Strategic support for online teaching and learning

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Universities currently face an enormous challenge to provide high quality learning experiences for both their on- and -off campus students against a background of declining resources and increasing demand. At the same time, rapid developments in information and communication technologies (ICT) are having an immense effect on academic practices and the expectations of students about the place, time and nature of their learning. These developments require universities to implement appropriate programs and institutional support structures to cater for the emerging professional development needs of their academic staff. In this paper we propose some new directions for centres that provide support for online teaching and learning and explore how a more strategic approach to centralized support can provide benefits for the institution, academic staff and students.

Introduction

This paper explores some options universities may adopt in the quest for providing a truly flexible learning environment that ranges from face-to-face teaching, through mixed mode to fully online. We argue that if academic staff are required to succeed in the transition to new modes of teaching, then support for this shift in teaching practice should be holistic in scope, responsive in nature, and sensitive to changes in academic roles and responsibilities. We present this argument from the perspective of a centralized department or area providing a leadership role in a whole of institution approach to teaching and learning development. From this perspective we examine the impact of the use of Information Communication Technology (ICT) on teaching and learning practices and the implications of these changes for institutional planning and support programs.

There is a belief that real efficiencies could be possible with supportive infrastructure and good planning. Many universities are now focusing on an overall systems approach across the university. At this time, however, all universities are in transition, and are grappling with the issues in designing and managing new ways of working (McNaught, Phillips, Rossiter, & Winn, 2000)

The pressures confronting universities to provide flexible, student-centred educational programs continue to mount in response to student and community expectations of high quality learning opportunities tailored to their needs (Bryant, Scoufis, & Cheers, 1999; Sheely, Veness, & Rankine, 2001). Additionally, ICTs are continually advancing, providing opportunities and challenges for universities to stretch their budgets further to provide up-to-date learning resources (Beerman, 1996; Herrington & Oliver, 2001; Newton & Ledgerwood, 2001; Sheely et al., 2001). Meanwhile, university staff are generally not ready for a large-

scale transition to online teaching and most Australian universities are now putting in place appropriate organizational structures to support this transition (Bennett, Priest, & Macpherson, 1999; Oliver, 2001). If institutions are to stay abreast of the new developments in higher education teaching and learning they will need to do so in a strategic, cost-effective manner based on principles of organizational change management (Bryant et al., 1999; Reid, 1999).

We have identified two approaches to meet these challenges. The first of these reduces the demand for academic staff to acquire technical skills in order to create online learning materials. This approach enables staff to focus on pedagogy and content rather than grappling with new technology. The second approach involves a recognition that a transition to online teaching and learning involves significant changes to university teaching and learning practices, and that an appropriate theoretical framework is required to help staff work through those changes in a manner that is most likely to lead to positive outcomes.

Strategic resources for supporting online materials development

Universities have responded to the skill demands of online teaching by providing strategic resources to support online materials development in a number of ways. The skills required for online teaching continue to expand as technology becomes more complex and sophisticated (di Corpo, 2001). Consequently, the number of roles undertaken by university teachers has steadily increased (Bess, 1998). For example, in 1985, six roles for teachers were identified (McKeachie, 1986), whilst eight roles were identified for teachers using on-line materials in 2001 (Goodyear, Salmon, Spector, Steeples, & Tickner, 2001). On the other hand, there is some overlap between these roles, and an analysis of the competencies required for online teaching indicates that face-to-face teaching skills can assist with development of online materials (Goodyear et al., 2001).

The pressure to develop skills raises concerns that the educational issues underlying instructional design will be overwhelmed by the demands placed on staff to master a new technology (Atkinson & Brown, 1997). The subsequent focus on technical mastery and reliance upon support from technical staff may result in staff losing sight of the pedagogical aspects of their educational practices and cause a decline in the quality of the teaching and learning experiences offered to students (Bennett et al., 1999).

A strategy to assist staff retain control of their teaching and learning practices while simultaneously introducing new technologies is to make available a 'kit' for creating online teaching resources. This kit would provide 'tools' designed to assist staff create online resources such as interactive quizzes, exercises, case studies, animated simulations, and puzzles. Such a kit could reduce the technical demands on staff while enabling efficient online materials development and encourage increased participation in the conversion of existing teaching units to an online environment.

Once staff are freed from the need to master the technology they are empowered to focus upon the pedagogical aspects of the educational resources they are creating (di Corpo, 2001). Thus, this toolkit approach shifts the focus from dealing with the specifics of technology to an examination of the assumptions underlying the design of a unit to ensure that the pedagogy is sound and built on proven principles of learning. It also encourages explorations of what is possible and desirable in terms of student interactions and assessments to create innovative online learning environments.

This approach has the benefit of not being tied to any particular technology or proprietary platform and is therefore adaptable to changing technologies. It focuses on the core issues of teaching and learning and shifts the burden of grappling with new technology over to specialized staff who possess the necessary skills to manage the development and upgrading of a technically sophisticated solution to the provision of online resources.

Addressing underlying problems with the introduction of new technologies

Apart from the issue of skills required, a large scale movement by universities to shift learning to the online environment threatens the traditional roles of academics by enabling electronic access to lectures, course materials, and assessments from well-known scholars in other universities (Young, 1997). This potential for external sourcing of university services may lead university administrators to attempt to cut costs by reducing numbers of skilled academic staff, replacing them with lower paid staff (Young, 1997).   Even where staff are retained, the introduction of online learning within universities puts demands on them in terms of extra work and skills required (Adams, M. Marshall, & Cameron, 1999; Herrington & Oliver, 2001; Kemshal-Bell, 2001; McInnis, 1999). For example, staff may have to work in teams to make best use of limited resources (Bess, 1998; di Corpo, 2001; Paulson, 2002).

In spite of these problems, there are potential benefits that may lead staff to adopt the new technologies. Foremost are the benefits to students of having more flexible and responsive learning opportunities (McInnis, 2001). While there have been many studies that demonstrate no significant impact of new technologies on student learning experiences, this may partly be due to 'new' technologies being applied in 'old' ways (Twigg, 2000). The promise these technologies offer is to provide learning experiences that are tailored to the individual needs of the student in ways that are not possible with face-to-face learning. Furthermore, teachers who introduce new teaching methods such as online learning often find that their traditional (face-to-face) teaching improves as well (McShane, 2000), and those who take the lead in introducing change can find it an empowering and positive experience (Mooney, 1994).

Staff may therefore require support to be able to look beyond the problems so they can find ways to benefit from new technologies. In this regard, planning for large-scale implementation of online teaching and learning and associated support programs should build on staff expertise in face-to-face teaching to successfully progress through the continuum towards online course development (Bennett et al., 1999). In a strategic approach, the requisite skills for online teaching must be constantly monitored, reviewed and programs should be carefully planned so that 'training' in rapidly changing software programs does not further overburden staff.

Action research as a strategic intervention

A strategic approach to providing staff support involves recognition that staff will avoid risking their jobs and reputations through adopting new, potentially flawed, ideas. Most staff will wait and observe how the 'early adopters' fare. Fostering those early adopters is one possible strategy for bringing about change. However it will only work while the early adopters are perceived to be 'main stream' by the majority of staff (Cleary, 1999). An alternative strategy involves working with staff to change the culture to reduce the risks involved in bringing about change and educational innovation.

Action research as a basis for introducing educational innovation can address fear of change by focusing on positives (i.e. what is working well?) (Cady & Caster, 2000). Fear of change

is often due to a lack of awareness that change is required (Adams et al., 1999) and anxiety that change may lead to negative consequences (MacKeogh & Bancroft, 2000). This fear is reinforced by traditional organizational development approaches that focus upon failure (i.e. what is the problem?) (Cady & Caster, 2000). Appreciative Inquiry, a refinement of action research, avoids this fear by posing the question: how can we take what is working well and make it even better? (Cady & Caster, 2000; Sorensen, Head, Gironda, & Larsen, 1996).

This approach empowers academic staff to build on their strengths to enhance their teaching and learning practices (Bruce & Wyman, 1998; Bushe, 1999; Ford & Ashford, 2000; Yballe & O'Connor, 2000). It involves developing a shared understanding of the context in which change is occurring, visualizing what is possible, exploring ways in which the situation could be improved, and evaluating the outcomes of interventions (Cady & Caster, 2000).

The focus of the evaluation upon 'what have we learnt?' rather than 'were we successful?' is a key to the difference between an action research approach and traditional organizational development approaches (Cady & Caster, 2000). It emphasizes collaboration rather than expertise, and promotes a partnership with staff to search for solutions rather than imposing a solution upon staff.

The focus on 'what have we learnt?' also emphasizes the on-going nature of staff development. Each change that people make to their teaching and learning practices is viewed as just another step in their evolving professional development, and the evaluation provides guidance for the next step. It becomes accepted that some steps are more successful than others, and thus staff can learn from these mistakes. This reduces staff anxiety about the risks of failure and maximizes the potential for successfully incorporating new educational technologies into academic program development.

Conclusion

The successful implementation of large-scale online teaching and learning initiatives depends on clear vision and direction from institutional leaders (McNaught et al., 2000). We have suggested some strategies to facilitate this change. One such strategy is based upon the principle of enabling staff to focus on what they already do well, and exploring ways to support them to do it even better. Another strategy involves providing tools that allow staff to incorporate ICT in their teaching without having to learn the technical aspects of those technologies. These strategies may be implemented in the context of a plan with realistic timeframes and targets that enable a flexible response to the complex staffing and resource issues associated with development of online teaching. This response may involve a combination of top-down and bottom-up approaches that help move the institutional culture beyond ad hoc implementation of online teaching and ensure that the support provided to academic staff results in the development of effective online environments that enhance student learning.

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