

CETL-MSOR Conference 2015

Jeff Waldock: Designing and using informal learning spaces to enhance student engagement with mathematical sciences

Student engagement, satisfaction and academic success is built upon this sense of belonging – of being part of a professional community that provides, amongst many other things, comprehensive support. This can be achieved through a culture of expectation and behaviour, the provision of appropriate support structures and the effective use of carefully-designed physical and virtual learning space. It is self-evident that active participation is more likely to happen in an environment that learners are happy to study in.

Suitably-designed open learning space facilitates staff-student and peer interaction by supporting new patterns of social and intellectual behaviour (Oblinger, 2005). Learning is an active, collaborative and social process, hence ideal learning spaces encourage interactions and are IT enabled. Incorporating a disciplinary focus in the design helps learners identify with the discipline and feel they belong to a professional community and, together with a managed peer-support network, this helps create a partnership learning community within which student engagement can flourish (Boys, 2011; Healey et. al., 2014).

For some years, we have observed our students gathering to work in open space close to staff offices. A cross-level supportive network began to develop naturally as a result and this together with the success of our Peer-Assisted Learning initiative, in which final year volunteers facilitate a first year group task, informed our thinking when offered the chance to design a new learning space for Mathematics. Alongside the new use of physical space outside the classroom, we have for many years made extensive use of virtual space to provide student support. The space has been in use now for three months, and early indications are that our expectations are being met, more students engaging proactively in group work outside taught sessions and feeling better supported by staff and peers. There is a clear discipline specific focus to the space, and participation in events it hosts such as the Maths Arcade (developing logical thinking through strategy games) have risen significantly.

In this presentation I will describe these initiatives in more detail, outline how they have been designed to create an effective partnership learning community and present evidence for their success.

References

- Boys J., (2011), "*Towards creative learning spaces: Re-thinking the architecture of post-compulsory education*". Routledge.
- Healey M., Flint A. and Harrington K., (2014), "*Engagement through partnership: Students as partners in learning and teaching in higher education*". HEA
- Oblinger, Diana, G. (2005). *Leading the Transition from Classroom to Learning Spaces: the Convergence of Technology, Pedagogy, and Space can Lead to Exciting New Models of Campus Interaction*. Educause quarterly, 1, pp. 14-18.