

# A comprehensive learning space evaluation model

## Project summary

Much attention has been paid recently to the design of learning spaces in the tertiary sector. Recent studies and projects have used thematic pedagogical concepts, such as student-centredness, active learning, collaborative group work and technological enhancement to drive design for educational spaces. In addition, new ways of thinking are surfacing about environments in relation to the nature of student learning, notions of difference and inclusivity across the disciplines, economic and environmental sustainability (Australian Learning and Teaching Council, 2008). However, to date evaluations of learning spaces have largely focused on individual indicators, such as student satisfaction, frequency of use or successful technological integration. While these indicators are useful in the evaluation of particular aspects of learning spaces from the perspectives of specific stakeholders, they do not provide a substantial, systematic or rigorous model for evaluation of the impact across a range of criteria related to design intent, practical implementation or staff and student learning. Without such a model, the development of coherent and credible theory and transfer of knowledge to drive future development is problematic.

Commencing with an examination of pertinent evaluation methods from the sector, and from related fields such as workplace design, this project will develop a comprehensive framework for evaluation of learning spaces that may be applied to a range of design intention and learning contexts. Building on ideas disseminated during the 2007 Places and spaces for learning seminar series, the project team will work with student and academic staff reference groups, services stakeholders and management from three Australian universities to elaborate and trial potential evaluation approaches and strategies from a range of perspectives. The three partners are all currently engaged in the design and evaluation of learning spaces, occupying three distinct learning contexts and design aims: the information/learning commons (Victoria University), student-owned project spaces (Swinburne University of Technology) and spaces oriented to both teaching and independent learning (University of Queensland). An international reference group will provide critical support for the project. Membership of this group will include three international universities (University of Nottingham, University of Warwick and Indiana University) with similarly disparate learning space innovations and substantial experience in learning space evaluation. In addition, representatives from the Next Generation Learning spaces project, JISC and EDUCAUSE will provide international and national perspectives, continuity and extension with current initiatives, ongoing evaluative critiques, and benchmarking of practice.

The outcome of this process will be a coherent model for a full evaluation cycle from conceptualisation and design to implementation and post-occupancy, to re-integration of findings in subsequent development cycles. Primary dissemination methods will include the ongoing participation of groups currently engaged in the decision-making involved in the design of learning spaces; a Learning Spaces Evaluation Toolbox; a web site; a published guide to evaluation processes, issues and aims; a series of stakeholder seminars; and demonstrative case study reports.

## Rationale

Learning spaces in universities are changing. Shifts in student mobility, pedagogy, curriculum management and technological tools are beginning to impact directly on the planning and development of campus learning spaces. There has been a shift away from transmission models of learning to constructivist approaches which emphasise active, collaborative, peer and social learning (Lee, 2006, Brown, 2005). Reflecting this adoption of constructivist approaches to learning nationally and internationally, there is a shift away from the concentration on lecture and classroom spaces to now also include collaborative, informal and social learning spaces. In many cases, the rationale for these spaces extends to the enhancement of student agency and a shared construction of knowledge and learning contexts. The underlying aim of learning space innovation is to improve the student learning experience, and by association, student learning outcomes. However, building new spaces, or refitting existing ones, is an expensive and potentially risky enterprise. An inappropriate space is not only costly in financial terms, but also for the reputation of the institution, student experience and staff confidence in the driving educational principles. But how do we know what an appropriate critical evaluation might be, what elements need to be included or when it should happen? While significant claims are often made for the efficacy of designed learning spaces, there is little evidence that evaluation methods are sufficiently well developed to support these claims.

The lifecycle of space development can be conceptualised around four stages: concept, design, construct and occupy. Each of these stages presents opportunities for evaluation, the findings of which have potential to drive decision-making for latter stages. Approached from an action research perspective (see next section), they also have implications for evaluation practices in renewal for the same space, or for new space developments. Choosing evaluation methods at each stage that can inform subsequent stages, with full awareness of the implications of these choices, is therefore a crucially important task. Current work being carried out has begun to identify the link between curriculum and space, and to consider the alignment between design intent and post-occupancy use, particularly in the integration of concerns with pedagogy, space and technology (Dane, 2007). This work has broached a central concern with understanding pre- and post-occupancy conceptual links, and with claims to facilitation of particular pedagogical approaches. For school environments, there are evaluation standards which deal with environmental comfort, sustainability and operational needs (Collet da Graca et al., 2005). However, no large scale work has yet been done to identify the critical contextual factors in tertiary environments that determine the appropriateness of particular methods for the stage of space development, stakeholder perspectives, and institutional context. Nor has any explicit differentiation been made between practices for their evaluative power, the implications for subsequent stages of the development cycle, or the types of claims that may be made. Some recent authors have described enhancement of student retention (Johnson, 2006) or improved educational effectiveness (Head and Moree, 2006, Robinson and Moore, 2006) as the result of space design. It is not clear as yet how such claims may be linked to learning space design, and how we might evidence this. There is a pressing need to examine the capacity of standard evaluation methods to deal with the complexity of learning space design and operation, and to support such high level claims. Some of the complexities and current approaches to evaluation are briefly outlined below.

In the design stage of learning space development, those involved must grapple with the complex variables inherent in an educational environment. These include the nature of the student cohort, the institutional context and the learning framework, increasing student numbers and expectations of technology integration. To further complicate matters, the focus is increasingly shifting to specific types of student learning activity, such as collaborative group work. During the initial design stage of development, evaluation methods generally focus on needs analysis drawn from anecdotal or formal student surveys (Weaver, 2006), or a 'felt' need expressed by stakeholders. These methods are used to develop the first conceptual proposals. At the point of physical design, there are also generic tools for design development, such as sets of open questions from which to define the design intent (Bennett, 2006), typologies of space function in the educational context (AMA Alexi Marmot Ass. and HAA Design, 2006, Long and Ehrmann, 2005), descriptions of student cohort characteristics and the implications for physical environments (Brown, 2005, Watson, 2007), and the nature of spaces that might facilitate learning from specific educational perspectives (Long and Ehrmann, 2005, Kolb and Kolb, 2005).

While design and pre-construction evaluations help clarify the purpose of the building project and understand the needs of all affected parties and users, evaluating the learning space once it is operational provides an opportunity to demonstrate how it is being used, identify unexpected uses, evaluate the value and effectiveness of the space, measure satisfaction of students and staff, and provide feedback for administration (Lippincott, 2007). Post-occupancy or post-operational methods have traditionally focused on accountability from standard measures such as occupancy rates and frequency of use, or surveys of student satisfaction (Johnson and Lomas, 2005, Mirjamdotter et al., 2006). Johnson & Lomas (2005) argue that while they fulfil some evaluation needs, these methods fail to deal with the broader claims for learning experiences. More recently however, approaches to post-occupancy evaluation have broadened to include psycho-social aspects of behaviour and environment (Hunley and Schaller, 2006), particularly the use of focus group and observational methods to evidence the growth of learning communities within learning spaces. There are good practice examples of these methods from universities internationally, for example in the ES Corridor project at Purdue Indiana, and the Warwick Learning Grid. At UQ video analysis has been used to identify student movements and use patterns in a space. There is also substantial research currently being done in the integration of technology to physical learning spaces. Organisations such as **EDUCAUSE** and the **Joint Information Systems Committee (JISC)** have done significant work in this area.

Cutting across the cycle of evaluation is a divergence of stakeholder responsibilities and needs with regard to evaluations. Wedge and Kearns (2005) argue that representation is needed from undergraduate and postgraduate students, administration, learning and teaching support, technology, media facilities and department leaders. Jamieson (2007) also argues that the process is problematic as long as service delivery, staff and student ownership, learning experiences, technology integration and economic viability all vie for attention. University structures often introduce unexpected barriers to collaborative development, such as departmentalised budgets (Lee, 2007). There are additional issues to resolve with the nuances of the institutional context, for example the strategic or budgetary drivers impacting on decision-making (Hunter, 2006).

What is proposed here is a comprehensive model that engages with the full development cycle and addresses evaluative focus from a range of perspectives, types

of space, domains of interest and institutional contexts. We propose to bring together a wide range of evaluation methods and tools as they relate to stages in the conceptualisation, design, construction and occupancy process in context. The aim is to generate knowledge beyond the individual evaluation method by examining the strengths and limitations of each method in its context, and situating evaluation in a cycle of continuous improvement. While there are abundant examples of evaluations of learning spaces, the model will substantially improve understanding of the field and for universities moving into or reviewing evaluation practices for learning spaces. The project will be salient to the national sector as a result of the situated nature of the trials and cases, but will also be contextualised within a wider global field as a result of collaborative, benchmarking and dissemination activities.

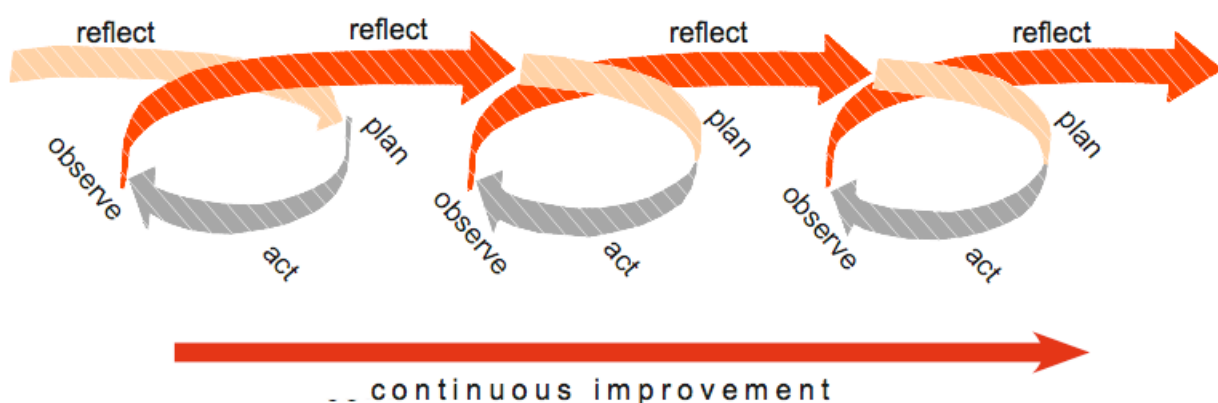
## Approach

An initial literature and practice review will provide the basis for stages of conceptual development grounded in data from trials and cases from around Australia. A meta-analysis of the current literature will also identify categories for methods in use, contexts, driving decisions and claims. From this point forward, the project will operate through two integrated levels: conceptual development of the evaluation cycle model; and critical trial of evaluation methods in the partner institutions. The institutional trials will be based on the initial conceptual model, and inform subsequent iterations of refinement. Case studies will provide further narrative detail on the implementation of evaluation in specific contexts, and from particular stakeholder perspectives.

The development of the evaluation model will take a constructivist approach, employing action research methodology. The iterative nature of action research, involving participants in implementation, action learning, evaluations and reflection (Avison et al., 1999) fits well with the 'conceptualise, design, construct, occupy' cycle of Learning space developments. Action research also links to the conversational framework for learning which includes both 'discursive (theory, ideas, concepts and principles) and experiential (practice, action, application) *elements*, linked by the processes of adaptation and reflection' (Laurillard, 2008). The action research approach will facilitate the consideration of contextual (discursive) variables that influence design and evaluation; and the potential for evaluation throughout the lifecycle of a learning space (experiential aspects).

### Figure 1: action research cycle

(redrawn from [www.heacademy.ac.uk/assets/hlst/documents/heinfe\\_exchange/act\\_res\\_cycle.doc](http://www.heacademy.ac.uk/assets/hlst/documents/heinfe_exchange/act_res_cycle.doc))



The participatory nature of action research encourages inclusion of practitioners in the research cycle (Kember, 1998). In order to develop an understanding of the drivers of evaluation decisions from multiple perspectives, a participatory action research approach will be utilised for institutional trials. The process will incorporate a range of participant perspectives and needs through engagement and co-design of evaluations with reference groups drawn from across each institution. These perspectives will be explicitly identified in the evaluation rationales. The intention here is to develop a participatory process that feeds the development of initial 'best fit' methods for each institution, and the impetus to develop and run subsequent cycles of evaluation with explicit reference to the needs, perspectives, and claims that are being addressed. The overall aim is to investigate evaluation methods in use across the sector for their strengths and limitations in context, and to express contemporary evaluation practices within a framework that allows for multiple domains of interest, drivers of decision-making, and points in the 'conceptualise, design, construct, occupy' cycle. Although the process will be iterative, drawing on the institutional trials and case collections, several distinct stages can be identified:

#### *Mapping current practice*

- Identify types of learning space appearing in practice and the current debate around campus design
- Map the range of evaluation methods, techniques, and associated claims in use
- Identify evaluation focus present in the design articulation, methods and claims
- Identify evaluation approaches during space development stages of concept, design, implementation and post-occupancy

#### *Identifying the stakeholder needs*

- Identify stakeholders in the planning and evaluation phases of space design
- Consider domains of evaluation focus as they are relevant to specific stakeholder groups
- Undertake a gap analysis in relation to stakeholder requirements and existing practices

#### *Application in context*

- Selection of evaluation methods appropriate to specific spaces, stakeholder interests and stage in development cycle
- Institutional trials of evaluation methods incorporating ethical approvals, stakeholder input, data collection and analysis
- Incorporation of stakeholder feedback to a critical evaluation of limitations with regard to efficacy, feasibility, and claims

#### *Evaluating for foresight*

- Map evaluation needs for variations of learning space intent, stakeholder interest, and stage in cycle
- Identify consistent limitations with regards to efficacy, feasibility and claims
- Check veracity of findings with stakeholders and experts in the field
- Suggest integrated and inclusive approaches to ongoing design and evaluation processes

### **Themes**

Throughout this process, four critical themes will guide the questions:

- *Imagining a process*: Who is and will be engaged with the space, and what tensions arise from differing needs? How do we make the connections throughout the process so that each stage is informed by the previous?
- *Measuring*: What do we evaluate against: previous facilities; state of the art; theoretical possibilities; objectives; intended or actual use; design criteria; student experience; and/or learning outcomes? Who should we be asking and what should we be asking?
- *Critiquing*: How do we ensure that our initial assumptions about the way students will use a space and the impact on learning are not misdirecting our evaluation process to only give us the answers we want to hear? How do we accommodate the unexpected?
- *Closing the loop*: How do we create recommendations from this knowledge that will inform future developments? Can we respond to these outcomes critically in order to improve the evaluation process itself? How do we disseminate this information to sustain a wider critical debate?

## **Project outcomes and dissemination**

In addition to the embedded dissemination processes outlined earlier, dissemination activities will cover a range of activities and occur locally, nationally and internationally. Dissemination deliverables will include:

- *Cross-institutional collaboration between the project team and reference groups*. Regular meetings between project leaders and reference groups will be scheduled ensure efficient dissemination of individual partner university activities.
- *Learning Spaces Evaluation Toolbox*. Introduced in the context of the larger model, a Learning Space Evaluation Toolbox will be developed which will include evaluation instruments, descriptions of their use in context (case studies), templates and guides to implementation.
- *Web site*. Potentially linking to the ALTC Exchange or incorporated within it, the web site will contain information about the project, links to the Toolbox, relevant research, case studies and reports. It will also have links to significant organisations with a recognised expertise in learning space design and evaluation such as JISC and EDUCAUSE.
- *Workshops and reference group meetings at participant universities*. Workshop and reference group meetings at participant universities will be scheduled throughout the project to enable ongoing dissemination of project activities and outcomes.
- *Linkages and extensions to existing communities of practice around learning spaces*. Through the involvement of institutional and external reference group members the project will build and extend links to existing activities around learning spaces such as the Next Generation Learning Spaces project, JISC and EDUCAUSE. In addition, JISC is currently inviting tenders for a project to identify 'effective evaluation models and practices for technology supported physical learning spaces'. The two projects are complementary in their focus: while the JISC project is primarily concerned with evaluation of technology integration, the project proposed here will focus on the evaluation of the spaces themselves. It is anticipated that the project team will collaborate with the successful group undertaking this project for the purposes of benchmarking, sharing and disseminating practice.

- *State seminars and workshops.* A major focus of dissemination will be the four state seminars (Queensland, New South Wales, South Australia and Western Australia), and a forum (Victoria). These activities, planned for sharing project outcomes, will also help to build and extend existing local and national communities of practice around learning spaces.
- *Presentations at national and international conferences and symposia.* Each of the partner universities is scheduled to present at the Next Generation Learning Spaces Colloquium in October 2008. Both the University of Queensland and Swinburne project leaders are presenting, and the Swinburne partner is presenting on the learning space to be used as a trial site in this project. It is envisaged that this will present an opportunity to discuss, gain feedback and build networks with interested institutions and individuals. Building on this and extending the reach of the project, the project team will be active in presenting at national and international conferences and forums. An example of this would be attendance and presentation at the EDUCAUSE conference in Perth in 2009.
- *Consultancies for institutions planning campus developments.* The team will provide consultancy services in the use of the evaluation model and tools during the period of the project and beyond.
- *Journal articles.* The project team will publish in refereed international journals on aspects of the project, including the evaluations model, tools and processes developed.

More specifically, the project deliverables to the ALTC will comprise:

- A comprehensive evaluation model. The model will include explanations of the development cycles and dimensions, the Toolbox of case studies, tools, instruments and critical guides.
- The project website, including documents and papers from all dissemination and benchmarking activities.
- The interim report, financial statements, evaluation report and a final report as specified by the ALTC contractual requirements. The final report will include a thorough explanation of the findings of the study, the institutional trials and the issues raised through reference group and other partners. An annotated Endnote library will be included as a digital appendix to this document.
- Copies of all records and documents of the project, archived and stored as preferred by the ALTC.

## Management

A Project Leader (PL) will be based at the lead institution, along with a Coordinating Project Officer (CPO). These two roles will have specific responsibility for the coordination of project activities and for maintaining effective communication lines across national and international partners. Overall, however, the approach to the project process will be participatory. Each partner institution will have an Institutional Project Leader (IPL), who will drive internal investigations and trial approaches. Common issues and overall development direction will be shared by the three project leaders. The project team has been chosen for their collective expertise in education and evaluation, and for their leadership roles in campus development projects in their respective institutions.

In addition to these coordinating roles, research assistants at two of the institutions will provide support for the trials, managing the background literature, ethical approval documentation, data collection and analysis. They will collaborate with the CPO at the lead institution in the collation and reporting of the trials. The CPO role will include research support for the trial at the lead institution.

The involvement of the reference groups is also a substantial part of the intra and inter-institutional action learning and dissemination process. Institutional reference groups comprised of stakeholders from across the university will be recruited, and will provide two crucial benchmarks for the project. Initially, their feedback on the variety of perspectives to be taken into account in evaluation of spaces will support both the critical review of literature and the development of dimensions in the overall model. As the project progresses, it is also intended that these groups provide feedback on the capacity of the model to deal with a range of situations and evaluation needs, and the efficacy of the trials in the institutional context.

The partner institution spaces occupy three distinct learning contexts and design aims. These are described below in order to demonstrate the breadth of practical, conceptual and physical variation present in the trials.

- *Supported learning commons (Victoria University)*

Victoria University has been involved in the process of analysing and redesigning library spaces since early 2005. The principles underlying the subsequent changes to several VU campus libraries were based on the perceived need for more learner centred spaces which supported access to technology, encouraged collaborative learning practices and allowed learners to study in ways that suited them. The VU campus libraries at the City, St. Albans and Werribee have been reconfigured to better facilitate these principles. The aim is for these spaces not only to enhance the provision of, and access to resources - technology, information and communication – but to create a student space that encourages learning conversations and the development of a shared body of practical knowledge and skill about learning at VU. An essential element of this approach has been in the introduction of Student Rovers. Rovers are experienced and successful VU students who have previously been involved in other VU student learning programs such as Peer Mentoring, Host Programs and so on. Because they have demonstrated their understanding of academic systems and of learning demands (through academic results and a variety of other measures), these students, it is envisaged will be able to model the ways in which successful students undertake effective learning.

While it is clear that good architectural design is a requirement for developing an effective Commons, the true potential of the concept lies in how the space is used. VU has coupled physical redesign with a rethink of service delivery. The VU innovation then is less tied to the actual physical or virtual furniture and shape of the space the student occupies but rather emphasises the way that space is 'peopled'. Evaluation of the impact of such approaches on student learning, and on student engagement with institutional demands, remains a challenge. VU has of course noted the significant increase in student use of library spaces since the introduction of Commons at the three different locations. In addition though, Student Rovers have been encouraged to use a participatory action research approach to become researchers/evaluators of their own practice. Sample groups of students too (not Rovers) have been asked to keep a diary/reflection of their use of the Commons over set periods; staff and student focus

groups have been set up and analysis of the content of the social networking tools used by the rovers has been undertaken.

Given that Learning Commons will become a part of all eleven VU campuses over time, the ongoing challenge will be to develop a tried and tested systemic approach to evaluating these learning spaces. In such a context it is increasingly important that these evaluative/reflective practices examine and record the authority of claims that such innovations actually do contribute to an improved student experience. The question that is being asked is in what way these relatively expensive physical and technological reconfigurations in fact contribute to improved outcomes for students. At VU, it also becomes a question of whether the emphasis we have placed on the learning occurring in such spaces as essentially student-generated or student led, positively impacts on outcomes. Effective evaluation must examine the changes to spaces and the way these spaces are 'peopled' foster collaborative and autonomous learning; offer flexibility and choice; and enhance/encourage/ promote creativity and confidence. The challenge at the moment is to define what 'improved' means in this context and to develop a sufficiently nuanced measure for this.

- *Curriculum led independent learning spaces (Swinburne University of Technology)*  
As part of the Swinburne Professional Learning model, all undergraduate students at Swinburne undertake two final year major professional projects. Students working on these projects are expected to spend significant amounts of time working independently and in groups to their own schedule. Recent research with students has found that giving them more independent group working spaces was the single most important thing we could do to improve their experience. The Hawthorn Project Hub is intended as a place that responds to this need, and that facilitates a professional community of practice. The conceptual development of the space has been informed by a reference group including students, academics, management and services departments, and by the process and product requirements of a project-based curriculum.

This input has culminated in a design based on four zones: creative, focus, social and individual. Infrastructure includes extensive power access, data projectors, remote screens, hard and wireless networks, desktop PC and laptop access. Building on existing student familiarity with the software, video-conferencing is to be embedded in project collaborative potential through use of ConnectNow and Skype. More traditional working tools are also to be fitted in the space, including wall-length whiteboards and displays for work in progress. A 'shop-front' to the street can be opened for exhibitions and events.

Maintaining the participatory process, the project team are now recruiting a second-round reference group comprising students from the Hawthorn Campus, academics, facilities and services and library staff. The purpose of this group will be to establish how to best manage the day to day running of the space, student representation, communications, room bookings and access. This existing reference group representing a wide range of perspectives, interests and needs in regard to the design and evaluation of learning spaces. The next stage, in 2009, will be a post-occupancy evaluation of the space and the process. It is this stage of the evaluation cycle that presents the greatest challenges in aligning the evaluation method with the philosophy, participatory process and practical outcomes that drove design intent. However, it is also crucial as the formative model for a full design and evaluation process and source

of data for additional new informal and collaborative spaces at three campuses, scheduled for development over the period 2009-11.

- *Flexible use for teaching and independent learning (University of Queensland).* The University of Queensland has been highly active in the area of learning space innovation and in recent years has opened a number of innovative spaces including the Collaborative Teaching and Learning Centre at the St Lucia Campus (2006) the Regional Collaborative Teaching and Learning Centre at Gatton (2007) and a further Collaborative Teaching and Learning space at St Lucia (2008). The first of these spaces, the CTLC at St Lucia, was developed under the then Deputy Vice Chancellor (Academic), Margaret Gardener, who believed that existing learning spaces did not adequately support student-centred, peer and collaborative approaches to teaching and learning. Consequently these innovative spaces at UQ, have had a particular focus on encouraging collaborative approaches to teaching and learning, have been designed as both teaching and learning spaces, and are included in the centrally timetabled spaces.

The spaces are designed to support different modes of teaching including individual mode, seminar mode and pod mode in the one space, with technology enabling a seamless transition between the different modes. The centres are equipped with a range of technologies including presentation tools such as document cameras and plasma screens to support collaborative endeavours. While the centres have computers installed these are at the rate of one computer to two or three students in order to further encourage collaboration. Each iteration of the CTLCs at UQ has built on lessons learnt from earlier versions, enabling continuous improvement in the approach to learning space design, development and usage. However, little work had been conducted to date to evaluate the CTLCs in relation to the range of stakeholders involved in their development and usage with respect to student learning outcomes.

In late 2008, UQ will open the Advanced Concept Teaching Space (ACTS) an experimental lecture theatre. This space is designed to explore ways in which lectures can be made more interactive and incorporates a number of unique design features such as double tier seating and swivel chairs as well as many technological innovations to support student activities and interactions. Software such as DyKnow will be installed as well as software versions of student response systems. This space is designed as a research space as well as a teaching and learning space and the University is particularly interested in researching the impact of ACTS on student learning outcomes. Given the range of innovative learning spaces at UQ and the institutional commitment to ongoing development of learning spaces there is a need for a holistic approach to learning space evaluation. This approach needs to address the range of stakeholder needs in particular the need to evaluate the impact on learning outcomes of learning space developments.

## **Evaluation**

In keeping with the ALTC evaluations approach, a comprehensive evaluation strategy will address the project implementation and outcomes. We propose an action research approach which facilitates the use of ongoing evaluation embedded in all project activities. The action research approach will enable regular opportunities to review project activities, assess their effectiveness and make any adjustments. Institutional reference groups plus an external reference group will provide ongoing evaluation of the project processes and outcomes. Institutional reference groups will comprise representatives from academic, management, services and student groups within each

institution. The external reference group will comprise the three international collaborating universities (Warwick, Nottingham, Indiana), organisations with specific areas of expertise relating to learning spaces (JISC, EDUCAUSE), and individual experts in the field acting as consultants to the project.

In addition to the ongoing benchmarking and consultative activities throughout the project implementation process, core project activities will be undertaken using the action research cycle. For example, in the development of the evaluation toolbox, institutional reference groups will be asked to take part in ongoing development, trial and refinement of evaluation methods, tools and processes. The external reference group will also be asked to provide feedback on the applicability and credibility of the overall model, and the useability of the toolbox.

State seminars will provide another opportunity to solicit advice and feedback on the project. We envisage that presentations will incorporate discussion of both the institutional trials and the development of the overall model. Information will be sought from participants on their perspectives with regard to the applicability of the model and tools to their context. As part of an ongoing gap analysis, they will also represent an opportunity to gather further case material and to refine the model itself. The seminars themselves will also be evaluated by the use of seminar feedback surveys.

At the conclusion of the project the international reference group will be asked to formally evaluate the project in its entirety. In addition, an external consultant will be invited to undertake an evaluation from a fresh perspective. In order to facilitate this final evaluation process, an audit trail will be maintained and linked to project archives.

## **Budgetary requirements**

### **Personnel**

*Project Leaders:* The project leader Ms Nicolette Lee will devote 40% of her time to the project for each year of the project. 20% is requested from the ALTC. Co-project leaders, Ms Trish Andrews and Dr Julie Dixon will devote 20% of their time to the project for each year of the project. 10% is requested from the ALTC. The project leaders will have overall management responsibility of the project, will design and direct the institutional trials, and supervise all research activity. They will also take responsibility for designing, developing and delivering the State Seminars. The project leaders will oversee the design of the Learning Spaces Evaluation Toolbox and the Website.

*Coordinating Project Officer:* The coordinating project officer will coordinate the institutional and international reference groups, and will undertake a significant proportion of the initial comprehensive literature review. They will take responsibility for the day-to-day running of the project including liaising with all team leaders. They will also have role in designing, conducting and analysing the institutional trails in their institution including the development of evaluation tools and approaches.

*Research Assistants:* 2 research assistants will be employed at the University of Queensland and the University of Victoria. 50% of this cost is requested. Research Assistants will support the ongoing literature review process. Their primary role will be to support project leaders in designing, conducting and analysing the institutional trials in their institution. They will have a key role in collecting and documenting national case studies.

*Administrative officer:* An administrative officer will be required to undertake routine administrative duties. This cost will be covered by Swinburne University of Technology.

### **Project support**

*Miscellaneous consumables:* Participating institutions will cover the cost of miscellaneous consumables such as photocopying, phone calls, space and facilities for project personnel. 4% inflation costs have been allowed for in year two.

*Team meetings:* These meetings will support sharing of activities and collaboration on project activities. Funds are sought from ALTC for travel, accommodation and catering. 4% inflation costs have been allowed for in year two.

*Videoconferencing meetings:* The project team will conduct regular videoconferencing meetings for the running of the project. These are covered by the participating institutions. 4% inflation costs have been allowed for in year two.

*Consultancy Fees:* The project team request funds for allocation to expert consultants to the project. The timing and nature of these consultants will be determined by gaps identified in practice, and may include academic and/or professional expertise.

*Catering for reference groups:* Costs for reference group catering will be covered by participating institutions. 4% inflation costs have been allowed for in year two.

### **Project activities**

*State Seminars and Melbourne Forum:* The State seminars and Melbourne Forum are a key dissemination strategy and are intended to reach as many people as possible across the country. Funds are requested from ALTC for travel, accommodation and meals for project team members and catering for seminar participants.

*Web development:* The web site is also a primary dissemination strategy and will form a hub for the community of practice around Learning Spaces. Participating institutions will also contribute to the costs of web development. The website itself is to be hosted either at the lead institution or within the ALTC site. Site design will minimise maintenance costs and enable novice user updates through the use of templates.

*EDUCAUSE Conference Attendance and Oxford symposium:* EDUCAUSE is recognised for its interest in Learning Spaces and the conference is highly appropriate for project dissemination. Funds are sought for travel, accommodation and meals for two team members. Funds for one team member's travel to the Oxford symposium on Social Learning Spaces will be covered by SUT. This will provide an opportunity for international dissemination of the project in a highly appropriate forum.

*External Evaluation Fees:* An international consultant will be invited to conduct the summary evaluation. This will provide both an international perspective and an objective review.

## Timeline

Dark areas show planned period, lighter shading shows potential overflow and/or general activity expected.

Task (YEAR ONE)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Planning period	Dark	Dark	Dark									
Recruit project officer	Dark	Light										
Period of employment: PO				Light	Light	Light	Light	Light	Light	Light	Light	Light
Aus team videoconferences	Dark		Dark		Dark		Dark		Dark		Dark	
Aus team meetings						Dark						Dark
International videoconferences			Dark						Dark			
Preparatory desktop research			Dark	Dark	Dark							
Base model development					Dark	Dark	Dark	Dark	Dark			
Case gathering		Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light
Toolbox content collation/design											Dark	Dark
Recruit research assistants		Dark	Light									
Period of employment: RAs						Light	Light	Light	Light	Light	Light	Light
Recruit reference groups		Dark	Light									
Reference group meetings					Dark			Dark			Dark	
Institutional trials										Dark	Dark	Dark
Recruit contract web designer								Dark				
Base website design and upload (20 hours)									Dark	Dark	Dark	
<b>Interim report due</b>												Dark

Task (YEAR TWO)	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Period of employment: PO	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light
Period of employment: RAs	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light
Aus team videoconferences	Dark		Dark		Dark		Dark		Dark			
Aus team meetings						Dark					Dark	
International videoconferences			Dark				Dark				Dark	
Case gathering	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light	Light
Reference group meetings		Dark			Dark			Dark			Dark	
Institutional trials	Dark	Dark										
Trial evaluation analysis			Dark	Dark								
Trial reports					Dark	Dark						
State seminars							Dark	Dark	Dark	Dark	Dark	
ALTC Forum Melbourne											Dark	
Web toolbox design and build (30 hours)	Dark	Dark	Dark									
Web toolbox testing (web cost: 8 hours)					Dark	Dark						
Final model development						Dark	Dark	Dark	Dark	Dark		
Web toolbox review/amendments (16 hours)						Dark	Dark	Dark	Dark	Dark		
Web toolbox final upload and test (4 hours)								Dark	Dark	Dark		
Formal external evaluation										Dark	Dark	Dark
<b>Final report due</b>												Dark

## Staged Deliverables

By the conclusion of the first year of the project, the following will be deliverable to ALTC:

- Basic project website, linked to partner organisations
- Base evaluation model (explication of the evaluation cycle and dimensions)
- National case studies
- Toolbox content (overall concept, set of evaluation instruments)
- Reference group reports
- Institutional trial plans and initiation documents
- Financial and interim report

By the conclusion of the second year of the project, the following will be deliverable to ALTC:

- Full project website, including documentation from all project activities
- National and international case studies
- Evaluation Toolbox (fully navigable, useability tested, cross-referenced to dimensions and cases with complete sets of evaluation instruments, examples, critical guides)
- Detailed evaluation model (cross-referenced cases for dimensions)
- Institutional trial outcomes and reports
- Financial and final report

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