



DISCOVERY RESEARCH PROJECT

The following serves as a summary of the research that took place at Discovery over a period in 2016 (approximately June to October). It was part of the Masters in Organisational Psychology course that I have completed.

There were two main aims of the research:

- a) The effect of plants on indoor environmental quality (IEQ) and;
- b) The effect of plants on employee work engagement; psychological well-being and physical well-being

The aims were achieved by assessing different measures at two different times (*Time 1* – when there were no plants in the workplace and *Time 2* – when plants were brought into the workspace).

For IEQ, the following aspects were assessed both at *Time 1* and *Time 2*:

- 1) The levels of carbon dioxide in the air of the workspace (a naturally occurring gas in the air, but in high levels it can be harmful to people);
- 2) The temperature levels of the workplace
- 3) Humidity levels in the air of the workplace
- 4) The total number of Volatile Organic Compounds in the air of the workspace (compounds in the air that contain carbon but easily become gasses and can be harmful to people in high levels);
- 5) The levels of Benzene (a type of Volatile Organic Compound that, in high levels have been associated with cancers) in the air of the workspace and;
- 6) The levels of Xylene (a type of Volatile Organic Compound that can have adverse effects in high levels and is also a by-product of people breathing) in the air of the workspace

RESULTS OF IEQ (after the effects of plants)	
Carbon Dioxide	2.67% reduction
Temperature	0.22% reduction
Humidity levels	16.62% reduction
Total Volatile Organic Compounds	20% reduction
Benzene	14.29% reduction
Xylene	7.69% increase (levels were well below dangerous levels)

The second aim was to assess the effect of plants on employee work engagement; psychological well-being and physical well-being. The results are presented below.

RESULTS OF EMPLOYEE WELL-BEING (after the effects of the plants)	
Work Engagement	Slightly decreased (but not significantly)
Psychological Well-Being	Slightly decreased (but not significantly)
Physical Well-Being	Slightly decreased (but not significantly)

In conclusion, after the introduction of plants into the workplace, the air quality largely improved. Employee well-being did not significantly change after the introduction of plants into the workspace.

I thank you very much for allowing me to use your workspace for my research as well as all the time the participating employees took to helping me with my research. It is much appreciated.

If anybody has any follow-up questions or comments, with regard to this research, please feel free to contact either myself or my supervisor (details below).

Many Thanks & Kind Regards,

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