Architecture
Interior Design
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Australia
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Hong Kong
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NOT LAZING, LEARNING!

How informal spaces power student learning in universities

September 2017

HASSELL

Acknowledgements

Informal learning spaces

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01 Executive summary

"Formal learning is like riding a bus:
the driver decides where the bus is going;
the passengers are along for the ride.

"Informal learning is like riding a bike:
the rider chooses the destination, the speed
and the route."

Jay Cross [1]

Introduction

In an increasingly diverse and technology enabled higher education sector, many university space design guidelines are outdated and inadequate.

Universities recognise that new teaching methods require new types of spaces that enable both problem-based active learning, and peer-to-peer interaction outside of formally timetabled classes. But space guidelines for informal learning areas are limited in scope.

Progressive universities are going beyond established space provisions and providing more than the recommended allocations for informal learning space. Their students are reaping the benefits of dedicated areas to use as and when they need.

Over recent years, HASSELL has identified four types of informal learning activities – Focused, Discussion, Doing and Social, which can occur alone or in small or large groups.

These study methods need a variety of spatial settings. From a centralised library as the heart of a campus, to the de-centralised model of small lounges adjacent to specialised teaching areas, this study explores how students are using these spaces, and speculates on the next iteration of informal learning on campus.

Key findings

While each student cohort and university property portfolio is different, this study reveals common issues across eight institutions in Australia, the United Kingdom and Singapore.

1. Comfort
Furniture, natural light, temperature and acoustics are all important to the overall comfort of students, who don't want to work in cramped, dark or noisy spaces.

2. Convenience
A centrally located building, open 24/7, that provides everything a student might need wins hearts. In particular, students want access to food (purchased or prepared themselves), library resources, and power to recharge their devices. Recharging points for devices are a fundamental and under-estimated amenity.

3. Community
Being in a space with other students provides community and motivation. Informal spaces allow student cohorts to develop socially, and provide first year students with a safe and relaxed place to form new friendships.

4. Concentration
While socialising and group work are common, solo study is the primary activity. Students crave quiet spaces to work uninterrupted. Striking a balance between study and social areas is crucial.

Design recommendations

The design of any informal learning space will be influenced by a number of factors, including consideration of existing facilities, funding, demographics and student expectations. But there are some fundamental design considerations that will determine the success of a new space:

1. Provide high quality space with comfortable furniture and abundant natural light that allows students to study to their full potential.
2. Provide work settings that are flexible enough to accommodate group work, but a significant proportion should be designed for individual study.
3. Provide visual cues and acoustic treatment for quiet zones. Students seek perimeter and protected spaces for privacy and quiet.
4. Provide some lounge areas, but the majority of spaces need furniture ergonomically suited to using a laptop – desk height tables and comfortable chairs with back support.
5. Provide food and beverage outlets or kitchens in or near the space, with visual and acoustic separation from study areas to limit distractions.
6. Provide robust and well maintained power outlets to a signficant proportion of furniture settings.
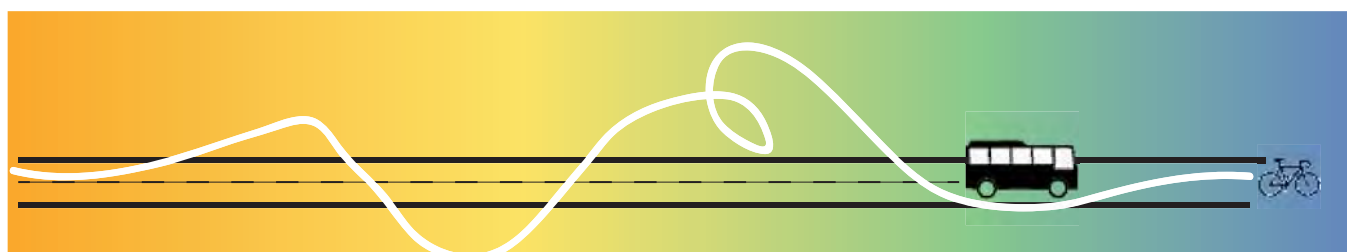
Meet Lin

Based on the observations and surveys of this research project, here's a portrait of the average informal learning space student. Let's call her Lin.

Two or three times a week, first year student Lin grabs a takeaway juice and comes to the informal learning space to work on her laptop. She'd like to sit in one of the winged study chairs near the window where it's always quiet, but as usual, they're all taken. Instead, she's sitting alone at a table for four with her headphones in, and her laptop, phone and notebook spread out around her.

The battery on her laptop is flat again, so she plugs it in to a power socket at the table and gets into some online study for an hour or two.

Her friend Jeremy meets her there as planned and they chat about the work they've done, compare notes, then head to their lecture with some other friends they see walking past.

After the lecture Lin will drop by again to heat up her lunch in the microwave and charge her phone before heating off to a tutorial downstairs and then home.
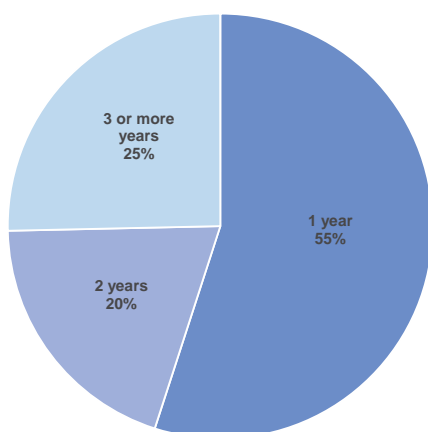
Survey:
How long have you been at this university?

3 or more years 25%
1 year 55%
2 years 20%
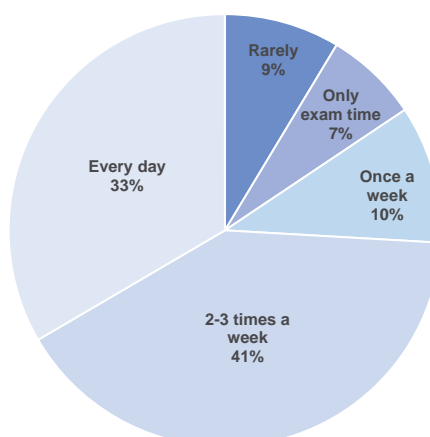
Survey:
How often do you visit this space?

Rarely 9%
Only exam time 7%
Every day 33%
Once a week 10%
2-3 times a week 41%
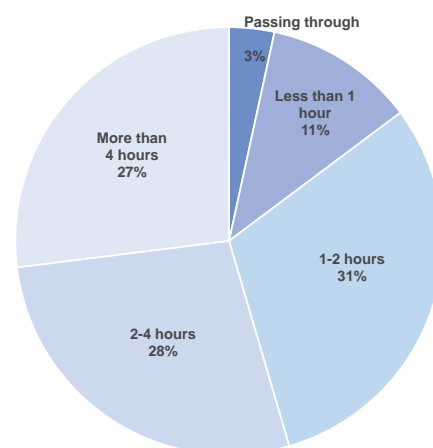
Survey:
How long do you usually stay in this space?

Passing through 3%
Less than 1 hour 11%
More than 4 hours 27%
1-2 hours 31%
2-4 hours 28%

02 Rethinking space allocations on campus

Inadequate space guidelines

Self-directed learning activity has, until recently, been largely under-estimated or ill-catered for on campus, except within the strict confines of the library for study, and the cafeteria for socialising.

Australian guidelines

In the 2002 AAPA (now TEFMA) Space Planning Guidelines for Australian universities,[2] there were no references to informal learning space, and the only space that could be interpreted as such – "Reader Space in Library" – was recommended at 0.1-0.12 sqm of floor area per full time student.

By 2009 this had been upgraded to "Private study, reader space and collaborative space 0.1 to 0.8sqm." and "External cafeteria/eating space used for informal learning experiences can be set at 2 to 3sqm UFA per full time student."[3] These guidelines are soon to be updated – HASSELL anticipates that a new approach to informal learning space provision is both necessary and likely.

International guidelines

The international review of space standards by the UK higher education Space Management Group[4] notes that higher education peak bodies in Australia, Germany, Canada, USA and Hong Kong provide space recommendations by either space type (lecture theatre, academic office, etc.), and/or by subject (Arts, Sciences, etc.).

Neither of these categorisations include informal learning space, reflecting an outdated approach to education where individual faculties provide a dedicated amount of space for formal teaching, academic and administrative activities, with only the central library open to all students to undertake group work or individual study.

Increasingly, universities are challenging these space norms and opting to provide areas that are non-faculty specific and free from timetabling, to enable students to programme their own activities.

Leading the pack

The University of Adelaide took the early lead five years ago by adding a major new informal learning space for students in the heart of their city campus.

In 2012, when Hub Central was built, there were approximately 18,000 students at the North Terrace campus.[5] The recommended informal learning space (2009 TEFMA standard) for that number of students was a minimum of 1,800 sqm. Hub Central added 10,000 sqm to complement the existing library and other spaces on campus. It has since become the central defining feature of the campus for many students – a place to meet, to study, to eat and to orientate themselves in their daily activities.

Oxford Brookes and Exeter Universities in the United Kingdom have taken a similar approach, with major investment in central facilities that incorporate social, administrative, teaching, learning and library spaces.

The Li Ka Shing Library at the Singapore Management University has been adding significant informal learning space as part of its ongoing systematic refurbishment, and The University of Melbourne has recently expanded the Giblin Eunson Library.

But other universities such as the Queensland University of Technology are looking beyond the central, non-faculty specific model to provide smaller areas adjacent to teaching spaces, and close to staff to foster stronger relationships between students and teachers, and, in the case of Flinders at Tonsley, industry researchers as well.

2018
? sqm

2009
(+ external)
3.8 sqm

2009
(internal)
0.8sqm

2002
0.1 sqm

0.1 sqm
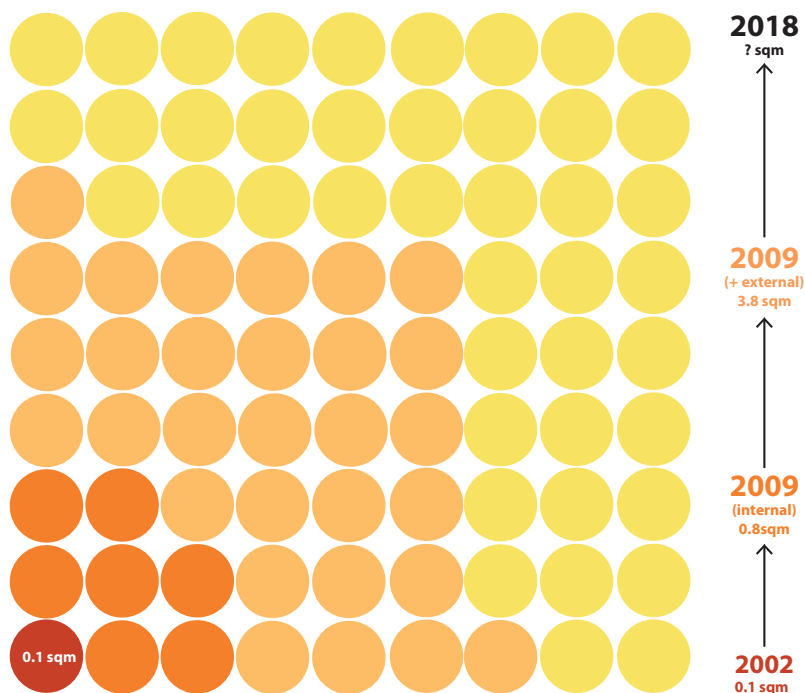
Evolving space standards for informal learning on campus

03 Learning, community and space

"Students at The University of Queensland do two-thirds of all their study on campus, and 45 percent of their on-campus study is in informal, non-timetabled spaces."

The University of Queensland Student Strategy 2016-2020 [7]

Campus and community

In recent years the prospect of declining attendance on campus due to MOOCS and other online learning platforms gained media traction. One Australian Vice Chancellor remarked "...soon there will be no compelling reason to think of universities as places at all", but his caveat highlighted the underlying value of a campus community:

"…but if they do persist in that form, it will not be because they provide the best or most efficient means of educating people but because some individuals will always want to 'go to a university' in order to hang out with friends." [6]

The foreshadowed death of the campus is unlikely to eventuate: students continue to spend time on campus. A recent study suggested that students at The University of Queensland do two-thirds of all their study on site, and 45 percent of their on-campus study is in informal, non-timetabled spaces. [7]

University satisfaction surveys also show that students are increasingly linking the quality of campus facilities, including libraries, sporting facilities and informal learning spaces, to the teaching quality of an institution, and consequently voting with their feet. [8,9]

The Australian Catholic University recently devoted the whole ground floor of a building to an innovative welcome space – an entry point where students are made to feel at home, and part of the community. It serves no specific faculty or teaching purpose, but provides a flexible space for the students to adapt to their various study or social needs throughout the day, and then a function space for the university in the evening.

The new student, the new campus
Studies about the relationship between space and learning conclude that preferences of students differ according to learning goals, pedagogical style, subject matter, academic schedule and demographics. [10] To this can be added culture, domestic circumstances, peer preferences and location.

While city campuses enjoy the benefits of diverse recreation and service options in close proximity, students at regional or suburban universities often travel long distances, and spend most or all day on sites with limited surrounding amenities. These commuter campuses are under pressure to provide an enhanced student experience to foster engagement and community. Cohort identity, particularly for first year students, can be encouraged by providing social areas to linger, and participate in activities (see page 13).

Another major consideration for space provision is the growth in international student numbers on campus. In 2016, international student numbers in Australia grew by a substantial 11 percent,[11] constituting almost one in four of all university students in Australia.[12] These students bring with them different accommodation and language needs, and a variety of cultural expectations.

Another source of student diversity is demographics – in 2009, UK universities experienced a surge in post-graduate applicants due to the economic downturn from the Global Financial Crisis.[13] Older students with family, financial and work commitments also bring different study habits that need to be accommodated, often out of hours.

Enrolments are subject to these and other external forces that challenge administrators to be agile and flexible in their content delivery, space allocations, and scheduling of both academic and social aspects of the university experience. Informal learning spaces provide opportunities for that flexibility and agility on campus.

Learning Hub, Australian Catholic University, Melbourne, Australia. Photography by Trevor Mein

04 What do students do in these spaces?

Informal learning activities

As access to online lectures increases, students are able to devote more time to discussing and applying information that has been read, viewed or listened to before scheduled classes.

Most universities are progressively changing to project-based and blended learning models, where the onus is on students to work collaboratively in formal classes and then to undertake informal follow-up assignment activity.

HASSELL has identified four types of informal learning activities (and their optimal spatial characteristics) that illustrate how different students absorb, process and reflect information, knowledge and skills.

Focused
Reflective, individual concentrated study in a contained and quiet environment. Settings include fixed and flexible seating, single chairs with enclosure at eye level for reading, writing, audio-visual activity with headphones and sleeping.

Discussion
Interactive engagement in groups of two to six people. Settings include small and large tables, flexible and fixed seating and lounge areas with screens and writeable surfaces. Activities include casual conversations, group meetings, multi-media presentations and brainstorming.

Doing
Creative engagement in pairs and larger groups of up to twelve. Settings include acoustically separated semi- or fully enclosed spaces (bookable or not), in-the-round lounges with visualisation screens, and maker spaces for workshopping, lab work and drawing.

Social
Gathering and transitory spaces with permission for louder conversations, and food and beverage options. Settings include lounges, kitchens, café seating and tables, games (e.g. chess) and areas for artistic/political/social events and performances.

> "It's a very social, happy environment that brings students together. It's a great place to take a break, get some lunch and hang out, or study."

Student
University of Adelaide

What's the perfect balance?

There is, of course, no magic formula for the allocation of informal learning space because each campus is different.

The balance will depend on the student cohort, and also on other space available throughout the campus. It is crucial to develop a thorough understanding of what other faculties have planned, what student preferences are, and what future strategic direction the university will take.

Allowing the students to create the ideal environment themselves is the key to successful informal learning, with whatever means – flexible space, moveable furniture, headphones, booths, large and small work surfaces, and infrastructure to support their chosen technologies.

What was the split for Focused, Discussion, Doing and Social activity?

All of the four types of activities were observed within the spaces to varying degrees (see case studies). It is difficult to determine what work, if any, is being done at any one time, but the observations and surveys suggest that the majority of students come to study alone.

Of 4,331 students observed in eight different spaces, 52 percent were sitting alone, 29 percent were working in groups of two or more (25 percent in Discussion mode, 4 percent Doing) and 19 percent were Socialising – that is, talking, eating, drinking and other incidental activities without using any technology.

These characterisations are approximate at best (the presence of technology doesn't necessarily indicate study activity), and vary between buildings, but do indicate a significant design imperative: solo study space.

How does this compare to the balance envisaged by the client and designers?

While the original designs and intended uses have changed more in some buildings than others, there is in most cases more Focused solo study space and less Doing space than anticipated.

But the observations reveal that the spaces are used in a surprisingly integrated and versatile way. Focused solo study occurs among Social and Discussion groups, and socialising occurs within groups while they are working hard. In that regard it is impossible to delineate the activities on a floor plan accurately.

Adaptable space, adaptable students

A significant number of students noted a general lack of quiet space, but with the aid of headphones, and an enviable ability to block out extraneous noise, students were using any and all available spaces for solo work.

This adaptability of students enables the spaces to be more flexible than other approaches such as libraries with rows of fixed carrels, although there were areas of this in the sites where libraries were integral. Students will happily move furniture, and swing between activities very quickly. Appropriate levels of space and privacy are important, but larger, collaborative spaces, project rooms, and bookable meeting spaces were not always full, nor being used for their intended purpose.

Doing space – the rare category

Practical, creative work in groups (categorised as Doing activity) was uncommon. While each of the spaces had some enclosed rooms with audio-visual and other equipment, these were mostly used for group discussion work, rather than practical hands on activities.

At QUT a group of students were practising a play in one of the lounges. The Hub Central study support areas were well used by students for one-on-one tutoring from staff, and small enclosed rooms were being used by large groups for project work.

But the case study sites included no maker spaces or labs, and some enclosed spaces that were intended for this had been reassigned to other uses, in most cases administration and student services. Many universities now include specialised Doing spaces as dedicated, bookable spaces separated from informal learning areas.
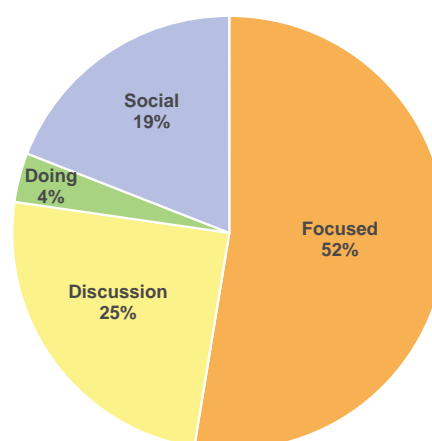
Observations:
Student activity at all sites, by learning category
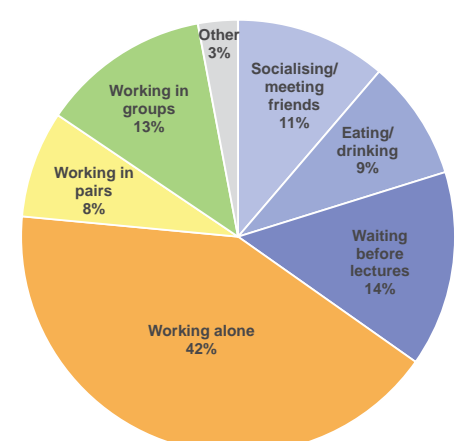
Survey:
What activity do you do most in this space?

05 What do students want from these spaces?

Students want more

The spaces in this study were very busy (particularly around lunchtime) and loved by the students for the accommodating mix of settings available to them – quiet and sociable, individual and group, desks and lounges, all technology enabled and student-managed to varying degrees.

The survey asked, among other things, two open ended questions to ascertain what was most important to the students in these spaces:
_ What do you like most about this space?
_ What could be improved in this space?

When categorised thematically, the responses indicate the success and desirability of these types of spaces on campus. The students want more: more space, more chairs, more tables, more power, more quiet areas, and more food options, because what they already have is so popular and over-subscribed.

Student survey priorities

Spaciousness and capacity
All of the spaces were reportedly full or almost full during peak times (around exams). Students felt that more space to accommodate tables and chairs was a priority.

Comfortable furniture
Lounge furniture was appreciated for relaxation, but students preferred tables and chairs ergonomically suited to laptop use.

Quiet/seclusion
Students in all eight spaces wanted more quiet, secluded areas for private study. Collaborative space (group tables, bookable rooms) was either less in demand, or already adequately provided.

Openness and Light
Natural light, views, windows and open spaces all figured highly in students' perceptions of a comfortable and attractive space to study and socialise.

Food
Access to food was highly valued by students. The option to bring your own food (and microwaves to heat it) to save costs was particularly appreciated.

Key findings

Four strong themes emerged from the synthesis of survey and observational data: students want to be comfortable, to have convenient access to services, to be part of a community of learners, and to have space to concentrate uninterrupted.

1. Comfort
2. Convenience
3. Community
4. Concentration

Category	Value
Cleanliness	24
Collaboration	37
Flexibility	40
Community	43
Atmosphere/design	48
Accessibility/centrality	53
Power access	54
Food	66
Openness/light	75
Quiet/seclusion	149
Comfortable furniture	155
Space/capacity	187
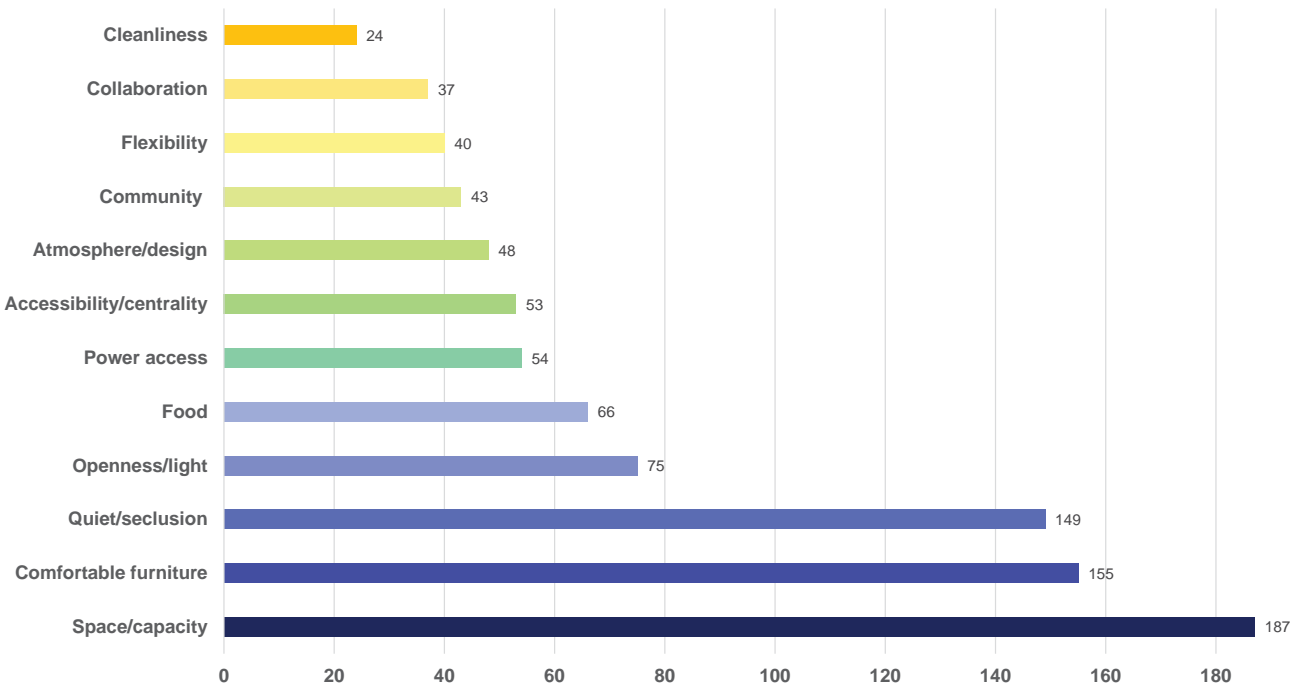
Survey:
What is important to students
in these spaces?

1. Comfort

Suitable furniture, natural light and appropriate acoustic conditions contribute to an overall ambience and comfort that students want and need.

Ergonomic considerations for furniture were a top priority. Because laptop use is so prevalent, lounge areas with couches, casual stools and low coffee tables were less desirable than desks or tables and chairs with back support.

Students noted the unsuitability or discomfort of lounge and plastic furniture for their primary activity –studying – while recognising how wonderful it was to have lounge areas for socialising. A number of students also suggested that lounge areas were taking up valuable working space.

Air-conditioning, natural ventilation and light provide ideal conditions for reading and concentration, and encourage students to linger for extended periods of time.

Many of the spaces were flooded with natural light, in some instances across multi-level volumes, and students gravitated towards the windows in these spaces.

Creative Industries Precinct, Queensland University of Technology, Brisbane, Australia
Photography by Peter Bennetts

> "It's light and airy, doesn't get too hot or stuffy, and is conveniently located."

Student
Exeter University

> "It's good as a socialising space rather than studying. I think I need a desk to be able to study.

Student
Australian Catholic University

> "It's open. It's comfortable. It's clean. It's inclusive. There's food. It's warm."

Student
Australian Catholic University

> "The lights are good, the chairs are comfortable, and I appreciate that they can be adjusted."

Student
The University of Melbourne

> "I like the ambience. Feels so peaceful, like my own place."

Student
Oxford Brookes University

2. Convenience

Students want a central space on campus with access around the clock to food, services and technology that enable their study.

Food is fuel

The availability of food allows students to prolong their time in the space, and provides a social outlet when taking a break. With almost a third of the students using the space for over four hours, eating is an important provision. Where it was not allowed (Li Ka Shing Library), seat hogging, where students reserve seats while taking breaks, is an ongoing problem.

Some of the smaller facilities provided space and equipment for students to prepare their own meals (fridge, sink, microwave), which were highly valued by students as a cheap and convenient food option. These were generally well self-managed by the students. Vending machines were also in demand for out-of-hours snacks.

Services

Many of the spaces bring together previously disparate student services from around the campus to effectively form a town centre. Career and housing advice, administration, and student unions and guilds provide ongoing support that is increasingly important in attracting and retaining students. Access to retail – supermarkets, technology, banking, etc.– were highly valued. And of course, the library.

While libraries have always been an important service on campus, they have become a vital, integrated (or at least adjacent) facility around which informal learning spaces can cluster to accommodate those who want access to learning resources without the established library behaviour conventions (quiet, please!). See page 14 for further exploration of this issue.

Technology

Mobile technology, and most particularly the ubiquitous laptop, has enabled the rise of informal learning on campus. Charging points for devices are fundamental to these spaces. Laptops were the overwhelming device of choice, although where provided, fixed PCs were also very popular. Tablet use was rare. Many students were simultaneously using a mobile phone, a fixed desk computer and their laptop.

As a result of this technological ubiquity, device recharge is an inevitable and necessary part of a student's day. This is especially true for the large proportion of students using the spaces for extended periods of time (28 percent for two - four hours, and another 27 percent using it for more than four hours at a time).

Students gravitated to work settings that had floor, wall, or table mounted power outlets, and were observed moving to new locations when power outlets became available.

Managing power

But ubiquitous power provision brings ongoing challenges of safety and maintenance. At one university the students were removing fittings from floor boxes to place on the tables, exposing live wires. At another, students were bringing their own extension cords, creating tripping hazards, and another still had removed any power provision to some tables after ongoing problems.

Other technology such as large screens, whiteboards, projectors, etc. was not in great demand, although a significant number of students commented on the usefulness (or lack) of printers in their space.

> **"More power points!"**
>
> **Student**
> University of Adelaide

> **"I love that there are charging stations everywhere."**
>
> **Student**
> The University of Melbourne

> **"Really good wi-fi."**
>
> **Student**
> Exeter University

> **"It's open 24-hours. I really like working at night, so I can stay as long as I can."**
>
> **Student**
> Oxford Brookes University

> **"A cafe would be nice!"**
>
> **Student**
> Singapore Management Univesrity

> **"It is a light, open space with good access to university facilities, the library, outdoor areas, shops, etc."**
>
> **Student**
> Exeter University

> **"I especially like the kitchen spaces. It helps save costs."**
>
> **Student**
> Queensland University of Technology

3. Community

Studying in a space with other students provides community and motivation. Group activities constitute around half of all uses of the spaces (waiting before lectures may be an individual or group activity), but solo study is the most common activity for students in both the observations and the survey.

While 42 percent of students surveyed indicated that 'working alone' is their most common activity, and 52 percent were observed sitting by themselves, there is a significant amount of group activity occurring in these spaces. But the students have only identified 21 percent (13 percent in groups, eight in pairs) of that group activity as 'work'. The rest is either socialising, eating, filling in time before lectures, or other sundry activities such as queuing for food or passing through.

Coupling this communal gathering with the fact that 55 percent of users surveyed were first year students indicates that these spaces support those seeking to establish peer networks and social engagement as they move from high school to university.

The variety of activity, and the choice of furniture that allows it to occur, are essential to a successful informal learning community. Collaborative 'work' may not be the dominant activity, but group settings allow many different activities to occur, as and where required. There is a clear demand for solo work settings, but within an environment that allows social and group activity to happen (quietly) around it.

> **"It's not too busy but the presence of people is conducive to my study."**
>
> **Student**
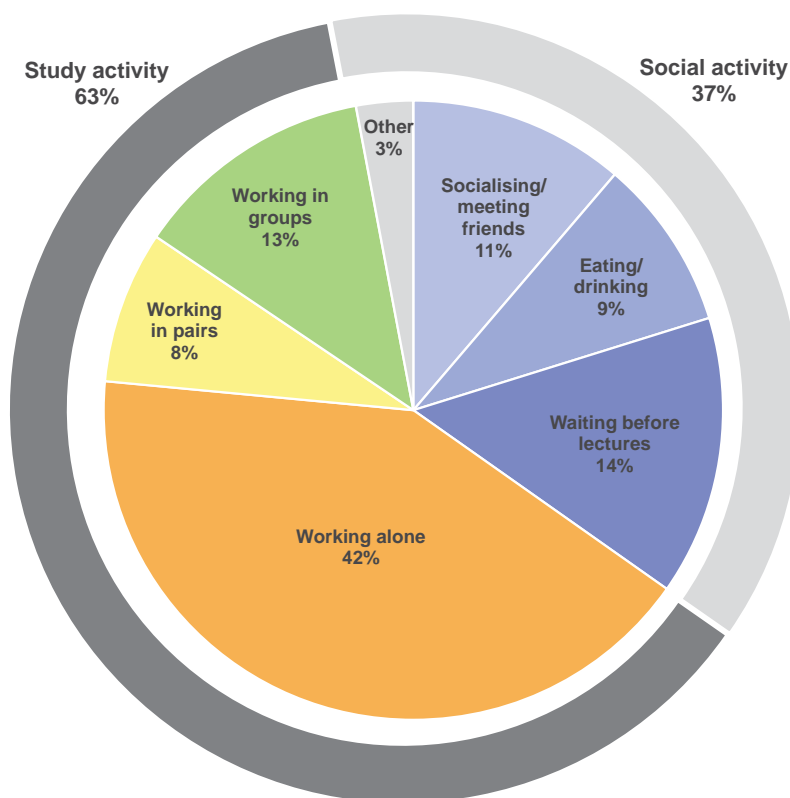> University of Adelaide

> **"I like to get away from my room in student accommodation to focus in a learning environment. It's motivating working around others who are focused and working."**
>
> **Student**
> Oxford Brookes University

> **"It helps with the work ethic."**
>
> **Student**
> Exeter University

Study activity 63%
Working in groups 13%
Working in pairs 8%
Working alone 42%
Other 3%

Social activity 37%
Socialising/meeting friends 11%
Eating/drinking 9%
Waiting before lectures 14%

Survey:
What activity do you do most in this space?

4. Concentration

Spaces for socialising and eating are necessary and appreciated, but students crave quiet zones to work uninterrupted.

Just as the workplace trend for more open space is producing a backlash to noise and lack of privacy, so too do students want reflective space to concentrate.

While half the students were engaged in group activity, survey comments about quiet and individual space outnumbered those relating to collaborative work by four to one. A balance between dedicated social and quiet spaces can be achieved with a buffer of flexible space and furniture in between, to accommodate the ebbs and flows in demand for either.

Is it a library, a lounge or both?

The reinvention of libraries from silent and dusty book repositories to student hubs of technology and social learning is well documented, and well underway.

But they also remain a vital resource on campus for quiet study space, and ambiguity in the way they are configured (adjacent to or within informal learning spaces) can and does cause confusion for students about where they can talk, work collaboratively and socialise (see quotes overleaf).

Two of the eight sites are designated libraries, (Li Ka Shing Library and Giblin Eunson Library) while another two contain libraries that are integral to the facility (The Forum, and John Henry Brookes Building). Two are adjacent to a library (ACU Learning Hub and Hub Central), and the final two have no access to library facilities within the immediate area (Flinders at Tonsley and QUT Creative Industries Precinct).

While present across all sites, the desire for quiet working space was most acute in Li Ka Shing Library and the Giblin Eunson Library, where the majority of students were observed working alone, in near silence. These case studies had a significantly higher proportion of students studying solo (85 and 74 percent respectively, compared to an average of 39 percent for all other sites). The pedagogies at these institutions are based, as many other university models are, on collaborative rather than individual learning, so the findings suggest that there are other factors influencing this finding.

There may be individual student preferences relating to design – light, temperature, and location, or difficulty in accessing other quiet spaces on campus. Alternatively, as informal learning spaces within library spaces, rather than the other way around (libraries within informal learning spaces), these two facilities may be subject to well-established library behaviour conventions that are not prevalent in the more mixed activity sites.
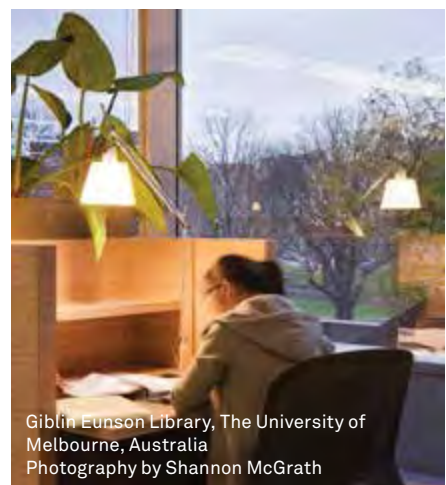
If it's called a library...

The relationship between regular library facilities (such as Li Ka Shing and Giblin Eunson Libraries) and the amount of individual study observed was strong (see diagram overleaf).

The four spaces closely integrating library, group work and social spaces were observed to have a consistent and even split of solo study and group activity. The space with the lowest number of students working alone (QUT Creative Industries Precinct) had no library facilities within or adjacent to the building. It also displayed, not surprisingly given its subject specialisation, the loudest, most expressive and most social behaviour of all the sites.
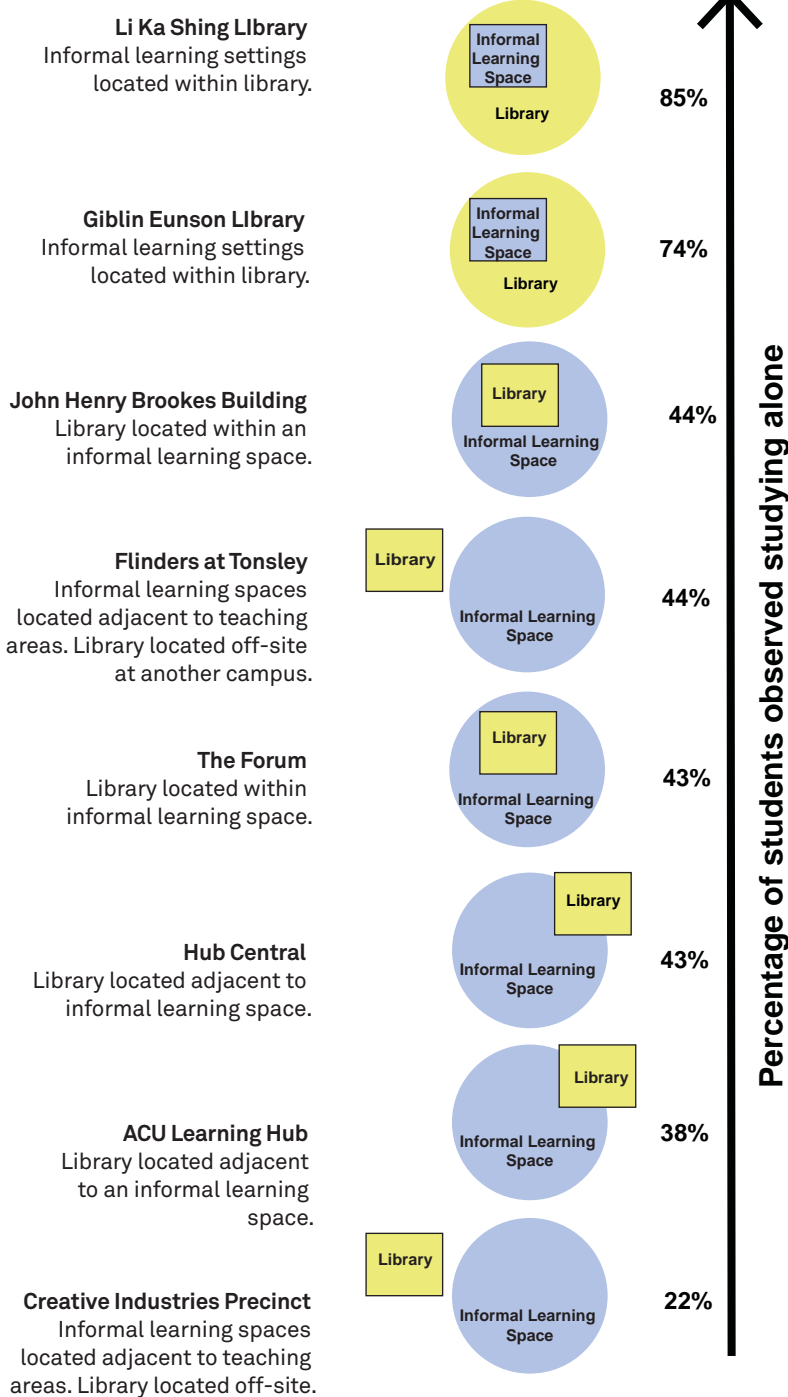
The exception to this hierarchy is the Flinders at Tonsley building, which at its current stage of campus development exists in isolation on a new site away from the University's main campus. As buildings develop around the facility, students will have more choice in where they spend time outside formal learning. But for now, they must eat, attend classes, socialise, do group work and find somewhere to study quietly all in one building.

Li Ka Shing Library, Singapore Management University, Singapore
Photography by HASSELL

Giblin Eunson Library, The University of Melbourne, Australia
Photography by Shannon McGrath

Li Ka Shing LIbrary
Informal learning settings located within library.

Informal Learning Space
Library

85%

Giblin Eunson LIbrary
Informal learning settings located within library.

Informal Learning Space
Library

74%

John Henry Brookes Building
Library located within an informal learning space.

Library
Informal Learning Space

44%

Flinders at Tonsley
Informal learning spaces located adjacent to teaching areas. Library located off-site at another campus.

Library
Informal Learning Space

44%

The Forum
Library located within informal learning space.

Library
Informal Learning Space

43%

Hub Central
Library located adjacent to informal learning space.

Library
Informal Learning Space

43%

ACU Learning Hub
Library located adjacent to an informal learning space.

Library
Informal Learning Space

38%

Creative Industries Precinct
Informal learning spaces located adjacent to teaching areas. Library located off-site.

Library
Informal Learning Space

22%

Percentage of students observed studying alone

"Not for socialising! Keep quiet or book a room."

Student
Singapore Management University

"It's quiet and the project rooms allow students to discuss their work."

Student
The University of Melbourne

"I appreciate the lack of restrictions on noise, but sometimes people forget that others are working."

Student
Oxford Brookes University

"It's hard to find a quiet place to do some reading or writing."

Student
Flinders University

"It is an open area and you can speak loudly to your friends if you need."

Student
Oxford Brookes University

"You can sit alone or do group work. You can be loud or quiet."

Student
Queensland University of Technology

Library or lounge?
Relationship between libraries and solo study activity

06 Case study
Hub Central
University of Adelaide

Central hive

Hub Central is a dynamic three level space at the centre of the university's city campus. It is programmed for and by the students, and designed specifically to encourage them to linger on campus.

It is not attached to any one faculty or school and contains a variety of 'self organising' settings that enable students to choose individual, collaborative or more interactive spaces to continue their learning beyond formal lecture and tutorial spaces.

Due to project constraints, this study observed students on Level Three only, which is focused on study activity rather than socialising and eating (more prevalent on Level Four).

The furniture configurations and space uses have changed over time – students have dedicated more area to Doing spaces than when it opened, and some Social space has been converted to student services. More food outlets have also opened on Level Four.

Overall the three levels are perceived as a place for socialising (over 30 percent of students report socialising as the number one activity), but observations reveal that the lower level is a working space with a combined 93 percent of students in that space actively working in groups or alone.

Project data
Completion: 2012
Cost: $41 million
Scale: 10,000 sqm
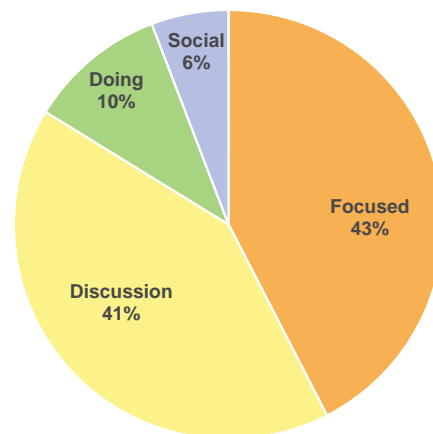
Observations:
Level Three – Activity by area*
*not exclusive of other activities

Observations:
Activity by student numbers

Focused 43%
Discussion 41%
Doing 10%
Social 6%

Focused   Discussion   Doing   Social

"It encourages me to do my work. Being surrounded by people also studying motivates me."

Student
University of Adelaide

Photography by Sam Noonan

06 Case study
The Forum
Exeter University

Flexi space to grow and contract

Designed by UK practice Wilkinson Eyre, the Forum is a central student space that connects a number of bulildings and functions on campus – the main library, formal teaching space, retail, banking and catering under a spectacular undulating timber gridshell roof. Within the adjacent student guild building there are a number of supplementary informal student spaces, some within food outlets, others smaller and more secluded.

All of the spaces are oversubscribed during peak exam periods; to cope with the influx of students looking for quiet space, seminar rooms adjacent to the library are transformed into additional study areas at this time. The University is also currently planning a number of extra decentralised informal learning spaces throughout the campus to cope with growing demand.

The gradation of activity from social to discursive to silent is readily apparent in the zoning of the space. The central circulation zone on the ground level allows events and informal learning to occur simultaneously, while discursive group work occurs in small lounge and work areas outside the entrance to the library. The library is a quiet zone, a haven for solo study.
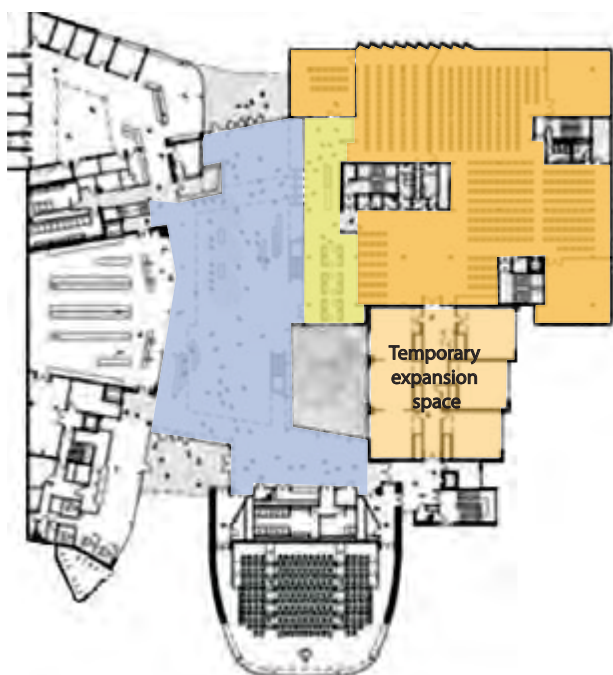
While two large seminar rooms with interactive digital touchscreen tables are available for students and staff, these were not in use at the time of observations.

Project data
Completion: 2012
Scale: 9,300 sqm
Cost: £48 million
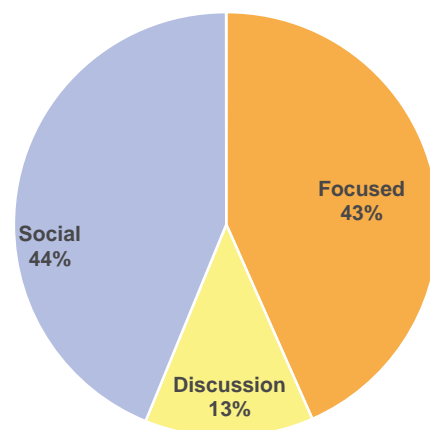
Observations:
Activity by student numbers

Observations:
Ground Level – Activity by area*

*not exclusive of other activities

Observations:
Mezzanine Level – Activity by area*

*not exclusive of other activities

| Focused | Discussion | Doing | Social |

"It is not silent, but still quiet enough to study. I find inside the library claustrophobic and too intense – I work better with a little bit of noise in the background."

Student
Exeter University

Photography by Michaela Sheahan

06 Case study
Learning Commons
Singapore Management University

Sanctuary

The staged refurbishment of the Li Ka Shing Library aims to provide the students with a sanctuary at the heart of the campus. SMU prioritised enhancing the student experience, in both formal and informal learning settings, with a concerted effort to design out under-used spaces.

The social learning environment creates a prominent and welcoming entry experience, and vibrant and collaborative learning settings for students. The Library is successfully achieving its aim to be that sanctuary on campus, with over 1.2 million visitors in 2015.[14]

However the envisaged co-operative learning activity (Doing and Discussion) has not materialised to the extent anticipated. With 85 percent of students observed sitting alone, the library is clearly a space for Focused study activity.

Quiet is the name of the game. The library makes available ear plugs upon entry for those who want them, and surveyed students noted most commonly that privacy and the quiet atmosphere were its best features.

With so many of the students working solo, and 62 percent using the space for more than four hours at a time, seat hogging (where students place personal items on seats while they take a food or toilet break) is an ongoing management issue for the library.

As a go-to destination out of hours, 80 percent of the surveyed students use the space in the evenings and at weekends, and over 50 percent visit every day. It is little wonder that the surveyed students want more of everything – space, tables, power, and quiet.
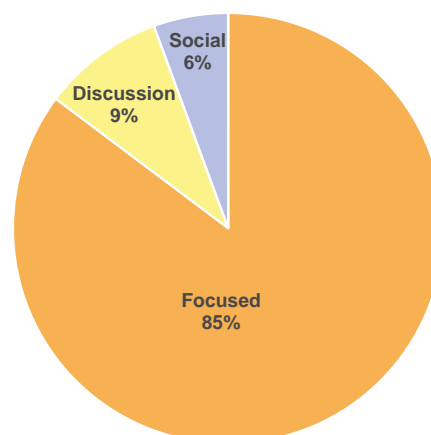
Project data
Completion: 2014
Scale: 1,800 sqm
Cost: $SGD 3 million
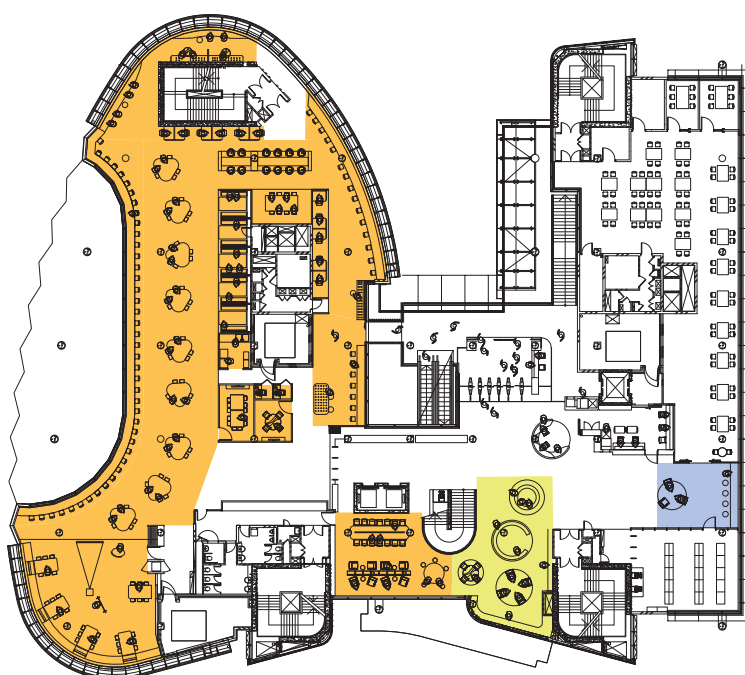
Observations:
Level One – Activity by area*

*not exclusive of other activities

Focused   Discussion   Doing   Social

Observations:
Activity by student numbers

Social 6%
Discussion 9%
Focused 85%

> **"It is quiet and conducive to focus."**
>
> **Student**
> Singapore Management University

Photography by HASSELL

06 Case study
John Henry Brookes
Building
Oxford Brookes
University

Transformational change

Envisaged originally as a standalone student centre, this building, completed in 2014 by UK practice Design Engine, has instead become the entry and focal point of the campus. Linking a number of buildings, and consolidating teaching, library, social and administrative services, it has transformed the student experience, increased the positive sentiment at recruitment events such as open days, and contributed to a general uplift in both student and community engagement.

Observations were undertaken during graduation week among hundreds of students and families celebrating, while other students and staff continued to work. The facility is open to the local community; international language students use the building during quieter periods, ensuring high utilisation of the spaces throughout the year.

The proportion of students using the space 'only at exam time' was very high – 26 percent (and 20 percent at Exeter University, which has a similar open door culture), whereas all other sites ranged between zero and six percent use in the corresponding period.

Spacious and flooded with natural light in the multi-level volumes, the atmosphere was quiet but industrious. Activity was clearly delineated (although not exclusive) – group work and social activity at lower levels, and more focused, quiet areas in the upper three levels of library. The work pods (enclosed lounge furniture) were particularly popular for group activity.
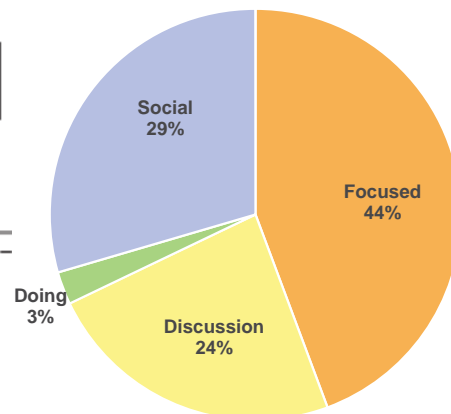
Project data
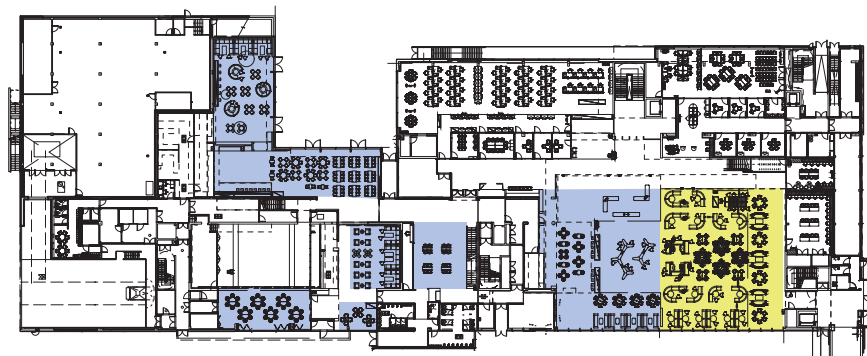**Completion:** 2014
Scale: 24,000 sqm
Cost: £132 million
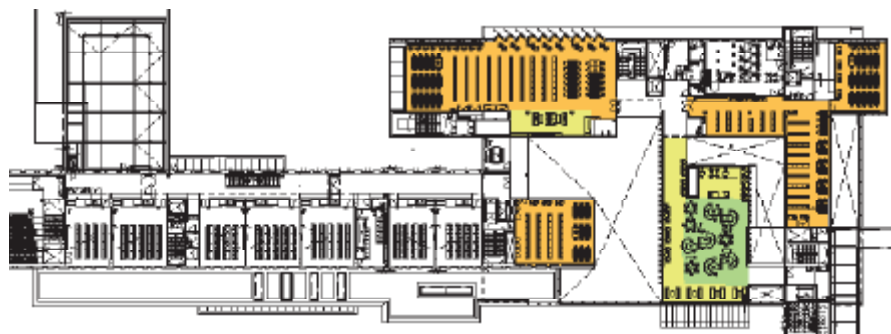
Observations:
Level Two – Activity by area*

Observations:
Activity by student numbers

Social 29%
Focused 44%
Doing 3%
Discussion 24%

Observations:
Ground Level – Activity by area*

*not exclusive of other activities

Focused | Discussion | Doing | Social

"It is open and light which makes it a nicer area to study in than smaller, closed study rooms. It is informal and there's enough space to work in groups."

Student
Oxford Brookes University

Photography by Oxford Brookes University

06 Case study
Flinders at Tonsley
Flinders University

Bringing it all together

Flinders University's School of Computer Science, Engineering and Mathematics is a place for leading researchers, students, entrepreneurial minds, next-generation start-ups, and local industry to interact.

The teaching and learning spaces are co-located with industry organisations throughout the five storey building to promote innovation between the 2,000 students, 150 teaching staff, researchers and private industry.

As the first facility for Flinders University on a new and growing campus, this building faces the challenge of providing students with a building that meets a number of student needs simultaneously – social and study zones, waiting areas and food options.

Of all the case studies, this calm and austere (but very industrious) space had the most even distribution of activities (see pie chart). There are no passers by in this building, because there is nowhere

else to go. Everyone who uses this space does so for at least 1-2 hours, and the number one activity is working alone (27 percent of students surveyed, double that of any other activity), with the blue hooded study carrels (see image overleaf) highly sought after.

The kitchen area was a popular meeting place for short catchups, and to heat up lunch in the microwave. The paucity of food options on the new campus will lessen over time as development proceeds, but the majority of students were using the space to study, either in groups or, most commonly, alone before their lecture or tutorials began.

As with all the other spaces, comfortable furniture, power outlets and more quiet areas to study were the main prioirities for students. As enrolments grow, the pressure on these amenities will further increase.
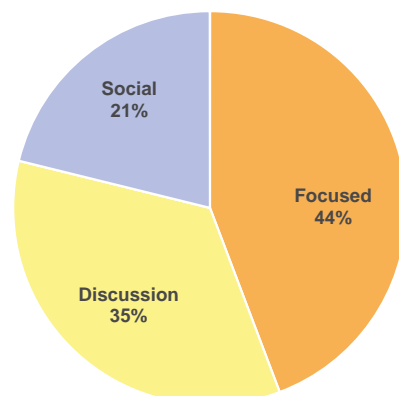
Project data
Completion: 2015
Scale: 18,000 sqm

Observations:
Level One – Activity by area*

*not exclusive of other activities

Observations:
Activity by student numbers

Focused | Discussion | Doing | Social

Photography by Peter Bennetts

"It's a hub with other people around. If other people are also studying similar things it is often easier to stay on task and share ideas."

Student
Flinders University

06 Case study
Creative Industries
Precinct Stage 2
Queensland University
of Technology

Before, between and after

The QUT CIP2 project, designed in collaboration with Richard Kirk Architects, is a dynamic building that accommodates production workshops, rehearsal and performance spaces for dance, drama and music, studios and visual art galleries.

QUT's aim was to foster collaboration and interaction between the various creative disciplines. The university emphasised the need for extended learning and peer-to-peer engagement of students, with a high level of social activity in the heart of the building. Academic and student cohorts are encouraged to mix in shared breakout facilities in unsecured zones.

While there are informal learning spaces throughout the building, levels two and three are the busiest, connected by an open stair that encourages easy movement between the quieter level two, where most individual study occurs, to level three, which has a kitchen and a more social atmosphere.

A student services concierge is also available on level two.

The students use these spaces largely as waiting areas between classes. At level two the winged chairs facing the window are highly prized for their privacy and comfort, but too few in number to encourage a quiet study zone. Only 28 percent of students reported using the space to study alone, the lowest of the case studies.

As a creative industries facility, much of the student interaction observed was highly vocal. Students were rehearsing dance moves and practicing drama scripts in full view, which makes for a dynamic but noisy atmosphere. This was clearly acceptable for students but less appreciated by staff in adjoining areas.

Project data
Completion: 2015
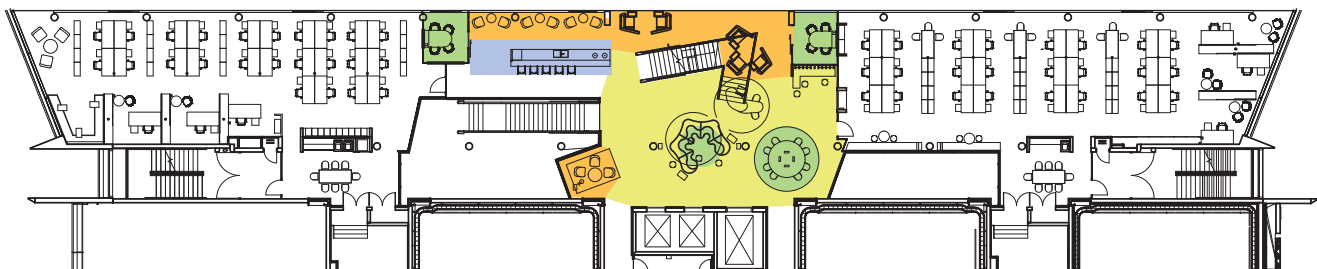**Scale:** 13,000 sqm
Cost: $80 million
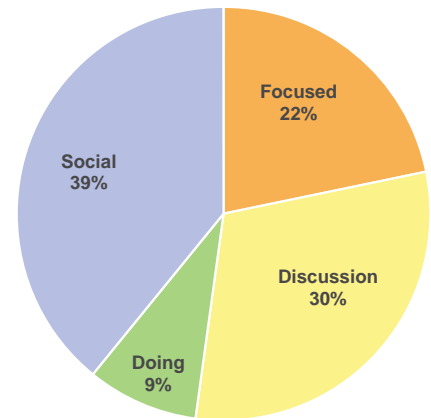
Observations:
Activity by student numbers
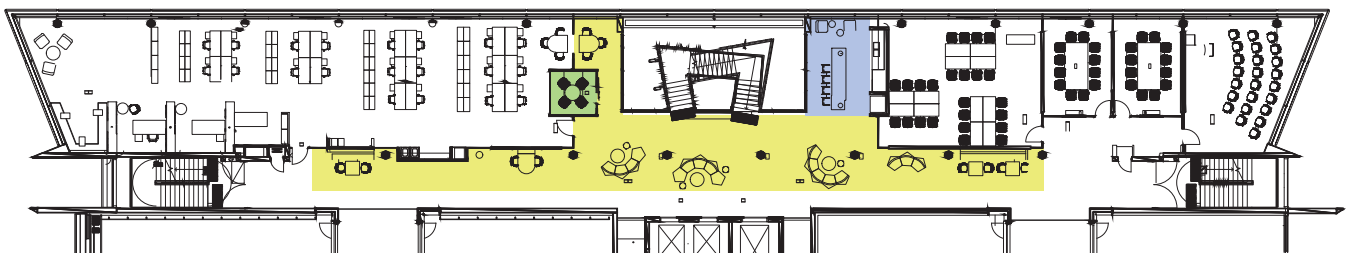
Observations:
Level Three — Activity by area*

Observations:
Level 2 — Activity by area*

*not exclusive of other activities

> "I like how open and welcoming it is.
> I especially like the kitchen spaces – incredibly useful (helps save costs) and social spaces that make it feel like you belong in the space (like home)."

Student
Queensland University of Technology

Photography by Peter Bennetts

06 Case study
Learning Hub
Australian Catholic University

Welcome to uni!

ACU's new 'welcome to campus' hub is a highly successful informal learning space that allows students to eat, study and socialise where and when they need to. It is in many ways like a home – where you can eat on the couch in the lounge, study in the dining room or vice versa, if you feel like it. Either way, it is highly social.

The Learning Hub contains three distinct zones – active learning and semi-quiet learning in main building and quiet learning in the adjacent library (not part of this research) – but students adapt the space as required. A long bench table in the café area is used as a quiet work space, among the periodically surging noise of the café, illustrating the students' ability to work in or around noise, with or without headphones.

Of all the case studies, the ACU space contained the most social activity, as a consequence of two design features – the lounge furniture, and the cafe area. At meal times in particular, the cafe is noisy, social and busy.

Largely a short term, social and eating space, 49 percent of students use the space for less than an hour at a time, and only 14 percent of surveyed students see it as a destination for focussed study (although at 38 percent, a much larger percentage were observed working alone).

The open feel, comfortable furniture and convenience to lectures and food were highly regarded by students. The social aspect of the space is clearly a winning strategy.

But students also felt that while the relaxed and open atmosphere is great for meeting up with friends, the provision of more space and ergonomic furniture for dedicated, focussed study would be much appreciated.

Project data
Completion: 2015
Scale: 2,000 sqm
Cost: $12 million
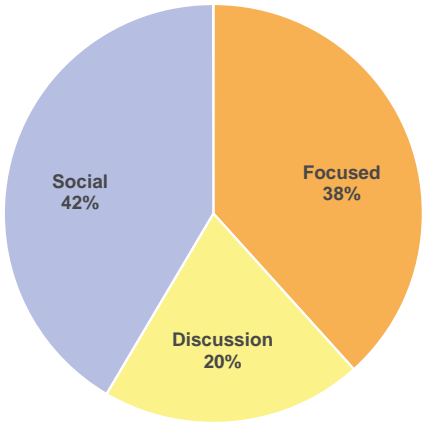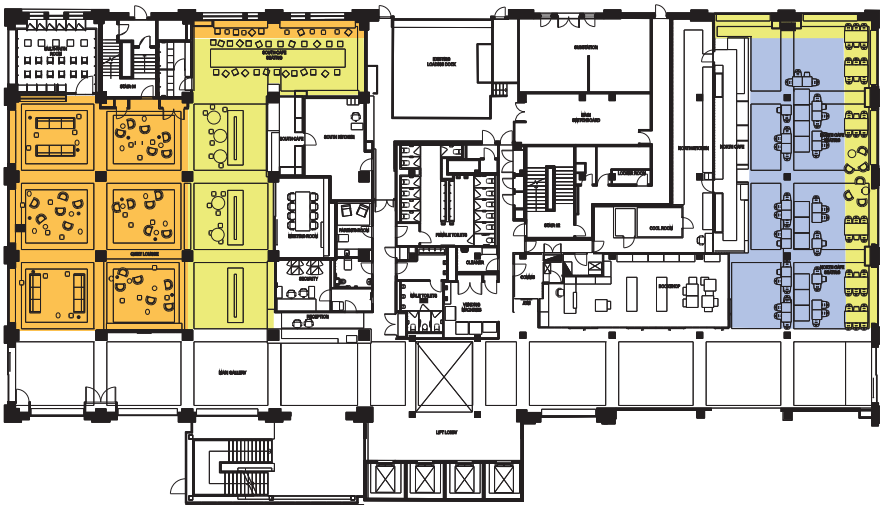
Observations:
Ground Level – Activity by area*

*not exclusive of other activities

| Focused | Discussion | Doing | Social |

Observations:
Activity by student numbers

Social 42%
Focused 38%
Discussion 20%

> **"The space allows you to interact and socialise with others, making individuals feel more a part of the ACU community."**
>
> **Student**
> Australian Catholic University

06 Case study
Giblin Eunson Library
The University of
Melbourne

Workplace design influence

The newly expanded Faculty of Business and Economics and Graduate School of Education library includes collection spaces, collaborative student spaces, quiet research zones, and E-Learning facilities over three levels.

This library is as much geared towards learning as a collaborative, social process, as it is about quiet, research and study. The design uses modern workplace practices rather than a traditional institutional library model. Diversity of furniture settings has been used as a key tool throughout to promote openness and a collegiate environment.

While the open spaces are used mostly for individual study, and the presence of book stacks induces the hush of a library, collaborative work is enabled through the strategic inclusion of project rooms. These allow students to talk without disrupting others, a common problem in many informal learning spaces.
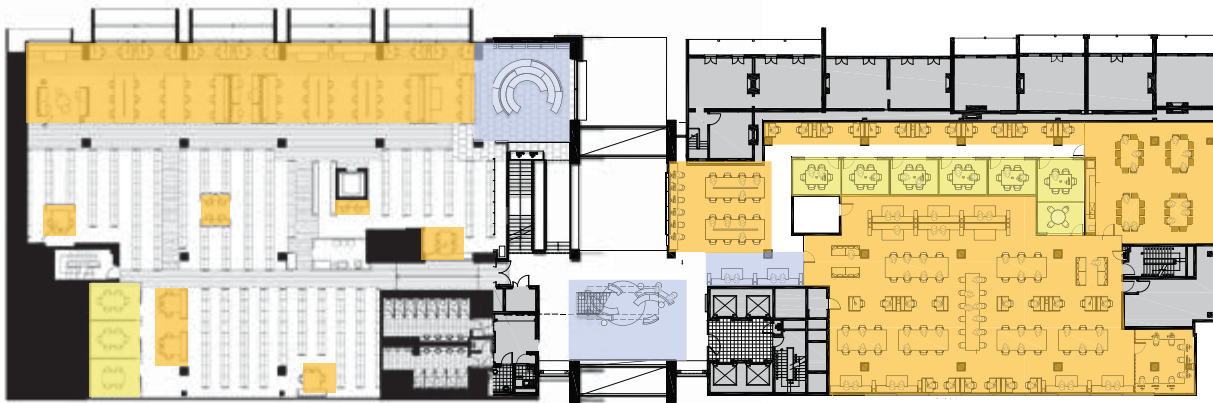
Although eating and drinking is allowed in the library, a cafe in the adjacent building keeps social and meal activity limited to the entrance and main circulation areas of this space.
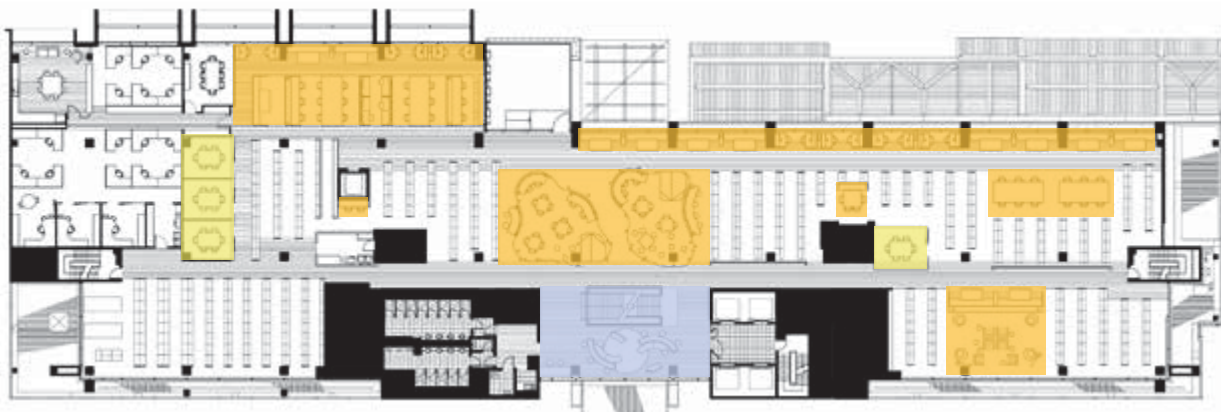
Project data
Completion: 2011/2015
Scale: 4,500 sqm
Cost: $10 million
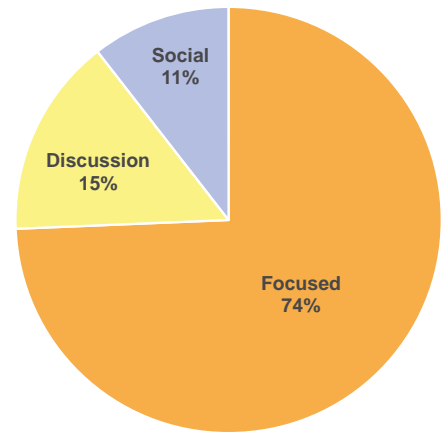
Pie chart:
- Focused 74%
- Discussion 15%
- Social 11%

Observations:
Activity by student numbers

Observations:
Level One – Activity by area*

Observations:
Upper Ground Level – Activity by area*

*not exclusive of other activities

Legend: Focused | Discussion | Doing | Social