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# Preliminary findings from a series of staff surveys on perceptions, attitudes and practices of learning design

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# Preliminary findings from a series of staff surveys on perceptions, attitudes and practices of learning design

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#### Abstract

This short paper will report the findings of a series of connected staff surveys looking at some attitudes and perceptions about issues associated with learning design. This is ongoing survey work and so the data presented will be based on questionnaires delivered in a number of university contexts between spring and summer 2009. The work builds upon an existing evidence base built by the Open University Learning Design Initiative over the last eighteen months; research and investigation that has included semi-structured interviews, workshops, design observation, and focus groups (Conole et al. 2008).

The data presented will permit reflection on design practice and the argument advanced in the learning design discourse that an advent of new technologies has created a much more complex situation in the design and planning of teaching and learning and in which new tools and methods of support are available and new questions emerging (see e.g. Lockyer et al. 2009). Is this perception widespread across staff? And furthermore, for those who have encountered the visualisations under development by the university, what is the perceived role for visualisation in the design process?

We will use the short paper to present a summary of some initial results. We will highlight both how they have specific value in taking forward learning design at our institution, but also the more general messages revealed by the result and the methodology used. This reporting, therefore, will offer insight into the nature of the design problems for which solutions are being sought.

The paper aligns well with several of the conference themes: it seeks to use research evidence to inform practice, it looks squarely at issues associated with the design and re-design of learning, and it reports on a method of data capture intended to help support the implementation of design innovation.

### **1** Introduction

This paper presents data and commentary about staff perceptions, practice and attitudes around elearning design. The aim of the paper is two fold: to contribute data that may inform and move forward discussion on how to effectively frame and target staff and policy development, and to explore the evidence for a continuing need, space and role for learning design.

The data presented represents the combined data from three small scale surveys. In each survey, staff were given a series of statements about their attitudes to or perspectives on aspects of learning design. Most of these were constant across the three surveys. These were followed by questions on visualisation and sharing. Each survey was conducted during or after a workshop delivered by a member of the OU Learning Design team between April and July 2009. Around 110 staff were invited to respond and there were 50 completed responses.

Respondent characteristics for this group were well balanced in terms of gender, age and job role: 46.9% were Teaching staff (as classified by primary role job titles such as lecturer), 53.1% Non-Teaching staff (e.g. teaching and learning staff, media developers, managers, editors); 45% were men and 55% women; 21% were under 35, 24% between 35-44 years old, 37% between 45-54 years old and 18% over 55. Almost all respondents were OU staff (48 of 50). The remaining two were participants from a workshop given at London South Bank University (their responses do not account for any of the extreme responses observed).

The eight statements asked about in the survey and reported here are:

- 'The advent of elearning is making the process of creating courses more complex'
- 'I sometimes feel overwhelmed by the challenge of how to effectively integrate ICT in a course'
- 'There is a pedagogic need for better integration of learning technologies (e.g. VLE) into courses'
- 'It is becoming harder to understand how all the parts/components of planned learning and teaching fit together'
- 'I do not find it difficult imagining how online learning content fits with other course content'
- 'Technologies available today offer great potential for enhancing the student learning experience'
- 'Understanding the relationship between pedagogy and learners' activity is a priority for me'
- 'Do you believe that more use of visual representations (that show what is to be learnt and how) could help students better understand and plan their study'

### 2 Staff learning design perceptions and practice

#### 2.1 Statement: 'The advent of elearning is making the process of creating courses more complex'

The wording of this first statement was informed by the suggestion Botturi (2006) that integration of technologies is becoming too complex for an individual and therefore a demand for further guidance and team working exists.

In the survey 74% of teaching staff agreed or agreed somewhat that the process of creating courses is becoming more complex compared to 65% of non-teaching staff (Figure 1). Teaching staff showed a higher degree of agreement (over 30% fully agreed with the statement). Only 5% of teaching staff disagreed or disagreed somewhat compared to 20% of non-teaching staff. So, whilst the majority of Non-Teaching staff are finding it more complex, a minority (around a fifth) appear less affected.

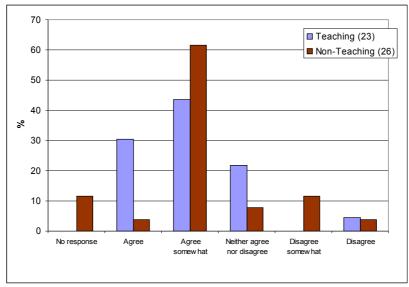


Figure 1: 'The advent of elearning is making the process of creating courses more complex'

### **2.2** Statement: 'I sometimes feel overwhelmed by the challenge of how to effectively integrate ICT in a course'.

This statement wording was based on a contention by Agostinho (2008, p2) who claims that 'decisions on how to effectively integrate ICT to design pedagogically sound learning experiences can be quite overwhelming'.

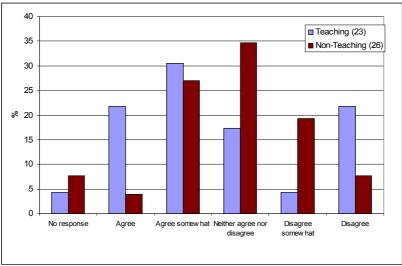


Figure 2: 'I sometimes feel overwhelmed by the challenge of how to effectively integrate ICT in a course'

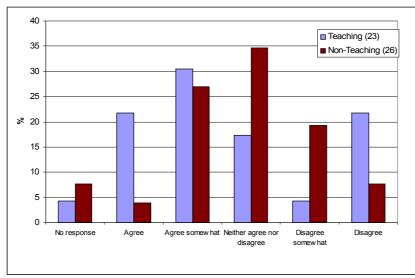
In the survey over half (52%) of teaching staff agreed or agreed somewhat compared to just under a third (31%) of non-teaching staff (Figure 2). A higher proportion of Teaching staff fully agreed - this could suggest the challenge is more acute for their role in the production process, that the skills held by some Non-Teaching staff mean they are better placed to meet the challenge, or that Non-Teaching staff do not perceive the challenge to be as great. Conversely, 26% of teaching staff disagreed or disagreed somewhat compared to a similar proportion, 27%, of non-teaching staff.

### **2.3** Statement: 'There is a pedagogic need for better integration of learning technologies (e.g. VLE) into courses'

In the survey the majority of staff agreed (29%), or agreed somewhat (60%) with this statement that there is a pedagogic need for better integration of learning technologies into courses. The theme of need for better integration cross-cuts the learning design literature and has been identified in our OU work as a benefit of design visualisation.

### **2.4** Statement: 'It is becoming harder to understand how all the parts/components of planned learning and teaching fit together'.

In the survey there is similarity in the response distribution of the Teaching and Non-Teaching groups. Around the same proportion agreed or somewhat agreed it was becoming harder (57% and 50%) although around a quarter of staff (27%) disagreed or disagreed somewhat with this statement (Figure 3).



*Figure 3: 'It is becoming harder to understand how all the parts/components of planned learning and teaching fit together'* 

The framing of the question was influenced by the observations of Falconer and Littlejohn (2006) who believed that learning design has yet 'to find ways to describe practice models so practitioners in mainstream education can understand and apply them'. This statement partially overlaps with earlier statements about the need for integration and complexity of design.

### **2.5** Statement: 'I do not find it difficult imagining how online learning content fits with other course content'.

The statement wording was written in response to the suggestion by Agostinho (2008) that, as ICT is becoming mainstream, academics are being faced with making more decisions on how best to integrate technology with their teaching practice.

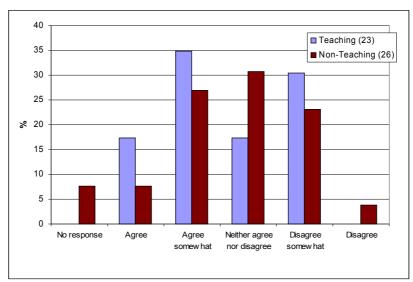
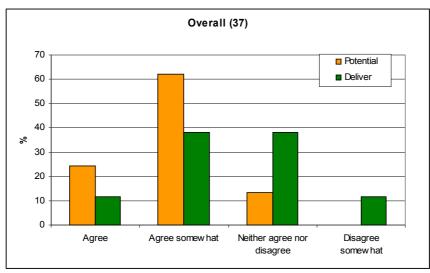


Figure 4: 'I do not find it difficult imagining how online learning content fits with other course content'

In the survey, half of Teaching staff claimed to have little or no difficulty in this task, compared to around a third of Non-Teaching staff (Figure 4). This would suggest that the issue of difficulty understanding structure, identified by earlier statements, is not as evident here although around a third did have difficulty imagining how online and other content fit together.

### 2.6 Statement: 'Technologies available today offer great potential for enhancing the student learning experience'

Much is made about the 'potential' that technologies offer, but does this translate to confidence that technologies will actually deliver? Staff were asked if 'Technologies available today offer great potential for enhancing the student learning experience'. In addition, later in the question set they were asked if 'Technologies available today will deliver great enhancements in the student learning experience (in the short to medium term)' (Figure 5).



*Figure 5: 'Technologies available today offer great potential for enhancing the student learning experience' (Orange) and Technologies available today will deliver great enhancements in the student learning experience (in the short to medium term) (Green)* 

In the survey, 87% of staff felt there was great potential to deliver enhancement (responding agree or agree somewhat) yet only 50% of staff felt that technology would deliver great enhancements with 12% disagreeing (2 of 3 of those disagreeing were teaching staff). This indicates that whilst staff may display optimism this is tempered by a more cautious view of the likelihood great enhancement will be realised.

### 2.7 Statement: 'Understanding the relationship between pedagogy and learners' activity is a priority for me'

Two of the three surveys offered this statement; 71% of staff agreed somewhat, and 18% agreed (n=34). Unsurprisingly, all Teaching staff agreed, or somewhat agreed (although why all didn't fully agree would be interesting to understand more fully – perhaps this is to do with strengthening of perceived link between pedagogy and activity) (Figure 6).

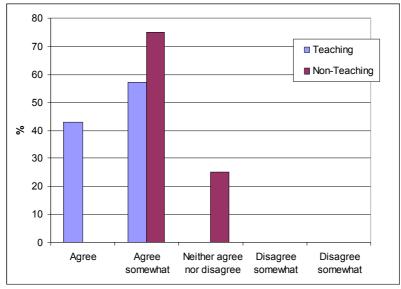
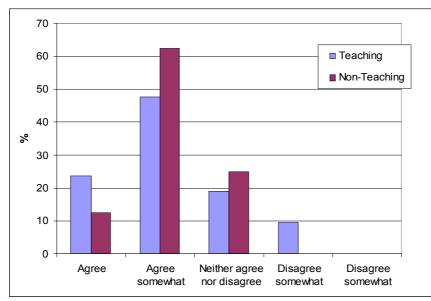


Figure 6: 'Understanding the relationship between pedagogy and learners activity is a priority for me'

### **2.8** 'Do you believe that more use of visual representations (that show what is to be learnt and how) could help students better understand and plan their study'

Finally, staff were asked about the role of visualisation for communicating designs with students (n=45). Most staff (73%) strongly agreed or agreed with this statement (Figure 8). There was no significant variation with age or gender.



*Figure 7: '*Do you believe that more use of visual representations (that show what is to be learnt and how) could help students better understand and plan their study'

A comparison between the question on skills in visualisation and the question on belief that visualisation could help students (figure 7), indicates that those who rated their visualisation skills as very good or above average were more likely to strongly agree that visualisation could help students although there were staff from all skills groups who were undecided or disagreed that visualisation could help students.

### **3** Conclusions

The majority of staff responding to this questionnaire survey (n=50) believed the advent of elearning is making the process of creating a course more complex. Around half believed that it is becoming harder to understand how all the parts of planned learning and teaching fit together. Almost three quarters agreed or agreed somewhat that there is a need for clearer methods of representing the structure and key content/components of a course.

Approximately half of those surveyed were concerned with the increasing use of ICT in teaching and other responses to two additional (not reported here) indicate almost half felt the advent of new technologies was changing for the better their process/method of design and planning and that new pedagogies will be required when teaching with elearning. However, there was a second group (approximately 25-30%) who did not seem overwhelmed with the use of ICT.

There exists strong support for the use of visualisation in developing student materials and for use with students: around 75% of staff believed that more use of visual representations could help students better understand and plan their study. There was a strong belief in the educational potential of ICT but confidence that this potential would be realised was weaker.

The survey instrument itself is also a useful output and has already been shared with staff from two other universities. Further investigation of the themes highlighted in this report would be valuable in confirming the trends observed here and in exploring further differences between groups and faculties. There would also be an opportunity to expand the question set as just half the questions we originally developed for the survey were asked.

Overall, the survey indicates staff feel that they are facing new challenges in how they integrate, understand, and make sense of a more complex learning design environment and how they build and design learning. It provides evidence that there is a space and need for learning design techniques and support, including visual methods of design and evaluation.

### Acknowledgements

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### Contact

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#### **Appendix 1: Survey Questionnaire**

3. How would you rate your skills in drawing/creating visual representations (e.g. diagrams, flow charts or concept maps)?

- Very good Above average O Average O Below average
- O Poor

The following questions ask about some of your attitudes and perceptions about course design. This plot is being made as part of the Learning Design initiative and the results will be used by the Learning Design team at the OU to inform Stute work. If you have disCuby completing this questionnaire then please contact Simon Cross on s.j.cross@open.ac.uk

#### About the process of course design

The questions in the following soction focus on several themes associated with the changing ways that courses are being created and delivered

Ye what extent do you agrop, or disagree, with each of these statements about the process of designing learning? Leave ray blank if no opinion

	Strongly Agrao	Agreo	Noither agroe nor disagroo	Disagroa	Strongly Disagree
a. The advent of elearning is making the process of creating courses more complex.	0	0	0	0	0
<ul> <li>I sometimes feel overwhelmed by the challengo of how to effectively integrate ICT in a course</li> </ul>	0	0	0	0	0
<li>c. There is a pedagogic need for better intogration of learning tachnologies (e.g. VLE) in to courses</li>	0	0	0	0	0
d. It is becoming harder to understand how all the parts/components of planned learning and teaching fit together	0	0	0	0	0
e. Technologies available today offer great potential for enhancing the student learning experience	0	0	0	0	٥
<ol> <li>I do not find if difficult imagining how online learning content fits with other course content</li> </ol>	0	0	0	0	0
g. Greater clarity and communication of the teaching pedagogy would result in more effective courses	0	0	0	0	0
h. There is a need for clearer methods of representing the structure and key content/components of a course	0	0	0	0	0
	Strongly Agree	Agree	Neithar agrea nor disagree		Strongly Disagree
<ol> <li>The process/method with which I design and plan learning has changed for the better due to new technologies</li> </ol>	0	0	0	0	0
<ol> <li>Understanding the relationship between the pedagogy and learners activity is a priority for me</li> </ol>	0	0	0	0	0
<li>k. Hoving to design for new technologies has helped me to better understand my own pedagogic style/practice</li>	0	0	0	0	0
I. New pedagogies will be required when teaching with elearning	0	0	0	0	0
m. Technologies available today will deliver great enhancements in the student learning	0	0	0	0	0

2. Which forms of rspresentation do you commonly use when designing, writing or producing courses? (lick all that app))

Written text

Structured lists

Spreadsheet

Tables

Mind-maps

Diagrams of the production process (e.g. a flow diagram)

Diagrams of planned learning (e.g. conceptual map, diagram of lear ning sequence)

Other (please write in)

4. Bo you believe that more use of visual representations (that show what is to be learnt and how) could help atcoent better understand and plan their utsety?

- Strongly agree
- O Agree

O Neither agree nor disagree

- O Disagree O Strongly disagree
- No opinion

5. How important are the following in making you confident that what you detign, write and/or produce will be something students will learn well from?

	Important	Somowhat important	Neither important nor unimportant	Somawhat unimportant	Unimportant
a. Knowing it has worked before	0	0	0	0	0
<ul> <li>Knowing it should work in principle - that it has a sound pedogogy</li> </ul>	0	0	0	0	0
c. Knowing the design process was well planned and managed	0	0	0	0	0
<ol> <li>Confirmation through informal advice from colleagues</li> </ol>	0	0	0	0	0
e. Review or evaluation by colleagues in the faculty	0	0	0	0	0
f. Review or evaluation by colloagues in supporting rolas	0	0	0	0	0
g. Trying to experience tasks and activity from the student perspective	0	0	0	0	0
h. Completing student testing (e.g. developmental testing, piloting, usability testing)	0	0	0	0	0
<ol> <li>Checking against an approved specification or course outline</li> </ol>	0	0	0	0	0
j. Other (please suplain)					

5. If you were to share your ideas, experiences and/or designs for learning, who would you most peaker sharing these with (as an audience)? Please rank the following from 1 to 5, where 1 is the most preferred and 5 is the least preferred audience. Use each number from 1 to 5 only once.

	Rank
A specific group, team or faculty	
All staff at the OU	
The general public	
All working in HE/FE access	
Individuals I know or meet	
7. What is your:	
Main role at the University:	
Age: O Under 35 / O 35-43 / O 45-54 / O 55 and over	

Gender: O Male / O Female

8. Have you any further comments to add? Please give details:

Over the next few years the faculty will be working with the OU's Learning Design team on a USC aponsored project. We may use some of the results of this survey in our baseline reporting to USC and associated publications. All data will be anonymised and not discussed in relation to any individual or faculty. We have you will allow us to use your data for this project, however, if you would prefer that your responses are not included in this external reporting please tick here.

experience (in the short to medium term)