Computers facing the wrong way: New labs one year on

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Last year Young and Huggard described the development of a new style of computer laboratory. In this poster we examine these new labs from the perspective of a first year's use, and examine a second implementation of the new style at Otago Polytechnic.

Traditionally computer suites have had computers placed on desks in a normal front-facing classroom arrangement. This poses many difficulties, particularly the feeling of the futility of teaching the back of the terminals. In teaching technical computing (as opposed to end-user computing or computer-aided teaching of other subjects) we often find a need to teach theory in a practical setting. Many institutions compromise and try to fit two classrooms in one, putting computers around the edge and a normal classroom in the middle. This however causes much disruption to the class. The new labs meet these needs for specialist computer education: students need to be able to see the lecturer and whiteboard without distraction; the lecturer needs to be able to see all the student screens; the lecturer needs to be able to get to sit beside each student to work with them; the students need space, not just for themselves or copy material, but technical material which might mean several books, diagrams and manuals. students need room for group work

Unitec 1 year on

The newly designed labs have now been in operation at Unitec for three semesters, academic staff report that they have more than achieved the design objectives. Comments from academic staff are positive and include such remarks as classroom management is much more efficient, the lecturer is able to combine theory and practical demonstration much easier, lecturers are able to observe the students in a more unobtrusive manner, and encourages a self directed learning environment.

While all staff surveyed said they would request to be timetabled into the new labs rather than the old layout we still haven't utilised the new labs to their fullest potential, such as using the two labs as one open space for a teaching session.

Otago Polytechnic

We had the opportunity to refurbish two rooms as 'mixed mode' labs early in 2004. After a year's consultation the building was completed in two weeks over the Easter break. Rather than wide (as at Unitec), our labs are quite narrow. We also decided not to put in a projector screen at the rear of the room.

After a month of use we surveyed staff and students. For computing classes, both groups described the new labs as "fantastic". They reported that as "new labs look quite different, students on computers seem to face the the 'wrong way" and "after initial surprise...love it". We asked whether this required a change in learning/teaching style and got reponses such as "means we can interact like we are supposed to". In complete contrast, lecturers teaching end-user computing (specifically word processing) reported that the "room is badly designed (with) students twisting to see the projector". On further investigation it turns out that their teaching very much "follow me", detailed instruction.

Conclusion

The new labs have been very sucessful. Their development has highlighted to us the specific nature of teaching *about computers*. This means we might move from explaining some concepts to implementing them using computers - and back again - several times in a single session. These labs are specifically designed for such mixed-mode learning. It has also highlighted a lack of theory in the area of the interaction of learning style and physical learning environments.

Young, A., Huggard, G. (2003) Designing New Computer Laboratories: Fresh Ideas and New Layouts , 16th Annual NACCQ .463