

## **Distributed e-learning in Art, Design, Media: an investigation into current practice**

**Research commissioned by the Art Design Media Subject Centre – Higher Education Academy (ADM-HEA)**

**Research Team:**      **Cheri Logan: Cumbria Institute of the Arts**  
                                 **Simon Allan: Cumbria Institute of the Arts**  
                                 **Anish Kurien: Cumbria Institute of the Arts**  
                                 **Debbie Flint: ADM-HEA**

### 4. Findings from survey research

The findings from the survey research are reported here under a number of broad themes; these relate to the questions asked and the information sought from respondents. Survey information offers itself to various modes of interpretation, and although some clarifying comment is included in each section it is anticipated that readers will often wish to draw their own conclusions from the collected data. The evidence provides a complex picture of interactions with technologies by sector respondents, directing us towards some clear conclusions and also raising many new questions. Some of the issues that require further clarification are illuminated to a degree by the evidence provided in both the case studies and focus group research, described later in this report.

Questions 1 – 5 gave demographic information on survey respondents by:

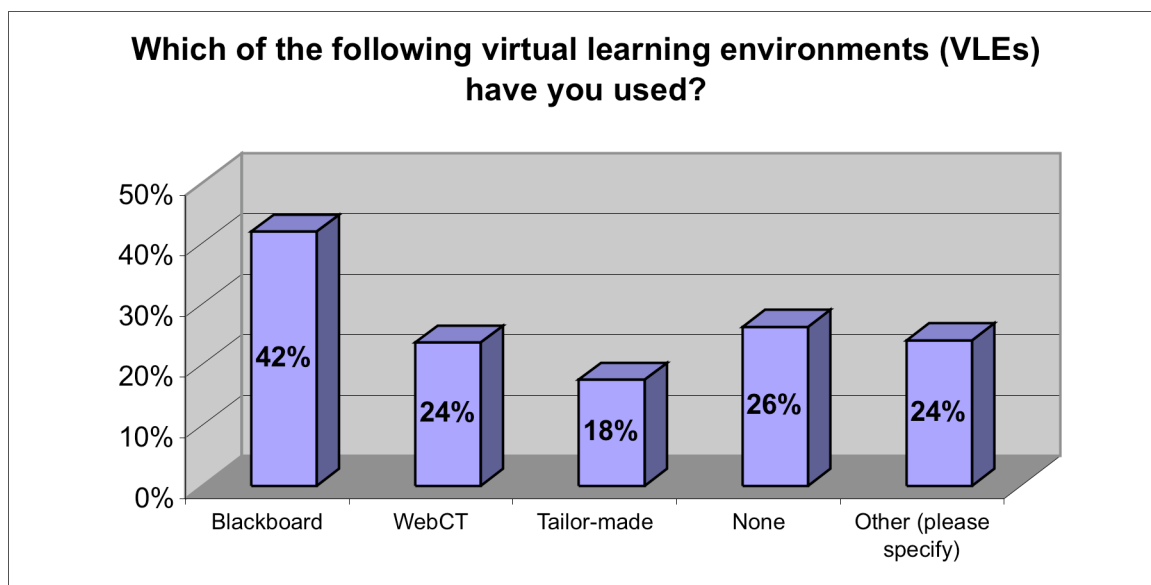
- Place of work as specialist ADM institute or not
- Gender
- Age
- subject area
- job description

More respondents worked within institutions that they regarded as 'specialist' than otherwise (56% said they did, 44% said not). The majority worked as tutors/lecturers (55%) and the next largest group (19%) were educational managers. Gender and age profiles were obtained in case these proved relevant and may be drawn on further in the analysis.

Questions 6 & 7 were on VLE use:

Blackboard users were the largest group amongst respondents (42% have used this), with the next largest (26%) reporting no experience of a VLE; WebCT and 'other' types of VLE had each been used by 24% of respondents. It is important to note that 18% of respondents had experience of a 'tailor-made' VLE, the features of which we could not ascertain in the current survey. However, the main commercial providers (who have merged since this survey was conducted) clearly dominated

the user experience of respondents, with Blackboard and WebCT having provided the forum for 66% of their prior experience of a VLE.



In terms of usefulness for supporting learning, Blackboard scored highly, with 69% thinking that it supported most/many learning activities well. 29% of respondents expressed the reservation that it 'supported few learning activities well', but only 2% found it 'of little use'. It is interesting that, although similar levels of satisfaction with WebCT were recorded (68% found it supported most/many learning activities well), a rather higher number of respondents (10%) found it 'of little use' to them. However, the most satisfied user group was that which had access to a 'tailor-made' VLE, 39% of whom could attest that it 'supported most learning activities well'; this highest satisfaction category was only selected by 14% of Blackboard users and 10% of WebCT users. However, we need to read this evidence circumspectly and bear in mind that 'tailor-made' users represented a numerically small group (36 out of a total of 241 survey respondents).

Respondents were also asked to provide more detail on any 'other' VLE, and the following were recorded as having been used:

Moodle  
First Class (OU)  
WOLF (Wolverhampton Online Learning Framework)  
Lotus  
Virtual Campus  
NTU VLP  
Studynet (University of Hertfordshire's MLE)

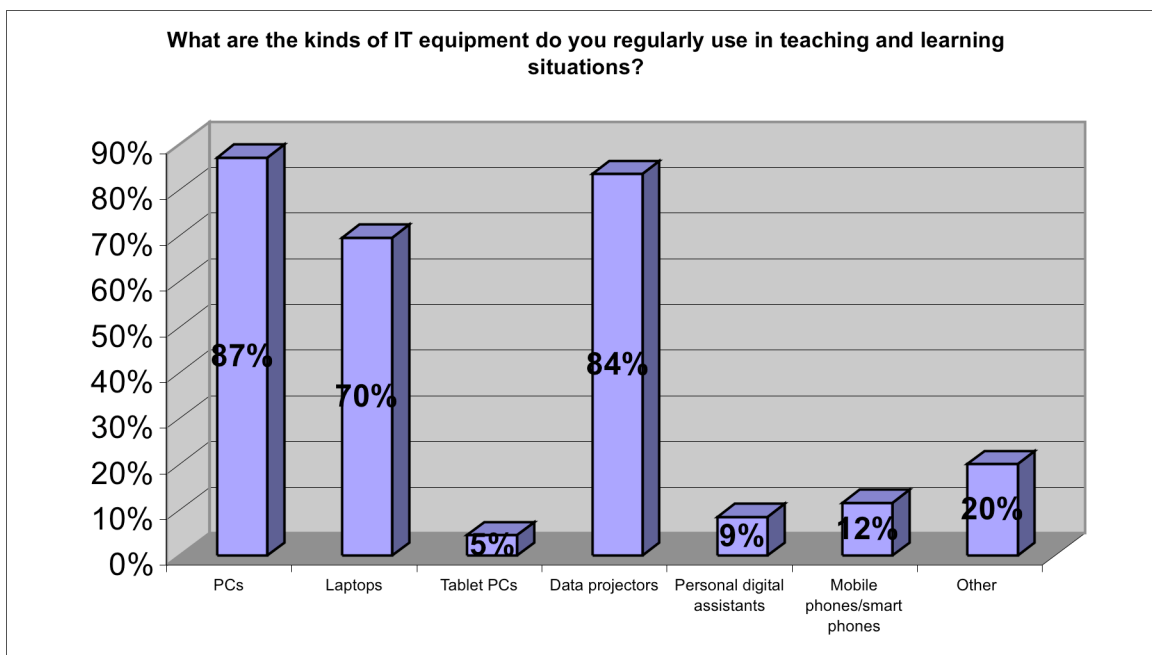
Of the above, 'Moodle' had most use, with 15 mentions; 5 respondents specified 'First Class', there were 4 recordings of 'WOLF', 3 of 'Lotus' and a couple each of 'Virtual Campus' and 'NTU's VLP', while one respondent mentioned 'Studynet'. More generic formats were also described, e.g. 'in-house intranet', 'email lists', 'created own blogs', 'personally designed website', 'university portal' etc.

Questions 8 & 9 asked for information about the kinds of IT equipment that respondents used regularly in learning and teaching situations, and in their everyday lives.

In response to question 8, respondents recorded that in learning and teaching contexts they made high levels of use of the following:

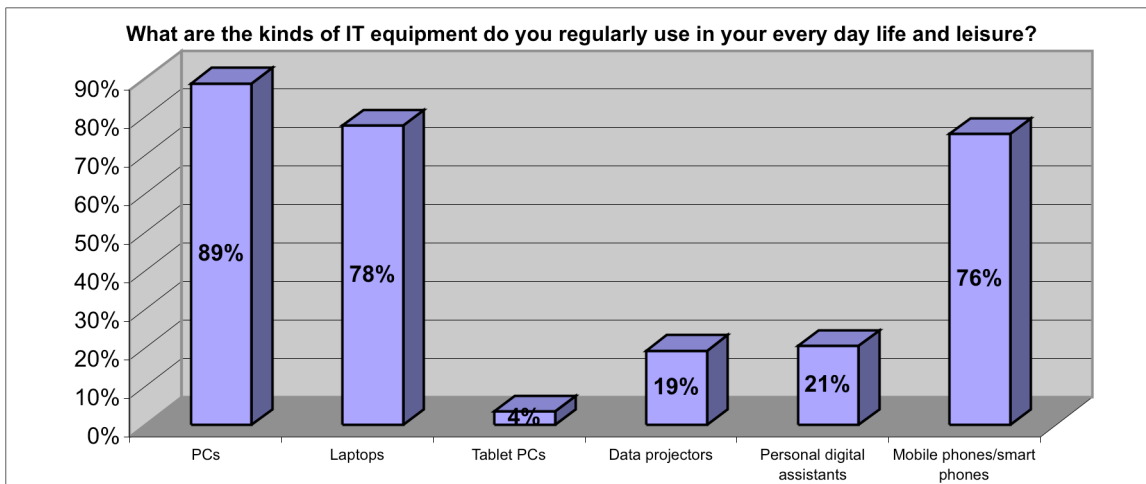
87% used PC's  
84% used data projectors  
70% laptop computers

20% of respondents (45 out of 241) replied 'other', however, and were asked to specify the nature of these tools. The most commonly recorded use under this category was of the Apple Mac computer, but respondents also noted their use of interactive whiteboards, digital visualizers, digital cameras and scanners and projectors (both digital and traditional OHP). In terms of mobile technologies only one respondent noted their use of 'interactive handsets' and one of iPods for learning and teaching purposes.



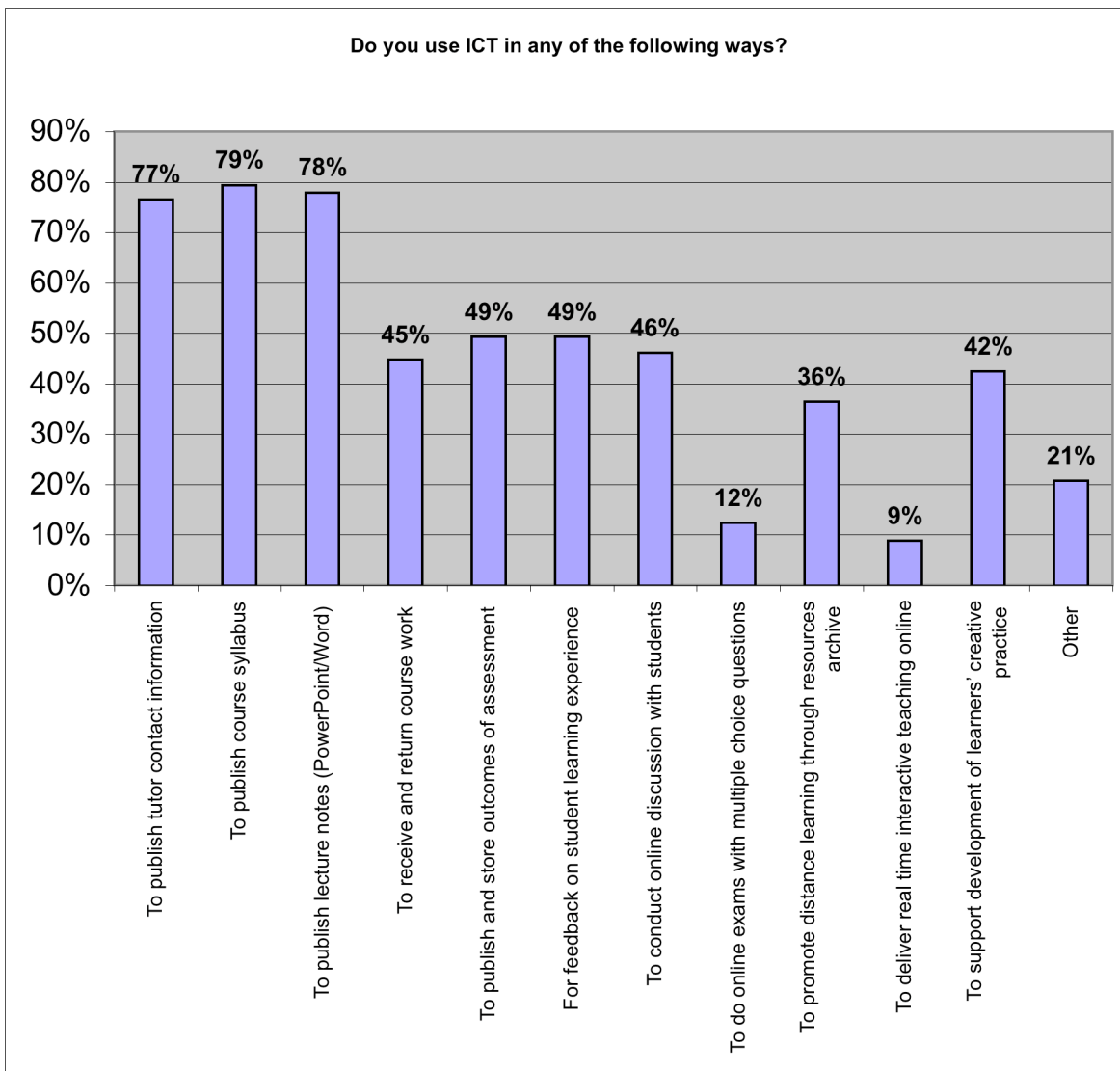
A number of technologies specified in the question about learning and teaching use attracted low response rates, with only 12% using mobile/smart phones for this purpose, 9% using PDA's (personal digital assistants) and 5% tablet PC's. A question was specifically asked about the tablet PC because of the potential of its applications in visual environments, and the widespread use of digital drawing tablets in some branches of the design industry; however, it is clear that this is yet to be more fully exploited in learning contexts.

Question 9 asked about more everyday and personal technology use, and some contrasts were evident, indicating the existence of a life/work divide. While slightly more use was made of PC's and laptops here (89% and 78% of respondents made 'life and leisure' use of these), far higher levels of use of mobile technologies were recorded - 76% of respondents used mobile/smart phones and 21% PDA's. The availability and high level of uptake of mobile technologies and respondents' familiarity of use with them is evident. Taken with responses to the previous question, however, the data suggest that at the time of the survey users were not yet considering the potential for integration of mobile technologies into learning and teaching contexts. This is unsurprising given the presentation and marketing of these technologies predominantly as domestic and personal appliances. Furthermore, in most higher education contexts the protocols for handling email communications between learners and tutors are only in the process of being established, and mobile technologies add a further complication to the picture.



### Questions 10 & 11: use of ICT and specialist software

Question 10 invited respondents to indicate the ways in which they used ICT in learning and teaching. The most significant areas of use, involving large majorities of respondents, were related to publication of course syllabus material (79% of respondents used ICT for this) and lecture notes (78% of respondents); dissemination of tutor contact details (77%) was another significant feature of ICT use. This high take-up for dissemination and publication purposes was a clear sign that many of the communicative and administrative aspects of learning and teaching in art, design and media were being rendered quicker and easier by new technologies. It is notable, however, that on-screen, downloadable and printable text is the main medium of the interaction between learners and tutors – that is, word-based communication appears to be the focus of these interactions. This is probably the case across all disciplinary domains, but the subject-specific focus of this survey might have led us to expect a somewhat different picture to emerge. However, a sizeable minority of respondents (42%) also noted that they used ICT ‘to support development of learners’ creative practice’; the meaning of this is more difficult to unpack, and can only be considered in the context of the survey data overall. It was also found valuable to triangulate these meanings with the more detailed data derived in the qualitative research activities that formed part of the study, as recorded elsewhere in this report.



Activity was also reported in the area of assessment and feedback, with the publication and storage of assessment outcomes and provision of feedback on student learning both being assisted by ICT use for 49% of respondents. 45% also reported using ICT to receive and return course work. Only a small proportion of respondents (9%) reported that they 'delivered real time interactive teaching online', but asynchronous communication was used by a much larger group (46%) to 'conduct online discussion with students'.

As respondents were asked to indicate any 'other' activities involving ICT that they undertook, a wider picture emerged. 44 respondents took the opportunity to include accounts of such activities as:

- Promotion of reflective discussion among learners via blogs, online discussion forums, journals and other encouragements to reflection
- Dissemination of student work and ideas
- Information management e.g. providing links to sources for information and research, websites etc.
- Computer aided design
- Administrative tasks including keeping registers and records, diary-updating, report-writing

There was only one instance of a respondent referring to 'the use of IT for learning object design' (the formal JISC/HEA description of the process of creating online teaching materials) as against the large numbers referring less self-consciously to the widespread activity of putting existing

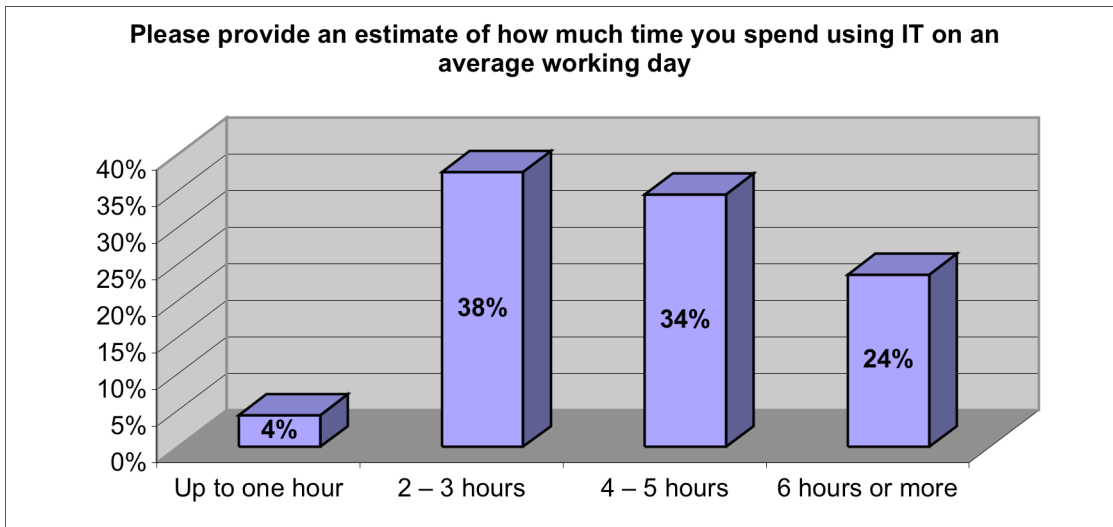
materials, such as lecture notes, online. Nonetheless, the wide range of activities reported as being undertaken by the respondent group indicates that it is not merely productive channels of communication but receptive and interactive ones that are currently being exploited through ICT use. The latter are probably those activities which respondents are referring to in noting that they use ICT to support learners' 'development of creative practice', and the diversity of them suggests that they would provide valuable support of the 'dialogic' kind that Laurillard (2002) prescribes. Nonetheless, not all art, design and media activity is optimally conducted in a verbal, 'conversational' (op.cit.) medium, which appears to be the most accessible mode available to respondents. It was significant that only one response specified the participant's current ICT use to involve delivery of 'workshops' as well as lectures 'online and asynchronously'.

The specialist software available for art, design and media applications adds a different dimension to the predominantly 'text-oriented' capability of more mainstream ICT solutions that are outlined above. However, it is largely derived from professional and industrial art, design and media contexts and we have to be circumspect in equating the use of specialist technologies, however relevant they may appear to disciplinary learning outcomes, with 'e-learning'. With this in mind, it will be useful to note the wide array of 'bespoke' art, design and media software available to support learning activities in higher education. Those applications reported in use by respondents in the survey included:

Adobe - Acrobat/Audition/Go Live/InDesign/Photoshop/Illustrator/Quark Xpress/Freehand  
CAD embroidery  
Course Genie  
Dreamweaver  
Flash  
Fireworks  
Final Cut Pro  
iPhoto  
Macromedia Authorware  
Premiere  
Microsoft Office  
Microsoft Word  
Microsoft Publisher  
Microsoft Powerpoint  
Pebblepad  
Quicktime player  
Rhino  
Scotweave  
VectorWorks & Artlantis  
XSI

#### Question 12: time spent using ICT in the working day

This question recorded the large amounts of time that respondents spent in using IT on an average working day, and it was notable that only 4% spent one hour or less in this activity. At the other end of the scale, 24% recorded spending six or more hours daily in tasks that involved IT.



The demographic of respondents is important in considering the data that this question elicited, and it is worth remembering that the sample included not only lecturers, educational managers, ICT managers and learning technologists but a large minority of respondents (21%\*) with varied role profiles. These include responsibilities for academic guidance, learning development and student support. This context is important for considering the extremely high levels of time that respondents overall invested in ICT use; 38% reported two to three hours a day being spent in this way, while 34% recorded four to five hours. The daily pattern of working for those involved in art, design and media education is thus one of strong and continuing engagement with IT, with 96% of respondents investing substantial amounts of their working day in this activity. Specifically, 72% of respondents spend between two and five hours daily in this way, with another 24% recording six hours plus. The domination of the working landscape by IT-related activities appears to be a fait accompli, posing questions about the kinds of activities involved and their relationship to learning and teaching. It is clear that redefinitions of key educational activities have already occurred or are currently taking place, and this high investment of respondent time is an important signifier of the widespread nature of such developments.

\* Many of the answers under this heading indicate that respondents took the opportunity to note the nature of their subject disciplines, which they clearly felt lay outside the narrower definitions of art, design and media. There were therefore many listings of related topics such as 'photography', 'art history', 'multimedia' and so on. It seems reasonable to assume that these respondents were in 'academic' or at least 'academic-related' roles, though this is not an assumption that has been adopted in the analysis without explicit comment being made upon it.

### Question 13: Archiving and data storage

This question was regarded as important in considering the ways that respondents were managing and storing information, and was part of a larger consideration about knowledge management, reproduction and 'transmission' (Brown, Duguid et al.) This is a complex matter in art, design and media fields due to the nature of their disciplinary knowledge bases and the high level of practical activity involved. The understandings developed in art, design and media therefore tend to be a poor fit with more text-based forms of codified knowledge that exist in other subject areas, and which have traditionally been recorded in the written word. Against this background there is clearly the potential for more effective and accessible storage of a wider range of material through ICT use than has previously existed, with availability of text and visually based, multi-media, sound and other forms of data. It is unsurprising, therefore, that respondents reported varied and widespread use of ICT-enabled forms of data storage. The most popular forms were saving on computer hard drive (98% of respondents), USB storage devices (78%) and CD ROMs (76%) - giving respondents a blend of non-portable and portable means. More minority uses included saving to

websites/online briefcases (40%), the 'older' technology of floppy discs (29%) and upcoming mobile devices such as iPod and iRiver (25%). One of the issues raised by responses to this question relates to the rapidly changing software and hardware involved, and the importance of ensuring the continuing availability of information in 'extinct' ICT formats.

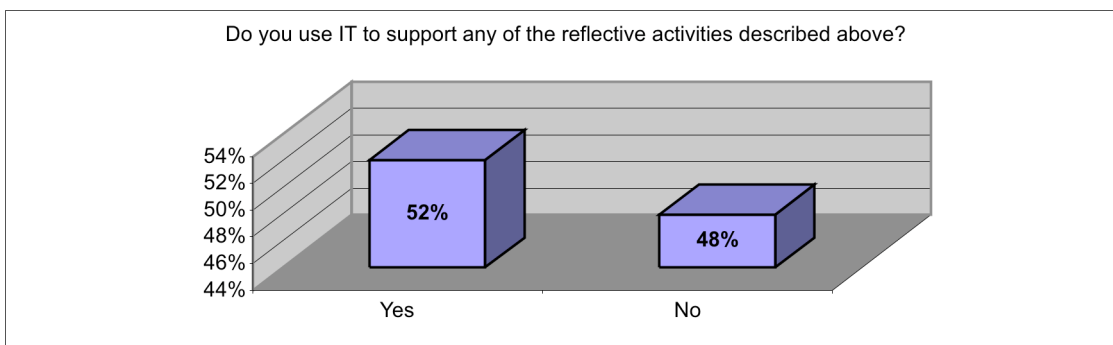
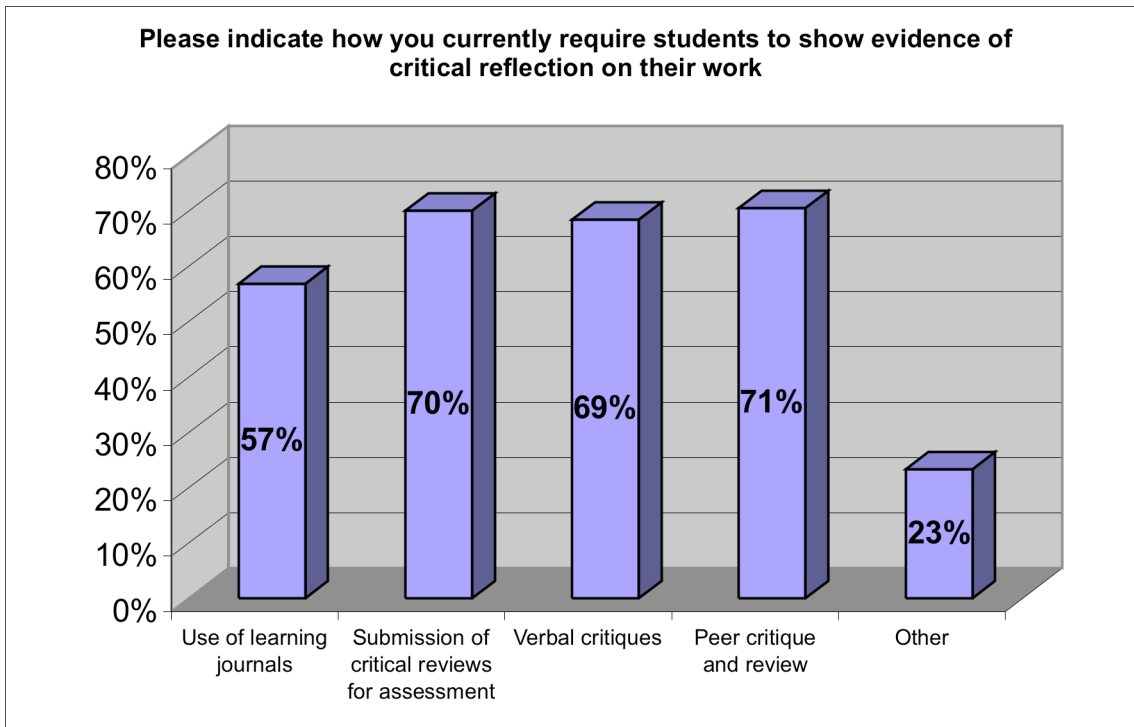
#### Question 14: the benefits and potential of e-learning

In order to gain data on respondents' perceptions about the value of e-learning they were asked to rank a number of recognized benefits in order of importance to them. The table is included for more detail, but some clear preferences emerged. The potential of e-learning to 'extend classroom resources and provide better access to information' was its most significant perceived benefit for the largest group of respondents, with 46% agreeing on the importance of this. Enhanced flexibility of the learning context was the next most significant aspect, with 32% agreeing on the benefits of learning taking place 'anytime, anywhere'. Of the categories offered, the 'support for group learning' offered by ICT was the next respondent preference, with 30% agreeing on its importance. The potential for 'reduction of paperwork' was in fourth place (29%), with joint fifth place shared between the perceived capability of ICT to 'make assessment quicker and easier' (25%) and its ability 'to attract people who do not participate in conventional learning' (25%).

Respondents were also offered the opportunity to record 'other' perceived benefits; amongst the most prevalent concerns here were: the support offered by ICT for student independence, self-management and 'ownership' of learning; enhancement of student employability through familiarity with ICT, including experience of 'industry-standard' equipment; improved responsiveness to student learning needs/styles enabled through ICT; ease of access to learning materials; facilitation of communication between learners/teachers and between learners.

#### Questions 15,16 & 17: ICT & support for critical reflection

The diverse range of activities coming under the category of 'art, design and media' higher education allowed few opportunities in the survey for eliciting data about specific learning and teaching activities. However, critical reflection is one area that most degree programmes in these fields attempt to support, and it is an important corollary to the practice that constitutes a key learning activity. Specific questions about how critical reflection was evidenced and about the role and uses of ICT in supporting this were therefore included. As might be expected, a high number of respondents reported that evidence of students' critical reflection on their work was sought; 71% secured evidence of students' critical reflection through engagement in peer critique and review, 70% asked for submission of critical reviews as part of the formal assessment process and 69% expected it to emerge in verbal critiques. Students' use of learning journals was a source of evidence for 57% of respondents, with 23% also using 'other' means. These included 'artist's statements', essays and class presentations, learning agreements, self-assessments and ongoing reflection about practice in sketchbooks. Visual arts practice and exhibitions of visual works were also regarded as evidencing critical reflection (presumably implicitly in the latter cases).



Respondents were also asked whether they used ICT to support student reflection, with 52% indicating that they did and 48% saying that they did not use ICT in this way. Those who responded positively to this question were asked to specify the means in use, and indicated that large and varied range of ICT-supported strategies were in place. Innovative modes of support included blogs; creation of online knowledge bases; use of ICT to facilitate 'continuous feedback'; e-portfolios and other means of conducting online PDP (Personal Development Planning); online forums; online research journals; keeping of production and research logs; online reflective accounts and discussion boards. The modes reported on were varied, with consensus on the usefulness of blogs and of some form of e-portfolios for PDP activities. There was clear evidence that respondents were using the digital environment to pursue traditional art, design and media activities in a new forum – for example by using 'online crits', 'digital portfolios', 'electronic presentations' of work for assessment and 'submission of online critical reviews'. Both individual self-reflection and shared reflective discussion with peers and tutors were referred to by respondents, with the latter facilitated by new communicative opportunities offered by ICT. It is important to remember that despite evidence of take-up of these extensive opportunities, almost half of respondents had yet to exploit them at the time of completing the survey.

Question 18: ICT and support for student learning

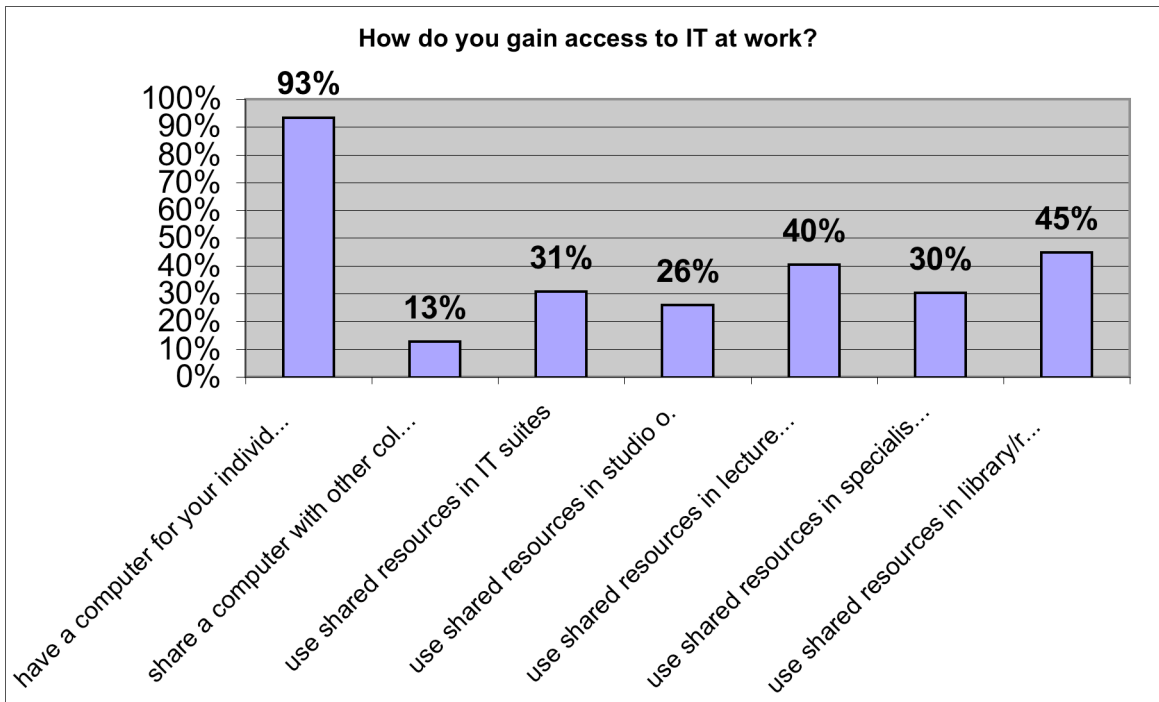
Respondents were asked to specify their preferred electronic tools for supporting student learning in art, design and media courses; a choice of eight of the better-known tools was provided for

ranking, as well as an option to specify 'other' important ones. Respondents showed a clear preference for 'subject-related websites' (placed first choice by 30% of respondents) and for 'email' (first choice of 23%). 'Electronic databases' were a clear second choice (21% of respondents), with third choice 'online reflective journals' (16%) although third choice scores were well distributed across all the options provided. 'Subject-related forums' that allowed a degree of interactivity in the form of questions and answers were placed fourth by 18% of respondents. Feedback both *to* students on assignment grading and *from* students on their perceptions of the learning experience garnered low ratings; feedback from students was placed in fifth and seventh place by 40% of respondents, while 'online feedback to students on assignments' was ranked sixth (18% of respondents). Little useful information about the least popular applications was available, with eighth place being shared inconclusively by a number of low-rated tools.

#### Questions 19 & 20: spaces, resources and the learning environment

These questions about the learning environment enabled links to be established between preferred spaces for learning and the technological access available in these spaces, illuminating the real-life conditions experienced by those participating in the survey. Respondents ranked the physical environments in which learning was promoted in order of perceived importance, with clear preferences emerging for 'studios' (ranked first by 52% of respondents) and 'workshops' (ranked second by 30%); 31% of respondents, however, gave first ranking to 'seminar and tutorial rooms'. At the bottom end of respondent preferences came 'staff offices', ranked eighth by 54% of them, and 'specialist technology areas' (seventh ranking by 29% of respondents). It is likely that the latter description was taken by respondents to refer to sites for specialist technology that were physically separated from 'dedicated' course studios, as similar perceptions of their unpopularity have been documented elsewhere (Logan, 2007).

Responses to the next question clarified that the vast majority of respondents (93%) had individual access to ICT via a desktop computer or laptop. However, far fewer (26%) were able to access shared ICT resources in studios or workshops – that is, they had little access to computers in those areas which were prized spaces for learning. Conversely, given the ubiquity of ICT in staff offices, it appears that the spaces that respondents regarded as least useful for learning by were those which were most highly technologised. Many of us will recognize this feature as something of a historical accident, as the bureaucratic and managerial support offered by ICT has been easier to import into HE environments than other, perhaps more complex, features with the potential to support learning more directly. Nonetheless, seminar and tutorial rooms were also valued learning spaces amongst survey respondents, and a greater proportion of respondents (40%) also reported that shared computer resources were available in these environments. It is worth noting before we leave this issue that respondents reported a large amount of daily time being spent in computer use (see responses to question 12 above), perhaps prompting consideration of the nature of these activities. If such computer use is predominantly focused on bureaucratic or managerial matters (and the office-based nature of it suggests it may be), then attention may be directed away from learning and teaching activities. Further research will be needed to ascertain if this assumption can be verified, but anecdotal evidence also suggests that many colleagues in academic roles find themselves increasingly responsible for administration and 'paperwork' and that computer use has not helped to lighten this workload.



Questions 21 & 22: Preferred approaches to learning and perceptions of technology

The final questions of the survey elicited respondents' views of learning, and of the role of technology in learning and teaching. Respondents ranked a number of learning approaches by preference, with 54% of them placing as first choice *either* 'traditional classroom/studio and workshop based teaching' (27% voted for this) *or* this 'traditional' mode 'supplemented by online lecture notes, contact information, course syllabus etc.'(27%). The 'publishing' potential of ICT referred to above (under responses to questions 10 & 11) was therefore seen as one of its most significant contributions to learning. However, 42% of respondents had an extended view of the potential of elearning, and ranked this as first in their preferred approaches; this sizeable minority showed preference for 'traditional' teaching enhanced by features such as online discussion forums, chatrooms, tools such as interactive whiteboards, online assignment submission and recorded lectures. A clear majority of respondents reacted negatively to the idea of doing away with face to face learning and teaching interactions, with 58% ranking 'fully virtual/digital delivery' the lowest of the options provided.

There was clearly a cautious but significant uptake of elearning among sector respondents, although most appeared keen to maintain more traditional methods of face to face teaching that were enhanced but not replaced by the potential of ICT.