Systemic Teaching and Learning Strategies: Is This An Oxymoron?
Current Issues Roundtable, EDUCAUSE 2002, Thursday, October 03, 2002 4:55 p.m. - 6:10 p.m. Atlanta Georgia

Discussion leader:
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The discussion began with a brief review of what "systemic" actually means. The dictionary provides three main definitions: (1) affecting or relating to a system as a whole; (2) affecting the whole body as distinct from having a local effect; and (3) describing a herbicide that works by spreading through all the tissues of a plant. We felt that all three definitions call attention to the theme of the roundtable: attempts to find a scalable, sustainable support program for using technology in the practice of teaching and learning (T&L).

We identified tensions that seem to be inherent in this line of work. One concerned our faculty "customers": 1 off course web sites (innovation, exploration) vs. the course management system (restaurant analogy: expensive restaurant vs. McDonald's 'billions served'). A second about the technology: emerging and experimental vs. mainstream ("ERP"). A third about the reach of the efforts: individuals vs. groups, departments. A fourth about costs: expensive vs. cheap / affordable. A fifth about futures: unsustainable vs. more sustainable. A sixth about evolution: discovery, innovation vs. recapitulation. Each of these six pairs presents the unsystematic against the systemic. In many cases, the unsystemic is more appealing, since it involves exploration and innovation, as opposed to the course management system's cookie cutter approach to the course web site.

One way to ease this tension is to train the faculty so that they have enough mastery of the tools to carry out their own discovery and innovation. Develop the skills in the target population; this will equip them to innovate within the framework of those skills and technologies. To accomplish this, the support organization must be unrelenting about providing learning opportunities for faculty, of all kinds: self-paced, online learning, workshops, tutoring. In short, work to promote IT literacy.

The scalable tools and applications (such as the CMS) should provide relief from the administrative aspects of conducting a course, enabling faculty to concentrate more on pedagogy. It was also suggested that we should try to tweak the faculty interest in pedagogical issues. Get them thinking about what works, what doesn't. When combined with some modicum of technology skills, one has set the stage for innovation.

We shouldn't overlook a systemic solution already in place: low-threshold applications. The CMS is a good example: a faculty member needs only a browser and a word processor to create and run a course web site. So: 'small' is OK; the low-threshold applications are already systemic; exploit this systemic "foot in the door."
The overall goal is not to completely eliminate the individual vs. systemic tension; we don't want to extinguish the innovation and discovery that comes from individuals trying something that is new and off the beaten track. This tension should instead be fitted onto the technology adoption curve, with systemic solutions addressing the 80% of the population that trails the early adopters.

A summary of the main points in the hopes of moving to more systemic solutions:
* Low threshold applications. Promote these and look for innovative practices that can be achieved using these kinds of applications.
* Train the faculty. As the faculty gain more mastery over the tools, the tools move toward becoming low-threshold. Empowered in this way, faculty will be in more of a position to conduct their own experimentation and innovation.
* Provide dedicated student assistants for faculty who cannot learn the tools or have projects too ambitious for their own IT skills and time available (George Mason model).
* Provide self-help and other resources.
* Engage frequently and often with the faculty.

Submitted by Malcolm Brown, Dartmouth College

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