INVESTIGATING THE ADOPTION OF A UNIVERSITY VIRTUAL LEARNING ENVIRONMENT: AN ACTIVITY THEORETIC ANALYSIS

SUMMARY FINDINGS

Research in e-learning has frequently asserted that new technologies remain under-used in higher education. It is argued that the potential of computers and the web has not been realised, and instead technologies tend to be used to support existing practices (Conole, 2004). Some writers have suggested that there is a pattern of “cyclical failure” (Mayes, 1995:1), with hopes for educational change on foot of the adoption of each new technology being invariably disappointed. Recently, there has been specific criticism of the virtual learning environment (VLE) as perpetuating what are perceived to be outmoded transmission-based approaches to teaching, instead of supporting active learning and constructivist teaching methods (Hemmi, Bayne & Land, 2008; Stiles, 2007). VLEs such as Blackboard and Moodle have been used in many institutions to carry lecture notes and course materials, rather than becoming the online classrooms envisaged in the early 2000s.

Meanwhile, much has been made of the potential of Web 2.0 technologies to bring about the transformations in teaching and learning which the VLE has failed to deliver (Hemmi, Bayne & Land, 2008; Stiles 2007). This research investigated whether the VLE was indeed an example of “cyclical failure” by looking at how it was adopted and used at a campus-based university. The research examined what had happened from the point at which a decision was made to adopt the VLE, through to its current use by people teaching and learning in specific subjects.

A review of the literature showed that researchers had not adequately examined the place of the VLE in campus-based higher education institutions (HEIs). Instead, there had been a conflation of e-learning with open and distance learning (Guri-Rosenblit, 2005). It had been assumed that universities would be transformed into distance learning institutions with the introduction of web-based technologies, particularly the VLE. Meanwhile, researchers, while asserting that technologies were under-used, had never stated what would constitute ‘sufficient’ or ‘enough’ use. Methodological problems also affected interpretation of the research. For example, VLE log data had been analysed by some researchers, but this was limited in what it could reliably show for courses with a strong face-to-face teaching component. Finally, there were very few examples of systematic investigation of the adoption of the VLE across an institution, and none located in Ireland.

Drawing on Activity Theory (Engeström, 1987, 2001; CRADLE, 2011) and predominantly qualitative methods, the adoption and use of Moodle at the research site was investigated. Data were gathered with four groups: management personnel with responsibility for institutional decision-making (“Managers”), support staff charged with mainstreaming and supporting e-learning (“Central Supporters”), lecturers and tutors (“Teachers”), and students (“Students”). In addition, data were gathered from support staff and teaching staff at external sites to validate the data gathered at the research site. Activity systems were modelled for each group, and contradictions as well as shared and unshared objects identified (Engeström, 1987).

The research findings showed that the trajectory of adoption of the VLE was very similar at the research site and the external sites. VLEs were being used predominantly to support existing teaching and learning activities, rather than to transform them. Far from there being any ‘under-use’ of the VLEs, they were very heavily used – but some features of the VLE were used more than others. When the findings were analysed, it was shown that the tools Teachers chose to use were those appropriate to their activities. Teachers were also beginning to develop new ways of using basic functions of the VLE to mediate their activities. In particular, the action of publishing materials to the VLE was developing into a highly nuanced activity.
Publication was undertaken for a wide range of purposes and served a range of different objectives. It was not simply to ‘transmit’ material to students or reduce photocopying. The VLE was part of the wider picture of Teachers’ activities, but face-to-face teaching played a more important role in a campus-based institution.

Students constantly interacted with all of their courses via the VLE, and used it as the starting point for coursework and assessments. But modularisation of programmes at the research site, and the need for departments to manage very large groups in certain subjects, influenced Teachers’ and Students’ use of the system. It was often used extensively in departments with very large cohorts of students, but departments in which there were smaller classes did not use it to the same degree. Students regarded heavily developed course spaces as being inherently ‘good’, even though they were generally in a very large class for that subject. However, sparsely populated VLE spaces were viewed somewhat negatively, even if students were in small classes and thought that they had excellent teaching on those modules. This suggested a desire on the part of students for their courses to have a strong online presence, but further analysis did not bear this out. Students were instead shown to be primarily motivated by a desire to stay up to date with their coursework – something Moodle facilitated easily – and did not express the desire that Teachers make more use of technology in and of itself.

The research revealed that Managers did not have a longer-term strategy for the VLE beyond its adoption. The VLE represented a self-contained and realisable project in e-learning for their institutions, but once VLE implementation was completed, it was more difficult for them to pinpoint future directions. Managers were strongly supportive of developing and enhancing teaching and learning, but there was some degree of uncertainty about the role of technology. This was reflected in discussion of central support for e-learning with both Managers and Central Supporters: it was difficult to identify a clear pathway following implementation of the VLE as a discrete project. Central Supporters were also finding it increasingly difficult to provide adequate day-to-day user support for mainstreamed e-learning services while at the same time fulfilling their remit to research and evaluate the vast array of newer technologies that could have potential for teaching and learning. The overall reduction in numbers of Supporters across the sector since 2008 further challenged the capacity of Supporters to meet their remits.

Analysis of the data showed the complexity of e-learning as a form of academic development in higher education. Specifically, it was found that the objectives of Central Supporters and Teachers were not the same: Teachers using the VLE were not motivated by a wish to change or develop their teaching, nor did they necessarily want to learn about new technologies. Rather, they wanted to teach well, and efficiently, in a context of reduced resources and larger classes. Central Supporters, meanwhile, were working to a change agenda, tied in with that of the academic developers in their institutions. Teachers regarded teaching as being very important, and emphasised particularly the importance of face-to-face classes, but also had to protect time for their research. Technology alone was not a trigger for change in teaching practices, and teaching was mediated by non-trivial “frame factors” (Miettinen, 1999:328), including course administration, timetabling, room allocations, and budget.

The research concluded with proposals for the future. Managers need to work with Central Supporters to plan in detail for the development and ongoing support of e-learning, and strategy documents alone are not adequate for this purpose. The findings indicated that user support for mainstreamed learning technologies might be better located with IT services rather than teaching and learning units in HEIs. This would facilitate closer working between academic developers and e-learning supporters, while clarifying to the community that e-learning supporters provide pedagogical (rather than technical) support. An activity-led approach should be taken with academics to identify areas of good practice, but also contradictions in their work (Engeström, 2001; CRADLE 2011), which would be points for development. Developmental activities could then be supported and facilitated by the teaching and learning service, whether or not such activities were mediated by e-learning. These proposals were made as sustainable options for future work.

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REFERENCES


