Missing only the inkwells – or is this truly a learning space fit for the 21st century?

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"All individuals have a right to a quality educational facility, a physical space that supports multiple and diverse teaching and learning programmes and pedagogies, including current technologies; one that demonstrates optimal, cost-effective building performance and operation over time; one that respects and is in harmony with the environment; and one that encourages social participation, providing a healthy, comfortable, safe, secure and stimulating setting for its occupants."

(Centre for Effective Learning Environments)

Amid debate about mass changes in the way that we deliver higher education to the millennials and the 'digital natives', and with arguments supporting the view that "the idea of putting a lot of people in a classroom and feeding them information being already a thing of the past" (Heppell, 2007), you may be forgiven for being more than a little confused, at first sight, with what presents in the new 'state of the art' Rose Bowl building , the new home for over 5,000 students and 300 staff of the Leeds Business School at Leeds Metropolitan University.

Its learning environments include a range of lecture theatres and teaching rooms, student social learning spaces, academic/student meeting offices and a café. The large, light-filled 'classrooms' are capable of holding 30 – 60 students, span four floors and are furbished with a mixture of square and oblong tables. Far from being technologically deterministic, they look traditional in format, with the blackboards white and the tables missing only the inkwells!

Upon closer inspection, however, what we see are agile learning spaces that have been designed to be capable of rapid transformation and incorporate both formal and informal spaces that are not solely defined by the physical boundaries of the building or campus, but are inclusive of the whole student experience with a seamless infrastructure of networked, ICT and mobile technologies.

Teaching and learning strategies vary greatly within Leeds Met's Faculty of Business & Law. Our experience shows that for more didactic sessions, such as those delivered by colleagues in Accounting and Finance, there is a strong student and staff preference for row configurations that give clear sight of the tutors, who make heavy use of the white and SMART boards as they guide students through mathematical equations and the construction of balance sheets. Networked technologies should enable faultless delivery of pre-prepared multi-media PowerPoint slides and audio recording facilities, allowing the tutor to capture key discussion for upload onto X-stream, the University's Virtual Learning Environment, for review and 'listen again' after the session.

For more discursive or practical sessions the wheeled, folding tables can be quickly cleared or re-configured for group working or boardroom simulation respectively, though not exclusively. Dual aspect whiteboards and rails for the attachment of white paper provide students with the opportunity to brainstorm, capture thoughts and feedback to

the group. Mobile technologies such as laptops, HP tablets and video and voice recording tools facilitate students' greater interaction with their tutor, each other and their learning materials. The capture of these learning experiences again provides students with the opportunity to 'listen again' and to reflect on their group contribution, their presentation skills, their management of the meeting and their learning.

A number of social learning spaces, all with panoramic views over Millennium Square in Leeds, are equipped with computers, tables and room dividers, allowing students the ability to configure their space and create smaller, more informal environments. How these will be used in practice remains to be seen, but experience in the University libraries of such spaces would indicate that their use will change throughout the year as needs change and students will work collaboratively, study quietly and adopt them as theirs. 'Friendship groups' may even attempt to identify with the rooms and give the spaces colloquial personalised names such as 'base room' or 'the den', as we have seen happen in similar spaces in the Innovation North Faculty.

Design decisions were informed by University strategy, available finance, colleagues in Estates Services, research, visits to Oxford Brookes, Wolverhampton, 'The Box' at LSE and Sheffield Hallam Universities, and an in-house staff/student survey based on two trial rooms which showcased the furniture options and technologies. Completion of an open questionnaire, which was designed and analysed by members of the Faculty's Learning Spaces Group – a sub-committee of the Rose Bowl Steering Group – was encouraged, but remained optional. Despite the trial rooms being available and open for general booking for tutorial delivery over a semester, somewhat disappointingly only 37 people completed the survey, of whom 33 were academic members of staff who experienced the spaces from a student's perspective, and four from a tutor's perspective. All responses were from one trial room only.

The rooms used in the trial contained a variety of soft furnishings, mobile chairs and tables. The tables took up a considerable proportion of the available space and were typically arranged in boardroom fashion. The room was equipped with two SMART boards on opposite walls and was wireless-enabled. The SMART boards were connected to two laptops with the appropriate communications and presentation software installed, including Microsoft Office, Course Geni and Camtasia. As a result the rooms had to be

prepared in advance. The room was supported by AVI loans and users were provided with laptops. There were no fixed computers.

User experiences showed the use of laptops to be problematic. Each tutor was required to bring and set up his or her own laptop. However, the technical problems encountered with, for example, gaining internet connection; broken wires and loose connections to the SMART board due to wear and tear; missing cables; and the time to set up the equipment, rendered this idea impractical. These difficulties significantly influenced users' experience and perceptions of the room (see Table 1) and, it is believed, were the reason why few tutors chose to hold their tutorials in the room(s) and hence engaged in the process/survey. Early sharing of these observations with Estates Services resulted in a change of strategy, from having no fixed computer or audio-visual equipment in the teaching spaces to the provision of a moveable podium in each room together with fixed computer technology.

Table 1: Qualitative feedback on trial room survey in FBL 2007-08

What did you particularly like about this space for your session?	What did you particularly dislike about this space for your session?	What suggestions would you make to improve the space?
1. The boardroom arrangement encourages a feeling of inclusivity and engagement	1. Laptop deleted all docs without warning	1. Reduce/increase furniture according to the number of people
2. Flexible seating good	2. Space cluttered	2. SMART board didn't work
3. Adaptable	3. Laptops shut down – lost data	3. Wires trailing round room to laptops
4. Chair configuration	4. Difficulties with internet access	4. Water cooler
5. Communicate better round an oval table	5. Trip over chairs	5. Paint the walls
6. Flexible use of space led to excellent group formation (this would be limited by the size of the space)	6. Technology not commissioned completely	6. Art work
	7. Hated laptops: they crashed and were difficult to work on	7. Chairs with lockable wheels
7. Space good for group formation – limited capacity	8. Hated laptops that were flaky	8. Laptop charging points
8. Variety, informal and flexible	9. Too cramped, would rather be in computer lab than use laptops	9. Somewhere near data projector to house laptop
9. Liked the layout	10. Tables hard to configure	10. Tech advice needed on posters
10. Comfy chairs	11. Unreliable internet access and projector whiteboard problems	11. If staff need to move chairs about there needs to be more space
11. Liked the moveable chairs as could turn round to discuss	12. SMART board technology not robust; money better spent elsewhere	12. Laptops that work
12. Liked the board room layout	13. Large table – would have better been split into smaller ones	13. Secure the room
13. Efficient use of space as room for breakout	14. Issues with hiring laptops and AVI support	
14. Great for small groups, projects and PG modules	15. Power point needed near SMART board	
15. Additional video/TV set	16. Tutor often didn't use any technology as they had to set up the laptop	
16. Liked space relaxing	17. Wifi went down	
17. Layout good	18. Too crowded room	
18. Stacking chairs useful		

Source: Phil Glew (2008), Learning Spaces Sub-Committee, Faculty of Business & Law, Leeds Metropolitan University.

As a consequence of these 'technical' difficulties the use of the SMART boards was not as effective as had been intended. However, we were able to recommend that user training should be provided, to ensure that staff were not only able to use the technology but were also made aware of its functionality and the rationale for its use in teaching.

As regards the room itself, people liked the flexibility and the different learning zones that were created by the use of a variety of furniture types. There were worries, however, about the size of the room and how this could be scaled up to accommodate larger groups. In consequence, the learning spaces in the Rose Bowl were separated into flexible classrooms and social learning rooms.

Staff liked the flexibility of the moveable chairs, with 11 strongly agreeing and 22 agreeing they were a good thing. Only one person disagreed that they were a positive feature, while three were neutral. The comments indicated that tripping over the legs was an issue and the limited space will have contributed to this; nevertheless the response was overwhelmingly positive. The wheeled tables were also popular. In the event it was decided to retain some wheeled tables but the wheeled chairs were discontinued on safety and durability grounds. Moreover, the decision was taken to furbish some rooms with standard 600mm square tables as there remains a heavy requirement for these during formal examination times.

As proud tenants of this new educational space we now have a job to do. If we are to believe Winston Churchill's view that "We shape our buildings; thereafter they shape us", then we must not rely on these spaces in and of themselves. If we do then there is unlikely to be any significant enhancement in learning and teaching practice. So the real work starts now. The new flexible spaces, tables, chairs and technology can only take us so far.

We have a contemporary blank canvas that will support diverse approaches and it affords us the opportunity, through enhancing our teaching techniques and through the pedagogic design and refreshment of our courses and modules, to make the most effective use of the time that we have when students are in front of us, when they are working in the community, socialising in cafés or reflecting in private. But from our study the interdependency of ALT practice and the 'technical tools' was acutely apparent. Tutors must be able to rely on the technology working if, in the first instance, it is to be used, and in the second, blended and technology enhanced learning strategies and pedagogies are to become embedded in practice.

In Semester 1 of the 2009-10 cohort we will for the first time see how our students flow into and engage with the spaces that we have designed and the teaching and learning encounters we have crafted. However, like the building, we need to remain flexible. We need to be observant and open to the fact that we may have to change our minds about the use of certain spaces and approaches and work together to make them work.

References

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