THERMAL COMFORT SATISFACTION Talking Points

Keywords: Thermal comfort, satisfaction, personal control, natural ventilation

Perception of Thermal Comfort with Personal Control

- In a review of thermal comfort studies, seven out of nine studies revealed that users rated thermal comfort as the top priority to improving satisfaction in a building (Rupp 2015).
- Providing occupant control over the thermal environment (i.e. operable window, thermostat, personal heater, etc.) can significantly improve overall thermal comfort satisfaction (Huizenga 2006, Park 2018, Tanabe 2015, Wagner 2007).

Perception of Thermal Comfort with Type of Ventilation

- • The type of air delivery, natural ventilation or mechanical air delivery, can impact the user's tolerance of thermal conditions (De Dear 1998, Leonhart 2007). Naturally ventilated spaces have been found to provide a greater tolerance of thermal conditions as they often offer greater agency and personal control than purely mechanical air delivery systems (De Dear 1998, Ring 2000).
- The diversity of demographics in a building should be considered when determining indoor environmental parameters as thermal comfort can be experienced differently due to factors such as gender and age. For example, females tend to have higher sensitivity to cold temperatures in comparison to males and elderly often prefer warmer temperatures than young adults (van Hoof 2008, Rupp 2015, Hall 2010).

THERMAL COMFORT
SATISFACTION
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