



The physical environment has a powerful influence on the learning experience, which may be either positive or negative, depending on the architecture and design of a building, and the effect it has on its occupants.

"The physical and social environment in which staff and students spend a high proportion of every weekday may have profound effects on their physical, emotional and mental health, as well as affecting their attainment."

Taken from Wise Up - Prioritising Well-being in Schools.

Increasing amounts of literature and research investigating exactly how and why the physical environment has such a powerful impact on our sense of well-being, has led to changes in the approach of architecture and design within universities and other types of educational establishments, towards a greater focus on wellness.

Students with better well-being are more likely to achieve more academically and consequently, academic success has a significant impact on well-being into adulthood and future career.

Factors which affect well-being:

- ✓ Light
- Temperature and Air Quality
- ✓ Effective Space Planning
- Furnishing and Fixtures
- ✓ Acoustics
- ✓ Comfort and Ergonomics
- ✓ Colour Scheme
- ✓ Biophilia

Newsletter Highlights

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fercoseating.com Ferco Seating: Education Newsletter



St George's is the UK's only university dedicated to medicine, science and health.

It is based on the same site as the busy St George's hospital, so students are immersed in a professional clinical environment from the outset.

St George's has its origins in 1733, and was the second institution in England to provide formal training courses for doctors (after the University of Oxford).

Teaching facilities at the campus include clinical skills laboratories and a simulation suite allowing students to practice based on real-life situations including surgical and medical emergencies. The university library houses approximately 42,000 books and subscribes to over 10,000 journals.

Ferco worked with architects Bond Bryan and contractors Overbury to provide tiering for the radial configuration, seating and fixed desking for a 200-seat lecture theatre in the hospitals Hunter Wing.

The Atlantic seat provides levels of comfort and versatility beyond its compact size. Ergonomically designed to include lumbar support and encourage the correct seated position, the Atlantic provides long-lasting comfort for students during lectures.

The seats were further customised with a wooden seat back, seat pan, armrest and aisle end.

Camira's blend of wool and flax Patina

The Atlantic Seat

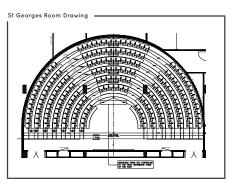








St George's University of London Medical School



fabric gives a tailored, high-end aesthetic and are complemented by wooden writing ledges.

To complement the wooden details of the seats the fixed writing ledges were colour matched.

The traditional radial arrangement of the seats and desking gives students a sense of assembly and attention is directed towards the front of the room, making this layout perfect for lectures, films and presentations.



Gather. Collaborate. Connect.

15-85%

Introducing the Study Pod™

The design of a lecture theatre has a significant influence on the learning experience. It should be optimised to create an environment which stimulates concentration and interaction and improves learning outcomes.

The Pods are a series of repeat bench units with shared tables, configured across an auditorium.

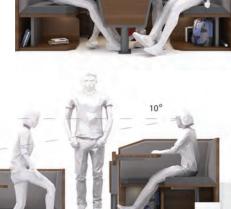
This arrangement is flexible and maximises sightlines whilst allowing interchange between didactic and group learning formats.

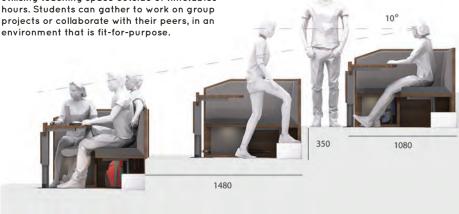
Flexible learning environments are shown to increase engagement, improve grades and enhance student participation. Students also seem happier and able to have more invigorating conversations.

Ferco's Study $\operatorname{Pod}^{\scriptscriptstyle{\mathsf{TM}}}$ means teaching can be delivered using a variety of styles without the reorganisation of either furniture or student, whilst allowing teaching staff to move between groups and talk to students during more collaborative learning periods.

Designed to accommodate multiple people seated in one area, with centralised power and data, electronic equipment is easily supported. The Pods are available in a variety of dimensions and finishes, with integrated DDA places and clever storage areas for bags and books.

The design of the Pod lends itself to students utilising teaching space outside of timetables hours. Students can gather to work on group projects or collaborate with their peers, in an





Innovating Pedagogy

The Open University in collaboration with the Centre for the Science of Learning & Technology (SLATE), University of Bergen, Norway has published their annual report exploring potentially influential trends in teaching and learning.

Highlights include:

Learning with Robots

Decolonisina Learnina

Action Learning





Within the higher education sector, the responsibility for creating a rich learning environment falls heavily on the shoulders of colleges and universities. In particular, its estates and facilities management (FM) teams.

According to the Higher Education Estates Management Report 2018, it is estimated that UK university estates now spend an estimated £3billion a year on capital projects.

With approximately two million increasingly demanding and value conscious students, the list of challenges faced by estates teams is growing.

The role of the estates team is much more than maintaining and constructing buildings and infrastructure.

They have a commitment to providing students, staff and external users with quality facilities and services while helping to shape the future role of the estate as a physical environment.



- Uncertainty over Brexit
- Meeting students
- Managing Capital Funding
- Quality vs Cost
- Value Proposition The Brand
- The Aging Estate
- 10 Refurb vs New Build





Christian Bull is a real estate lawyer helping education institutions and companies in England and Wales with all legal aspects of their estate.

This includes leases, licences, joint ventures, mergers, leasebacks, sales, purchases, shared services, collaborations, refurbishments and (re)development projects.

Christian works with clients estates, management and senior leadership teams as a sounding board or a second opinion on significant capital.

Here he discusses the future of universities learning spaces and estates planning...

The nature of universities future learning spaces, and hence the estates planning needed, is changing and will continue to change.

So, why is this change happening and what will future learning spaces look like?

There are numerous challenges affecting higher education, which in turn impact how institutions plan their estate. The largest and most obvious challenge is money. A combination of shrinking public funding for universities, fluctuating student numbers, tuition fee caps, growing regulation and lack of demand for certain courses (e.g. foreign languages), results in increased pressure on universities estates teams when planning, maintaining and developing the campus.

In the face of these challenges, these teams still have to invest in learning and living spaces to attract the best staff, students, academic and commercial stakeholders. There is also

economic and reputational pressure to maintain and enhance the 'student experience' in the face of growing competition.
Financial challenges are also combined with uncertainty surrounding Brexit (particularly future capital funding and free movement), ambiguity over what's next after the Augar report, technological change, students evolving expectations and working styles (a growing preference for a 24/7 study anytime/anywhere way of learning) and reports of inefficient use of some institutions buildings and facilities with poor utilisation.

What this all means is how estates teams plan, develop and manage some of their learning spaces will evolve. Flexibility will be at the heart of this thinking.

Financial pressures also mean that the planning of future learning spaces, will evolve. Master planning will increasingly focus on a return on investment from the campus and its developments. As part of this, universities' estates and senior leadership teams, as well as governors, will need to place greater emphasis not only on the costs of delivering large-scale campus capital projects but also on ongoing maintenance costs, maximising utilisation with an ability to adapt and co-share land, buildings and learning spaces for future and third party use.

Money is not the only factor driving change.

Students preferences for more group study and flexible learning and teaching may mean smaller, open plan, group learning collaborative zones. For example, when not being used for learning or teaching, the spaces could also be used for functions, pop-ups, conferences, exhibitions and community events. The flexibility of these spaces and facilities may also generate an income, for instance by letting parts and hiring out other spaces for a capital return.

Technology is also a consideration. Students are digitally dependent and expectant. Campus learning, living and research spaces are assumed to be, and need to be, fully 'smart' with integrated IT throughout. This rapid technological revolution also takes



What's clear is that learning spaces going forward will not all look like they do now.

It should also be recognised that the adaptability of some parts of the campus, such as engineering and science labs, will not always be achievable or desirable. Estates teams will also need to be mindful of safeguarding and health and safety considerations as well as the importance of preserving the 'student experience' when third parties are increasingly involved with on-campus learning spaces.

What is clear though, is learning spaces will increasingly be a blend of the shared, physical and digital and estates teams will need to plan for this.

MILLS & REEVE

Achieve more. Together.

How Ferco Can Help

Ferco offers bespoke seating solutions for educational establishments all over the world. We help maximise the use of space whilst offering an inclusive and adaptable learning environment including adequate wheelchair access.

Design is optimised to provide enhanced sight-lines, provisions for ventilation systems and the inclusion of power and data points to meet the demands of



of Biophilia

Biophilia describes a human centred approach whose principal aim is to enhance our connection to the natural environment within the physical spaces we inhabit, by creating a space which draws elements of its inspiration from the natural world.

Biophilia, within the university campus can refer to exterior green spaces, and the introduction of plants, natural products (wood finishes), imagery of the natural world etc. within interiors

As the world becomes increasingly more urbanised, reports of stress and anxietu are also on the rise with numerous research attesting to the correlation between urbanisation and the increase of stress rates.

It becomes apparent that health and well-being are intrinsically linked to the environment – the closer we are to nature, the happier we feel. The integration of biophilia into the buildings and spaces we inhabit can

have an extremely positive effect on mood, bringing with it a range of tangible benefits and an improved sense of health and well-beina.

"Throughout our evolution, we've spent 99 per cent of our time in nature. Our physiology is still adapted to it. During everyday life, a feeling of comfort can be achieved if rhythms are synchronized with those of the environment". Yoshifumi Miyazaki

The concept that health and well-being are intrinsically linked to the environment, is reiterated by the argument for biophilia, it is suggested that recovery from stress related ailments is quicker when exposed to a natural environment, rather than an urban one. The 'Attention Restoration Theory' refers to the idea that nature or a view of something from the natural environment can help replenish our brains from too much directed attention.

The concept of biophilia can be considered or integrated into the overall architecture and design of university buildings and facilities.





Before & After at Dundee University

Ferco Seating had the pleasure of installing FT10 Wrimatic seats in two upgraded lecture theatres in the Matthew Building at prestigious Dundee University.

Specified by the architect James Paul Associates, Ferco has supported the continuing programme of refurbishment of teaching spaces, by replacing seating with the FT10 with an integrated writing surface.

The FT10 Wrimatic** is a robust and supportive, executive style lecture theatre seat with an A3 Wrimatic tablet. This seat has been designed for superior ergonomic and posture support.

Thanks to its style, versatility and supreme comfort the FT10 attracts extremely positive feedback from both students and lecturers. It is often utilised in a department's showcase

Suitable for curved and straight configurations, the FT10 can be tailored to space specifications. And is available with the option of integrated power and data

Designed by an aeronautical engineer, the integrated A3 Wrimatic tablet is the most robust tablet on the market having being tested to a load bearing of 240KG.

It stows neatly when not in use and operates in one continuous opening movement thanks to its unique triangular prismoid joint.





Scientific Lecture Theatre Design?



Scientists have proved that environments influence how we feel and how we behave and learning spaces are no exception.

Attention, behaviour and motivation are critical to successful learning. Flexible environments and zoning can provide a superior learning environment to a traditional lecture theatre.

Having a teaching space with zoned areas and multiple uses and configurations can tap into these neuroscientific cues to create an optimal learning environment with a positive influence on learning outcomes.

Collaboration Spaces

Learning is an active and social process occurring as a result of observation and modelling. The brain can also learn vicariously by watching others.

Designing a space that encourages collaboration and allows for both physical and cognitive collaboration encourages students to learn alongside and from each other.





Space to Gather Together

Attention is a finite resource and students tend to focus on a single subject of interest. Neuroscientific biases concentrate this attention down the path of least resistance so, if institutions want attention to be focused on a single lecturer, it needs to be easy for the class to do so. Tiered seating provides clear lines of sight making it easy to concentrate on the lecturer, to spot questions, and monitor responses and visual clues from students.

Contemplation Space

Auditory distractions are difficult to supress and can be damaging to maintaining attention. Creating a quieter space or Pods for thinking, reading or even meditating can measurably improve concentration.

Writable Surfaces

Research shows that visual communication and the ability to explain ideas through sketching / scribing facilitates learning because it strengthens the neural pathways to the brain, providing additional routes to enable recall from long term memory.

Unconsciously Predictable

Scientists know how we'll behave because people are predictable. 90% of what we do is unconscious: our brains automate our responses to relatively predictable events,



based on prior experience, to free up resources for new learning and problem solving.

Research shows that humans are hardwired to respond to good design; investing in the creation of an aesthetically pleasing and practical space will improved concentration and learning outcomes.

Ferco's adaptable and multi-use product range for education provides multiple option for future-fit learning spaces.



Mike Kelly is the Library Space Development Manager at the University of Manchester.

Having worked in education and facilities management for over a decade, Mike has built a reputation of being a catalyst for workplace and organisational development.

Since its inception in 1824 as the library of the Manchester Mechanics' institute, the University of Manchester Library and its buildings have adapted to reflect the changing landscape within the University, the broader information sector and the limitless knowledge economy. Academic libraries face continuous demands to evolve, the rate of which was never anticipated by the architects of early library buildings.

These demands are driven by factors such as Technology and digital development, Changing user behaviour, Financial pressure, Knowledge structures and Ways of working.

Library spaces are being reinvented to support changing knowledge structures, research



Informal study space at University of Manchester

methods, learning styles, social interaction and ways of accessing information.

Academic libraries are merging traditional approaches to accessing information and curating knowledge with existing and emerging technologies and, along with it, attempting to create the best possible environment where this can be done (Bennet, 2005. Council on Library and Information Services, Washington).

We are seeing huge shifts in library design from structured linear passages and uniform settings of the past to a selection of environments to suit the people using them and the activities they undertake.

So what could we see emerging within library design within the next five years?

I predict a shift towards libraries offering more personalised spaces within wider communal settings, which will be driven by four key trends.

Transform

People will soon expect a space to be easily locatable and configurable to meet their preferences

Mike Kelly, Space Development Manager University of Manchester

Power

Environmental impact, coupled with growing demand for study spaces, will lead green power such as solar powered wireless charging points.

Informal learning

Development of spaces that support ad hoc collaboration and informal learning and that are technologically enriched for all devices (for groups of varying sizes)

Unplugged

Growing awareness of digital well-being will force libraries to provide technology free, nature enriched spaces for users

Academic library buildings shouldn't be judged on their solely aesthetic finishes, number of desks or footfall. Instead they should be measured on how they support the needs of each individual and how this adds value to their personal wellbeing, achievements and overall experience.

Spaces must deliver their core functions excellently but be prepared for future adaptation.



A 2019 HEDQF report looking at Social Learning Environments and Students views found that 84% of students prefer to study in the library outside of teaching hours. 70% would prefer to study in the library when working as part of a group, followed by utilising other study rooms and unused lecture theatres, preferring to use more traditional/formal learning spaces.

A key highlight of the research is that as courses increase the amount of work students must complete in collaboration, the more spaces Estates teams must create suitable for student interaction, group study and group quiet space.



