified a strong correlation between improvements in referencing accuracy and taking the Lesson. The Lesson came to be in great demand throughout the institution.

5.5.8 Learners managing their own learning

At Hill, both teachers had been using Moodle Wikis to negotiate, evolve and record versions of Personal Learning Plans. These were individual and private to each learner and their teacher, 'owned' and readily editable by the learner without the laborious download-edit-upload cycle and confusing proliferation of versions associated with uploaded documents.

Although these Wikis were imminently to be overtaken by dedicated software, they demonstrate how Moodle in particular lends itself to the current climate of devolving responsibility for learning to the learners and provides tools to make the workings of a collaboration transparent. Because wikis teachers no longer had to mediate

changes to the plans, they were able to retreat into the background only intervening where their monitoring identified a need for facilitation.

5.5.9 Operational aspects

The potential of VLE as an administrative tool to help aspects of the course run smoothly was recognised by all the interviewees. Although this has been identified as a management function rather than a learning function, its positive potential for teaching and learning should not be underestimated:

Babak: I don't do any parish notices. "Please be at this place at this time", "Please if you want to sign up for this activity"... so as an administrative tool it's saving immense amounts of time, so I can just go to the classroom to teach, which is a *huge* relief to me. Because that slip of focus between activities – I find one defeats the other. I don't do the admin work well because I know I'm going to have to start teaching, and the first minutes of teaching aren't focussed...

5.5.10 Unintended or unexpected uses of course areas

Representations of designs were not precise tools; they varied to the extent that they supported the designers' intentions, but also in the ways in which learners responded to them.

For Bart's learners one unsanctioned, but educationally valuable, use of Moodle was for indulging what Jed mirthfully described as the "the Computing and IT guys' passion for breaking it as much as possible". This excited considerable interest and group unity, and was almost certainly a powerful self-directed learning experience (this probing had not led to any acts of sabotage).

Fred was eager to avoid overloading his course area with content, and contributing to a phenomenon he felt was undesirable - "the VLE as the teacher's knowledge repository":

It's a bit like a teacher, before the VLE, getting the whole course, photocopying it into two lever arch files and giving it to every learner on day one and saying "There you go".

Consequently, he was attempting to minimise content and as far as possible build his course area from learner contributions - captured whiteboard notes, Wikis, Journals and Forum entries. In practice, he reported difficulties, still to be overcome, with making learners understand how they could meet their learning objectives with these types of contributions. Although there were plentiful activities available, a substantial amount of content remained – though on inspection this appeared to be appropriate and necessary both for the course area and the course itself.

Ina reported a reduction in contact hours as a result of VLE use – a widespread fear of people who resisted, or resist, VLEs. This suggests that organisations regard VLEs as viable replacements for at least a proportion of contact time, despite this position being politically unmentionable in many institutions. For Ina's learners, in full-time employment, the reduction in time spent at college was a positive development. Bart's A2 groups had reduced hours due to low numbers and said that the VLE made it easier for him to accommodate this. However, Ozzy notes that using VLEs interactively brings with it an ongoing requirement for significant amounts of teacher – and learner – time, which will become scarcer if uptake of the VLE grows across an institution, and if the proportion of teachers to learners continues to shrink at the current rate.¹

Confronted with the inadequacies of Moodle Quizzes in providing rich feedback, Ozzy developed a highly imaginative, innovative use of Glossaries as a supplement. There is a danger here that if this unconventional use of Glossaries is not known to Moodle's developers, it may not be supported in future versions. Whether using tools strictly as anticipated by the developers, or by institutions for that matter, is to be desired or not is highly controversial. It relates to the issue of standardising use, which was picked up and debated by Bart's

¹ One response to this is formalised peer learning, where roles formerly taken by the teacher are assigned to individual learners within group, but no examples emerged in this project. Moreover there are uncertainties about learner readiness for this type of learning which are discussed in the Conclusion.

Databasing learners. Ian, a Web designer in Bart's group of learners, made the case that opportunities for bending the tools should be designed out of VLEs, since unforeseen use risked unanticipated problems in the future. Taking the perspective of a VLE developer he commented:

... if you were to redesign the system and go "OK, I'm going to assume that the glossaries are all glossaries", and display it in a certain different way, then that's when you completely messed up what the other teachers have done.

However, uses unforeseen by developers are by their nature difficult to anticipate and design out. Moreover, if they can be effectively communicated to the developers, they have an important part to play in the development of technologies. Moodle is particularly amenable to this feedback since, unlike commercial VLEs, developers and users mingle freely on its discussion forums.

Learners also bent tools, especially in ways which advanced relationships with peers. Barts' Databasing Exhibition Forums were full of humour. The most vigorous discussions on Ina's course area were in the social forum where learners planned friendly meetings or swapped reassurances.

5.5.11 Low use of some tools

Moodle in particular offers a number of distinctive, highly configurable tools for creating activities. Although they embody the social-constructivist pedagogy favoured in current practice, they were almost invariably absent or under-used (created but subsequently not taken up by learners).

Glossaries, Moodle's tool for defining and conceptualising a domain, can as such be considered either an introductory or remedial activity. Bart remarked that Glossaries were "such a useful tool for getting people focussed on things". Yet since Wikipedia is available for reference and editing, unless the local definitions are world-class, validated and well-maintained, or particularly niche, in the post-compulsory sector creating a Glossary can easily become an academic exercise emphasising process far over product. Even assuming learners recognise the benefits and opt to participate, implications for the teacher emerge from this emphasis on process - either to take on the significant burden of policing participation and quality, or to delegate this to learners who require sustained moderation. Either scenario requires plenty of time, if not compulsory participation.

Workshop, Moodle's peer review tool, is highly configurable and allows a teacher to minutely structure and schedule the process. Although this tool promises to scaffold a number of important transferable skills (critical thinking, constructive feedback, making, defending and challenging arguments, for example), uptake was non-existent. Workshop requires teacher vigilance about the gating between each of six stages, is perceived as time-consuming and fraught with opportunities for failure, and consequently is extremely rare. A safe environment for experimenting with Workshop would be a small group, with a viable alternative at the ready as a contingency. However, with complex tools where the dividends are unclear, the very presence of a viable alternative is a disincentive for uptake of a new tool.

Moodle Wikis allow distributed groups of learners to work on a shared web site at a distance without the need for web design expertise or software. In theory, editing straight into a web browser makes for a streamlined, convenient and intuitive authoring experience. Wikis represent a way to create a shared, extendable, available resource. However, they also represent a new way to collaborate and a new medium for presenting the products of collaboration. Where such collaborations are not assessed, it is understandable that they should founder where their value is not clear and there is not active encouragement to participate.

Besides the tools within the VLE, there is also the opportunity for teachers to author and integrate online activities *outside* the VLE – Moodle in particular emphasises this. Bart, who was designing repeating (and therefore reusable) activity sequences, recognised the potential of LAMS, but had abandoned the idea due to lack of time. This is one of the only examples which came to light, which may relate to the phenomenon of 'design blindness' introduced in 5.2.3.

Although Moodle offers new opportunities for social constructivism through the Workshop, Glossary, and Wiki tools, these were notable either by their absence or by their lack of use – Ozzy's and Bart's Glossaries had no more than seven entries each. Other than Brett's and Fred's well-conceived use of Wikis for personal learning plans, no flourishing Wiki collaborations were seen. Bart's Wiki logs revealed a solitary learner contribution, and there were no Workshops. This creation of activities which are subsequently passed over by learners marks an important boundary between actualisation and uptake, which in turn emphasises the teacher role in conceiving, encouraging and scaffolding this type of learning. The result of this was that, between VLEs, no clear differences in use of tools emerged – most centred round varying proportions of administration, content and Forums. This is not to say that the social constructivism espoused by several tutors is absent – there are many signals that it exists in their non-VLE teaching and designs. This raises the question whether Moodle's social constructivist tools are redundant. Moodle itself has responded by making opening up some features (learners can choose to publish their blogs) and incorporating others (LAMS, which is likely to eclipse Lesson). Another response from 2005 was the Open University's multi-million pound commitment to Moodle, suggesting that these tools have a key role in distance learning, where a VLE is the primary milieu for interaction. Even in face-to-face or blended settings such tools within VLEs may be needed in the important role of safe 'nursery' space where learners can become prepared for exposure to the sometimes formidable world of online social networking – for example, Wikipedia, WikiHow, 43Things and eBlogger – outside the VLE.

5.6 INTEGRATING VLE LEARNING WITH LEARNING OUTSIDE THE VLE

In a blended setting, design for learning in a VLE prompts teachers to review their design for learning *outside* a VLE so that the two dovetail as a unified learning experience.

There was a widespread fear that the learners would cynically plunder the VLE for content to pass their exams and refuse to attend contact sessions, which prompted some creative designs outside the VLE, as illustrated by Ozzy's case:

...they said that they wanted to have the printed PowerPoints that were being presented in any workshop with them so that they could annotate as they went, and they really convinced me that what they were doing... they did want to facilitate the construction of knowledge, rather than just have the PowerPoints so they didn't have to turn up.

He decided to make slides available (which also involved taking the trouble to adapt them for printing) in the knowledge that some manoeuvring would be required on his part to guarantee ongoing learner attendance at these sessions:

I also said that a proportion of the marks would come directly from the followup sessions and that may come from the discussions the discussions that we'll have for the session, at the end of the session I think "Right, we've spoken about that, so I'm going to ask them an exam question on it". They know that. And it means that the follow-up sessions, I kind of buy their attendance with potential marks.

In contrast, for teachers whose VLE areas were seen as more of an adjunct, the concern was persuading the learners to use it in the first place. Again, this could involve a certain amount of manoeuvring, as illustrated by Babak:

...*this* is a make-up class that they wouldn't know about when it is unless – actually I haven't told them when it is. They know the class is missed, because I went and told them in person. But they don't know when it's going to be made up. So in order to get them *on* Blackboard, I *do* play a game with them at withholding information.

Rachel used the prospect of one-to-one feedback, only available through the VLE, as a way of persuading learners to complete their reflective exercises. Fred's learners were openly incredulous that they could meet learning objectives by, for example, contributing to a forum, and this resulted in several early missed opportunities:

...they couldn't spot how doing this would actually give them assignment criteria ticks. When they *had* worked that one out, they thought "But that's not right, because I haven't done any work" – because they couldn't equate this as being *work work*...

Only once learners were routinely using a VLE could VLE-based learning take place. Yet some of Babak's learners were finding it difficult to integrate VLE use into their learning:

Lila: ...but I think it's because, like I said, I.T. isn't a part of our course outside of this at all, so I find it's like a huge effort to go, log in, check Blackboard, read all of this that's come up

Babak acknowledged this. He planned to use the VLE to grow a multimedia record of each learner's performances over time, and their collective reflections on these. All of his learners interviewed were very positive about this use of a VLE since the materials would make a unique contribution to their main objective – to develop as classical actors.

Bart and Luke, who were using the VLE in a face-to-face setting, had much more control over the integration of learning and were able to closely schedule and coordinate VLE work – although the physical learning environment and availability of equipment emerged as possible limitations here. For blended teachers it is not clear whether the non-VLE forms of design are expressed at all. Luke's tendency, as a teacher with clear ideas and sole responsibility for a course, to "run my lesson plan in my head" indicates that those in similar positions of control may not be inclined to represent these non-VLE designs. If this is the case it follows that where teachers share responsibilities for structuring and running the course, designs would need to be represented in order to be understood and followed, and might be found in lesson plans, guidelines or even codes of conduct. However, in a contrasting example, Ina and Rachel – both course leaders - remarked that learner experiences differing between teachers was natural and neither was pursuing a more standardised approach.

Teachers have learned to play carefully when and how they make different elements of the course available in the VLE, so that there is effective integration with face-to-face sessions, and learners are motivated to engage with both parts of the course.

5.7 SUPPORT FOR PRODUCING AND ACCESSING VLE LEARNING

Support is broadly categorised in this project as support for teachers and support for learners. Support for learners can be considered in different ways. One is training in how to use the VLE software. Sharpe and Benfield's review of the learner experience (2005) challenges the widely held belief that school-leavers are "digital natives" (Prensky, 1999) with a natural instinct for ICT. Nevertheless, training for learners was positioned as the teacher's responsibility and was not evident in this project:

Olly: ... I know quite a few people who say "I don't use Moodle cos I don't know how". And because there is - you're not told anything, you have to explore -

Luca: You have to work it out by yourself.

Another type of support for learners involves giving them insight into the course area as their teacher's representation of the course. Without this, there is the danger that "you're just sort of... clicking on different links blind and thinking 'Is this the right one?'" (Pete, Learner Focus Group, Lake University, 31st October 2005). We might expect this understanding – orientation, overview, awareness of gaps – to be considerably advanced where course areas are designed according to the kinds of principles published by, say, usability commentator Jakob Nielsen. Examples of these principles can be seen in Ozzy's, Ina's and Bart's use of internal consistency (e.g. colour coding, repeating structure), instructions, explanations, explicit sequencing, currency and completeness. The value of this kind of design is clearest where learners are using the VLE remotely, or are expected to work through activities in a particular order, or in preparation for a session to come. However, Luke was primarily using the VLE to lend immediacy to historical sources during contact sessions and, since he was present to give instructions and context, he did not perceive a need to give this kind of support on the VLE.

Where learners experience problems with VLE use, it is not always clear whether the problems lie in difficulties with the software, or difficulties with conceptualising and navigating a teacher's design:

Zoe: Um, well I personally like exploring stuff so I just started clicking on everything. But it just umm... the first ten minutes I just went round and round and round and round because I kept clicking the same links thinking they were something else, because they were in different places, and I just went round and round and round and that was very annoying.

...

Olly: ... Which is why I say it's been designed by an IT technician, in that they... as far as I know, they haven't gone and said to learners "What do you want?" And maybe they need to give us a bit more... a bit more of an option about how we want our [?64:12?] to be.

MV: So you think the course area's been designed by an IT technician?

Olly: Yeah. I would say so.

This points to the existence of two sets of designs for learners to negotiate – the VLE interface and the teacher's representation. Even a very intuitive VLE interface cannot guarantee comprehension of a teacher's intentions, reliant as these are on meaningful Web design, decisions about what to represent and when, and appropriate structuring of a course area to reflect its subject area in a way which accommodates a certain level of prior knowledge.

Regarding support for teachers, there is a distinction between training about the procedural aspects of VLE use and educational development about how to design effective learning activities and plans. Three aspects of support can be identified - persuading to use the VLE, training and designing. Persuasion to use the VLE has already been explored in Sections 0 and 5.1.3. Training was interpreted in different ways at different institutions. At Hill, a small network of enthusiasts shared their developing skills:

Brett: ...we got Moodle. And then it was just a case of ringing each other up and saying "Hey did you know it could do this?" - "No!" - "How did you do that?", and that was between four or five of us and we were all learning together, and still are.

Brett hinted that he was disseminating them more widely at his staff development sessions. At Lake, as a quality assurance measure, online Moodle training in the form of a Moodle course was a requirement before a teacher was permitted their own course area. However, Rachel did not consider the.

Considering the influence of support on teachers' designs in their VLE, similar to the influence of tools on practice discussed above in Section 5.2.4, brought out different responses:

Luke: I mean [e-learning lead's name] who was the chief ... proponent of all things WebCT is not a trained teacher... so his perspective was always on the... you know it's sort of like... I don't know, selling a holiday home - you sell it from the perspective that you've enjoyed it, but someone will only buy it if you see it –

Babak: ...the demonstration they gave me was just... *mindblowing*, in that there were two of them, both of whom knew it very well... and they showed me things that I didn't dream were possible. So what they effectively did was they shifted the parameters within my head from using it as an administrative tool to using it as a teaching tool. And that's initiated by them - I would never have come to that conclusion myself.

The difference in attitudes here is likely to be affected by the teacher's familiarity with what a VLE can do as well as the whether the concerns of the e-learning lead and the teacher converge.

In some cases "support" was observed to change its identity and become "control", intruding into teachers' design decisions:

Laurie: There's a slight difficulty in that the people who manage the IT systems have got an agenda for what needs to be sorted out. And Bart and I haven't got any way of forcing things onto the agenda, we can't allocate higher priority to things - in fact the curriculum generally has difficulty in doing that...

A final interesting observation about support highlights another difference between free and commercial VLEs. Fred commented on his technical support:

There's a systems guy here who very kindly keeps an eye on the Moodle site as well - I mean that's how loose things are here - there's no provision made for this...

This relates to the background of the VLE's uptake at the institutions. At Lake, Downs and Valley, as well as Hill, Moodle became embedded through interim use. For instance, Valley's e-learning lead described how an elaborate licensing agreement for a commercial VLE led them to explore Moodle "in the meantime, and that overtook everything else". Hill College had a similar experience, installing Moodle unofficially on a retired server and using it inconspicuously to deliver a staff development module to a large group of teachers. This had the effect of creating demand for Moodle within the institution, after which the interviewee "confessed" to the IT Manager. Meanwhile the institution was considering commercial VLEs, and senior management made a decision to align themselves with a neighbouring Blackboard-using college. However, once again there were delays with the Blackboard paperwork, allowing "playtime" with Moodle during which an attachment was formed. The interviewee talked about "coming out of the closet spectacularly", making an impassioned – and ultimately successful - plea for Moodle to senior management.

Another e-learning lead described what happened after the painstaking process of tendering for a commercial VLE had broken down a second time:

Buy-in was fortuitous... I ran upstairs to the directorate and said we'd come up with some open source software and why didn't we use it in the meantime... Now I think there would be a riot if they tried to get rid of Moodle.

The contrast between the two-year tendering process for a commercial VLE on the one hand, and the immediate approval of Moodle on the other, is striking. A possible explanation is that management roles (a relative innovation in educational settings) tend to be dedicated to those aspects of policy concerned with directives, budgets, or quality – at the department level, procedures for authorising new schemes tend to reflect these preoccupations. So if no structural impact or financial costs are foreseen in a new scheme, there is no requirement to burden management with formally authorising it and it is free to evolve at the grass roots of an organisation. Bart commented:

Senior management are aware of it but happy to let us get on with it because there have been no major resource implications so far.

Accordingly, most of the institutions involved in this study had Moodle installations alongside their official VLE. What these circumstances do not reflect, but what is evident in the above comments about interim use, is that the ecological implications of introducing any VLE are significant even if its license costs nothing. The conditions for VLE lock-in occur as much as a result of investing time and effort as they do of money. Moreover, the self-seeding nature of Moodle, without direct intervention of senior management, raises questions about how support and development for its users is resourced – indeed whether the requirement for these is acknowledged by policy makers at all.

6 CONCLUSIONS AND IMPLICATIONS

6.1 ELICITING THE DESIGN PROCESS IN VLES

Difficulties in eliciting specific details at the *action level* (rather than the experience level) of planning and actualising designs for learning may be related to the current stage of VLE uptake. For many, VLE use is still in its early stages, and is poorly understood (JISC's Design for Learning Programme is one of the earlier efforts to understand how teachers use such tools for learning). For most teachers, a VLE gives them an unprecedented opportunity to create and to publish a representation. Yet it is this very control over the representation,

encouraging spontaneous, incremental, reactive design straight into the VLE, which makes it difficult to retrospectively piece together the stages of a given course area's design.

Short of monitoring teachers' movements constantly over time, the only way to find out more here - requiring a level of access not granted to this project - would be to analyse logs of teacher VLE activity over time. This may uncover useful details such as the relative amount of time spent on different elements, the number and frequency of refinements, the different locations and times of design work, differences between VLEs, and would provide an overview of activity with which to elicit rationale and description during interviews.

Basing research on what teachers actually *do* is elusive - for reasons discussed in the methodology section it was unfeasible to observe teachers in the act of designing. Nevertheless it is important to avoid what David Silverman (2004) calls the "experience game", which assumes in this case that teachers can give accurate accounts of their actions – sometimes after a long intervening period - and in effect privileges sincerity over truth (Silverman, 2004). The triangulation measures in this project – questionnaires, access to the course area over time, interviews with learners were intended to help here, but the mediation of the recruitment process by JISC and institutional e-learning leads may have allowed an organisational discourse to overwhelm individual ones.

6.2 HOW DESIGNS ARE REPRESENTED ON VLES

In a VLE, the only way for teachers to articulate their designs is in the form of explicit connections between resources and activities – order, priority, orientation, relationships between the different elements which comprise the course area. If these connections are not expressed, the course area appears as a content repository, or an organiser, and it is difficult to understand the design without participating in the course. One of the most striking findings to emerge from the project was that the organisation of a VLE course area may represent only parts or fragments of teachers' designs for learning in blended or face-to-face settings, suggesting that teachers may think of their VLE area as a publishing platform and not as a course representation. Therefore absence of explicit articulated designs – those visible within the VLE – does not signify the absence of design *per se*. Interviews revealed that ongoing, responsive, deliberate design is common practice but not necessarily represented in VLEs (Luke and Laurie illustrate this). Similarly, the domination of operational aspects in course areas does not imply a lack of design – designs are likely to exist, but where they are articulated – and they may remain tacit and unstated - they may be found *outside* the VLE. However, the VLE is one obvious place in which teachers' designs for learning might be usefully represented – particularly in the structuring and arrangement of course components, together with the visual or textual addendum that explain these to users.

6.3 THE VALUE OF REPRESENTING DESIGNS ON VLES

Whether or not to encourage or require teachers to make their designs manifest in a VLE is a difficult issue. Currently, whether a design for learning is explicitly represented in the VLE or not depends on the subject area, the type and amount of learning involved, the level of the qualification or aptitude of the learners, the amount and frequency of contact time allocated, the duration of the course, not to mention the time allocated for VLE work (learners and teachers). For example, representing a design is useful where a teacher has decided that learning should follow a set pattern or sequence, or where a teacher is not present to sequence and connect the different activities and resources. In other circumstances, or in unforeseen ones, the representation can turn into a constraint.

Considering that successful teachers' day-to-day practice can include designs for learning which remain unrepresented, or are represented *outside* the VLE – how does this understanding relate to JISC's aims for the E-Learning Programme outlined in Section 2 or the national aims outlined in Section 1? It is possible to draw a number of conclusions. Firstly, there is little incentive for a rigid approach to whether and how designs for learning are represented in VLEs. In some contexts, the act of representation opposes flexibility and responsiveness, and imposes a bureaucratic burden of currency and completeness which diverts resources

away from the act of designing for learning. A teacher is well-placed to make decisions about whether and how to articulate their intentions. Secondly, both the VLE tools and the organisations within which they are used could better enable teachers to effectively design and coordinate learning activities. With regards to adapting institutional organisation, time emerged as an increasingly scarce, increasingly valued commodity as participation in post-compulsory education broadens. Time pressures may impose changes on teachers' approaches to VLE use in a way that the introduction of VLE alone has not yet changed them. If the proportion of teachers to learners continues to fall, as current policy suggests it will, findings from this project indicate that designs will become more evident on VLEs as more activity, sequencing and scheduling takes place there. This prospect adds to an existing concern for the quality of learning – protected time is required for teachers and learners to become familiar with their learning technology tools and develop new approaches to teaching and learning. The stringent quality criteria held by individual teachers which emerged in this project are an important factor in decisions about adopting VLE tools, suggesting that if their time cannot be protected, they will respond in one of two ways – either they will be reluctant to expose their learners to what will essentially be experiments, and will continue their existing practice outside the VLE, or they will learn on the job, requiring measures for damage limitation. A third conclusion is that the use of a VLE for operational or administrative purposes alone is legitimate if this enables teachers to dedicate more time to designing learning activities outside the VLE. A fourth conclusion is that where learning, as it often does, involves reading, listening to, watching or looking at content, a VLE is becoming an increasingly effective way to make this content available, offering unlimited access and broadening accessibility.

6.4 THE LEARNER'S ROLE

The role of learners is similarly under question, as expectation mounts that they will become increasingly self-sufficient, reduce their dependency on their teacher as designer, planner and orchestrator, understand how best to learn in any given situation, and adapt their approach accordingly. However, post-compulsory educators must take their cue from the learners they inherit from schools, and the likelihood of a learner perfecting this role by age 16 is improbable under the current state school education system (Wilde et al, 2006). One of Rachel's learners illustrated the formulaic approach to learning which has unsettled observers of today's school-leavers:

“...I'd just read the books I need to read, listen to the music I need to, and I'd be done for the next week.”

Feedback emerged as important in design decisions, suggesting that learner responses have a powerful effect on not only the qualities of the designs, but also the presence or absence of their online representations. Yet the expectations of some of the learners interviewed in this project emerge as different from those of educators. For these three learner groups, the VLE was not received as a representation of a design, but a channel through which they could or must fulfil their commitment to their course. With the exception of the actors (the most advanced, mature group), they revealed few expectations about shaping the course or course area, and only demanded that it should be current, complete and function consistently. This willingness to defer responsibility to a teacher is unsurprising in early post-compulsory learners, and may be particularly prevalent in those enrolling as a result of broadened participation. Moreover if schools of the future were able to perfect the skills and attitudes required by self-directed learners, then rather than progressing to college or university, their formal education could reasonably be considered complete and there would then be a case for reinventing the post-compulsory sector as the group of accrediting bodies it used to be. But to restructure the post-compulsory approach to teaching and learning as if learners *were* independent, engaged and intellectually intrepid when there is evidence that the opposite prevails, has depressing implications for learner well-being as well as learning outcomes. The current climate of broadened participation and resource limitations in post-compulsory sectors indicate that a radical reform of school learning is necessary here. Meanwhile awareness, flexibility and subtlety of both teacher and institution remain crucial in responding to learners, and it is a challenge for off-the-shelf designs to combine these with the generic-ness required for reusability.

6.5 THE TEACHER'S ROLE IN A CLIMATE OF SHARING

All the above conclusions depend on an assumption that learning activities continue to be created by individual teachers with their own learners in mind. However, there is a current concern with sharing, and some interpretations of sharing suggest that this is not to be taken for granted. One view of sharing is the reuse, repurposing and adaptation of content and designs through a marriage of Learning Design (Britain, 2004) and Reusable Learning Objects – essentially quality-assured off-the-shelf designs populated by quality-assured off-the-shelf content. JISC is funding research in this area, and as the new Design for Learning Programme unites the existing strands of Design for Learning and Learning Design, the findings from this Design for Learning project are likely to feed into efforts to model representations of learning designs for sharing. This strategy raises a number of questions: how to preserve the responsiveness which is a valued quality in teachers but which is difficult to build into Learning Design; whether the time saved by teachers' not creating their own designs will merely be transferred to efforts finding, comprehending, selecting, and coordinating the designs of others, and creating contingency plans; whether learning activities in some disciplines and at some levels can successfully be captured as Learning Designs. The emerging model of shared Learning Designs also prompts a review of roles within learning and teaching. The assumption upon which many current staff development initiatives are based – that all teachers can and should develop an intimate knowledge of their VLE tool – also comes under question if the teacher is recast as a coordinator of off-the-shelf resources and activities; if as Engestrom (1999, p67) among others argues, the creative *act* (here, designing for learning) rather than the *product* of the act is the key to an individual's development, and where the capacity for creative activity is denied to that individual, dequalification is likely to follow. This would be out of keeping with the current initiatives of Continuing Professional Development and Lifelong Learning, and while constructivism is championed for those in a formal learner role, it is untenable to deny it to teachers. To safeguard reflective, creative teaching, it is therefore important for VLEs to regard teachers as designers of resources and tasks, to provide opportunities to progress accordingly, and to continue to offer and advance tools for *authoring* as well as those which emphasise sharing and reusability.

Although the roles of designer and adaptor distinguished here are by no means mutually exclusive and ideally should co-exist, the role of adaptor of existing *designs* (as opposed to resources) was almost absent from this project, which corresponds to other findings that 'sharing and reuse remain theoretical rather than actual' (Masterman and Lee, 2005). There was no indication that teachers were dissatisfied with creating their *own* designs and no evidence of teachers delegating the design task – teachers currently assume full control of their course areas. If sharing designs is not currently part of teacher culture, any sharing initiatives need to clearly demonstrate their relevance to the teaching community. Thinking of sharing in terms of its dual aspects of *offering* and *acquiring* may be useful here. What is shared may not necessarily be offered as a packaged design, it may instead be acquired as an idea, vision or inspiration triggered by an interaction of different influences – observing a colleague or browsing a different course area. One example from the project is the repurposing of a quiz template found on FERL, into which Luke incorporated a popular quiz show theme and concept. In the absence of examples of teachers reusing others' VLE designs, one approach to exploring sharing further may be to ask teachers specifically how they might expect to share their own if this were requested – both within their subject area and outside it.

Sharing and reuse are a valid response to lack of time and resources, and should be facilitated as far as they add value to the learning experience. However, with the prospect of off-the-shelf designs comes the threat of teacher dequalification, which originates in the shift of institutions' core principles from education to revenue, and the consequent pressure on top-level policy-makers to consider advances in ICT in terms of what they can replicate and replace. This is evidenced by, for example, the investment in ICT as the primary vehicle for broadening participation, while the proportion of teachers to learners is shrinking. Viewed as a substitute for designing for learning, sharing and reuse will inevitably lead to unreflective teaching and learning. It is their current role as subject-experts, educationalists and role models that enables teachers to inspire, provoke,

motivate, reassure, respond to and guide learners using a range of tools. A renewed commitment by policy-makers to this role would invigorate teachers' professional development, advancing skills and understanding and – importantly - protecting time for teachers to digest the possibilities offered by new technologies and acquire a critical eye for developments. Educators should be encouraged and enabled – possibly incentivised with Continuing Professional Development credit - to further their participation in their chosen networks. Institutions and organisations – especially those which perceive their Moodle installation to be without any costs - would benefit from supportive environments which allow sharing to happen spontaneously - according to the needs teachers identify for themselves, at their own discretion and through their own initiative. These qualities and behaviours – the same that are fostered in learners – would preserve full participation in designing for learning as the business of the profession as a whole.

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APPENDIX 1 - OVERVIEW OF PARTICIPATING INSTITUTIONS AND THEIR VLES

The boundaries between higher, further and community education are blurring to accommodate the concept of life-long learning. The institutions and providers involved in this project are UK universities and colleges from post-16 sectors which offer courses towards a range of degrees and vocational qualifications.

Data about each was collected through an interview with a primary e-learning lead, the institution's web site, and calls to Learner Services, Publicity and Personnel departments.

There are some similarities between the institutions involved in this project. The first relates to the way e-learning policy is made. Depending on the size of the institution, initiatives are proposed either by individuals in an e-learning development remit, or by groups within senior management. These groups take various forms with differing levels of power and influence; participants referred to – in various combinations - information strategy

groups, e-learning groups, learning and teaching groups. The smaller the institution, the more access there tends to be to its top-level decision-making body.

A second similarity is that support for the VLE comes from individuals with official e-learning job roles (FT or PT) and is targeted at teachers. This takes the form of different combinations of timely help by phone or email, workshops (stand-alone or as part of a programme), textual guides, induction for new starters, faculty e-learning leads, and academic e-learning champions. Learner support is primarily the responsibility of their teachers, and the e-learning leads had little concrete awareness about learners' experience.

The institutions are introduced in alphabetical order below.

Bay College of Further and Higher Education (Moodle)

A vocational institution with a learner body fluctuating between 5000 and 7000 over the year. About 750 learners in a year pursue vocational higher level qualifications (HNCs or HNDs) at Bay There are some 500 teaching staff members.

Bay has an e-learning department; Moodle emerged from an academic computing department.

Teaching staff are supported in using Moodle by two academic members of the School of ICT, which originally introduced Moodle. Officially, this support totals less than one FTE - other e-learning provision is available from a dedicated central service. There is some organised peer support in the form of an E-learning lead scheme at Bay but uptake was patchy at the time of writing.

Learners are introduced to Moodle via induction packs, as well as literacy and numeracy assessments carried out in Moodle, which incidentally demonstrate some of its functions. There is a Virtual Learning Group, comprising heads of each school, which organises other learner support.

Cliff College (Blackboard)

Cliff is an FE, HE and ACL provider of mostly vocational courses. It has a learner population of around 7000 divided equally between full and part time, the majority of which are undertaking vocational or HE courses while the rest are following general education programmes. There is a teaching staff body of 235 FT and 75 PT. The majority of Cliff's provision is on a single campus and the college has strong historical links with the local university. Particular areas of focus are the college's three centres of vocational excellence: Management, Sports and Fitness, and Motor Vehicle. The college appears committed to a holistic approach to operational and academic aspects, and a close working relationship was reported between the IT staff, the ILT developers, and the academics on the Senior Management Team.

Teaching staff using Blackboard are supported by two members of staff with ILT development remits.

Learners' first option for support is the college's Learning Resource Centre, which also provides a general induction with a small focus on Blackboard in the different subject areas. Other than this, teachers are expected to provide their own course-based Blackboard induction.

Downs College (Moodle)

Downs College is relatively small – there are roughly 1000 learners (FT and PT), 44 FT and 40 PT teachers at any one time as well as 50 Adult Education teachers whose hours are flexible. Restructured from a 6th Form College it has seen its established market of FT school leavers decline in the presence of a well-financed neighbouring college. It has an academic core of A Levels and vocational qualifications as well as a growing Business division. HE provision is also a growth area. Presently located on a small, remote campus, building work on new accommodation was scheduled to begin in summer 2005.

Teaching staff are supported by two ILT Development Managers (with academic roles in ICT and Computer Studies), who originally introduced Moodle to the college, with technical support from a technician. There are also scheduled workshops, and the Library has taken on offering more subject-specific help to staff and learners using the VLE.

Learners are expected to receive support from their teachers or Library staff.

Forest College (Moodle)

Primarily a general FE college with a smaller HE and community provision, Forest has learner numbers estimated at 4000 PT and 1500 FT. 1 main campus and an affiliated site close by. There is an estimated 400 teaching staff (both FT and PT). Forest is mainly vocational; it offers 338 courses comprising 26 A Levels, 83 FT and 255 PT, with a Centre of Vocational Excellence (COVE) in Catering.

Hill College (Moodle)

Hill is predominantly a provider of adult vocational courses, with a smaller FE component. The Catering Department is a COVE.

Teaching staff can ask for individual support from the Moodle administrator and – unofficially, because of his enthusiasm - a technical systems support staff member. There are also six strands of formal training, from beginners Moodle to more advanced, theory-based Moodle use. Outside this standard provision, staff sharing the same learning needs can record their availability on a form, based on which dedicated sessions can be scheduled.

Learners are expected to receive any necessary induction from their teachers. There is no indication that the 16-17 year old starters require any training.

Island College (WebCT)

An FE college offering a wide range of A Levels and vocational qualifications. There are about 600 teaching staff (FT and PT), around 3000 FTE.

Teaching staff can access guidance on a range of bases - on demand in the form of hands-on or bite-size training, or scheduled sessions which in turn are part of more significant courses – for example a Level 3 accredited course in learning and teaching with ICT. An induction programme for staff is under development.

Learners typically receive induction to Moodle - often optional - from their teachers. Access to some centrally provided induction materials is planned, and a series of FAQs and How-To guides is under development.

Lake University (Moodle)

A large university inclined towards professional and vocational courses, devolved into six faculties with considerable autonomy. The learner body of 25,000 has a large local contingent, many of whom are FT.

Teaching staff have access to an e-learning staff development provision (non-accredited), and there are plans to devolve this to the faculty level where it can better be tailored to each subject area.

Learners are not supported centrally; there is the expectation that teachers will provide the necessary introduction to their own course areas. There is also the hope that learners arrive already familiar with Moodle, since there is a community of Moodle-using FE providers in the area.

River University (WebCT)

A large university currently spread over three main campuses which offers around 500 programmes in varied disciplines at undergraduate at postgraduate level. River had an estimated 18,000 learners in 2004-5, a number which is set to rise. These include about 1,100 learners on courses franchised to/out of the university.

Teaching staff are supported by a central e-learning service as well as dedicated Learning Technology Advisers for different Schools. The central team is responsible for e-learning staff development and have opted to forego offering a formal programme in favour of just-in-time provision. (It does offer an 30 credit M-Level module as part of a broader masters programme offered by the School of Education.)

Learners are introduced to WebCT as part of induction, and receive an induction pack. They can access continuing support from a central helpdesk, school helpdesks, and helpdesks attached to each PC suite.

Upland University (Blackboard)

A large HE institution specialising in art, design and communication. Formerly spread over many sites, attempts are being made at rationalisation. There are an estimated 12,000 FT learners and 25,000 in total. Teaching staff numbers are estimated at 2,000, about a quarter of which are FT.

Support for teaching staff using Blackboard has traditionally been offered by a well-established, substantial unit with an e-learning research and development remit. It is timely and available within the departments and centrally – either by phone or by dropping in. However, after a year of debate, the college’s IT department has successfully made the case for out-sourcing Blackboard to Blackboard’s own servers in Amsterdam. This has provoked some uneasiness about which other parts of the department’s provision may be considered suitable for outsourcing.

Support for learners takes the form of an induction from an IT staff member which includes an introduction to Blackboard. Ongoing support is expected to be given by teachers, with technical staff available to help with network or password problems.

Valley College (Moodle)

A general FE college on twelve sites (three major campuses). Teaching staff using Moodle are offered support from the ILT team by email, phone or in the form of scheduled drop-in or bookable sessions which rotate through the campuses. Technical and infrastructure support is given by the IT Department and Information Services.

For learners there is an induction, part of which covers use of Moodle. There is a general consensus that use of Moodle for learners is either self-evident or should be offered at the time when it can be applied.

7.1 OVERVIEW OF EACH VLE

This study covered three VLEs – Moodle, WebCT, and Blackboard. Edutools’ Product Comparison at <http://www.edutools.info/course/compare/> is a way to become acquainted with the relative capabilities of VLEs.

APPENDIX 2 - INTERVIEW SCHEDULES

Interview schedule - e-learning leads

Institution Background		
In their own words		
Web links		
VLE Background		
VLE used		Name(s)
When adopted?		Pilot and/or official adoption
Only / first VLE?		
How and why chosen?		
How is it set up?		Server, processors, storage, RAM...
Number / proportion of teachers using VLE at all		Is this an estimate?

Number / proportion of teachers using the VLE as part of a design for learning		'Designing for learning' means designing, planning and orchestrating learning activities as part of a learning session, module or programme. Is this number an estimate?
The institution's experience so far:		
Strengths		
Weaknesses		
Opportunities		
Threats		
Plans for the future		Any not already mentioned in Opportunities
Any other comments on the VLE?		
Service provision		
Who makes e-learning policy within the institution?		Top-down or devolved? Reps or senior mgt? Organic or highly structured?
How can learners and teachers access computers for e-learning?		
Ratio of computers-learners?		
Who provides support for e-learning, including the VLE:		
Directly – who, from where, how many?		Who officially or unofficially answers queries, provides training, sets up course areas etc?
Indirectly – who, from where, how many?		Who maintains or provides infrastructure, equipment, who authorises funds and time?
Is support organised / formalised, and if so, how:		
for teachers		Eg training, help-desk, induction etc?
for learners		Eg training, help-desk, induction etc?

Are there any issues with support in your institution?		
Any other comments?		

Interview schedule - teachers

No	Question	Notes
1	Could we start with you introducing me to your course area?	
2	<p>If we think of this as your planned representation of the course/session/module, to what extent is it a good representation of your course?</p> <p>The order? Priority of different elements?</p> <p>How big a part would you say the VLE is of this course/session/module as a whole?</p>	
3	<p>Does anything else spring to mind which could be said to represent your course to the learners – either intentionally or unintentionally – and how does the VLE area compare with these?</p> <p>(There are probably other things which could be said to be metaphors for your course – like the course description or the publicity, or your introductory sessions. How does your VLE course area fit with these?)</p> <p>What about the learners' contributions, which sit side by side with yours – how do they fit with your representation?</p>	
4	Is anything missing from the VLE as a representation of your course area?	
5	How did you approach this course/session/module before the VLE?	
6	<p>Imagine this scenario. You are full-time, permanent and involved in your course for the long-term. You've been using the VLE for this course - just as you have been - and suddenly your institution simply ceases to offer the VLE. It's withdrawn for mysterious reasons, and knowing your institution, it may take a year or two to replace it. Meanwhile everything else is the same – you still have the web and all the other information technology tools that you have now, and you have the same support with these as you currently have. To what extent could you sustain your learners' experience in this course/session/module, and how?</p> <p>So how does the approach you would adopt if the VLE were taken away compare with the way you taught the module before the VLE?</p> <p>If there's a difference here, how would you explain it?</p>	

7	<p>Think now about course as a whole - structure, organisation, presentation, that kind of thing.</p> <p>Talk me through your development timeline.</p> <p>How often do you make changes to the area and why?</p> <p>Is there anything you haven't mentioned that informed your decisions about its structure, organisation and presentation in the VLE?</p> <p>To what extent would you say the online part of your course was shaped by the tools the VLE offered?</p> <p>What about VLE support people – did they have an effect?</p>	
8	<p>Is there any part of your course which you'd like to pick out as a part which took particular planning, designing and developing? [else interviewer selects a couple of elements]</p> <p>What is the inspiration or thinking behind it?</p> <p>How has it been working so far?</p> <p>If time and skills and money and management were no issue, what would be your ideal way to achieve the outcomes you're aiming for here?</p>	
9	Any other comments or questions?	

Interview schedule - learners

No	Question	Notes
1	Could we start with you introducing me to your course area?	
2	<p>What part do you find that the VLE plays in this course/module/session?</p> <p>How does it work alongside the other ways you learn for this course?</p> <p>Your taught sessions, your conversations with the other members of your group</p>	
3	Did you have any preconceptions about how the VLE course area – such as how the course would be represented, what it would look like, and so on?	
4	What were your feelings when you looked at the course area for the first time?	
5	<p>How about now – what do you think of the VLE</p> <p>Do you know how to find your way around?</p> <p>Is it pleasant to use?</p>	
6	<p>Do you feel you have a good understanding your teachers' intentions about your learning in this course/module/session?</p> <p>From where do you get this understanding?</p> <p>Is there anything else to say about the VLE's role in building understanding about what is required of you for this course?</p>	

7	<p>How have you found the experience of using it?</p> <p>Identify some difficult parts of the curriculum, and discuss their experiences with the VLE</p>	
8	<p>For you, what is this VLE course area's role in your learning?</p> <p>Don't worry if it is different from your co-learners, or different from the role you think your teacher anticipated it to have.</p>	
9	<p>All courses have restrictions in terms of time and money and skills and management. If these kinds of restrictions were removed, what would you like this course to be like, ideally? Do you have a fantasy course?</p> <p>Think about all aspects of the course, not just the VLE part.</p> <p>Is there anything you'd add or change?</p>	

APPENDIX 3 - OVERVIEW OF THE TEACHERS, LEARNERS AND COURSES INVOLVED

The overview below covers all participants in the project, though not all could be interviewed. It is organised by participant, and was collected by questionnaire based on LAMS evaluation. 16 teaching staff completed the first questionnaire. After sending three reminders, any outstanding staff who had not completed the first questionnaire were assumed not to be participating in the study.

Barney (Bay College): HND Computer Systems Engineering

Barney is the HE Programme Leader in ICT. His module, Communications and Networking 1, provides a broad introduction to the computer communications and networks, and uses Moodle. Having completed this course, learners will be able to configure a LAN to a given specification, be able to evaluate the most appropriate network operating system for a particular application, understand the fundamentals of data communications, understand the fundamentals of local and wide area networks

Ron (Bay College): City & Guilds Level 2 Motor Vehicle Studies

Ron is a lecturer in Motor Vehicle Studies. His Level 2 NVQ has a Moodle course area supporting part of a module which provides the theoretical bases of motor vehicles.

Ina (Cliff College): Level 3 Certificate / Level 4 Diploma in Management

Ina is the Curriculum Manager for Management Studies at Cliff. The modular certificate is aimed at junior or first time managers. Each module considers one aspect of management - managing self, managing information, managing resources, managing people, managing quality, and understanding customer needs. She uses WebCT to support part of the course.

Bart (Downs College): AS Computing

Bart is the coordinator for Physics and Computing. The Moodle area for his AS Level Computing course is intended to support part of a module building database skills to prepare learners to undertake their Year 1 project on databases.

Ian, Jed, Ike, Kurt, Ben, (Downs College): AS Computing

A group of learners, young men in their late teens or early twenties. Four of them are at the beginning of their AS course, and the fifth has been recruited from the year above. Because of their subject area, they have a keen academic interest in their VLE software.

Laurie (Downs College): A Level ICT

Laurie is the ILT Development coordinator at Downs. The Moodle area for part of the module he runs is concerned with communication between computers and interaction between computers and humans. Learning outcomes are the ability to discuss technical issues relevant to networked systems, describe the cycle of systems development, and describe the characteristics of a range of ICT applications.

Igor (Forest College): AS Level History of Art

Igor is a lecturer for the A Level Art and the History of Art. The AS History of Art course covers painting and sculpture from ancient to modern, with particular focus on specific periods. The new Moodle course area exists to support the learning outcomes for the entire module - familiarity with the changing definition of art and its function within a wider historical context.

Brett (Hill College), NVQ Level 4 Health and Social Care

Brett's Moodle course area is intended as support for an entire module by providing flexible access to study materials for learners for the Registered Managers Award many of which are employed full time as managers of care services.

Fred (Hill College), Btec Higher National Certificate Health and Social Care

Fred is an e-learning coordinator as well as being a teacher in Care at Hill. This Moodle course area supports the module Technology in Health and Social Care. Learners aim to develop an understanding of the use and value of technology in supporting and delivering healthcare, and competence measuring up to National Occupational Standards.

Finlay (Island College), Foundation English to Young Adults, Cambridge ESOL Entry Levels 1-3.

Finlay is an ESOL lecturer at Island. He uses WebCT to provide access to module resources as well as work done by learners themselves, and to support the course outcomes of improved language and literacy skills, improved group work skills, and improved computer literacy.

Luke (Island College), Access to HE Certificate, History

Luke is ILT Coordinator and lecturer. His WebCT area supports four broad areas of the year-long module - the nature of History and analysis of sources, Nazism and Fascism, British Social History, Local and Oral History.

Ozzy (Lake University), BSc Diagnostic Radiography

A senior academic with a Learning and Teaching roles. A Moodle area supports the clinical imaging module on the Diagnostic Radiography BSc, and includes webcast lectures, clinical scenarios for group work and links to high-bandwidth video material on CD-ROM.

Rachel (Lake University), Bmus Music

Rachel is a senior lecturer on the BMus course. Her Moodle area provides support for academic studies in the department. The materials provided here combine information and study guides with formative assignments to help learners develop the research and writing skills they will need for the academic programme, and is especially relevant for the history modules in Years 1 and 2.

Luca, Oilly, Pete, Zoe (Lake University), Bmus Music

A group of Year 1 learners at the beginning of their Music degree. Three men and one woman, in their late teens or possibly early twenties. Their teacher Rachel comments that the Bmus course primarily exists to develop performance skills in musicians, and the academic aspects can be perceived as an intrusion.

Ella (Lake University), BA Media and Communication

Ella is a lecturer and Moodle Secondee with a Moodle area covering theoretical approaches to the study of Popular Television for the module of the same name. The learning outcomes include awareness of issues and practices in television production, and ability to analyse and apply key critical theories.

Benedict (Upland University), MA Digital Art

Benedict uses Moodle to support a new project-based MA course in digital arts, defined by individual projects.

Babak (Upland University), MA European Classical Acting

Babak directs this one-year programme which he supports with Blackboard as a tool for communication and reflection. Primarily concerned with “bodies in space”, this is a highly practical programme with 35 taught hours per week, including voice classes, movement, acting and scene studying. It aims to foster a generation of classical actors entirely at home in a context which needs them to have a knowledge of classical form.

Kathy, Kitty, Della, Lila and Petra (Upland University), MA European Classical Acting

A group of learners on the Babak’s course, all young women in their early to mid twenties, some from overseas. Their teacher reports that they are extremely talented and hard-working, as might be expected from the cost of the course (£11,000) and the rigors of its selection process.

Quentin (Valley College), National Diploma in Art and Design

Quentin is the programme leader for the national diploma. A new Moodle course area covers the key skills of communication, problem solving and improving learning and performance as well as supporting related BTEC short courses in Crafts, Fashion, Fine Art, Graphics, Multimedia, 3D, Textiles and photography.

Dina (Valley College), NVQ Level 3 Beauty Therapy

Dina is programme leader in Beauty and Holistic Therapies. Her Moodle course area is broken down into separate units, including various resources from NLN materials, links, presentations, and awarding body assignments.

APPENDIX 4 – CODEBOOK FOR TEACHER INTERVIEW DATA

NVivo revision 2.0.161 Licensee: CELT

Project: Jisc_designing_for_learning User: Administrator Date: 21/12/2005 - 16:05:39

NODE LISTING

Nodes in Set: All Tree Nodes

Created: 16/11/2005 - 15:21:40

Modified: 16/11/2005 - 15:21:40

Number of Nodes: 93

- 1 (1) /circumstances
- 2 (1 1) /circumstances/time, effort
- 3 (1 3) /circumstances/ambiguous limitations
- 4 (1 4) /circumstances/quality
- 5 (1 5) /circumstances/physical environment
- 6 (1 6) /circumstances/equipment
- 7 (1 7) /circumstances/money
- 8 (1 12) /circumstances/subject area specific
- 9 (1 13) /circumstances/timescales
- 10 (2) /tool use
- 11 (2 1) /tool use/usability
- 12 (2 2) /tool use/VLE limitations
- 13 (2 3) /tool use/VLE affordances
- 14 (2 3 1) /tool use/VLE affordances/Glossary
- 15 (2 3 2) /tool use/VLE affordances/Discussion, relationships
- 16 (2 3 3) /tool use/VLE affordances/poll
- 17 (2 3 4) /tool use/VLE affordances/content
- 18 (2 3 5) /tool use/VLE affordances/assessment
- 19 (2 3 6) /tool use/VLE affordances/Reflection
- 20 (2 3 7) /tool use/VLE affordances/Instruction
- 21 (2 3 8) /tool use/VLE affordances/selective release
- 22 (2 3 9) /tool use/VLE affordances/video conf
- 23 (2 3 10) /tool use/VLE affordances/Wiki
- 24 (2 3 11) /tool use/VLE affordances/Assignment
- 25 (2 3 14) /tool use/VLE affordances/peer review
- 26 (2 3 15) /tool use/VLE affordances/order and emphasis
- 27 (2 3 16) /tool use/VLE affordances/records, tracking
- 28 (2 3 17) /tool use/VLE affordances/channels - access and coms
- 29 (2 3 19) /tool use/VLE affordances/bulletins, news
- 30 (2 3 20) /tool use/VLE affordances/operational
- 31 (2 4) /tool use/integration
- 32 (2 5) /tool use/ownership
- 33 (2 7) /tool use/outside the VLE
- 34 (2 8) /tool use/promoting use of VLE
- 35 (2 8 1) /tool use/promoting use of VLE/carrot incentives
- 36 (2 8 2) /tool use/promoting use of VLE/barriers
- 37 (2 8 9) /tool use/promoting use of VLE/stick incentives
- 38 (2 9) /tool use/orientation, navigation

- 39 (2 10) /tool use/before the VLE
- 40 (2 12) /tool use/bending the tools
- 41 (2 13) /tool use/choice of tool
- 42 (2 15) /tool use/VLE withdrawn
- 43 (2 16) /tool use/turnover, newness
- 44 (2 18) /tool use/look and feel
- 45 (3) /learning
- 46 (3 1) /learning/teaching as learning
- 47 (3 2) /learning/information learning
- 48 (3 3) /learning/skills learning
- 49 (3 4) /learning/pace of learning
- 50 (3 5) /learning/reflecting
- 51 (3 6) /learning/behaviours learning
- 52 (3 7) /learning/with peers
- 53 (3 9) /learning/assessment
- 54 (3 10) /learning/making connections
- 55 (3 11) /learning/awareness of learning
- 56 (3 16) /learning/structuring learning
- 57 (4) /running the course
- 58 (4 1) /running the course/VLE proportion
- 59 (4 2) /running the course/standardisation
- 60 (4 3) /running the course/flexibility
- 61 (4 4) /running the course/individualisation
- 62 (4 6) /running the course/activities for learners
- 63 (4 10) /running the course/working well
- 64 (4 11) /running the course/working badly
- 65 (4 14) /running the course/feedback and response
- 66 (6) /course representations
- 67 (6 1) /course representations/non-VLE representations
- 68 (6 2) /course representations/introductions
- 69 (6 3) /course representations/VLE representations
- 70 (6 8) /course representations/making explicit
- 71 (7) /affect, emotions
- 72 (10) /community
- 73 (10 1) /community/peers - teacher
- 74 (10 2) /community/peers - learner
- 75 (10 4) /community/perceptions of others
- 76 (10 5) /community/support
- 77 (10 6) /community/interactions
- 78 (10 6 1) /community/interactions/at a computer
- 79 (10 6 2) /community/interactions/through a computer
- 80 (10 6 3) /community/interactions/groups and pairs

- 81 (10 6 4) /community/interactions/roles
- 82 (10 8) /community/rules
- 83 (10 9) /community/division of labour
- 84 (10 14) /community/inclusion
- 85 (11) /educational theory
- 86 (11 1) /educational theory/problem- or case-based
- 87 (11 2) /educational theory/reuse, repurpose
- 88 (11 3) /educational theory/assessment
- 89 (11 12) /educational theory/~social~ constructivism
- 90 (13) /Teacher practice
- 91 (13 1) /Teacher practice/skills
- 92 (13 2) /Teacher practice/planning, intentions
- 93 (13 3) /Teacher practice/making it work