

Individual Differences as Moderators for Workspace Design and Well-being

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Introduction

Although great strides have been made lately in applying human behavioral and health research to hospital and care facility design, much research is needed in the area of workspace design. Moreover, most of the research that is applicable to the workplace is carried out at the group rather than the individual level. As decades of social psychology research have taught us, much can be learned from the cheap and quick method of survey design in order to quickly study multiple independent and dependent variables.

A few basic things are known about the general preferences of types of workspace arrangement. For instance, open plans are more socially desirable yet lead to increases in noise, stress, and lowered productivity. However, emotional changes come with age, including increased emotional regulation. This individual difference may indeed have an impact on the relationship between workspace design and stress. Personality differences also may moderate the relationship that certain office space arrangements have on well-being and productivity.

Methodology

Online survey study (~15 minutes) completed in office environment

61 participants (39 female, 22 male)

Mean = 37.1 years (range: 23 to 64)

Survey questions:

- Demographics
- Workspace description
- Emotional regulation
- Stressors (noise, light, symptoms)
- Performance
- Personality constructs
- Positive and negative affect

Results

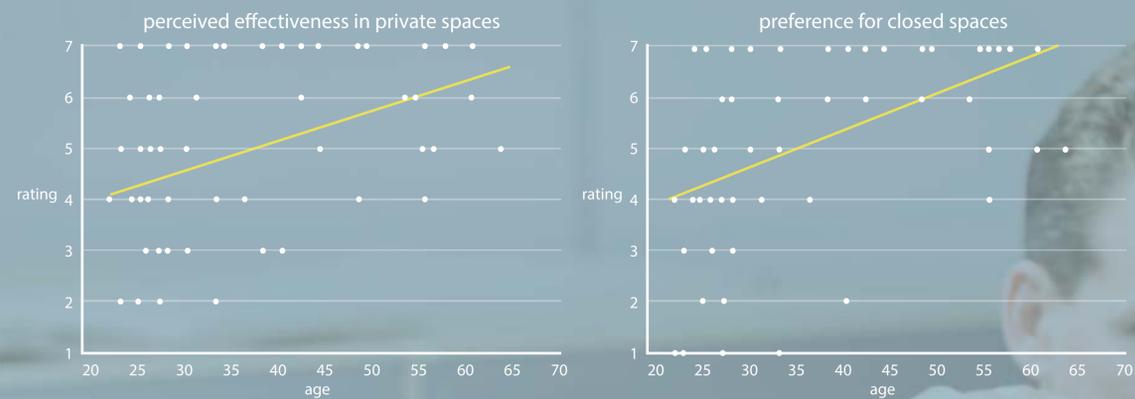
Neuroticism was most predictive of responsiveness to workplace stressors and design:

- Negative correlation with perceived control over workspace
- Positive correlation with negative perceived symptoms as well as inadequate conditions
- Negative correlation with perceived performance
- Negative correlation with perceived amount of teamwork

Age was not significantly correlated with workspace stressors, nor was it related to emotional regulation (contrary to most findings that include older adults and not just middle-aged adults).

Emotion regulation was correlated with negative symptoms such as headaches ($r=-.340$, $p<.01$).

Age was strongly correlated with preferring ($r=.493$, $p<.01$) and being more effective ($r=.417$, $p<.01$) in private offices. These correlations were still significant when controlling for salary.



Window views, though not an individual difference variable, were significantly predictive of effective teamwork, fewer negative symptoms, perceived adequacy of environment, and even of perceived area control.



Future directions

Data analysis is still underway and it is possible that personality constructs like extroversion and neuroticism may moderate the relationship between how closed vs open a workspace is and the individual's well-being and productivity. Open areas are more conducive to social interaction as well as noise, but extroverts may be able to cope with the distractions better than introverts.

For future studies, the inclusion of a self-rating of enclosure would be beneficial, as well as the recruitment of an even wider age range of participants.

Design implications

Open office plans with more personal control may be conducive to a happier and more productive individual that is more neurotic than average. As in other research findings, window views are adaptive, and thus floor plans that maximally allow for offices and open spaces with cubicles with a view should improve workers' well-being.

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