

These natural building ingredients can help increase productivity

Only 53% of wage earners think their place of work helps their productivity. And with good reason, said workplace strategist and change manager [Nigel Oseland](#), speaking at the [GBCSA's 2017 Green Building Convention](#) held earlier this month. The broad and ongoing Leeseman Index joins the dots between Maslow's hierarchy of needs and the most common employee complaints about their surroundings.



Nigel Oseland, workplace strategist and change manager

"Only once we meet our lowest level of needs can we go on to achieve our potential. It's got to do with health at the bottom of the pyramid – so air, light and water," explained Oseland.

A quantified relationship between productivity and air quality, noise and temperature, established by more than 200 studies shows the average 5–7% increase in employee productivity easily covers any cost premiums of working in a healthy space that assists attention and concentration, Oseland said.

Advantages to each element of office space

"Deep buildings with windowless workspaces must disappear. These buildings, by definition, lock in a chemical soup of materials and occupant activities with serious consequences for human health. From asthma, to skin and eye irritations, to reproductive health and cancer," warned Professor Vivian Loftness of the Carnegie Mellon University School of Architecture in Pittsburgh, Pennsylvania. "They do this by locking out the natural conditioning resources of passive solar heating, daylight, ventilation and passive cooling."

1. Shorter hospital stays in sunny rooms

"Nature's renewables are at the centre of human health and environmental resiliency. As humans we have a natural affinity to nature, known as biophilia," she said. "We will rediscover the engineering and art of effective daylight design, and not only because studies show that if you are in a sunny hospital room you'll have a 26% reduction in length of stay, but because it can displace between 30–75% of lighting needs, and 25–75% of heating demands. We should not have to turn on lights in the daytime."

2. Daylight restores sleep cycles

“Our brains are stimulated by daylight,” Loftness continued, citing research linking exposure to morning sunlight to an improved sleep time by more than 30 minutes in six-year-old learners. In a separate study, poor performing learners slept 25 minutes less and went to bed 40 minutes later on school nights than good performers.

3. Natural air flow brings better concentration

In 2015 a double-blind office study on increased outdoor air ventilation rates and controlled VOCs identified a 42% increase in average cognitive scores when working in a green building, and 51% increase when in a ‘deep green’ building, versus a conventional building.

“Besides increased worker performance, natural ventilation saves 20–40% of cooling, and 70% of ventilation costs. Net zero buildings will be designed for natural ventilation as the dominant ventilation and cooling strategy for every possible hour, enhancing productivity, human health and community,” she predicted. Typical improvements brought about a financial return of 756%.

4. Views from desks help focus

“Call centre agents had a 6–7% improvement in handling time simply by having seated access to views through larger windows with vegetation content, amounting to an ROI of 299%,” Loftness said, citing a study explaining why a visual connection to nature is important.

Market’s growing demand for green

It’s beyond dispute that people with access to the natural environment are healthier and it facilitates productivity. It is expected that future tenancing requirements will include above ground views, window and outdoor access, operable windows, natural ventilation, mixed-mode conditioning, daylight and indoor plants. “And, considering associated productivity gains, the payback period is sometimes measured in months,” she said.

Tenancing requirements linked to the advantages of green buildings brought a strong response from property firms, including Growthpoint. “By end-2017 Growthpoint will have at least a four-star Green Star certification for 100 of its buildings,” said head of sustainability and utilities at Growthpoint, Werner van Antwerpen, at the convention.

“Green buildings offer real benefits: reduction in electricity and water costs, improved air quality and increased productivity. As such we have a free app which benchmarks the energy-water performance rating of our green buildings for clients so they can see their savings per square metre.”

Whether or not your work environment helps, or hinders, your productivity and that of your team, it is likely no surprise that natural lighting and fresh air increases capacity for work. Although, who would have thought that the simple act of rolling up a blind and opening the window could make the difference between finishing your work promptly – or not?

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