

The IATL funding for student co-created projects was perfect for the wellbeing in educational spaces project. As an academic with a background in building services engineering, I have well-formed views of “correct” ventilation rates, temperatures and lighting levels. These are informed by research, industry publications and my own experiences. I am au fait with what best practice guidelines say will improve wellbeing, *but* my experience of being an undergraduate student is out of date. By working with students in the creation of the project bid, as well as throughout the research, I gained a unique perspective on educational spaces from the view of a current student.

The project involved gathering environmental quality data for two spaces in the School of Engineering. This included temperature, humidity, CO2 levels as well as other air quality indicators, light and noise levels. Occupants of the rooms were interviewed about their experiences of good and bad wellbeing with respect to educational spaces and in particular, the rooms the study focused on. The interview questions were based around the WELL building standards as well as a previous wellbeing in education questionnaires carried out on another IATL study led by Elena Riva. The outcomes of these were then analysed to identify correlations/patterns. Working with a student afforded certain advantages; the students they interviewed were more willing to answer honestly, and they offered alternative interpretations to the findings.

Wellbeing has been recognised as being affected by our indoor environment for some time, and in 2014 the WELL Building Standard was created. The standard provides design guidelines for ventilation, heating, plants, water supplies and many more aspects of building design. These are intended to create a space focused on keeping its occupants physically and mentally well. Whilst the standards are meant to work for all spaces they are broad ranging and expensive to implement thus making them unwieldy for consideration in the creation or retro-fitting of our educational spaces. The constant change in occupancy, which significantly differentiates our spaces from those of an office or domestic space, makes the priorities different. Our findings were that occupants perceived spaces differently than how they were measured, for example considering a warm room without windows to be “stuffy” or “badly ventilated” despite it having excellent oxygen levels. Our occupants aren’t provided with information on the space they are in, they have no sense of ownership and thus negatively assessing the rooms. We also found that, for higher educational spaces, lighting was a much more significant factor than many of the other design guidelines. When you occupy a space for 1-2 hours it’s relatively easy to manage in a mildly uncomfortable temperature, or tolerate a perceived lack of ventilation. Lighting though is key to seeing the facial expressions of the people we are working with, to reading the lips of a speaker, to clearly understanding words or drawings on paper in front of us. The right lighting can give us a sense of belonging immediately as we enter a space – something far more key when we are talking about transitory spaces such as those in HEIs.

The findings from the IATL funded research were presented at the CIBSE (Chartered Institution of Building Services Engineers) Technical Symposium and are being fed back to Estates to inform future design. They have also led to 3 further dissertation projects, on indoor air quality, reflectivity and temperature variance. These dissertation project findings in turn will feed into a CIBSE article based on the conference presentation which is due to be published in 2021. The immediate take away for us all though, is to make sure we report faults to Estates so we can keep our spaces as welcoming and possible to look after everyone’s wellbeing. You never know how much of a difference you can make by opening that blind or changing that light bulb.