

Higher education white paper

**Are university campuses designed
to support student mental health?**

November 2019

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Executive summary



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Are university campuses designed to support student mental health?

Dr. Mike Entwisle, BuroHappold Engineering's education sector global lead, explores this complex question in outlining the work that his team has undertaken to improve the built environment for student mental health.

Earlier this year, the government announced the establishment of a task force, the Education Transitions Network, to support the psychological wellbeing of people entering higher education. Less encouragingly, the long-awaited Augar review of post-18 education funding in England has finally emerged and the news is not positive. The payment period for fees will be extended from 30 years to 40; there is a lowering of the income threshold above which the loan must be repaid and no alteration to the punitive interest rates. This will surely encourage wealthy parents to pay the fees up front, leaving the rest to deal with an increasingly impractical and unsound system. Only the poorest students are likely to benefit from the proposed grants, with the "squeezed middle" being squeezed even more. More than ever, universities need to take care of their students and the proposed financial model is not likely to reduce stress and other mental health issues in the sector.

Student mental health is an extremely intricate issue that has many potential causes and triggers, though the estate undoubtedly has a part to play. Existing pieces of work explore the student mental health issue from a number of perspectives. Though these studies provide valuable insight, there is nothing that pulls together all strands to provide an environmental development process for the specific demands of students.

BuroHappold's research in this area includes a major ongoing student survey and a series of collaborative multidisciplinary design hothouses inspired by the Google Ventures "sprint" method. This makes significant steps in tackling the shortfall in understanding of the effect of the built environment.

Based on primary and secondary research, interviews with senior university professionals, design sprints and expert discussion panels, BuroHappold has developed a number of tools for studying, analysing, and predicting many of the issues that can help with a productive and happy student lifestyle. We have a responsibility to design spaces in and around universities that provide the best possible opportunities for people to thrive in good mental health.

Are university campuses designed to support student mental health?

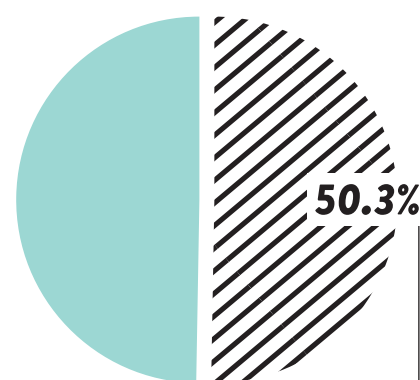
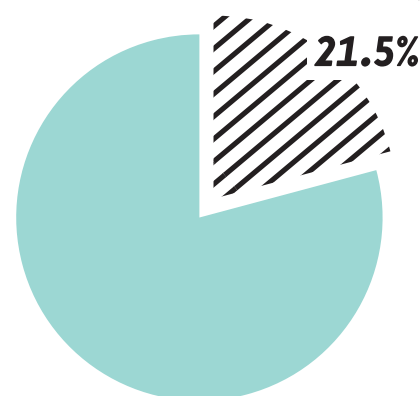
Universities around the world are recording hugely increased incidences of mental health problems being reported by students.

According to recent headline statistics derived from a 2019 Insight Network online survey, 21.5% of UK students have a current mental health diagnosis – most commonly depression – while over half (50.3%) have contemplated self-harm¹.

Elsewhere, 61% of US students have “felt overwhelming anxiety” according to the American College Health Association².

While there is no doubt that enlightened societal attitudes towards mental health issues have left people feeling more able to come forward, the general view is that there is a genuine increase in the number of students suffering with problems of this type. This is putting increased pressures on the limited – and often already stretched – resources of student support departments.

Students with a current mental health diagnosis



Students who have contemplated self-harm

Ahead of the 2018-19 academic year, **Sam Gyimah** – then UK universities minister – wrote to vice-chancellors to emphasise the significance of student mental health. Gyimah stated:

“Collectively, we must prioritise the wellbeing and mental health of our students – there is no negotiation on this. To make this happen, leadership from the top is essential.”

Gyimah’s successor, **Chris Skidmore**, echoed these sentiments when speaking in March 2019:

“Student mental health is a top priority for me.”

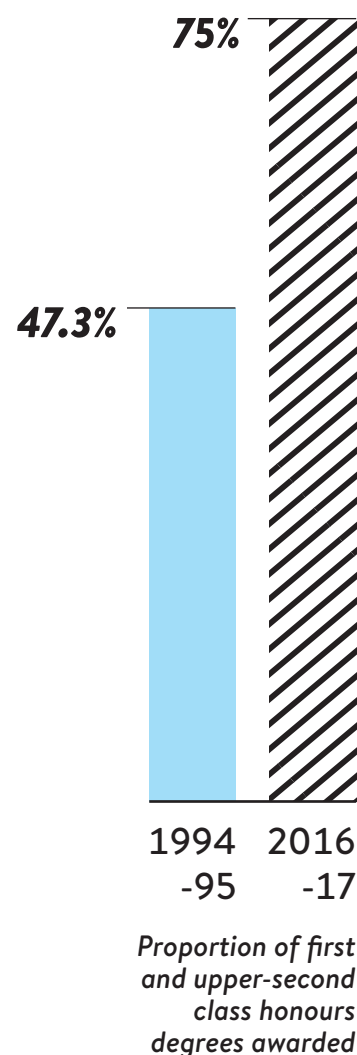
Indeed, on 7 March 2019 – University Mental Health Day – the government announced the establishment of a task force, the Education Transitions Network, to support the psychological wellbeing of people entering higher education.

The built environment in context

Student mental health is an extremely complex problem that has many potential causes and triggers. Some enduring facts about the student situation do hold true: moving away from the support of family and friends combined with the pressure of adapting to a new lifestyle is often difficult to cope with; the 18-24 age bracket is when many mental health issues are likely to develop in people regardless of whether or not they are students.

Other non-medical issues affecting the modern student experience may include stresses regarding debt – which may well be exacerbated by the financial future set out in the Augar review – an uncertain job market and the feeling of being left out that social media can engender. An increasingly marketised sector, education can be viewed as a customer-led transaction for a service that delivers results. Consequently, many UK students now view anything below a 2:1 as failure. This perception of diminished classification value is fuelled by – and exacerbates – grade inflation. Tellingly, the proportion of first and upper-second class honours degrees awarded has increased from 47.3% for the academic year 1994-95³ to 75% in 2016-17⁴.

When considering the issue, it is important to appreciate that mental health is increasingly viewed in terms of a spectrum encompassing all possible conditions from flourishing to mental disorder. Most people do not remain static on this spectrum throughout their lives and everyone can benefit from an environment that nurtures an optimal mental state, not just those either perceived to be at risk or struggling.



Advocacy organisation Universities UK (UUK) recommends a framework that takes a “whole university approach” to the issue wherein four domains – community, learning, living and support – are the constituent parts of a joined up approach to transform cultures and embed mental health initiatives beyond student services”⁵. This strategy recognises the intricacy of the issue while acknowledging that the estate has a part to play in addressing it, as the living domain includes “consideration of physical space and built environment.”

Existing pieces of work explore the student mental health issue from a number of perspectives. Though this research provides valuable insight, we have found nothing that pulls together all strands to provide an environmental development process for the specific demands of students.

BuroHappold’s research in this area includes a major student survey and a series of collaborative multidisciplinary design hothouses inspired by the Google Ventures “sprint” method. Our work makes significant steps in tackling the shortfall in understanding of the effect of the built environment.

It is worth noting that university league tables barely consider the university estate and environment. Neither is there a coordinated reporting mechanism across all UK universities.

Understanding how issues such as campus vs city, arts/humanities vs STEM, research vs teaching-led, and London vs other locations play into mental health would prove invaluable in developing our analysis.

Signs, outcomes and institutional issues

One of the first signs of a student mental health issue is withdrawal from academic or social life. The degree to which universities notice absenteeism is variable – many research-led institutions do not record attendance – so if a student has not made friends then this early warning may go unnoticed. When an environment promotes social interaction and encourages camaraderie, students will receive better support if they experience problems. They will also be living and working in places that are conducive to good mental health for all.

A 2017 report on resilience by accommodation provider Unite Students⁶ contains a case study illustrating how small behavioural changes can prompt positive interaction:

Matt, a London student struggling with integration and mental ill health, was considering dropping out. In addressing this situation with professionals, Matt agreed to a strategy that brought him into contact with more people. This involved measures such as leaving his bedroom door open, studying in the kitchen of his shared flat and working in communal areas. Each small success lessened his trepidation and Matt was able to make friends and enjoy university life. He successfully graduated before embarking upon a master's degree.

Similarly, a sophisticated design approach to the built environment can positively affect student behaviour by fostering human contact. For example, improving visibility within buildings allows students to see who is around. BuroHappold has developed advanced modelling tools specifically for educational establishments that allow quick and effective analysis of how spaces can be configured to best serve mental health.

Collecting data to fully understand student environmental requirements

So far, we have collated survey data from almost 5,000 students – from the UK and the USA – that deals with key topics.

We asked the students not only what they liked about their environment but also, critically, what they would change. This highlighted some fascinating issues that inform our work.

The importance of feeling connected to people is reiterated by another recent study. Professional services company Sodexo polled over 4,000 students across six countries – the UK, the USA, India, China, Spain and Italy – in examining the non-academic undergraduate experience for a 2017 report. This analysis asserted that 46% of UK students experienced loneliness while at university⁷.

As reported in University Business magazine, **Damon Kent** – Director of Campus Services at Northumbria University – remarked upon Sodexo's findings:

“Despite much being written about students living their lives online, one of the key insights for me is there is still clearly a need for buildings and services that help facilitate genuine human connections.”

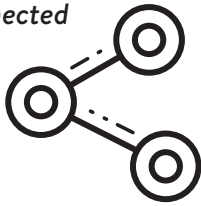
In addressing gradable estate in terms of mental health rather than material state, we are strengthening the knowledge base in this critical area by collaborating with universities, industry bodies, experts and other organisations. We are looking to develop new approaches and metrics that can provide guidance for design and operation, which will generate improved outcomes across the sector.

What would students improve if they were in charge of the university estate?

Perhaps the most fascinating part of this study was the open question “**What single aspect would you focus on improving?**” Rather amazingly, there were five top themes that were consistent across different universities no matter the country of residence or study.

1. **Physical connectivity** – How easy and pleasant is it to get from home to campus and around the university?
2. **Sustainability** – Most student unions have sustainability reps, and the growth of organisations such as the Environmental Association for Universities and Colleges (EAUC) shows how the sector is acknowledging this.
3. **Refurbish/Renovate** – Students seem open to high quality refurbishments as a pragmatic solution to estates issues.
4. **Architectural quality** – The “look and feel” of the campus was also a priority for many students.
5. **Interior environmental quality** – Perhaps tied in with the lack of ability to control their buildings, many students felt that their buildings were gloomy, stuffy, too warm in summer or too cold in winter.

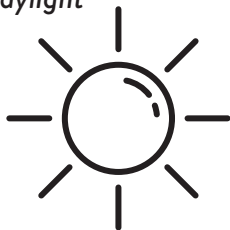
Well-connected



Green campus



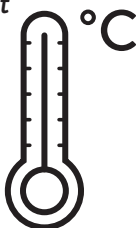
Daylight



Reduced noise



Thermal comfort

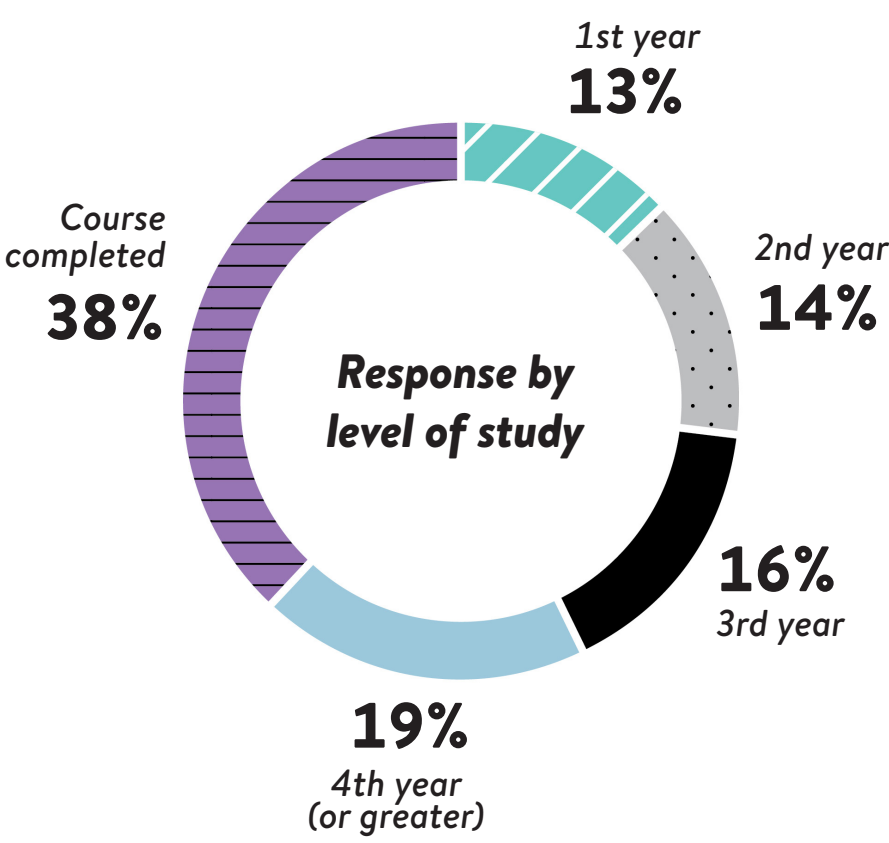


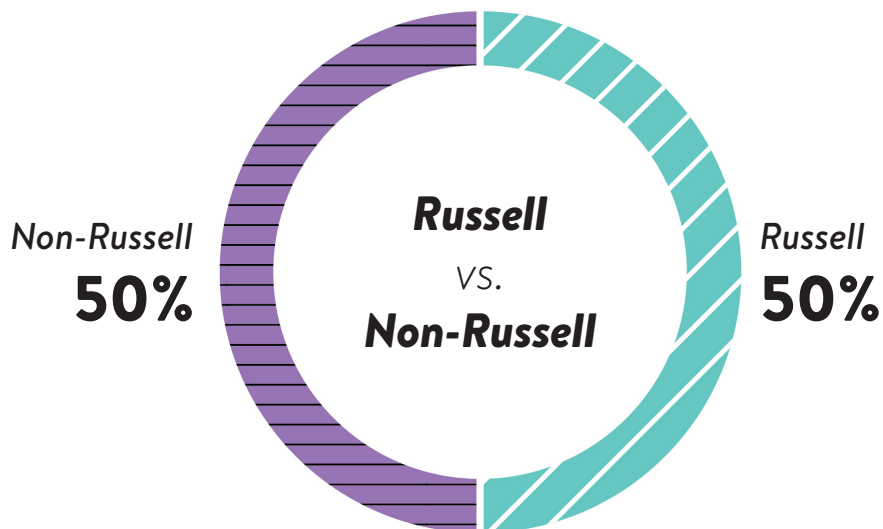
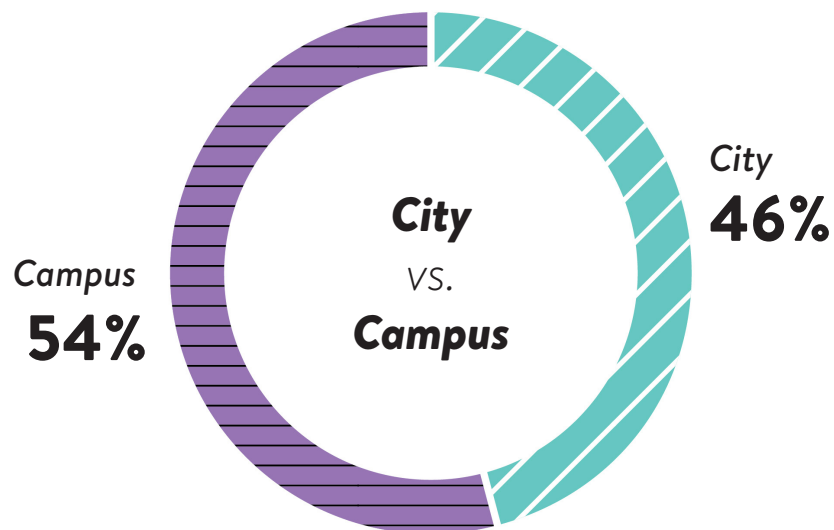
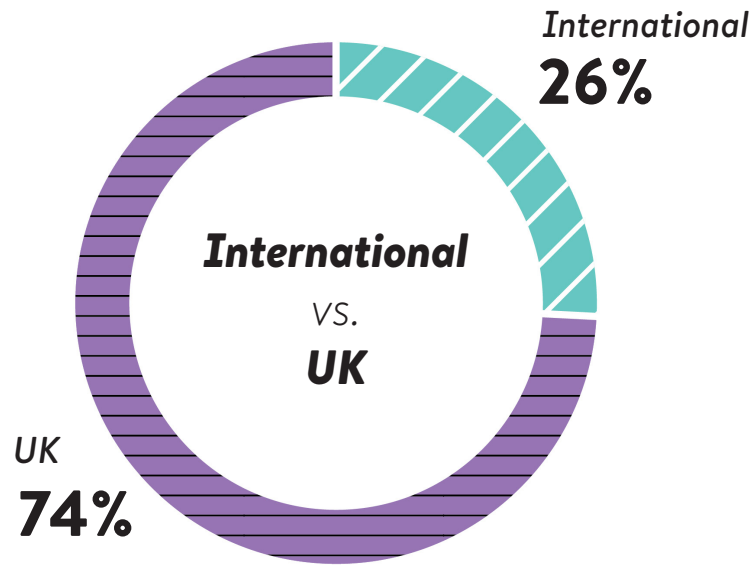
First, while significant recent investment in student facilities – which are a significant factor in attracting students – is welcome, the greatest space demand from students is for more of the staple day-to-day places such as teaching rooms, libraries and study areas. One big change in student life in recent years is the heightened demand for informal spaces to study, where people can “be” together while they work.

Secondly, students are keen for physical connectivity to be improved. The experience of moving around a building, campus or city involves logistical, environmental and social issues that play a part in the quality of everyday student life. Whether consciously or not, it appears that students are acknowledging the need for human connection. This is highlighted in our mental health work.

Within the context of the survey, it is interesting to note that student preferences do not always support proven best practice in designing for mental health. For example, while most prospective students prefer a single room with en-suite facilities, research has shown that this can be isolating and does not lead to lasting friendships as effectively as communal living.

BuroHappold student survey demographics





BuroHappold design sprints - 'designing for student mental wellbeing'

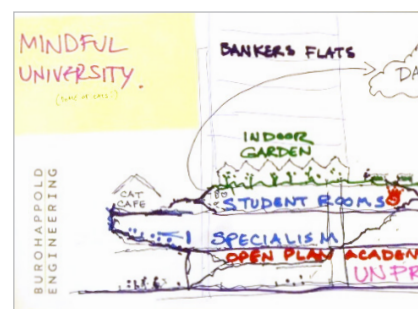
Bringing together multidisciplinary teams, our sprint events provide a forum to discuss and co-create design solutions that address student mental health.

These sessions draw upon expertise from a wide range of backgrounds, including estate directors, architects, masterplanners and mental health professionals.

Once divided into teams, contributors are asked to address a specific challenge within a tightly defined context at a hypothetical location. Solutions range from pragmatic through to visionary – fanciful, even – though all results accentuate pertinent issues and the range of available means to improve outcomes.



An ambitious campus-to-city linking 'skyline' with glass cable cars.



Designing spaces within buildings to encourage social interaction.



Exploring cohesion and connectivity by linking disparate university campus buildings across a city.



Stressing the benefits of exercise to greater wellbeing – this multi-functional learning building has an exercise circuit on the roof.



Inspired by the BuroHappold project the New York High Line, this team created an elevated area where students could walk, cycle, eat, socialise and relax above the busy city below.

Working across a range of scales – building, campus and city – gives rise to differing nuances, but the consistency of themes is striking. What comes through is the need to use the built environment to promote social interaction and contact, whether between students or with the broader university and city. The demand for movement and transport to be a pleasant experience rather than a challenge is also a clear message.



Design sprint locations

Using technology to improve physical connectivity

BuroHappold's Analytics team is spearheading the use of computational engineering to analyse how students engage with university spaces and optimise the experience therein.

Working collaboratively with institutions to execute spatial planning at campus scale, we can explore options in real time. This allows us to see how design decisions influence factors such as people flow and interaction. We can also evaluate more conventional metrics, including temperature, noise and air quality. Using the evidence base, we can then link these variables to health and wellbeing outcomes.

This approach can inform high-level decisions based on travel distances, connectivity, and integration with key amenities. The result is spaces that offer the best possible experience for learning, creativity, social interaction and – ultimately – mental health.

BuroHappold's Analytics team has developed a GIS based *Campus Analytics* tool to develop a 'day-in-life' model of university campuses: mapping the current situation, highlighting any bottlenecks and opportunities for improved connectivity and better actionable insights.



A snapshot of BuroHappold's Campus Analytics tool.

The aim of the tool is to improve connectivity and navigation issues, improving interactions between the various people, roles and departments through alternative layouts and space planning.

Campus Analytics can also assess the utilisation rates of spaces maximising asset performance through a change of timetabling and organisation of spaces.

Next steps

BuroHappold has developed a number of tools for studying, analysing, and predicting many of the issues that can help with a productive and happy student lifestyle.

Students have a strong preference for well-connected spaces within – and in between – buildings. They also tend to prefer green, landscaped campuses, and buildings that provide ample daylight, reduced noise and thermal comfort control. Less intuitive are the ways in which intelligent estate planning can discourage students from behaviour that can inhibit mental health, such as spending too much time alone and avoiding human interaction.

Our data-fuelled and outcome-driven methods can help to optimise and direct investment while taking a “what if?” view of the future within this rapidly developing sector.

We know that the built environment is not the only factor contributing to mental health, nor are there straightforward answers to this complex issue. We do however, have a responsibility to design spaces in and around universities that provide the best possible opportunities for people to enjoy student life and thrive in good mental health.

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