5.8 The Hawthorn Project Hub at Swinburne University of Technology

What it is?

The Hawthorn Project Hub is located within the Hawthorn Campus of Swinburne University of Technology in Melbourne, Australia. It occupies approximately 1,000sqm in a former basement car park. It has direct access to the library 'Late Lab'. The overall budget for the project was $2.5m.

Figure 1: Hub floorplan

Nicolette Lee
SWINBURNE UNIVERSITY OF TECHNOLOGY, AUSTRALIA

The Hawthorn Project Hub has been designed to take up every inch of the available footprint (see figure 1), accommodating group and individual work, meetings with clients and other external partners, and every aspect of project development barring physical prototyping. It houses a combination of meeting and boardrooms, social and informal learning spaces designed to accommodate group practices. The Hub is accessible to final year students only, and has gallery spaces and the facilities to deliver presentations to project clients, and exhibitions of student work to large groups.

Why it is?

Over 2006 and 2007, research was undertaken with students to gain a better understanding of group project experiences at Swinburne. Findings from this research included a strong indication that space for project teams to meet was the single most important thing we could do to improve their experience. This was more important overall than curricula or pedagogical changes. Students and academics also reported a strongly positive sense of community, ownership and commitment to their work in those cases where dedicated project spaces were available. It became clear that the physical environment had a significant impact on team and project experiences.

Over the first half of 2008, a team from the Swinburne Professional Learning Unit and Facilities and Services has been working to design the Hub. A reference group including students, academics, management and services departments has provided a means of multidirectional communication about the process and product requirements of a project-based curriculum, and the characteristics of a project-oriented campus space. The most critical decisions have been around how we develop a space that fosters independence and accommodates the needs of student project work. Along the way, the design team have been responsible for the final decisions on how the space is developed. However, in every case, the reference group has been consulted and asked for feedback as the plans have evolved. In the latter stages, dealing with the detail of access, policies, promotion and support has fallen to a management group. The group continues to use the input of stakeholders from across the institution for decision-making.

In tertiary education over recent years there has been a shift towards constructivist approaches to learning and teaching which emphasise active, collaborative, peer and social learning (Brown, 2005; Lee, 2006). Reflecting this shift, a key feature of the Swinburne Professional Learning model is that from 2009 all undergraduate students' final year will include one quarter of the workload as major professional projects – 'capstone projects'. These projects are an opportunity to develop professional and personal maturity in Swinburne graduates, with an emphasis on inter-discipline, teamwork, industry relevance and/or partners, project management and a range of skills and knowledge gained through active, hands-on, real world experiences. As with the project units that have been running across the disciplines for many years, a great number are designed as group projects of significant complexity and scope. In all cases, students are expected to collaborate effectively, manage their time, and work productively in a manner that reflects a professional approach. The Hawthorn Project Hub is intended as a place that responds to the needs of a project–based curriculum, and to facilitate a student community of practice.

What Happens Here?

The fundamental purpose of the space is to provide a creative space for students to engage in their projects. The nature and scale of these projects is a key underpinning consideration in the design. Students working on major projects will often be required to work extensively together outside of class time, frequently across disciplines, and for some, across faculties. They are expected to meet and, working within their combined timetabling constraints, develop ideas, produce project outcomes and prepare and rehearse presentations. Students engaged in major professional projects require spaces that facilitate collaborative working and a sense of community.

The Project Hub is a dedicated space, large enough for various sizes of project teams, working groups and activities, and is designed to provide the context for:

- Team meetings, brainstorming sessions and general collaboration;

- Small group peer reviews and cross-group collaboration;

- Project development including writing and multimedia work;

- Presentations including inter and intra group rehearsal and review;

- Individual and informal social study; and

- Meetings and presentations with external partners or clients.

In 2007, a proposal was put forward to Swinburne Council to develop a dedicated project space for students at the Hawthorn Campus. The proposal was based on an evaluation of need in three areas: student experience of group projects, increasing emphasis on project-based learning experiences in final year studies, and student reports of a sense of transience at the Hawthorn campus. Swinburne is among the most space-constrained universities in Australia, so space is at a premium. Using commencement data and current student data we can estimate that approximately 2200 students will be undertaking projects in 89 units of study at the Hawthorn campus. Of these, following current patterns, we can estimate that around 1500 students are likely to be working in project teams. With current students reporting that there is insufficient meeting space for group work, the matter of providing learning spaces dedicated to this purpose was urgent. A lateral solution to this problem was proposed – the transformation of a basement car park into a high-value student learning space. From February 2009, students working on projects will have exclusive use of the space to carry out project work.

How is the space used?

The space has been designed based on five key concepts based on the project experience: creativity, interaction, reflection, action and communication. This has culminated in a design based on three major design zones: creative, focus, and social.

Creative zones are open spaces with half-height wide shelving/benches providing curved boundaries. These boundary walls also provide storage and high sitting or working space. Inside the walls, comfortable tub seating and low tables are oriented to wall-length whiteboards.

Focus zones are designed in several types: small group meeting rooms accommodating 4-6 students (the average team size); boardrooms designed for meeting clients or giving presentations; and a desktop computer area. The computer area is designed to be wide enough to accommodate groups of students gathering at a computer. An additional 'docking' bench is provided at one end of the space along an otherwise unusable wall, for laptop use and recharging.

Three social zones are to be furnished with soft movable seating. In one, wall size pinboards dominate. In the largest, a projection screen makes use of the biggest wall space and viewing distance in the Hub. Each area has differentiated furnishings and fittings to support both informal and formal group activity. Additional booths and tables are placed to make use of what would otherwise be 'dead zones' in the space due to access issues, such as plant rooms and storage. A street access will be opened up to create an operable glass wall to allow the Hub to be opened for public access for events such as student-organised exhibitions.

The whole space, in effect, will operate as a formal and informal working and event space. The openness of the space and its design to accommodate a variety of working activities will allow students to make choices about how and when they make use of the facilities. Feedback from students and academics to date suggests that this flexibility and sense of student-ownership is one of the most valued aspects of the design.

Learning spaces in universities are typically controlled by the university through timetabling and managed access. The Hub is a student-owned learning space, designed to support final year students in a professional community of practice. The aim is therefore to provide students with a space that not only facilitates their project work, but is also a learning experience in itself, effecting a transition to independence. A management committee model, including student representation, will drive future directions for design and management of the Hub, and inform new campus developments. Faculties are also exploring the use of student experiences on a Hub Committee as part of the project experience in itself.

How is technology used?

Technology is to be used to support project activity, including the collaborative processes, client presentations and display of final project outcomes. For day-to-day working needs, desktop PCs and laptop loans have been built in to the plans for the Hub. The infrastructure to support their use includes extensive power access and both hard and wireless networks. Boardrooms

and meeting rooms will have LCD screens with wired connections for laptops and projectors. In the largest social space a wall-size projection screen is fed by a ceiling mounted projector and DVD player with additional wall-mounted speakers. Building on existing student familiarity with the software, the potential for cross-institutional and external partner collaboration is to be supported with web-conferencing.

Along with the technology infrastructure, more traditional working tools are also to be fitted in the space, including wall-length whiteboards in the creative areas. Pin-up display systems for work in progress are included along corridor walls. All of the fitted technology is designed to serve double duty as part of the working experience of students doing group work, and for exhibitions and events. The large projection screen, for example, faces into the largest open social space, allowing for large audiences. Displays and focus room screens mean that every space in the Hub can be utilised for showing as well as developing project work.

How was the facility evaluated?

Informal and formal evaluation cycles have been incorporated into the conceptualisation, proposal, planning, and design phases of the project Hub process. The Swinburne Professional Learning Model, the nature of project curricula and the experiences of students undertaking group projects, have highlighted several practical environment needs. Building on some of the insights presented by Jamieson (2007), multiple stakeholders have been involved in the development of ideas and plans as a reference group or actively within the team. The reference group represents a wide range of perspectives, interests and needs regarding the design and evaluation of learning spaces. Students, academics, management and services departments have all been involved in the design process, and have provided feedback on the relationship between the space and curriculum requirements.

Maintaining this participatory process, the project team is 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 as a starting point. Subsequent management of the space will be taken on by a management committee including student representatives.

The next formal evaluation will be a post-occupancy evaluation of the space. 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 as a source of data for new informal and collaborative spaces.

As a result, a proposal is underway to develop our evaluation processes further in a comprehensive cycle, taking into account the challenges presented in incorporating the needs of a range of stakeholders. Two national universities - Victoria University and the University of Queensland – are working with us to share evaluation practices. Three international universities and several organisations involved in the development and evaluation of learning spaces, have also volunteered their assistance as critical friends.

The 2008 AUQA (Australian Universities Quality Audit) panel affirmed the Hub's curriculum-focused design direction, its validity for Swinburne students and as an 'essential component of the Professional Learning Model' (Australian Universities Quality Agency, 2008). While the Hub now goes into full construction, more campus learning spaces are proposed. A refurbishment of the Lilydale Atrium is to include a mezzanine project space for students, and independent learning spaces at the Hawthorn and Prahran campuses incorporate some of the student feedback from the hub concept. The themes developed as part of the Hawthorn design, the

inclusive process, and the results of the first round of evaluations, will also be fed back into the proposal stage for a new building at the Prahran campus. Students in Interior Design were also briefed with the same project, and the outcomes are to be shared with a newly formed management committee, and have the potential to inform future campus development.

What were the main lessons learned?

In the early stages, we were surprised by the sheer number of stakeholders, and confronted by the need to incorporate the sometimes very different perspectives of different groups. The task of bringing together those needs and building consensus required a level of vision and communication that challenged us, but we believe that it also drove the design to a more sophisticated level. Strategic direction and budgetary drivers, as described by Hunter (2006), have certainly contributed to the decision-making process and their impact needs to be taken into consideration in any space planning and evaluation process. Having a space that was originally designed for utilitarian plant purposes has also proven challenging. Agreement has had to be reached to suit the needs of electricity providers, plant machinery and extraction systems, while maintaining a workable design for the students. Managing sound, air, light, heating and access all have presented design challenges to be overcome.

There was also an unanticipated challenge in managing the access systems through our student management system. Collaboration between the team, ITS, the library, and Facilities and Services has been needed to solve technical issues in identifying and providing access to students that we would not have guessed at in our early planning, nor would we have been able to begin to solve them without the active support of those groups. The final resolution of some of these issues may not be achieved until several iterations of trials have established the limitations and opportunities of the systems already in place.

Most positively, the enthusiasm of students and academics about the space and the vision of student engagement with it have been extraordinary. We initially anticipated that academics might find the idea that students would invite them into the space to be an uncomfortable one. On the contrary, they have embraced the concept and given their own time to sourcing feedback on how student management might be achieved and facilitated. Our consultative process with representative groups evolved over the period of the design development. In particular, students and academics have been extraordinarily insightful and supportive and could have been even more involved in the design process given sufficient time to deal with the communication issues that arise when engaging with many perspectives. However, the management group for the Hub will become a resource that we can use in the development of new learning spaces across the campuses. Focus groups are now being arranged with students to establish their perceptions of the feasibility of student engagement and representation in the direction of campus spaces.

We believe that the fundamental task in developing new learning spaces is to identify and understand the needs of stakeholders. Asking the target users about their environmental needs and understanding the curriculum it was to serve, in our case, were also crucial. This allowed us to consult widely but also to present a vision with which stakeholders could engage. Support from senior management in the university has also been phenomenal – including those whose parking spaces are being co-opted. Their advice and interest has empowered us to drive forward the vision and understand the potential obstacles to campus development.

Acknowledgements

References

Australian Universities Quality Agency. (2008). Report of an audit of Swinburne University of Technology.

Brown, M. (2005). Learning spaces. In D. G. Oblinger & J. L. Oblinger (Eds.), Educating the net generation. Washington: Educause.

Hunter, B. (2006). The Espaces study: designing, developing and managing learning spaces for effective learning. New Review of Academic Librarianship, 12(2), 61-81.

Jamieson, P. (2007, 4th - 5th July). Rethinking the University Classroom: Designing 'Places' for Learning. Paper presented at the Inaugural Next Generation Learning Spaces Colloquium.

Lee, N. (2006). Design as a learning cycle: a conversational experience. Studies in Learning, Evaluation, Innovation and Development, 3(2), 12-22.