

Occupant Satisfaction



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Who are occupants?

- Users
 - Office works
 - School children
 - Hospital patients
 - Scientists
 - Home owners
- Operators
 - Engineers
 - Cleaners
 - Security
 - Receptionists
 - DIY enthusiasts

Why do we worry about them?

- We want....
 - Improved building performance
 - Least amount of energy consumed
- The problem is...
 - Complex technologies are harder to commission and operate
 - Occupiers interfere!

What can we learn from them?

- Comfort
- Usability
- Maintainability
- Manageability
- Sustainability

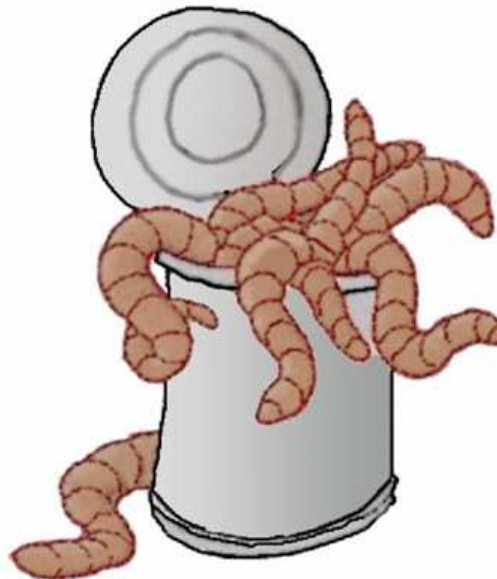


What can we measure?

- Building design
 - Thermal comfort
 - Indoor air quality
 - Lighting
 - Acoustics
- Usability
 - Layout
 - Furnishing
 - Control
 - Productivity??
- Maintainability
 - Maintenance
 - Cleanliness
 - Energy

Barriers to measurement

- Designers
 - Liability
 - Litigation
 - Reputation
- Facilities managers
 - Can of worms...



What can we do with the results?

- Measure project success and value
- Operators and users can **provide feedback** on what works and what doesn't
- Inform design for the next project
- Encourage proactive building management

What methodologies are there?

- AMA Workware Toolkit
- ASTM Standards
- AUDE & UW Guide
- BRE Design Quality Method
- BREEAM
- BUS Occupant Survey
- CIC DQIs
- CSH
- DEEP
- DREAM
- Healthcare Design Quality
- HEAPS
- HEDQF POE Forum
- HOBO
- Learning from Experience
- MARU Evaluation Studies
- OBU Healthcare POE Method
- OPN Survey
- Overall Liking Score
- POE 1st year Occupancy
- School Assessment
- School Works

Source: Usable Buildings Trust – POE Methodology review

How to assess occupant satisfaction?

- Occupant survey
 - As short as possible
 - Warn them
 - Hand deliver
- Observations
 - Unobtrusive
- Interviews
 - Listen

Productivity at work Please try to evaluate this building with respect to your experience of using buildings in general. By environmental conditions we mean the combined effect of the precise topics covered in the questionnaire e.g. temperature, lighting, noise etc. taken as a whole. Please do not over-prioritise any one aspect.

Productivity Decreased by: -40% -30% -20% -10% 0 +10% +20% +30% Increased by: 40% 30% 20% 10% 0 10% 20% 30% 40%

Please estimate how you think your productivity at work is decreased or increased by the environmental conditions in the building?

Comments about productivity at work

Other factors relating to work, the workplace and organisational context These questions help us to assess the overall context within which you are working, and wider aspects of workplace performance.

Please tick one point on each scale

Space layout How do you rate the space layout of the building, in terms of impact on your ability to work effectively ...? Unsatisfactory [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] Satisfactory

Privacy How do you rate the privacy of your personal workspace, in terms of impact on your ability to work effectively ...? Unsatisfactory [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] Satisfactory

IT systems How do you rate the IT (information technology) systems that you use to carry out your normal work tasks ...? Poor [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] Good

Collaboration with colleagues How much collaboration with colleagues do you require to carry out your normal work tasks ...? None [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] Extensive

Use of time How much discretion do you have over the use of your time during work hours in carrying out assigned tasks ...? None [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] Total

Communication How do you rate your understanding of what is going on in the organisation at the moment ...? Poor [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] Good

Personal happiness with work How do you rate your own happiness with your own work at the present time ...? Unhappy [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] Happy

Morale within workgroup How do you rate overall morale within your workgroup at the present time ...? Low [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] High

Comments about other factors affecting work, the workplace and its organisational context

Comparison Please tick Overall, how do you think CH2 compares with your previous accommodation ...? Much worse [1] [2] [3] [4] [5] [6] [7] [8] [9] [10] Much better

Comments about the comparison between CH2 and your previous accommodation

Travel to work We are collecting information on journeys to work to help with future planning of offices and their facilities.

Please estimate your journey times ...

Journey to work		Journey home	
Time	Time	Time	Time
Hours	Minutes	Hours	Minutes
Best case	Journey to work	Best case	Journey home
Normal	Journey to work	Normal	Journey home
Worst case	Journey to work	Worst case	Journey home

Postcode What is your home postcode (or the place where you normally start your journey to work if not home) ...? Postcode

Mode of travel Please tick those which apply. Main mode is the mode by which you travel the longest distance.

For your journey to work only, how do you normally travel ...?

Mode	Please tick those which apply	Main mode
Walk	<input type="checkbox"/>	<input type="checkbox"/>
Cycle	<input type="checkbox"/>	<input type="checkbox"/>
Bus	<input type="checkbox"/>	<input type="checkbox"/>
Train	<input type="checkbox"/>	<input type="checkbox"/>
Car/motor cycle (own)	<input type="checkbox"/>	<input type="checkbox"/>
Car/motor cycle (H)	<input type="checkbox"/>	<input type="checkbox"/>
Train (Metro/Tram)	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>	<input type="checkbox"/>

Have any comments or observations on your journeys to work and home, especially with respect to how they affect your work ...? Comments on journeys to work and home from work

Thank you for your help. If you have further comments on the topics raised, please add as a prominent place, and it will be collected later today. Please leave the questionnaire in a prominent place, and it will be collected later today.

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An example



The built environment experts

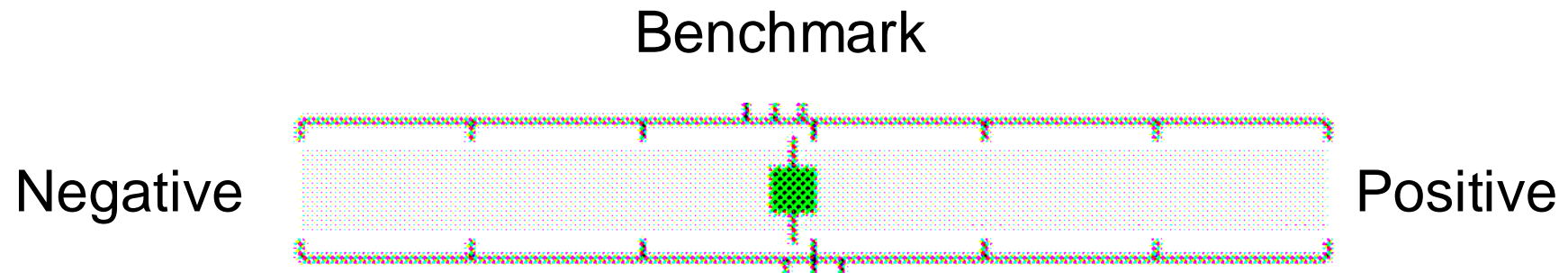


What did we do?

- Surveyed staff
 - BUS methodology
 - Generic questionnaire for permanent users
- Measured
 - Noise
 - Temperature
 - Energy



BUS Methodology results



Red - Significantly worse

Amber – Within benchmark

Green - Significantly better

What did we learn?

- Good

- Humidity
- Odourless
- Furniture
- Glare
- Meeting Rooms

- Bad

- Control over cooling, heating, ventilation, lighting
- Temperature varies, winter, summer
- Stuffy, draughty
- Health (perceived)
- Noise from colleagues, other people, outside
- Productivity (perceived)
- Space at desk

Comments are also useful...

■ Problems

- I work more slowly when cold
- Having to request cooling is tedious
- I get frustrated by noise and interruptions and am less productive and focussed
- Use headphones / music to block noise when need to concentrate

■ Solutions

- Most problems between seasons winter / spring
- Noise should be improved by staff behaviour
- Probably not necessary to have all lights on all day need to improve switching

What did we do about it?

- Upgraded controls
 - Temperature varies, winter, summer
 - Stuffy, draughty
- Still to address
 - Control over cooling, heating, ventilation, lighting
 - Health (perceived)
 - Noise from colleagues, other people, outside
 - Productivity (perceived)
 - Space at desk

Summary

- Occupants...
 - Are users and operators
- We want...
 - Improved building performance, least amount of energy
- The problem is...
 - Complex technologies, operation is not intuitive
- The solution is...
 - To engage occupants
- Benefits
 - Measure project success and value
 - Inform design for the next project
 - Encourage proactive building management

