

Heden

netwerk van (kennis)instellingen, bedrijven, overheden en burgers in een *proeftuin* gericht op *open innovatie*

waarin men samenwerkt aan oplossingen

in een *regionaal ecosysteem*



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Toekomst

praktijkgericht onderzoek:

-*regionaal ecosysteem* is onmisbaar voor *meervoudige waardecreatie*

-alleen uit *structurele samenwerking* ontstaat kennis, innovatie én toepassing

-kennisontwikkeling = veel *ruimte voor stomme fouten en missers*

-*geduld, liefde en aandacht* voor échte impact & *strategische inbedding*

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Toekomst



Stefan Lechner
Emma Zijstra

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Omgeving



(De Zwart, Broeks, van den Berg, (2020). *Meta-analyse maatschappelijke opgaven relevant voor het hbo*. Utrecht: Berenschot.

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Omgeving



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Quality and satisfaction of thermal comfort in Dutch offices

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ABSTRACT

Purpose: This field study analyses the quality of the actual thermal comfort and indoor air quality in Dutch office buildings. A linear regression analysis was used to determine how much these variables and demographic variables influenced the perceived thermal comfort of office workers.

Approach: Data were collected on-spot at two Dutch office buildings ($n=112$) during the winter of 2013 and showed that the indoor air in these offices is of good quality and did not affect the perceived thermal comfort significantly. The indoor temperature was the most important variable that influenced the perceived thermal comfort. Indoor temperatures ranged in this study from 18 till 24°C, and were therefore at the edge of acceptable European and Dutch standards (EN ISO 7730:2007, NEN-EN 15251:2007) and NEN-EN ISO 7730 (2007).

Findings: Office workers which experienced a indoor temperature of 20°C graded this temperature the highest (6.7 on a scale from 1-10). At 20°C the percentage of workers that was dissatisfied was the lowest (30%). This study also showed that female workers were more likely to have the sensation that it was too cold than male workers. European and Dutch standards prescribe that an indoor temperature between 21 and 24°C should be the most ideal temperature during wintertime. This study indicates that an indoor temperature higher than 21°C might be too warm for office workers in The Netherlands during wintertime and that application might influence office workers' satisfaction negatively.

Keywords

Thermal comfort, indoor temperature, air quality, standard

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