



UNIVERSITY OF LEEDS

TOOLKIT

BRIDGING SPACE ON CAMPUS



WELCOME TO THE BRIDGING SPACE ON CAMPUS TOOLKIT

We are delighted to introduce the Bridging Space on Campus Toolkit. This resource was developed as part of our ongoing commitment to fostering a stronger sense of belonging across the University of Leeds community. It is a collaborative guide designed to help us better understand how our campus spaces shape the everyday experience of belonging.

The toolkit arrives at a timely moment. As our university continues to grow and evolve, we are increasingly aware of how physical, digital, and social spaces influence the ways staff and students connect, participate, and thrive. Belonging is not only about feeling included but also about feeling recognised, supported, and inspired in the places where we learn, teach, and work. The ways we experience our campus play a profound role in how connected we feel to one another and to the University as a whole.

Drawing on interdisciplinary research bridging architecture, education, and psychology, this toolkit offers practical tools, case studies, and reflective prompts. These are designed to guide the design, use, and management of campus spaces to foster greater inclusion and connection. It celebrates how thoughtfully designed environments can bridge differences, nurture wellbeing, and strengthen our shared sense of community.

We hope this resource will inform future developments across our campus and inspire new ways of thinking about how space can promote belonging, inclusion, and wellbeing. Through our collective efforts, we can continue to strengthen the culture of connection and care that defines the University of Leeds. With thanks,

Professor Gehan Selim
On behalf of the Bridging Space on Campus Team
University of Leeds, UK

15 October 2025



Professor Gehan Selim
School of Civil Engineering

Hoffman Wood Chair of Architecture



Professor Pam Birtill
School of Psychology

Chair in the Psychology of Learning



Louise Banahene

Director of Educational Engagement



Dr Meng Li
School of Civil Engineering

Research Fellow in Architecture



Karen Arzate Quintanilla
School of Civil Engineering

Research Fellow in Architecture



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PART 1:

TOOLKIT

OVERVIEW



Background

Students' overall campus experience is linked to their sense of belonging, which in turn impacts their academic achievement, well-being, and mental health. For example, a sense of belonging is an important mediator that can attenuate pressure on many aspects, such as financial worries, and can also promote student academic performance and retention.

Practical and positive interactions and relationships that establish a sense of belonging can make students feel cared for and noticed. This is excellent mental support, which can also effectively improve other aspects, such as attendance.

In addition, a sense of belonging can effectively enhance students' help-seeking behaviours, thereby improving students' living and learning experiences on campus. A sense of belonging is also helpful to increase students' sense of safety.

There are various frameworks for understanding the concept of belonging within Higher Education Institutions (HEIs).

One approach identifies four relatively distinct domains that influence students' sense of belonging: **academic engagement, social interaction, physical environment, and personal space**.

Additionally, factors such as **social capital, ethnic group compatibility and cohesion, experiences of social exclusion, and the nature of connections with faculty and campus**—both on and off-site—are closely interrelated and significantly contribute to students' overall sense of inclusion. Understanding the complexity of their relationships is central to influencing feelings of belonging. Identity is also crucial to a sense of belonging in a university setting.

Students can gain a sense of belonging through **expressing themselves authentically or inauthentically**, depending on the context; hence, specific identities become more prominent than others.

Spatial belonging is multidimensional and complex, providing another perspective on understanding students' sense of belonging in HEIs. Four spatial dimensions can be used to explain belonging on campus: **physical, digital, relational, and structural**. Among them, the physical dimension is considered to be the most fundamental dimension.

For example, campus design helps promote a sense of familiarity, which is conducive to building students' sense of belonging.

The physical elements in the campus space, such as **building materials, decorations, and furniture**, become channels for expressing intangibility such as emotions, when they entangle with students' activities.

In reality, some of the physical space design cannot meet students' diverse needs, and sometimes even makes some groups feel a sense of not belonging.

This toolkit facilitates an understanding of

...how the design of continually refurbished indoor informal educational spaces on university campuses contributes to students' sense of belonging.

Indoor campus spaces can generally be classified by function into educational and non-educational areas.

Educational spaces typically include classrooms, studios, and libraries, while non-educational spaces encompass administrative offices, canteens, cafés, and student accommodation.



The former are considered formal educational spaces, which differ from the informal educational environments discussed in this toolkit. Although learning-related interactions often occur in non-educational spaces, such as cafés and canteens, these areas are not intentionally designed to support educational activities.

In contrast, the informal educational spaces we explore are purposefully designed to facilitate learning, yet they also possess qualities that distinguish them from traditional formal learning environments.

To capture the unique role of these spaces, we propose a new term at the conclusion of this toolkit:

bridging space

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- Robinson, S., & Notara, D., (2015). Building belonging and connection for children with disability and their families: A co-designed research and community development project in a regional community. *Community Development Journal*, 50. <https://doi.org/10.1093/cdj/bsv001>.
- Wong, B. (2023). Exploring the Spatial Belonging of Students in Higher Education. *Studies in Higher Education*. <https://doi.org/10.1080/03075079.2023.2243285>.

**Take a look at these
articles**

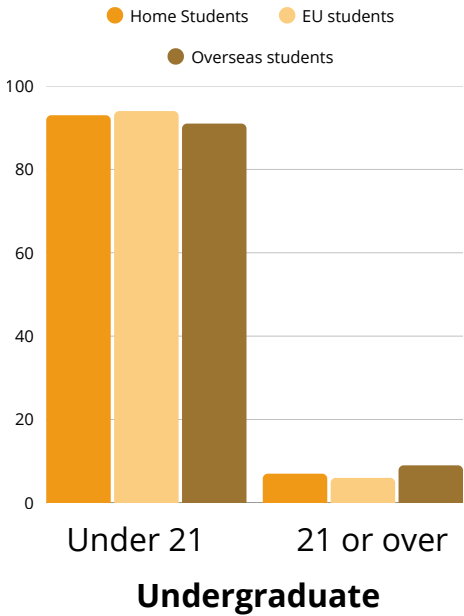




Students at
the University
of Leeds

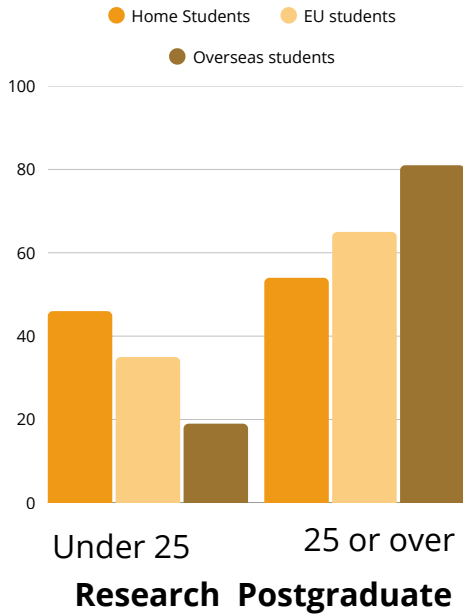
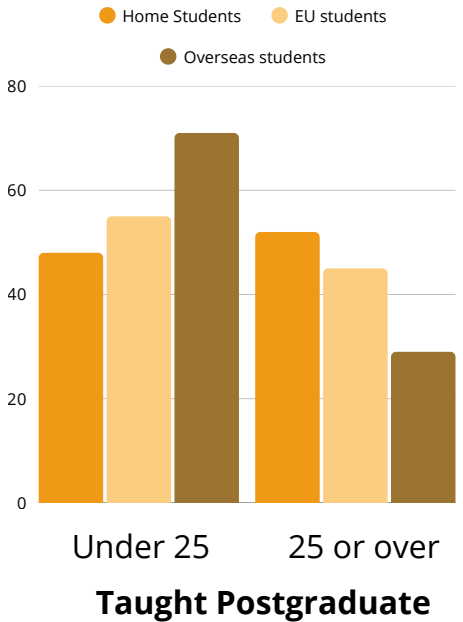
Students by Age

The latest official data shows that a total of **34,345** students were registered at the start of the **2024/25 academic year**.



Based on the data of Registered Student Breakdown for the **2022/23 academic year** (**38,627** students registered for that academic year, and the latest breakdown data has not yet been released),

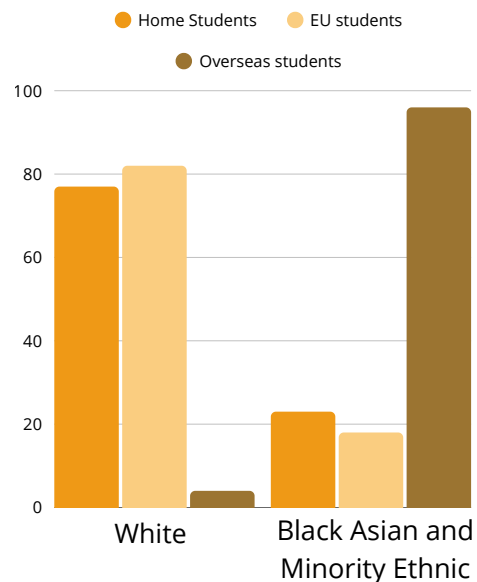
there were **27,681 Undergraduate students** (UG; Home 20,921, EU 835, Overseas 5,925), **8,772 Taught Postgraduate students** (PGT; Home 2,251, EU 155, overseas 6,366), **2,174 Research Postgraduate students** (PGR; Home 1,161, EU 146, Overseas 867).



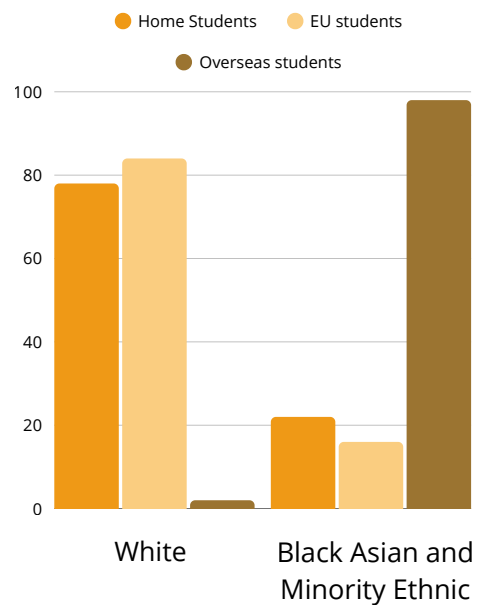
Students Ethnicity



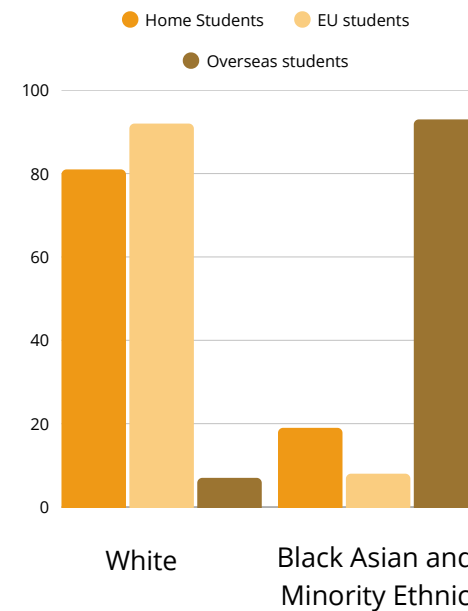
The student community in the University of Leeds is diverse in terms of age and ethnicity.



Undergraduate



Taught Postgraduate



Research Postgraduate

For more official
student data



OR access: <https://gqr.sh/sPaP>



Approach

To explore the above question in the context of the University of Leeds, from February 2023 to December 2024, some research activities were conducted with students, focusing on **UG students** and **PGR students** who spend a longer time on campus.

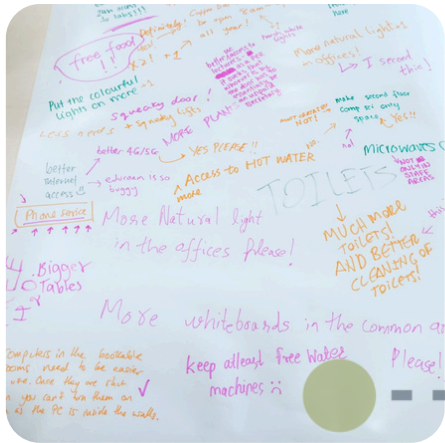
The research team conducted six rounds of campus mapping exercises with students at all levels on the campus to identify the main spots related to their sense of belonging.



"And I *feel* that that's the kind of building I *relate* to."

In-depth and **one-on-one interviews** were conducted with **PGR students** from diverse backgrounds and faculties. Along with these interviews, three sessions of the **Photography Exhibition "Sense of Belonging: People? or Space?"** were held at the Esther Simpson Building, the Newlyn Building, and the School of Civil Engineering.

The research team also invited groups that provide services to students in the aforementioned spaces to record **podcasts** and **videos**.



Cartography exercises were conducted with **undergraduates** and **PGRs** at the **Helix, Sir William Henry Bragg Building Atrium**, and the **LUU PGR Lounge** (especially for PGRs) to understand their sense of belonging to these specific informal indoor educational spaces.



These materials inspire discussion on this topic from the perspectives of space design, management, practice, and service provision.

Ultimately, **two sets of tools were proposed**, based on the existing literature and the results of the aforementioned research activities.



One set of tools helps toolkit users effectively **identify bridging spaces** on campus, which can also be understood as **specific characteristics** of these spaces.

The other set of tools allows users to **create a bridging space** in practice, which can be recognised as a **practical outline**.

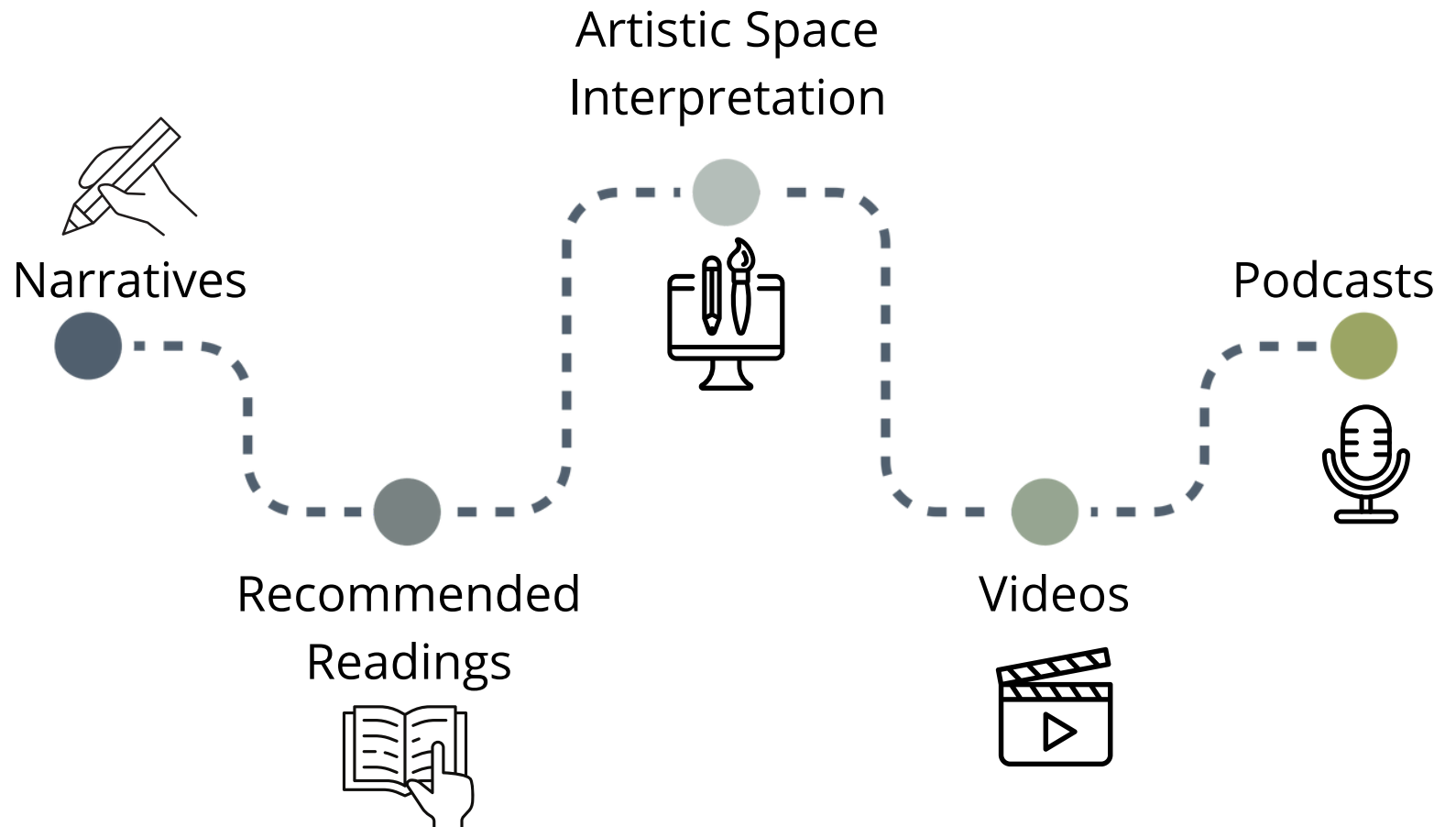


To present these tools more concretely, this toolkit provides three case studies at the end. The tools will be shown in the cases as checklists to help users understand them in practice.



Audience

This toolkit contains
resources such as



The audience includes **scholars** engaged in related research, **practitioners** of campus space planning, **staff** who provide support to others on campus, and users of campus space—**students and faculty**.

PART 2

WHAT WE
HEARD FROM
STUDENTS AT
THE UNIVERSITY
OF LEEDS...

Our Campus

The University of Leeds comprises 110 buildings designed to meet the diverse needs of its students across campus facilities, including:

16 Food-related Spaces



19 Accommodation Options within and outside the Campus



6 Sport Facilities



4 Libraries



6 Prayer Spaces



9 Cultural Facilities

Additionally, the campus features computer clusters, teaching rooms, cash points, a print and copy bureau, an IT service desk, Student Information Services, a Security Office, accessible toilets, disabled access to buildings, baby-changing facilities, and parking spaces.

Also, the site features electric car charging points, sustainable gardens, wildflower meadows, water fountains, defibrillators, bus stops, and a bike hub.

For the campus map



Or access: <https://gqr.sh/A8ds>

The following visual representation was developed based on a series of **mapping exercises** conducted at the **University of Leeds**, in which students (mainly undergraduates) identified spaces they consider central to their **sense of belonging on campus**.



A chromatic scale was applied to represent these responses, with **darker colours assigned to areas where students reported the strongest sense of belonging (81-90)**. As the scale lightens, it indicates spaces perceived as having a lower sense of belonging.

The map shows that **Leeds University Union (LUU)** ranks where students feel the **strongest sense of community**.

Other key buildings and areas contributing significantly to students' sense of belonging include the **Worsley Building, Maurice Keyworth Building, Edward Boyle Library, Laidlaw Library, Parkinson Building, Bragg Building, Civil Engineering Building, The Edge, Chancellor Court**, and **St George's Field** that serves as a prominent open space.

Space-related Challenges of Students' Belonging on Campus –

Voices from Undergraduates



For **undergraduates**, the main factors in building a sense of belonging include **learning experiences, extracurricular activities, and social networks**.

Physical elements do affect the above factors related to creating a sense of belonging.

Most of the elements are related to the **functions of spaces**.

Equipment for studying in the educational space is essential to students; **furniture and amenities** that facilitate students' learning experience and activities cannot be ignored. Space that provides enough **capacity** and offers **various spatial types** that meet both interactive and private requirements is also considered.

Wilson, R., Murray, G., & Clarke, B. (2018, 2-5 July). The RMIT belonging strategy: Fostering student engagement in higher education. In D. Wache & D. Houston (Eds.), *Research and development in Higher Education: (Re)valuing Higher Education* (41, pp. 257-266). Adelaide, Australia.



We asked:

What would you change in the space?

Students said:

"few more widescreen monitors (docking stations)"

"more computers"

"get rid of the weird benches. V.S., I like the benches; you can lounge on them :)"

"more seating"

"heating in meeting rooms for the winter period!"

"better sound insulation between meeting rooms"

"expand the space?"

"Clear out some of the clutter if it is important it should be on a wall not a temporary pull-up banner."



Multiple accessibility requirements affect the sense of belonging. The diverse requirements for spatial accessibility include physical space, time, and virtual online factors. An essential premise of access is **visibility**, meaning that space needs to be visible and known before it can be used. This is a systematic process.

From a physical perspective, it involves designing a spatial planning and signage system for the entire campus to provide students with accurate navigation.

From a non-physical perspective, it involves “promoting” spaces on campus through multiple channels.

The navigation system within spaces cannot be ignored and is directly manifested as clear **signs**. The signs not only point the way but also guide the use of space and facilities, realising the functionality of the space.

A potential cyclical pattern is that the longer one spends in a space, the easier it is to develop a sense of belonging; and the more one feels a sense of belonging, the more time one tends to spend in the space.

Therefore, in addition to considering the opening hours of different spaces on campus, regulating usage time has also become necessary, such as through **an online reservation system**.

Another relevant element is **available time**. The duration of use or occupation of a space is strongly related to establishing a sense of belonging.

Students said:

“Not many students are aware of what goes on here. More emphasis on events, made more accessible.”

“Tell more people about it when they join uni - maybe an event during Freshers' Week. I didn't know it existed!! ”

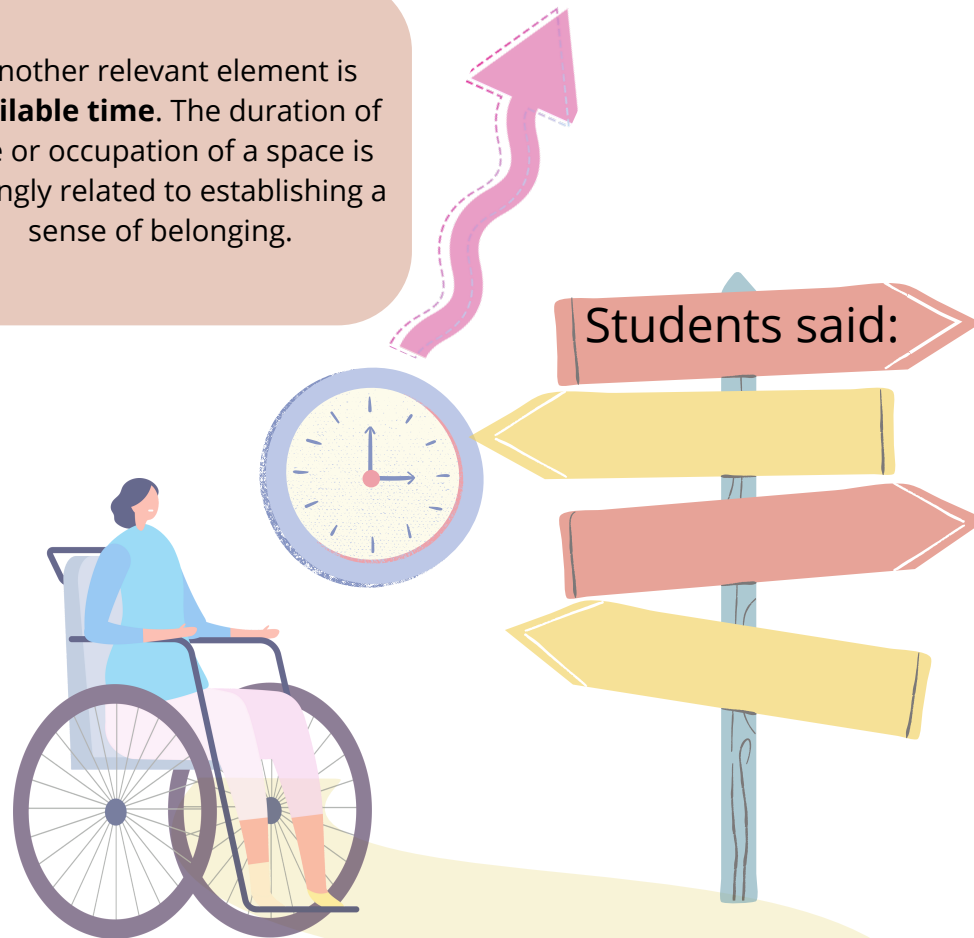
“signs to be clearer as it is easy to get lost”.

“Larger room name/number signage to help everyone find their way around independently.”

“allow us to stay longer”

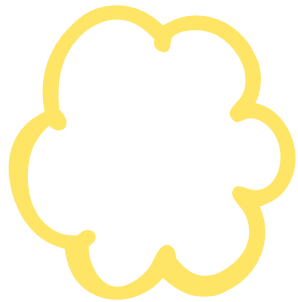
“open on weekends?”

“If someone doesn't confirm booking in 30 mins, cancel it (like the library booking system)”



Immaterial social and emotional elements are ubiquitous in physical spaces.

The **atmosphere** in a space can summarise those complex intangible elements. **The social atmosphere is related to the user groups in the space—who will be active there?** Thus, this is an extension of the physical function.



It is challenging to unify the perceived atmosphere of a space, but there are universal aesthetic principles that can be applied to create a cohesive look.

The design of the space can reflect the groups it targets, and students also define themselves through the function of the space they use.



Allowing students to participate in the design of the spaces is an effective way to enhance the diverse and inclusive characteristics of the spaces.

Students said:

"Can feel like it's not aimed at students sometimes"

"Feels a bit closed off/not inviting if you were just to walk in/ seems like only tech people are allowed."

"I wonder if that was a consideration in the design, because I feel that it excludes people. The space does not allow for a large number of individuals. Many people will not be able to experience the ambience at a time."

"How do you pick the music playlist? Let's join in :)"

"Who uses the lockers? Should be accessible/available to PGRs..."

Space-related Challenges of Students' Belonging on Campus –

Voices from PGR Students



For **PGR students**, their learning and lifestyle are different from those of undergraduates. Therefore, **private spaces**, including offices and laboratories, as well as **interactions** that facilitate **professional academic development**, are essential for building a sense of belonging.

PGR students have different expectations and voices for belonging in campus spaces, which reminded us of the highly **subjective** nature of belonging. The process of measuring belonging is akin to a precision system that comprises many variables, and even minor changes can impact their sense of belonging. In addition to those mentioned by undergraduates, their requirements for space design place particular emphasis on **functionality** and **privacy**, extending from campus to accommodation.

Their international identity, mature age, and the blurred boundary between students' and research staff's identities all lead to various needs for a sense of belonging. For many, campus life is no longer just student life, but a workplace experience; thus, they feel they do not belong in some popular campus spaces, such as the LUU. Instead, they tend to develop a stronger **attachment** and **sense of ownership** to a private workplace, such as an office or laboratory.

The challenge is that, on the one hand, they have high expectations for their personal space. However, on the other hand, they are troubled by the fact that this requirement, which is isolated in nature, limits their integration with the university campus space and life.

Carvalho, L., & Freeman, C. G. (2022). Materials and Places for Learning: Experiences of Doctoral Students in and around University Spaces. *Postdigital Science and Education*, 5, 730–53. <https://doi.org/10.1007/s42438-022-00328-x>.



Carvalho, L., Freeman, C. G., Kearney, A., Mentis, M., & Martinez-Maldonado, R. (2018). Spaces of Inclusion and Belonging: The Learning Imaginaries of Doctoral Students in a Multi-Campus and Distance University. *Australasian Journal of Educational Technology*, 34(6), 41–52. <https://doi.org/10.14742/ajet.4483>.



Students said:

"We were thinking of a dedicated space for older PGR, but I don't think that works. You know, that's not nice. You won't. You know what I mean? So many of my friends are much like my own peers in the school of history are very young."

"When you think about the university as a whole institution, you're kind of a really small percentage of the students here anyway. So, a lot of the things outside of your school or your faculty aren't really catered to you. They're all catered to undergraduate students, master students. So, you feel like, yes, you, you can participate in different activities and stuff across the university, but you kind of feel separated to some extent where you're there, but you're not really like."

We asked: **What would you change in the space?**

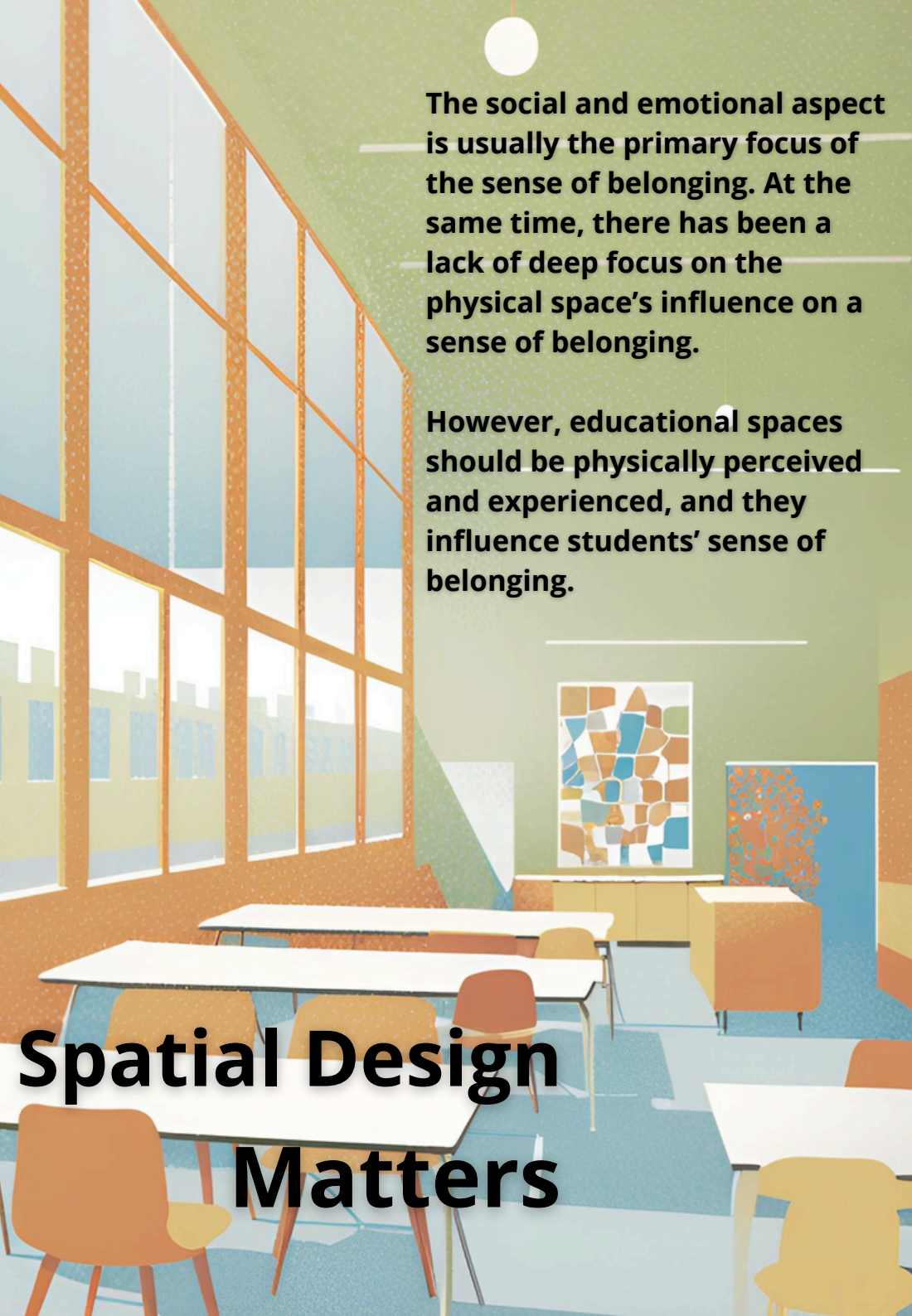
"And I guess you know at least within my group; we all have a central kind of office where we all work. So, there's that kind of like friendship that begins to develop routines, whether people end up going for lunch together and that that lunch turns into, you know, friendships outside of the university."



"I don't like my office, and I rarely go there. It's a kind of hot desk system, lacking stability and ownership. Of course, this may be good for improving resource utilisation, but I don't feel a sense of belonging to the office."

PART 3:

WHAT WE
THOUGHT
ABOUT...



The social and emotional aspect is usually the primary focus of the sense of belonging. At the same time, there has been a lack of deep focus on the physical space's influence on a sense of belonging.

However, educational spaces should be physically perceived and experienced, and they influence students' sense of belonging.

Spatial Design Matters

Appearance

Learning Experience - Architectural space design based on educational functions

Buildings and spaces, as physical constructions, impact the way students perceive the environment, their cognition, experiences and behaviours.

The purpose of buildings is not only to house activities but to provide a learning experience. Observing a building or a space on campus is educational in itself because our relationship with a building begins with the first glance we take towards it. Buildings and built environments have a deep relationship with human feelings and behaviour.

Therefore, the transactions of individuals and physical settings are a key focus of environmental psychology.

Gifford, R., Kormos, C., & McIntyre, A. (2011). Behavioural dimensions of climate change: drivers, responses, barriers, and interventions, WIREs Clim Change, 2(6):801-827.
<https://doi.org/10.1002/wcc.143>.



Goldberger, P. (2012). Por qué importa la arquitectura. Madrid: Ivory Press.



Salama, A.M. (2015). Spatial Design Education: New Directions for Pedagogy in Architecture and Beyond Education: new directions for pedagogy in architecture and beyond (new edition by Routledge). Ashgate Publishing Ltd, Surrey.



Interior

Measurements – The relationship among users, objects, and spaces

Measurements in space are ubiquitous and determined by diverse circumstances, user needs, and the functionalities of spaces.

The concept of built pedagogy is associated with physical settings, such as buildings, interior spaces like lecture halls, furniture, and the level of illumination and noise, which have a deeper relationship with educational matters. Additionally, spaces may be the setting that enables individuals to take action, which can be categorised into different types, including discursive, cognitive, existential, and material.

Therefore, it is essential to consider the following questions: for whom is the space designed? What facilities and equipment are used within the space? What is the size of those facilities?

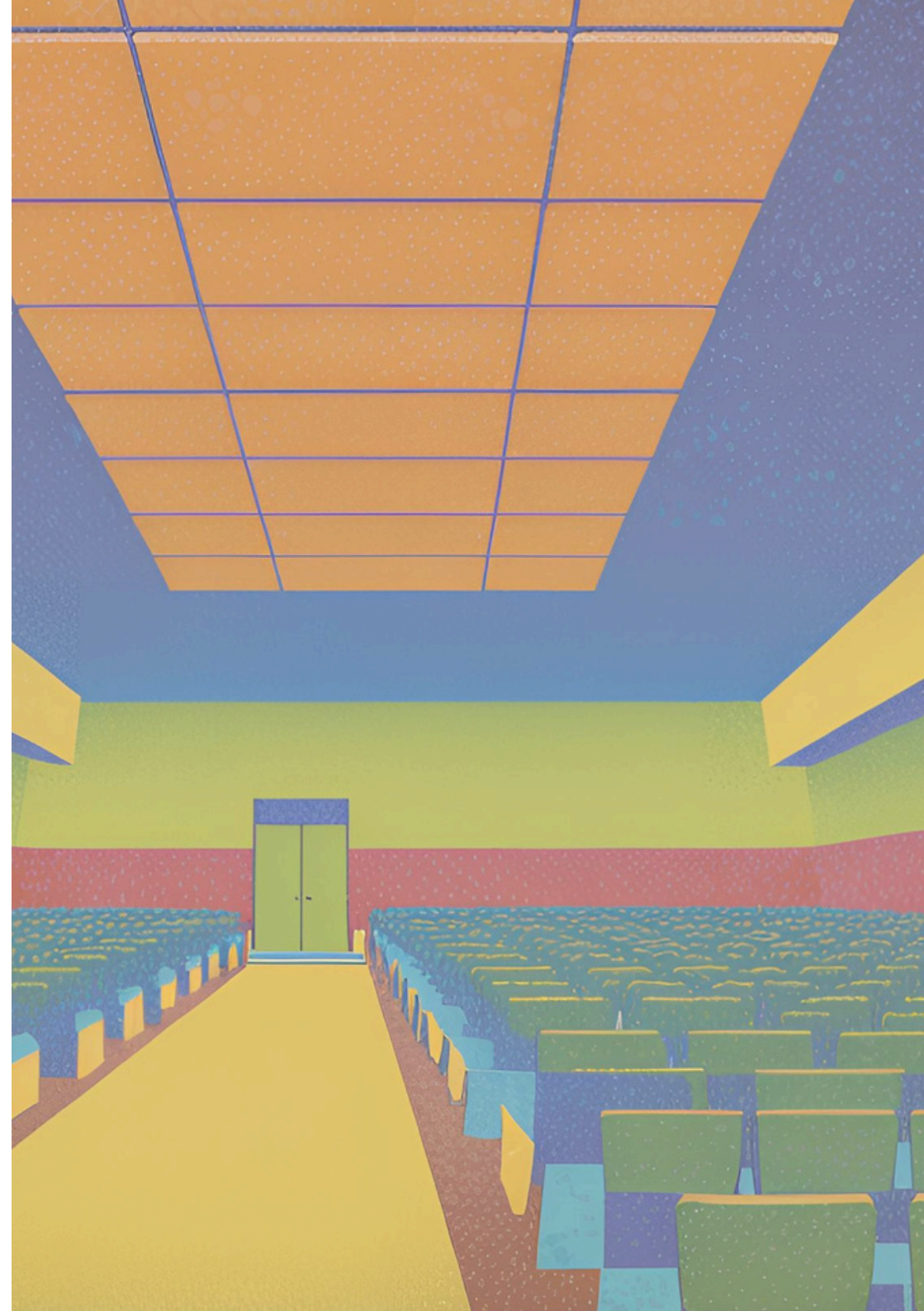
Monahan, T. (2002). Flexible space & built pedagogy: emerging IT embodiments. *Inventio* 4(1). https://publicsurveillance.com/papers/built_pedagogy.pdf.



Kister, J., & David, S. (2012). *Architects' data* (4th ed.). Blackwell Publishing Ltd, West Sussex.



Painter, S., Fournier, J., Grape, C., Grummon, P., Morelli, J., Whitmer, S., & Cevetello, J. (2013). *Research On Learning Space design: Present state, Future Directions*. Society for College and University Planning. *Research On Learning Space design: Present state, Future Directions*.





Aesthetics

Atmospheres - The connection between materiality and emotion

Space is a collection of substances. Material is inanimate, but it can stimulate animate emotions. The interaction between physical space, architecture, and its users is an emotive one.

The term “**atmosphere**” can be used to connect the tangibility of space with the intangibility of human emotions. The atmosphere consists of nine main factors and three additional factors. These factors encompass all elements that contribute to the facilitation of spatial design, creating a sense of belonging.

On the one hand, spatial design needs to use material as a carrier to mobilise the human perceptual system, generating emotions, including a sense of belonging.

The design process should consider the **physical materials, form, layout** of the building or space and **furniture** placed in it, **temperature control, sound effects**, and **light systems**. These can stimulate users' touch, sight, hearing and smell.

On the other hand, the user's **personal emotional needs** and **social emotional needs** have to be met through the design and layout of the physical structure and materials in a space.

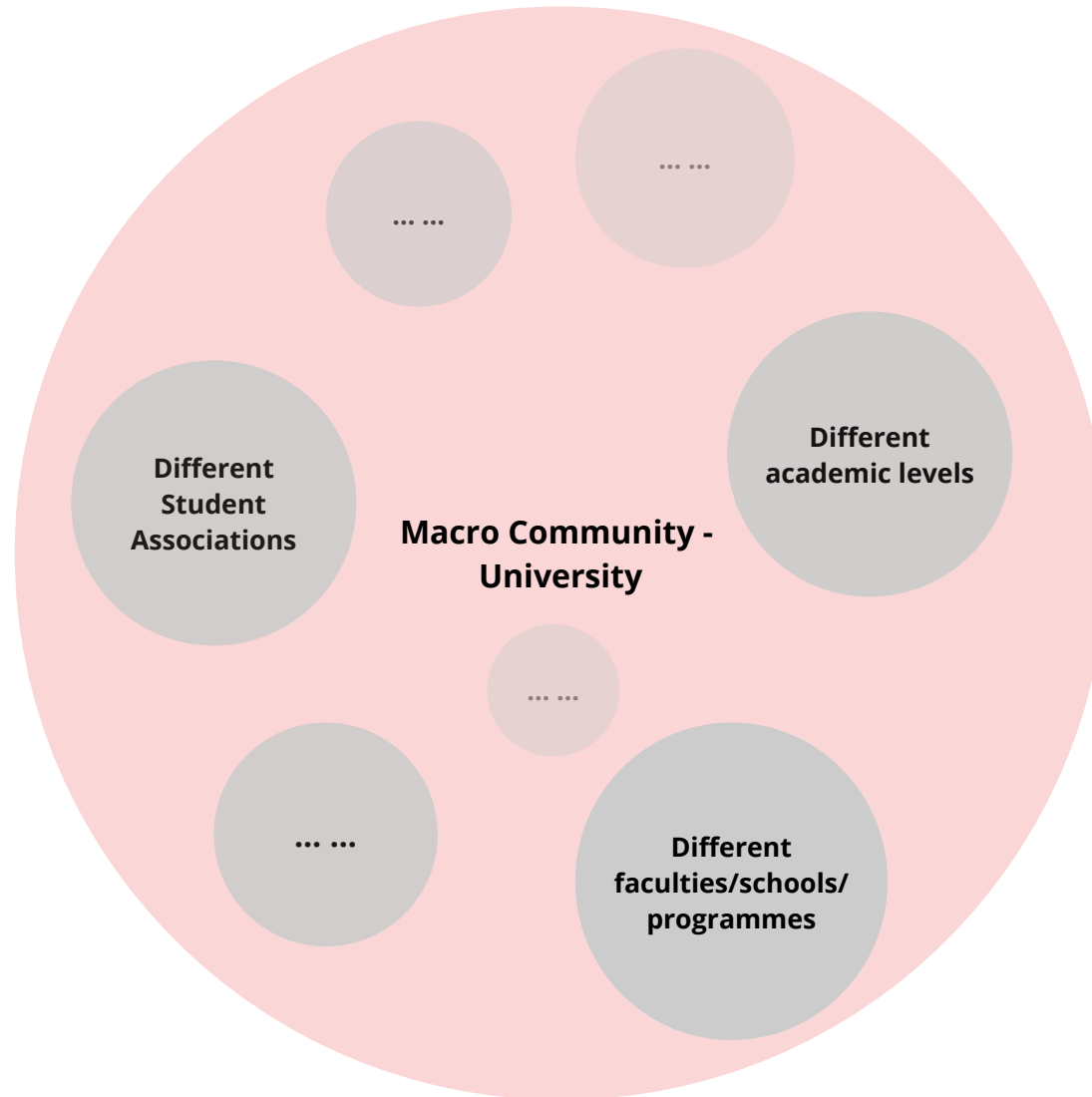
Zumthor, P. (2006). Atmospheres: Architectural Environments. Surrounding Objects. Birkhäuser.



Multiple Dimensions of Belonging

A sense of belonging is never a single level, but **multidimensional**, due to the multiplicity of individual identities and the diversity of communities in which individuals live. In the context of HEIs, this multidimensionality can be explained as follows.

The university is a macro-community, comprising many sub-communities or micro-communities. They may be based on administrative or academic levels and divisions, such as undergraduates, postgraduates and PGRs, or students from different faculties, schools, subjects/programmes, and modules. They may also be based on other factors, such as different student associations.



In a macro sense, they are all major members of the university community. Based on the above macro-community and micro-communities, the following questions are raised:

- 1. How can we make them feel a sense of belonging to the macro-community of the university?**
- 2. How can we make them feel a sense of belonging to the micro-communities they are in?**
- 3. What is the difference between their sense of belonging to the macro-community and the micro-communities?**
- 4. How can we promote their sense of belonging to both the macro-community and the micro-communities?**

Ideally, students can recognise the differences between their university community identity and those who are outside the university.

Therefore, they can develop a sense of belonging to the university while also maintaining a sense of belonging to diverse sub-communities within the university in their daily practice.

Maintaining this ideal balanced relationship involves factors such as values, needs, and emotional or spiritual bonds. This is a process of mutual support and interdependent development among the university, departments and associations.

Brodsky, A.E., & Marx, C.M. (2001). Layers of identity: Multiple psychological senses of community within a community setting. *Journal of Community Psychology*, 29: 161-178. [https://doi.org/10.1002/1520-6629\(200103\)29:2<161::AID-JCOP1011>3.0.CO;2-1](https://doi.org/10.1002/1520-6629(200103)29:2<161::AID-JCOP1011>3.0.CO;2-1).



Consistency of values means that even if sub-communities within a university have their values and interests, their core values must be consistent with the core values of the university

Meeting students' needs means that, based on shared values, sub-communities must be able to meet students' actual needs.

Otherwise, the value of the university as a macro-community will become unconvincing. In other words, any core values from the macro level must be implemented in daily campus life.

Sharing emotional and spiritual bonds means that the university should provide a means of communication and a bridge between members in sub-communities, respecting their values.

Through this, we aim to create macro-shared emotional and spiritual bonds and establish a boundary between the university community and the outside.



Architectural Scales Impact on Multidimensional Belonging

The architectural scale helps people to understand their surroundings and how they feel the environment.
Imagine...

If you are in **an airport (monumental scale)**, you might feel you are tiny, and disoriented or lost, since airports can often feel overwhelming due to their vast scale.

To counter this, most airports are equipped with comprehensive signage systems, as effective wayfinding is essential in such complex environments. The monumental scale of airports reflects the immense volume of passengers they serve and the wide range of activities that take place within them. However, it may be challenging to maintain intimacy in this vast space.



If you are in **a football stadium (big scale)**, you might not know others around you.

However, you might feel a connection with them through the “atmosphere” generated by the ongoing football matches, rather than the intimacy created by the scale.



Now you are in **a building that is designed for four to five people on average (human scale)** and held in private, where you might call it “home”.

This concept may evolve into a more intimate aspect of your daily life.



Throughout these examples, we understand the relevance and involvement between scales, distance, proximity, environment and atmospheres.

Intimacy is a crucial concept that has been frequently discussed. It is related to dimensions and scales of buildings and spaces, leading them to communicate with themselves and the environment around them.

Intimacy is a transaction between architecture and users. Users sense this transaction by experiencing components of buildings, such as structure, materials, layout and decorations.

Therefore, “scale”, “size”, “looking” and “feeling” of buildings can influence human perception, making users feel like they are intimate or non-intimate to spaces.

University has a specific scale that encompasses various types of scales and dimensions.

Middle Scale

Some spaces or collections of spaces constitute the middle scale/dimension, including, for example, faculties, schools, and even libraries.



Institutional Scale

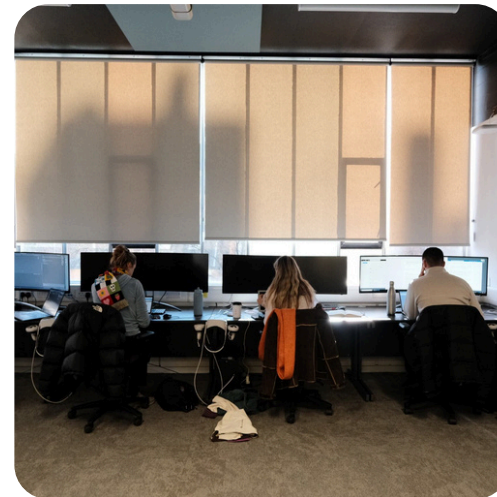
The university or institutional scale/dimension encompasses every space that comprises the entire campus.



In the above three dimensions, students experience different senses of spatial intimacy; thus, their sense of belonging in each dimension also varies, as the space scale affects the multidimensional sense of belonging, in addition to the interpersonal bonds established through social activities mentioned earlier.

Small Scale

Many individual spaces, such as classrooms, lecture theatres, design studios, and laboratories, represent the smaller scale/dimension.



PART 4:

NOW WE PROPOSE...

Spaces within universities are designed differently to accommodate the initial intentions of multiple functions. These spaces are spatially connected but function conceptually independently.

While students feel a high sense of belonging in classrooms or design studios, their sense of belonging may start to decrease when they transition to other faculties or schools.

This is a breakdown in social-emotional bonds, as well as a decrease in spatial intimacy, as the scale or dimension increases: the larger the spatial scale, the lower the sense of belonging. Therefore, Bridging Spaces are necessary to communicate multiple dimensions.

Tools for Identifying and Creating the Bridging Space on Campus

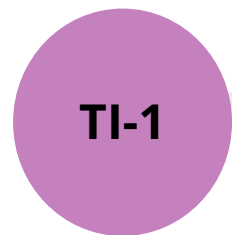
TI Set: How to identify the bridging space?

Bridging space is a channel that attempts to go through scales and dimensions. It continuously provides students with a sense of belonging as the scale is upgraded and the social bonds is interrupted, bridging the gaps between dimensions.

The following characteristics of the bridging space can be used as **a tool for identify** it (TI Set):

TI-1: Indoor spaces designed for the function and fundamental purpose of facilitating learning activities.

This clearly distinguishes between bridging space and non-educational space.



TI-2

TI-2: More functional than traditional formal educational spaces. This distinguishes the bridging space from the conventional formal educational space. The bridging space would reserve the maximum possibility to encourage different learning activities.

TI-3: A delicate balance between seriousness and relaxed atmosphere. This is directly related to the spatial layout, spatial design and facilities of the bridging space.

TI-3



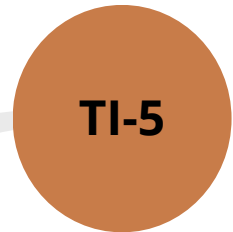
TI-4

TI-4: A fusion of exclusivity and inclusivity. Factors, for example, the identity of the primary user of a space, create some potential boundaries. It doesn't seem very easy to create an inclusive and borderless space. However, the bridging space means not denying boundaries but integrating exclusivity and inclusivity.



TI-5

TI-5: Bridging spaces also have scale. All spaces must have a scale (monumental, big or human scale). Thus, there are also different scales in the bridging space, ranging from large to small.



TIPS for TI-SET

TI-1

Tips: Even though informal learning activities often occur in spaces such as canteens and cafés, their fundamental purpose is not to provide education; therefore, they cannot be identified as a bridging space.

TI-2

Tips: We have a fixed functional understanding of lecture theatres, ordinary classrooms, laboratories, studios, and libraries. This understanding defines what activities are suitable or unsuitable in these spaces, and also potentially establishes the identity of the users of the space. Therefore, there is an invisible barrier that cannot be identified as a bridging space.

TI-3

Tips: From a serious perspective, teaching and learning facilities are necessary as a space for providing educational functions. The elements in its spatial design, such as layout, colour and lighting, must meet the requirements of teaching and learning activities. However, this does not mean directly copying the spatial design of classrooms or libraries into bridging spaces. The relaxed atmosphere is the key to its difference from formal educational spaces. For instance, features like tea break areas and having gentle background music can be used to create a relaxed atmosphere similar to a cosy café.

TI-4

Tips: Bridging space will be designed with a specific target audience or activity in mind. Nevertheless, its strong integration lies in the fact that all other groups are welcome to join or watch. For example, we cannot casually enter a laboratory or studio, but we can observe or even join the activities taking place in the bridging space randomly.

TI-5

Tips: Regardless of the scale, a bridging space should strive to meet TI-1 to TI-4, or have the potential to meet all of them.

TC Set: If you want to create a bridging space...

If you want to **create** a bridging space through new construction or renovation, then you need this tool to do so (**TC Set**).

It consists of three components:

Component Spatial Types (TC-S)

Component Equipment and Atmosphere (TC-E)

Component Accessibility (TC-A)

Component TC-S:

TC-S1: Plenty of flexible space

Regardless of scale, most space in a bridging space should be allowed for flexible arrangements and use rather than being permanently fixed to a particular purpose.

TC-S2: A certain number of separate quiet spaces

The capacity of independent, quiet areas needs to be controlled in a bridging space. Its goal is not to build more tranquil study rooms, but to reserve some private spaces within the vast network.

Component TC-E:

TC-E1: Diverse teaching and learning equipment

Movable tables and chairs, movable large-size display screens, movable whiteboards, movable multimedia equipment ... In a bridging space, teaching and learning implementation mobility is very important.

TC-E2: Catering equipment

An area with drinking water, hot water, a microwave and a Coffee machine can keep users longer.

TC-E3: Different types of furniture

The furniture in a bridging space needs to be consistent with its spatial design and versatility. This means that we may see various furniture types and designs here, highlighting the difference between the bridging space and other educational and non-educational spaces on campus.

TC-E4: Colour scheme

A vibrant colour scheme should be the first choice for a bridging space. However, vibrant does not mean strong impact and stimulation, and cosy is one of the most mentioned appeals we heard.

TC-E5: Green plants

Another element related to cosiness is the presence of green plants, which extend the outdoor natural environment into the interior.

TC-E6: Adequate natural lighting

Almost all participants who contributed ideas mentioned that they required ample natural lighting. This means that a bridging space needs a sufficient number and size of windows to introduce natural lighting.

TC-E7: Appropriate background music

A very special discovery is that appropriate background music in a bridging space can strike a good balance between moderate noise and excessive silence. Imagine sitting in a cosy café, with the background music and people coming and going; you can just concentrate, but you will not feel nervous or depressed because of excessive silence. However, the sound insulation of separate quiet spaces needs to be guaranteed.

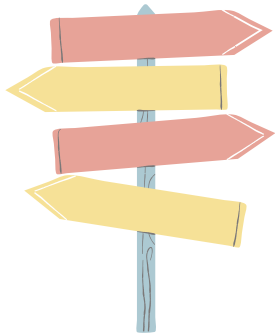
TC-E8: Equipment for temporary ownership

It cannot be ignored that ownership directly affects the sense of belonging. Some equipment, such as lockers, can provide users with temporary ownership.

Component TC-A:

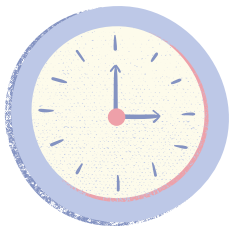
TC-A1: Clear signage

Clear signage needs to be provided at two levels: on campus to provide directions to the bridging space and within the bridging space to provide navigation to each area and facility.



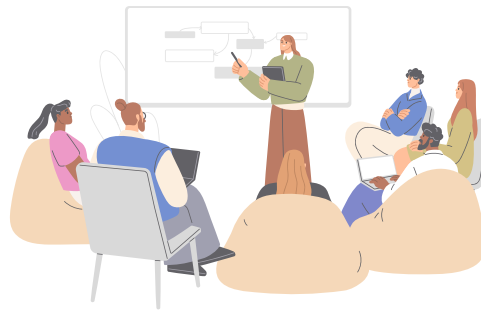
TC-A2: Opening hours

The longer users use a space, the easier it is for them to feel a sense of belonging. Considering the practicality, it is difficult to provide a 24/7 accessible bridging space. Nevertheless, extending the opening hours as much as possible is helpful.



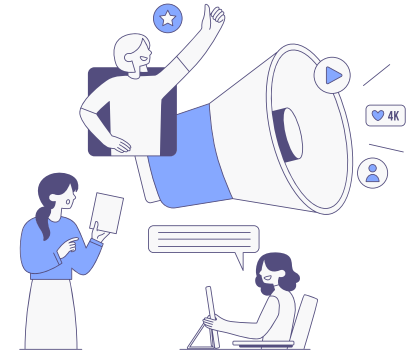
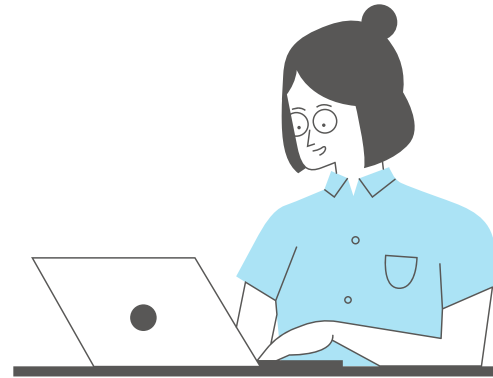
TC-A3: Staff

Friendly and inclusive staff contribute to the dynamic and welcoming atmosphere of a bridging space. Adding part-time student positions would help connect the student community to the space and could extend opening hours.



TC-A4: Online reservation system

An easy-to-use online booking platform and information system, combined with the QR code in the space, can improve its usability.



TC-A5: Publicity strategies

This is a considerable challenge identified by this toolkit. There are already some almost mature or developing bridging spaces on campus, but only a few people are aware of their existence. This is one of the biggest dilemmas in bridging spaces at present: they are less well-known than libraries and classrooms in schools. Therefore, publicity strategies need to be included in the plan for a bridging space. For example, bridging spaces should be introduced at the new student induction of each school. Also, bridging spaces should have more opportunities to be used as venues for various academic activities. On the other hand, it reveals that to manage and operate the bridging space sustainably, collaboration with other departments within the university is essential.

PART 5:

WE ALREADY
HAVE



UNIVERSITY OF LEEDS



Sir William Henry Bragg Atrium is situated within the seven-story Sir William Henry Bragg building.

The Sir William Henry Bragg building is located northeast of the well-known open space of St George's Field, facing Woodhouse Lane. It is part of the Faculty of Engineering and Physical Sciences and opened in 2022. The main façade features carefully designed green areas with benches and lavender plants, creating an inviting and welcoming atmosphere that draws students and staff into the building. The building has several entry points, including access from Civil Engineering through an indoor corridor facing Woodhouse Lane, from the main façade, and via the open corridor leading to the Clothworkers building.

The Atrium is designed to be inclusive and welcoming, featuring wheelchair accessibility and an abundance of natural light. Its open layout connects seamlessly with various key spaces, allowing it to function as a workspace, meeting area, reception, or conference venue. It houses one of the University's coffee shops, "The 1915". This coffee shop integrates seamlessly with the main Atrium space, creating a relaxed and dynamic environment. The area's natural noise and activity level offer a balance that helps users feel connected to the academic setting, whether they wish to unwind or focus.

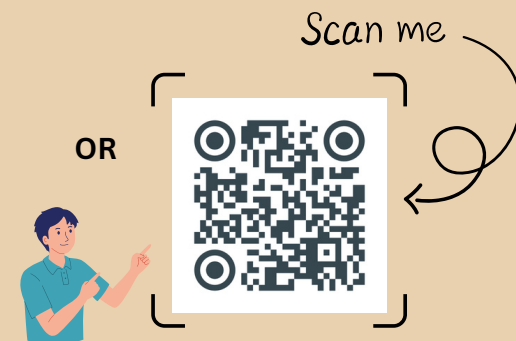


OR access: <https://ggr.sh/NdBH> 



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Every morning, the Atrium welcomes people as they come and go. Although it is located in the School of Physics, it is not a space exclusively for students and faculty from the Physics department. Coffee, green plants, comfortable furniture, a transparent roof, and plenty of natural light—welcome to Bragg Atrium. How many spaces like this are there on the campus, trying to attract a broader university community to meet and converge...



Rivea Jefferson



**Student Communities Coordinator
Academic Engagement Team
Leeds University Union**

OR



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*"I have seen a whole host of different common rooms and student spaces, and a few stands out most positively...the common room in the English department, where students can go and study and relax between seminars and lectures. One of the first things I noticed when I got it was its style. It's very cosy. Especially this time of year been around about December. It was decorated really well: Christmas trees, lots of lights, tinsel, all the things that you need to make a space feel comfortable... **One of the other things that I think helps that space to foster a sense of belonging for students is that there's a notice board that's got pictures and information about the English Society.** It is a society within the union run by English students. As an academic society it's just really great because then students can start seeing community leaders maybe able to point them out work alongside them for things and know who to go to...*

One of the spaces that I'm somewhat familiar with in terms of that I've heard other people talk about it, but I've not actually visited it myself is the Bragg Building. I'm under the impression that is a space for the physics students, however the space is so inviting, it attracts students who don't study physics as well. I think that's great in terms of the it's engaging students. It's a space that students want to be at, but then this the sort of question is does that impact the sense of belonging for the physics students, who would typically want to spend time with the course mates, with peers, with people who are studying the same course as them...? ...and I think the challenge is not only creating a space but how do we make it inviting for particular groups of students."

Bridging Space Tools Checklist

Is Sir Willam Henry Bragg Atrium a bridging space?

YES, with potential for improvement.

	Yes	No
TI-1 Indoor spaces with the function and fundamental purpose of providing learning activities.	✓	
TI-2 More functional than traditional formal educational spaces.	✓	
TI-3 A delicate balance between seriousness and relaxed atmosphere.	✓	
TI-4 A fusion of exclusivity and inclusivity.	✓	
TI-5 Bridging spaces also have scale.	Human	



Bragg Atrium has TI-1: Indoor spaces with the function and fundamental purpose of providing learning activities.



Bragg Atrium has TI-2: More functional than traditional formal educational spaces and TI-3: A delicate balance between seriousness and relaxed atmosphere.

What does Sir Willam Henry Bragg Atrium have?

	Yes	Partly/Improving	No
Component TC-S			
TC-S1 Plenty of flexible space			✓
TC-S2 A certain number of separate quiet spaces	✓		
Component TC-E			
TC-E1 Diverse teaching and learning equipment		✓	
TC-E2 Catering equipment		✓	
TC-E3 Different types of furniture	✓		
TC-E4 Colour scheme	✓		
TC-E5 Green plants	✓		
TC-E6 Adequate natural lighting	✓		
TC-E7 Appropriate background music			✓
TC-E8 Equipment for temporary ownership			✓



Bragg Atrium has TI-4: A fusion of exclusivity and inclusivity and TI-5: Bridging spaces also have scale.

What does Sir Willam Henry Bragg Atrium have?

	Yes	Partly/Improving	No
Component TC-A			
TC-A1 Clear signage		✓	
TC-A2 Opening hours			✓
TC-A3 Staff		✓	
TC-A4 Online reservation system		✓	
TC-A5 Publicity strategies			✓







Helix is located on Level 7 of the EC Stoner building.

The EC Stoner building is a rectangular structure near key campus landmarks such as the Edward Boyle Library (to the northwest), Roger Stevens (to the southwest), and The Edge (to the south). It is home to several schools, including Physics and Astronomy, Food Science and Nutrition, and the School of Computing.

Helix is a multifunctional educational space that opened in 2023. It is designed primarily for teaching and learning, with a strong emphasis on innovation and collaboration. Its flexibility makes it ideal for both independent and collaborative study, as well as for hosting events and conferences. The space follows the linear layout of the EC Stoner building and is entirely wheelchair accessible. The space is organised into the following areas, from west to east, to support various educational and creative activities, fostering innovation, collaboration, and communication.

To visit HELIX

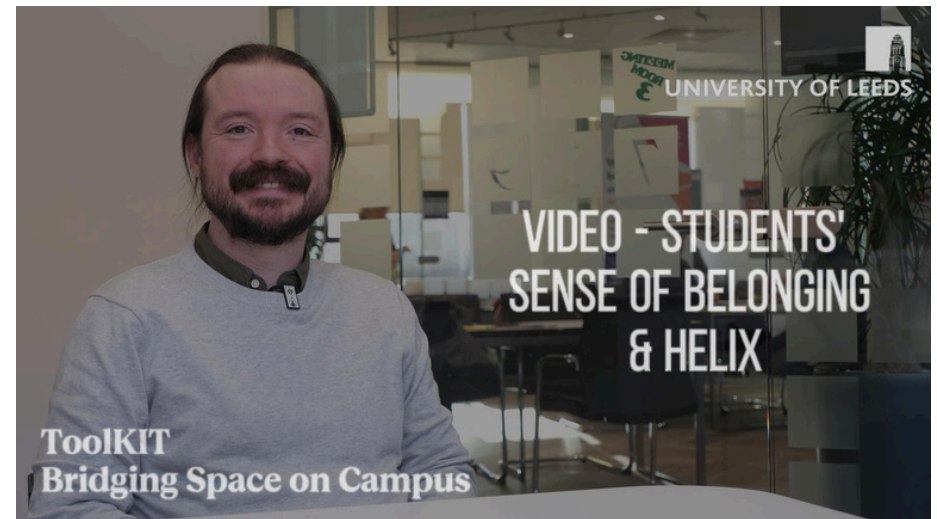


Or access: <https://gqr.sh/QzVH> 

Chris Thompson



**Head of Digital Media in Innovation
Business Lead for Helix
Digital Education Service
University of Leeds**



Click me 

"Helix is a particularly special place on campus. It exists to offer our staff, students, and connected community access to the technology, creative experiences, and collaborations that they might need to succeed. Whatever their needs might be, we were set up in collaboration with our stakeholders, including our students, right from the outset. We designed together what this facility might offer to ensure we meet the needs of those who will be accessing it..."



Peter North & Kerr Hunter



**Innovation Space Manager of Helix
Digital Education Service
University of Leeds**

**Senior Community Development Manager of Helix
Digital Education Service
University of Leeds**



Click me



Peter

"I'm loving the job. I think it's a very varied role even though it is kind of folks multiple facilitate and helping people use and get in the space. Having what's university for many years, I think bringing a lot of knowledge into the space and how the space can be used and so get out there to the wider communities, I've definitely helped myself.

This such wide diverse of users in the space and I think that's what's of planting that seed of creativity amongst sort of students that didn't really have a space to sort of be creative...

Our Helix is positioned itself as well with it been a central space for everybody, I think that's helped students have taken a bit of ownership..."

WE FEEL LIKE WE BELONG TO HELIX

Kerr

"We want to make sure people know we exist and also know how to access everything we can do so that comes to spaces and equipment. Also think about how Helix can shape new students, so, obviously we have just finished doing open days, we've had new potential students come on campus and not knowing about Helix. We've seen all sorts of the variety of different projects and different people that come into the space has been great...

In terms of belonging, I think hopefully what we've just described shows the variety of different people...you do get the chance to meet these people and it's obviously a space of people. You can work independently, but you can work in groups, you can work in big spaces, small spaces... I think it's the opportunity to meet people and to speak to people that is there if you want it. I think that's one of the key things..."

Pooja Gopikrishnan & Raul Dena Medecigo



**Master Graduate of the University of Leeds
Medicine PGR at the University of Leeds**

**Part-time staff members of Helix
Digital Education Service
University of Leeds**

OR



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Raul

"I remember when I came here and saw the place and I said to myself: I need to work here at one point in my life, I need to have a job here, this is definitely a great place.

For me it's been quite challenging, the creative side of this. Because I'm not that creative or maybe I have a really creative mind, like for many silly things. But I see how people are other interns, colleagues solve problems, also the staff members in healing solve problems, I see that in you... and I'm just like these guys are amazing! They are really creative! Like when it comes to problem solving things and I'm just like I need to keep up.

This opportunity has allowed me to continue understanding more about the mission of Helix, that goes beyond the university, goes to the community to open all these kinds of spaces and tools to make them accessible, because they are free for all communities..."

Pooja

"I want people to be more innovative and that's what sort of pushed me to apply for this role.

I think just being here has this collaborative environment wherein we can learn from everyone here. Everyone has such different talents and individual potentials that when you see someone working and just like, oh wow! I really want to learn from them. There is such a potential for growth here and that's amazing!

I think we as innovation partners we act as ambassadors for Helix and as well as for student community. So, I think we represent both sides, and it is easy for students to sort of approach us and have a sense of belonging to Helix; and it's also easy for Helix to use us as a medium to foster creativity and collaboration among students. So, that's a great feeling, it's like a circle..."

Bridging Space Tools Checklist

Is Helix a bridging space?

YES, a good practice.

	Yes	No
TI-1 Indoor spaces with the function and fundamental purpose of providing learning activities.	✓	
TI-2 More functional than traditional formal educational spaces.	✓	
TI-3 A delicate balance between seriousness and relaxed atmosphere.	✓	
TI-4 A fusion of exclusivity and inclusivity.	✓	
TI-5 Bridging spaces also have scale.	Human	



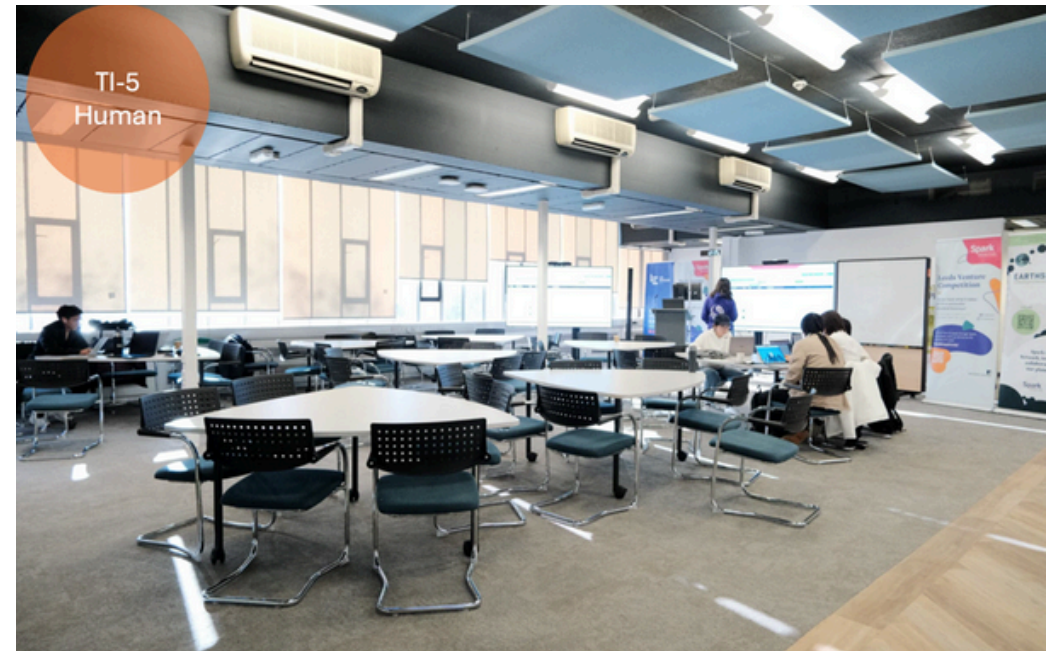
Helix has TI-1: Indoor spaces with the function and fundamental purpose of providing learning activities.



Helix has TI-2: More functional than traditional formal educational spaces.



Helix has TI-3: A delicate balance between seriousness and relaxed atmosphere.



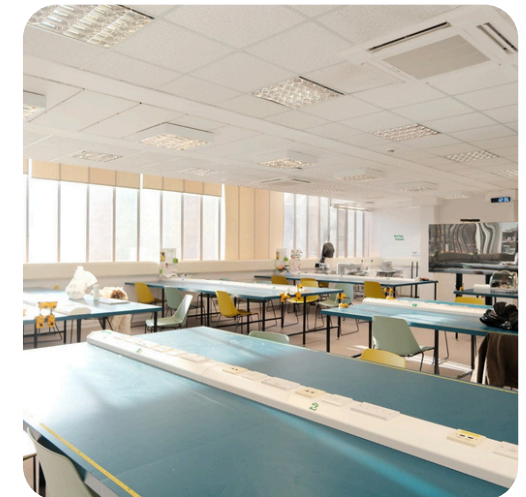
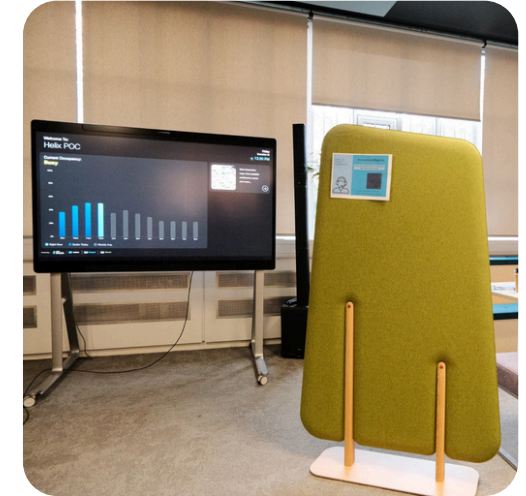
Helix has TI-5: Bridging spaces also have scale.



Helix has TI-4: A fusion of exclusivity and inclusivity.

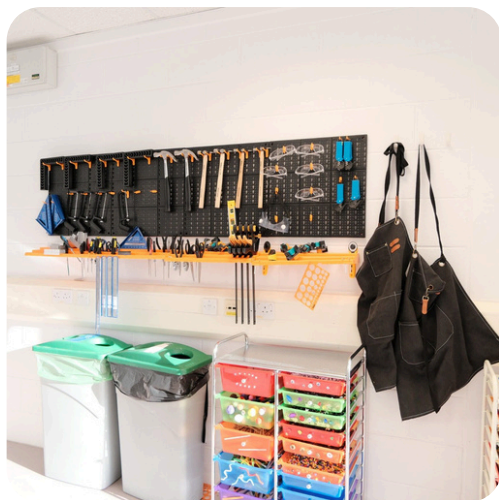
What does HELIX have?

	Yes	Partly/Improving	No
Component TC-S			
TC-S1 Plenty of flexible space	✓		
TC-S2 A certain number of separate quiet spaces	✓		
Component TC-E			
TC-E1 Diverse teaching and learning equipment	✓		
TC-E2 Catering equipment	✓		
TC-E3 Different types of furniture	✓		
TC-E4 Colour scheme	✓		
TC-E5 Green plants	✓		
TC-E6 Adequate natural lighting	✓		
TC-E7 Appropriate background music	✓		
TC-E8 Equipment for temporary ownership			✓



What does HELIX have?

	Yes	Partly/Improving	No
Component TC-A			
TC-A1 Clear signage		✓	
TC-A2 Opening hours		✓	
TC-A3 Staff	✓		
TC-A4 Online reservation system		✓	
TC-A5 Publicity strategies	✓		





UNIVERSITY OF LEEDS



The LUU PGR Lounge is located on the Mezzanine Level of the Leeds University Union (LUU), which is situated above the Refectory.

Leeds University Union (LUU) serves as the representative body for over 30,000 students at the University of Leeds and is centrally located on campus. The origins of the Union trace back to 1870 when it was established as a society of the Yorkshire College. The current structure of LUU began to take shape in 1937. Today, LUU is a multifunctional building that accommodates a variety of student services and social spaces, including food outlets, pubs, cafes, and informal gathering areas such as Crossroads. Additionally, it houses clubs and societies, student representative offices, retail shops, and bars.

LUU PGR Lounge is a compact space that serves the PGR community, offering a venue for independent and collaborative study. Its layout consists of six main areas connected by a central lobby, creating a versatile environment where PGR students can choose spaces that best suit their needs.

For more information of
PGR Lounge and LUU



Or access: <https://gqr.sh/YUYm>

In the PGR Lounge, there are...

Administration: This area includes a small office for the space managers.

Study Space: A flexible area with tables and chairs where students can work alone or in groups.

Individual Space: This space, designed with a linear layout, is dedicated to students who need a quiet area for focused, independent work.

Collaborative Space: This is a spacious area furnished with tables, chairs, and various other pieces of furniture, making it ideal for group activities and discussions.

Meeting Room: A small, private room that accommodates one or two people, providing a more isolated environment while still being connected to the main lounge.

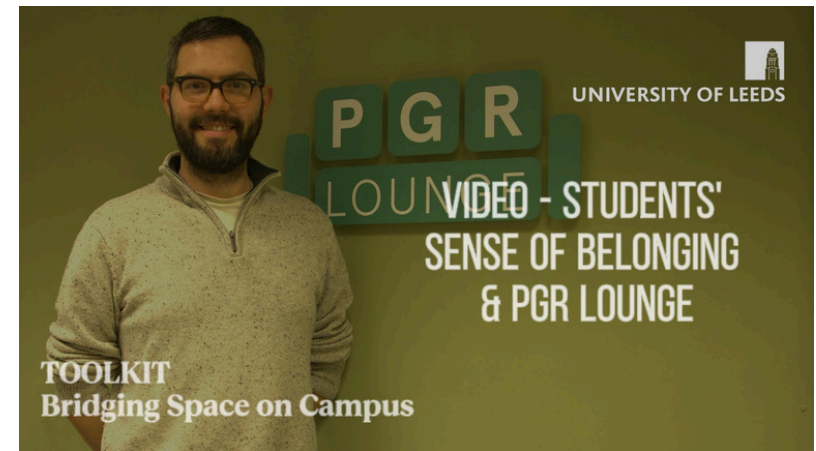
Lobby: A central area with chairs and couches for informal work and a collaborative blackboard for announcements and shared information.

Dr Matthew Bachmann



**Higher Education Research and Support Assistant
Leeds Institute for Teaching Excellence (LITE)
University of Leeds**

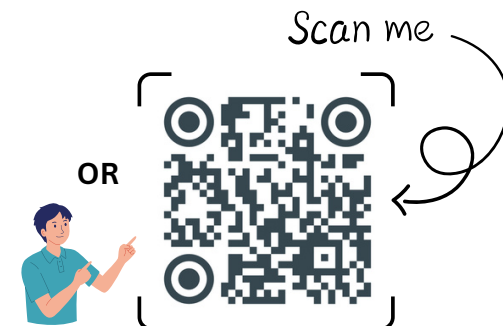
**Previous Academic Engagement Manager
Manager of the PGR Lounge
Leeds University Union**



Click me



"One of the best ways to explain what the PGR lounge is, is to contrast it with some other spaces around campus. So, PGR should receive office space and effective workspace from their schools or from their institutes, and they should have access to silent study space and the resources they need through the library, what this is trying to offer. As a PGR lounge is to feel like a need for a community space something that's bridging gaps across subjects and across schools and across faculties, and bringing the PGR community together..."



Felix Emotu



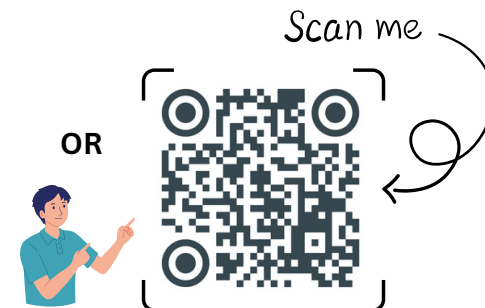
**International Postgraduate Officer
Leeds University Union**



Click me 

"The PGR Lounge is a space that is designed for our PGRs, specifically for our PGRs. So, the union designed that space to ensure that the PGRs have that sense of belonging to the union... They have the space where they can integrate, can interact, can connect with one another, create that sense of society. There are quite many activities that take place in that Lounge. It's in its infancy stages, but there are quite many activities that are already taken place in that Lounge. For instance, I see PGRs organising their study meetings there, find many groups sitting there sharing ideas and digesting issues in that specific area of studies..."

Not a library setting, not academic class kind of setting... but as a casual open space where you can do read your stories or read your text or something to refresh your mind..."



Dr Sophiko Daraselia



**College Officer in the Faculty of Social Sciences
University of Leeds**

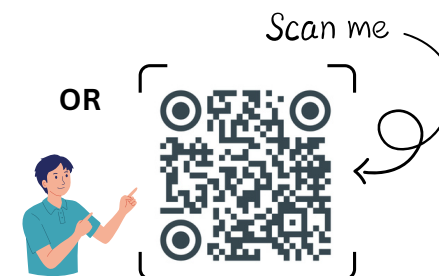


Click me



"I work across all four schools in the faculty and there is a need for a dedicated space for all four PGRs, and I came up with the idea of using the Luu PGR Lounge as a dedicated space...and LUU is the central point across all these four schools, and it was a perfect location for our four PGR dropping-in.

The main purpose how we use the PGL Lounge space we use the main room which is a very friendly space, big space, and it allows multiple simultaneous conversation... PGRs can have separate independent conversations...they can have their lunch... while other PGRs can have more research related discussions on their research project...when a PGR has a meeting, for example, they ask: where can we go? where can we take this call? And we are encouraged and advise the PGR to go to a next room which is the quieter room for a dedicated for meeting..."



Bridging Space Tools Checklist

Is LUU PGR Lounge a bridging space?

YES, with potential for improvement.

	Yes	No
TI-1 Indoor spaces with the function and fundamental purpose of providing learning activities.	✓	
TI-2 More functional than traditional formal educational spaces.	✓	
TI-3 A delicate balance between seriousness and relaxed atmosphere.	✓	
TI-4 A fusion of exclusivity and inclusivity.	✓	
TI-5 Bridging spaces also have scale.	Human	



The PGR Lounge has TI-1: Indoor spaces with the function and fundamental purpose of providing learning activities.



The PGR Lounge has TI-2: More functional than traditional formal educational spaces, TI-3: A delicate balance between seriousness and relaxed atmosphere, TI-4: A fusion of exclusivity and inclusivity and TI-5: Bridging spaces also have scale.

What does PGR Lounge have?

	Yes	Partly/Improving	No
Component TC-S			
TC-S1 Plenty of flexible space	✓		
TC-S2 A certain number of separate quiet spaces	✓		
Component TC-E			
TC-E1 Diverse teaching and learning equipment		✓	
TC-E2 Catering equipment			✓
TC-E3 Different types of furniture	✓		
TC-E4 Colour scheme	✓		
TC-E5 Green plants			✓
TC-E6 Adequate natural lighting		✓	
TC-E7 Appropriate background music			✓
TC-E8 Equipment for temporary ownership			✓



What does PGR Lounge have?

	Yes	Partly/Improving	No
Component TC-A			
TC-A1 Clear signage		✓	
TC-A2 Opening hours			✓
TC-A3 Staff	✓		
TC-A4 Online reservation system		✓	
TC-A5 Publicity strategies		✓	



The picture of the PGR Lounge is integrated with diagrams of the aspects that would improve the space, such as plants, music, catering equipment, etc..





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- Professor Gehan Selim
Hoffman Wood Chair of Architecture
Deputy Director: Leeds Institute for Societal Futures (LISF)
- Professor Pam Birtill
Chair in the Psychology of Learning
Institutional Academic Lead for Assessment and Feedback
- Dr Meng Li
Research Fellow
Architecture and Urbanism Research Group
- Karen Arzate Quintanilla
Research Fellow
Architecture and Urbanism Research Group
- Louise Banahene
Director of Student Success and Educational Engagement

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TOOLKIT

BRIDGING SPACE ON CAMPUS

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UNIVERSITY OF LEEDS

University of Leeds Leeds,
United Kingdom
LS2 9JT
0113 243 1751
www.leeds.ac.uk