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Use A Pedagogical
Measure?

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SPACE UTILISATION: DARE WE USE A PEDAGOGICAL MEASURE?

A Sydney University, Australia, case study by John Simmons, Facilities Management Office, University of Sydney, and Kenn Fisher, Woods Bagot Architects, Australia.

The University of Sydney's medical faculty has made a major commitment to new ways of teaching and learning and in its graduate medical degree. For some years it has become apparent that industry, commerce and research institutes are seeking additional skills from the new graduates they are employing. Various studies have shown that graduate competencies not only need to include a demonstrated understanding of the knowledge of the particular discipline but also the ability to think critically; to solve problems through problem-based learning (PBL); to work and learn collaboratively in teams; to be able to communicate effectively in both verbal and written modes; and to be able to organise one's own work, research or study programme.

These attributes are particularly important in the medical profession. For example it was recognised in the 1970's that problem solving (such as medical diagnosis) was a skill that required an integrated understanding of a number of knowledge domains, which frequently implied working in teams with other specialists. A number of universities adopted this approach in their medical faculties in those times. Since then the Internet and computer-based learning were supposed to herald a revolution in learning and teaching, but this has only been true up to a point. In particular the three key competencies of critical thinking, work organisation and working in teams cannot be easily learnt on a computer and neither can some modes of communication, notwithstanding the great advances in tele-medicine.

The University of Sydney's medical faculty, which prides itself as one of the leading centres of medical excellence in Australia and indeed the world, decided that to maintain its standard of graduates in an increasingly competitive and medically complex marketplace, a new teaching and learning paradigm had to be explored. However, any new learning and teaching modalities were constantly being frustrated by the way the accommodation which housed these activities was designed. Modelled on what are now seen as only a limited range of available pedagogies, the large classroom in the form of seminar rooms, the large lecture theatres and the lack of small group rooms prevented any team-building

and group-based activity in a meaningful way. Break-out spaces were possible in corridors and in fine weather outdoors, but these spaces were not sustainable for the development of project-based learning, in teams, where ongoing projects had to be housed in a form of studio such as is the case in a work of art in progress. There was also a need for personalisation and the ability to customise spaces to meet particular group and project needs.

More importantly it was necessary for the students to develop a sense of identity in their group and the physical space was a key part of this formation. This has been demonstrated in final year thesis project rooms in architecture, where students often take over a space for up to six months to complete their theses. In at least one Australian university rooms for five or six architectural students now have small refrigerators, couches and, in some cases, even camp stretcher beds, for students to work extended hours. For those interested in efficiency and effectiveness, it can only indicate a maximising of productivity.

Sydney University has not yet gone this far but it has made a substantial commitment. It now has in the order of 25 rooms for group sizes of eight to twelve students. These are dedicated to the groups for the full academic year and become their personal space. The rooms include computers, whiteboards, meeting tables, small workstations, a small library, coffee and tea facilities and other features as adapted and included by the students themselves. The University has been able to make excellent use of its older building stock by creative refurbishment of spaces that do not easily lend themselves to adaptation to larger lecture theatres and classrooms. The rooms are adjacent to a variety of other more traditional facilities such as lecture rooms, tutorial rooms and laboratories and are therefore able to offer a variety of teaching and learning modalities depending on the curriculum content and the wishes of the lecturer for that particular subject material.

In an age where space management and space utilisation are under very close scrutiny the world over, this innovation is somewhat "against the grain". It might be seen by some as extravagant or elitist. What is happening here is a critical understanding that the learning outcomes are important in measuring the effectiveness of a programme of learning. Of course these outcomes are also highly dependent on the learning processes. So it is not necessarily simply a question of how efficiently the space is used. The pedagogical and the resource utilisation must ultimately be in balance.