Towards needs-based work environments

Jan Gerard Hoendervanger

share your talent. move the world.
Towards needs-based work environments

Psychological needs affecting the use and appreciation of activity-based work environments

Jan Gerard Hoendervanger, Hanze University of Applied Sciences
Nico W. Van Yperen, University of Groningen
Mark P. Mobach, Hanze University of Applied Sciences

Activity-Based Working (ABW) is supported by work environments that combine hot-desking with a variety of workplaces, designed to support different types of activities. While the advantages of these work environments in terms of efficiency are undisputed, their effectiveness with respect to job performance and satisfaction is still doubtful, at least as a one-size-fits-all solution. So far research has produced ambiguous and sometimes contradictory findings, indicating that situational factors (e.g. interior design, organisational culture, implementation process) may play an important role. Such factors cannot explain however, why we see major differences between individual users. Hence, the purpose of this research is to analyse individual differences in psychological needs and their effects on behavioural patterns and workplace satisfaction. Since workplace satisfaction has been found to be related to job satisfaction and job performance, we consider it as an indicator for the effectiveness of an ABW environment.

Repeated measurements were collected, using a mobile application. Participants reported their activities, the types of workplaces they used, and the degree of workplace satisfaction they experienced. They also filled out a questionnaire regarding (among others) their psychological characteristics: need for autonomy, need for structure, need for relatedness, need for privacy and need for competence. Data have been collected at four different organisations, resulting a total of 7457 measurements, reported by 214 participants. These data have been analysed using a logistic regression model.

Data analysis is still in progress; complete results will be available at the USE conference. Preliminary findings indicate significant impact of several psychological needs on the use and appreciation of activity-based workplaces. As expected, people high in need for structure appear to switch less often between different types of workplaces, whereas people high in need for autonomy appear to switch more often. When activities that require a high level of concentration are carried out in open work environments, a high need for privacy seems to predict workplace dissatisfaction, whereas a high need for relatedness seems to predict less negative satisfaction ratings.

Our preliminary findings clearly confirm the general idea that individual differences regarding psychological needs influence both behavioural patterns (choosing and switching between different types of workplaces) and workplace satisfaction. Further analysis of the dataset is needed to deepen and broaden the insights and to reveal the predictive value of these psychological needs regarding the use and appreciation of activity-based workplaces, also in comparison with other factors like activity type and job characteristics.
Agenda

• Research context; activity-based work environments

• Individual differences within New Ways of Working

• Data collection and preliminary findings

• Implications for research and practice
The psychology of activity-based working

Researcher: Jan Gerard Hoendervanger

Supervisors: Nico W. Van Yperen
Mark P. Mobach
Casper J. Albers

Co-funded by:

In cooperation with: Scan & CTRL / méét

share your talent. move the world.
Activity-based work environment

(Erick Wuestman, www.erick.nl)
Why are ABW environments popular?

*Efficiency*: less workplaces are needed if these are shared, because more work is done at home and at third places.

*Effectiveness*: different types of workplaces are needed to facilitate the diversity of tasks that are carried out.
Choice behaviour and switching behaviour
Focus of the PhD project

Within ABW environments, people seem to frequently carry out activities at places that are not suitable for these activities, which may harm their performance and satisfaction.

→ How can behaviour be better aligned to the environment?

→ How can workspace design be better aligned to needs and behaviour?
Individual differences
Different types of work processes

(Duffy, 1997)
Different types of knowledge workers

(Greene & Myerson, 2011)
Different personality types

- Different ‘Big 5’ personality types prefer different settings for different types of interaction (Oseland, 2013).

- Individual values are related to attitudes and behaviour concerning activity-based working (Van der Kleij et al., 2015).

- Introverts suffer more from noise distractions in open plan offices than extraverts (Compernolle, 2014).
Different psychological needs
(Slijkhuis, 2012; Van Yperen et al., 2014)

Need for Structure → Motivation due to enhanced autonomy

Need for Autonomy

Need for Relatedness → Perceived effectiveness of time- and location-independent working
Data collection

1. Online questionnaire & registration

2. Smartphone app

3. Individual feedback

<table>
<thead>
<tr>
<th>Activity type × workplace type</th>
<th>Workstation in an open workplace</th>
<th>Workstation in a semi-enclosed workplace</th>
<th>Workstation in a shared office</th>
<th>Workstation in a private office</th>
<th>Meeting room</th>
<th>Company restaurant of coffee corner</th>
<th>Lounge workstation</th>
<th>Touchdown workstation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual work that requires high concentration</td>
<td>-2,0</td>
<td>-</td>
<td>1,0</td>
<td>2,0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Individual work that requires low concentration</td>
<td>0,5</td>
<td>2,0</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,6</td>
</tr>
<tr>
<td>Planned face-to-face communication</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,2</td>
<td>0,8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-planned face-to-face communication</td>
<td>-0,6</td>
<td>-1,0</td>
<td>1,8</td>
<td>-</td>
<td>-</td>
<td>1,8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Communication through phone or videoconference</td>
<td>-1,5</td>
<td>-</td>
<td>1,0</td>
<td>-</td>
<td>-</td>
<td>2,0</td>
<td>-1,0</td>
<td>-</td>
</tr>
<tr>
<td>Break</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1,5</td>
<td>-</td>
</tr>
</tbody>
</table>
Preliminary results

Workplaces used for concentrated work

- Open office
- Shared office
- Private office
- Lounge workplace

Workplace satisfaction
Preliminary results

- Need for Privacy
- Need for Autonomy
- Usage of open workplace for concentration work
- Usage of private office for concentration work
Preliminary results

Need for Privacy

Need for Relatedness

Need for Autonomy

Need for Structure

Satisfaction with open workplace for concentration work

Satisfaction with private office for concentration work

share your talent. move the world.
Preliminary results

- Need for Privacy
- Need for Autonomy
- Need for Structure

Switching between different types of workplaces
Implications for research and practice

• Place does not – and should not – simply follow activity, since individual needs differ significantly.

• Need for workplace theory and concepts that take into account the variety of psychological needs that have to be fulfilled

• Awareness among workers and their managers regarding psychological needs and individual differences should increase.
Let’s move from activity-based towards needs-based work environments

Jan Gerard Hoendervanger
j.g.hoendervanger@pl.hanze.nl
www.myplace2work.com

share your talent. move the world.