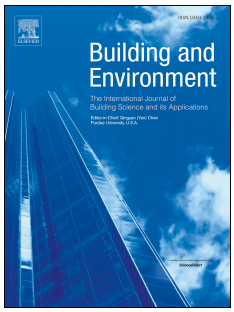
Accepted Manuscript



Impacts of human and spatial factors on user satisfaction in office environments

Joon-Ho Choi, Jehyun Moon

PII: S0360-1323(16)30482-6

DOI: 10.1016/j.buildenv.2016.12.003

Reference: BAE 4733

To appear in: *Building and Environment*

Received Date: 11 August 2016

Revised Date: 3 December 2016

Accepted Date: 5 December 2016

Please cite this article as: Choi J-H, Moon J, Impacts of human and spatial factors on user satisfaction in office environments, *Building and Environment* (2017), doi: 10.1016/j.buildenv.2016.12.003.

Impacts of Human and Spatial Factors on User Satisfaction in Office Environments

Joon-Ho Choi [a*], Jehyun Moon[b]

[a] Building Science, School of Architecture, University of Southern California, 850 West 37th St. Los Angeles, CA 90089, USA

[b] HMC Architects, 3546 Concours St. Ontario, CA 91764, USA

* Corresponding author: Building Science, School of Architecture, University of Southern California, 850 West 37th St. Los Angeles, California, USA; Tel: +1-213-740-4576; Fax: +1-213-740-8884; Email: joonhoch@usc.edu

Abstract

Post Occupancy Evaluation (POE), as an architectural design decision tool, utilizes data concerning multiple users' satisfaction in conjunction with indoor environmental components to develop a better quality of human life. However, one of the limitations of POE that is frequently pointed out is its excessive reliance on surveys and general solutions, without a full understanding of the occupants' physiological characteristics and pertinent environmental performance/conditions. This lack of awareness may lead to irrelevant modifications and the occupants' dissatisfaction with indoor environmental quality (IEQ). Therefore, this study suggested an integrated POE, that combined a quantifiable environmental dataset to indicate each individual occupant's satisfaction with each IEQ element. At 411 workstations in modern offices located in Southern California of the U.S., on-site IEQ measurements and user satisfaction surveys were conducted. Statistical analyses of the collected data were also conducted within specific categories of building types, spatial attributes, and human factors. These analyses revealed significant relationships that exist between human factors and IEQ