



Can we measure the positive effect of flowers on your feelings? A practise case in a living lab.

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Biophilia: the positive impact of plants and flowers

Exposure to nature and natural stimuli has many positive effects on humans. Spending time in nature has been shown to improve a person's cognitive performance (Berman, Jonides & Kaplan, 2008). In a similar study, the relatively short time of only walking in the forest for 15 minutes has been shown to lower the blood pressure, the heart rate and do decrease the level of cortisol in the blood as opposed to walking for 15 minutes in the city (Jin Park, et al., 2009). Studies conducted in the Netherlands have shown that the availability and the effect of green spaces lower the prevalence of mental health (de Vries et al., 2016). An academic review found strong evidence in the academic literature for the positive effects that contact with nature can have on people; the positive effects on mental and physical health have been convincingly demonstrated (Russell et al., 2013). The positive effect that exposure to nature has on humans has been scientifically established and has become a stable of environmental and health psychology.

The potential benefits of biophilia and natural objects in one's immediate environment are extensively studied. However, research has not yet reliably proven the role that a green environment within one's house might play. Therefore, we argue that our approach to leveraging the opportunity that Floriworld offers and to analyzing the data can provide us with a rich foundation to better understand the processes that a green indoor environment might have on individuals. Also, many of the studies previously cited use correlational methods to find evidence for their hypotheses (Kardan et al., 2017, de Vries et al., 2016). Having an environment in which we can reliably influence different factors and directly measure individuals' reactions will provide us with the needed methodological tools to address unanswered questions in understanding how a natural environment benefits our mental and physical health.

The assignment: use of the smart watch to measure impact of plants and environment on wellbeing.

Can we use the smartwatch to measure any impact on people? What measures could we use? How would you implement them?

The context: Floriworld Experience center

FloriWorld is a new experience centre about flowers and plants. There are multiple experiences within the centre. We are interested in how people react to the different experiences, flowers and products. We would like to try to give some visitors the smartwatches and let them enter our mini lab while we track them. But be careful, any intrusive measure can ruin the flow of the experience.

Potential results

Application to measure for example heart rate and track in which rooms people are.

Algorithms to interpret results.

