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PREDICTING THE FUTURE USE OF WEB-TEACHING TOOLS BY ACADEMIC STAFF

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Abstract
156 academic staff members with teaching responsibilities responded to a 2003 anonymous staff survey requesting information about their future intentions with regard to using web-teaching tools at the University of Adelaide, and the impact of various factors on their decision-making. A discussion of the implications of the findings and how such issues might be dealt with are covered in this paper.

Keywords
Web-based teaching tools; academic staff development

Introduction

'MyUni' is the University of Adelaide's online learning management system (LMS). As part of the next stage of support for an ongoing online education program it was adopted University-wide in December 2001, with a target of providing an online component for all courses for 2002 and beyond. The term 'MyUni' was adopted as a label for the various online services provided. It is linked to the enterprise-level online learning system Blackboard version 5.0 (Blackboard Inc 1997-2000) and Peoplesoft. At the end of Semester 1, 2003, 16% of the 'active' courses in the University course catalogue had content added to MyUni, beyond that automatically uploaded by the central administration (for example, class lists). As there was a substantial shortfall on expectation, a study, supported by a Learning and Teaching Development Grant provided by the Deputy Vice Chancellor (Education), was undertaken to establish the intentions of staff with teaching responsibilities towards their proposed future use of MyUni and web-based teaching tools.

Methods

Data for the study were collected using a literature review (Shannon and Doube, ASCILITE 2003), 12 face-to face semi-structured interviews with staff from all academic areas/disciplines of the University, and a paper-based survey sent to all academic staff. The final survey instrument included structured and open-ended questions relating to background information; knowledge about and valuing of electronic tools; attitudes to and information about the adoption of web-based teaching tools; the impact on students of the respondents' use of web-based tools; the impact on teaching of the use of web-based tools; and future intentions and changes respondents would like in web teaching tools. This short paper focuses on the last of these topics. Qualitative open-ended questions were coded, and descriptive statistics were calculated using SPSS version 11.5.0 (SPSS Inc 2002).

Results

Respondents were asked what their future intentions were for web-based teaching (*Table 1*).

	First choice		Second choice	
	Frequency	**Per cent**	**Frequency**	**Per cent**
Use MyUni	132	88.0	1	2.3
Use other web teaching tools	5	3.3	38	88.4
Never use web teaching tools	5	3.3	0	0.0
Other	8	5.4	4	9.3
Total	**150**	**100.0**	**43**	**100.0**

Table 1 Future intentions for web-based teaching

Eighty-eight per cent of respondents indicated that they would use MyUni in the future for web-based teaching. A simple cross-tabulation revealed that, among the group of respondents who had not used web-based teaching tools (n=35 valid cases), 74.3% said they would use MyUni in the future, leaving nine individuals (25.7%) who did not have that intention. Among the group who had used web-based teaching tools (n=120), 88.3% intended to continue, leaving 11.7% who did not state that intention. In all, 43 respondents (28%) said they intended to use other web teaching tools, either in addition to MyUni or instead. If this proportion is indicative of teaching staff as a whole at the University, it is an important finding, as 'MyUni' is the centrally supported LMS.

Respondents were asked which of 12 factors (derived from the literature review and interviews) would impact upon their decision to use, not use or continue to use MyUni (*Table 2*).

Factor	Yes	Per cent	No	Per cent
Quality of learning and teaching	98	64.9	53	35.1
Personal motivation	64	42.4	87	57.6
Course administration	58	38.4	93	61.6
Your conception of teaching at university	49	32.5	102	67.5
Your own skills	49	32.5	102	67.5
Technology issues	39	25.8	112	74.2
IT training	34	22.5	117	77.5
Staff development	31	20.5	120	79.5
Work issues	30	19.9	121	80.1
University decision-making	27	17.3	124	79.5
Funds	22	14.6	129	85.4
Other	19	12.6	132	87.4

Table 2 Factors impacting respondents' decision about using, not using or continuing to use MyUni

All the issues canvassed had an impact on the decisions of some teaching staff; the most commonly expressed being concern about the quality of teaching and learning that could be achieved using MyUni. Personal motivation had an impact for 42% of respondents. The main category for 'other' impacts related to not having enough time. Since respondents answered this question whether or not they intended to use MyUni in the future, a cross-tabulation was performed to distinguish impacts on their decision among respondents who intended to use MyUni from impacts among those who did not or might not. The first choice for future use was used, and data for 'other impact' were not included (*Table 3*).

Factor	Will use MyUni		Will/may not use MyUni	
	Yes	Per cent	Yes	Per cent
Quality of learning and teaching	88	66.7	10	52.6
Personal motivation	59	44.7	5	26.3
Course administration	56	42.4	2	10.5
Your own skills	46	34.8	3	15.8
Your conception of teaching at university	42	31.8	7	36.8
Technology issues	34	25.8	5	26.3
IT training	32	24.2	2	10.5
Staff development	30	22.7	1	5.3
Work issues	27	20.5	3	15.8
University decision-making	20	15.2	7	36.8
Funds	19	14.4	3	15.8

Table 3 Impact of factors on the decision of respondents to use or not to use MyUni in the future

The main impact on their decision for both groups of respondents was quality of learning and teaching. Other important factors for respondents who intended to use MyUni in the future were personal motivation and course administration. For those who did/might not intend to use MyUni in the future, other important factors were their conception of teaching at university and University decision-making.

Respondents were asked what teaching or related activities they would like to be able to do with MyUni, as an open-ended question. Up to three comments were coded, from 66 respondents (*Table 4*).

Comment category	Frequency	Per cent
More advanced features / activities	41	47.7
Currently available basic activities	16	18.6
Negative perceptions of MyUni	8	9.3
Course administration, management, evaluation	7	8.1
Don't know	5	5.8
Would like no change	4	4.7
Use for particular students or courses	2	2.3
A new teaching challenge	2	2.3
Other	1	1.2
Total	**86**	**100.0**

Table 4 Teaching or related activities respondents would like to be able to do with MyUni

The most common open comments concerned respondents' desire to do more 'advanced' activities which they had not yet done themselves or which they perceived could currently not be done with MyUni: these related principally to the assessment capacity of MyUni (n=17), to other interactive features such as discussion groups and multimedia (n=20), and to course administration matters (n=7).

A key question for University IT planning was 'What needs to change so that you would use MyUni?'. Up to three comments were coded, from 67 respondents. The main changes needed concerned the MyUni system or other tools and the University infrastructure. These comprised 23 comments indicating that respondents would like 'better' tools or different functionality in MyUni, 4 comments directly about infrastructure, 7 relating to access to infrastructure by students and 4 indicating that MyUni would need to be integrated with their department's system. Time and workload issues were also common (17 comments), as was concern about lack of skills / knowledge and the need for staff development / training

(13 comments). Finally the need for support from IT services, department or University was a commonly expressed concern (8 comments).

Discussion

Most respondents intended to use MyUni in the future for web-supported teaching, whether or not they had used it in the past. There was also a significant proportion who intended to use other systems, in addition to or instead of MyUni. Commonly, respondents were keen to increase their use of MyUni, to more of the basic features or to more advanced, interactive uses, particularly in relation to assessment and assessment management. The perceived barriers to their adopting MyUni to a greater extent included concerns about the tool itself, the quality of the learning and teaching possible using web-supported teaching, time and workload pressures, and various aspects of support both for themselves and for their students. These findings gave rise to project report recommendations

Conclusions

A project report, Factors influencing the adoption and use of web-supported teaching by academic staff at the University of Adelaide, was presented to the University Educational Technology Committee and the University Learning and Teaching Committee. A key element of the report was twenty-two recommendations suggested by the findings that related to a variety of types and levels of support needed for web-supported teaching. The recommendations about staff development and training fell into four main sections and suggested that the University:

- address programs to subgroups of teaching staff, particularly those traditionally marginalised by mainstream staff development programs - casual, part-time and off-campus staff
- develop levels and types of use of web-supported teaching, particularly through staff development focused on existing users, who need focused staff development and support for more advanced features, as well as staff development to encourage and inform non-adopters
- increase the accessibility, variety and flexibility of staff development to engage even time-poor academic staff members. For example, staff have asked for presentations from academics in their faculty who can showcase their MyUni practices.
- focus more on staff development in relation to evaluation, which has been an underused means of staff's appraising themselves of the benefits and issues in learning with MyUni for their students. Supported evaluations, conducted to ascertain the impact of MyUni on students' learning, could provide an evidence basis for staff discussion.

Further, the Learning and Teaching Development Unit has inaugurated an Online Learning Program, with new staff skilled in academic web-based learning support and online learning site design support.

Reference

Shannon, Susan and Doube, Loene (2003), 'Factors impacting on the adoption and use of web-supported teaching by academic staff", paper presented at ASCILITE 2003, Adelaide, Dec 7-10.