Thermal effects on human performance in office environment measured by integrating task speed and accuracy - DTU Orbit (29/01/2019)

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We have proposed a method in which the speed and accuracy can be integrated into one metric of human performance. This was achieved by designing a performance task in which the subjects receive feedback on their performance by informing them whether they have committed errors, and if did, they can only proceed when the errors are corrected. Traditionally, the tasks are presented without giving this feedback and thus the speed and accuracy are treated separately. The method was examined in a subjective experiment with thermal environment as the prototypical example. During exposure in an office, 12 subjects performed tasks under two thermal conditions (neutral & warm) repeatedly. The tasks were presented with and without feedback on errors committed, as outlined above. The results indicate that there was a greater decrease in task performance due to thermal discomfort when feedback was given, compared to the performance of tasks presented without feedback.

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