The Activity-Based Work Environment in Dutch Offices, a Cultural Approach

by Stefan Lechner

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Objectives of this presentation:

• Dutch office culture
• Historical perspective
• Activity based offices and productivity
Introduction

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  – Lecturer Facility Management
  – Researcher Research Group Facility Management
• Centre of Expertise Healthy Ageing
  – Project Leader Living Lab Health Space Design
The Netherlands
Groningen (state and city)
Groningen (city)
# Oklahoma vs Netherlands

<table>
<thead>
<tr>
<th></th>
<th>Oklahoma</th>
<th>Netherlands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhabitants</td>
<td>4 mln.</td>
<td>17 mln.</td>
</tr>
<tr>
<td>Area (km²)</td>
<td>181,000</td>
<td>45,000</td>
</tr>
<tr>
<td>Density</td>
<td>45</td>
<td>400</td>
</tr>
</tbody>
</table>

![Oklahoma flag](image1.png) ![Netherlands flag](image2.png)
What is the Dutch culture?

• Tulips?
• Cheese?
• Wooden shoes? (Klompen)
• Flat land (= the Nether lands)
• Van Gogh?
Black tulips
Typical tulip field
Materialization in Dutch office furniture
Inspiration by old Dutch train benches
Sunflowers
by Van Gogh
“Potato Eaters” by Van Gogh
Typical old-fashioned Dutch interior
“Rietveld”-chair in primary colors by Gerrit Rietveld (1921)
Painting by Mondriaan (aprox. 1920)
• 1st office ever: “Ufizzi” in the Renaissance
• Ufizzi (literally: office), Florence 1581 built by Giorgio Vasari
USA:

• Larkin Building, Chicago (1904)
• By Frank Lloyd Wright (including furniture)
US differs from Europe

- New cities,
- Lots of space
- Rectangular city plans

So: rectangular offices and buildings
Promising developments in office innovation comes to a standstill:

- Low interest for individuals,
- Almost no social security,

So: stuck in cubicals (till millennium
Offices in Europe:
• Old cities,
• Narrow streets
• Irregular buildings
• Close to windows

Originally based on “Uffizi”: cellular offices
Activity Based Office in the Netherlands
Cockpit (concentration work)
Open workspace
Collaboration
Informal meeting
Meeting room
Library table
Lockers
Research on Activity Based Offices in the Netherlands

- Research by Blok et al. (2012)
- Research by Lechner (2013) and Lechner & Mobach (2013)
Activity Based Work Environment

• Office innovation consists of:
  • The physical workplace,
  • IT,
  • Organisation,
  • Culture

Blok e.a. (2012)
Activity Based Work Environment

• Workplace innovation in the Netherlands is increasing
• Scientific evidence is still lacking

• Effect of office innovation on work behavior (Where? When?)
• Effect on business outcomes? (productivity, cooperation, knowledge sharing, satisfaction)
### Work@task Codes for short message service

For example O1IC

<table>
<thead>
<tr>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>O# = Office + workplace number</td>
</tr>
<tr>
<td>OD = Office, working at a different department</td>
</tr>
<tr>
<td>OL = Working at a different office location</td>
</tr>
<tr>
<td>H = Home</td>
</tr>
<tr>
<td>T = Traveling</td>
</tr>
<tr>
<td>WE = Working extern (at client office)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>How?</th>
</tr>
</thead>
<tbody>
<tr>
<td>I = individual</td>
</tr>
<tr>
<td>T1 = working together at one location</td>
</tr>
<tr>
<td>T2 = working together at two locations</td>
</tr>
<tr>
<td>G1 = group work at one location</td>
</tr>
<tr>
<td>G2 = group work at two or more locations</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What?</th>
</tr>
</thead>
<tbody>
<tr>
<td>C = concentration task</td>
</tr>
<tr>
<td>R = routine task</td>
</tr>
<tr>
<td>F = formal meeting</td>
</tr>
<tr>
<td>IF = informal meeting</td>
</tr>
<tr>
<td>P = Phone call</td>
</tr>
<tr>
<td>B = Break</td>
</tr>
<tr>
<td>N = Not working</td>
</tr>
</tbody>
</table>

Figure 1. Work@task codes that were used in the short massage service.
Results (1)

Awareness:

54% of the employees got used to their new office
↑ flexible times,
↑ availability of ICT,
Results (2)

Awareness:

↑ role model and focus on result

Note: NWW = New Ways of Working = Office innovation
Results (3)

Work behavior:

• Work at home:
  • from 4.5 to 5.5 hour,
  • work at clients from 5.8 to 7.4 uur

• 40% in innovative layout
• 61% in de open area

Measures only on M2

Blok e.a. (2012)
Results (4)

Business outcomes

• No difference in cooperation, satisfaction, suitability
• Decrease of knowledge sharing!

Blok e.a. (2012)
Discussion

• Overall no positive results
• Perhaps no integrated implementation of all aspects (physical, IT, organisation, culture)
• Perhaps office innovation does not work...

Blok e.a. (2012)
Productivity and office innovation

- Haynes (2008): Connection not clearly established
- Leaman en Bordass (2005): 5 killer variables (depth, responsiveness, control, team size, design intent)
- i.a. Maarleveld, Volker en Van der Voordt (2009): Perceived productivity
Framework (‘model’)
Research design

• Qualitative research
• 26 semi-structured interviews
• 9 businesses and government institutions
• Investigator (or researcher) triangulation (Denzin, 1970)
• Coding (or rating) and analysis by use of CAQDAS
Conceptual Framework
Effect of work environment on productivity
(partial mediated by ability to communicate or concentrate on work)

- Work environment
- Job satisfaction
- Communication & concentration
- Productivity
- Other factors

Sources:
- Sundstrom, Town et al., 1982
- Sundstrom et al., 1982
- Marans & Spreckelmeyer, 1982
- De Croon et al., 2005
- Van der Voordt & De Been, 2010
- Leaman & Bordass, 1999, 2005
- De Marco & Lister, 1985
- Batenburg & Van der Voordt, 2008
- Judge et al., 2001
- Bechting & Lechner, 2012
- Brill et al., 1984
- Brill & Weidemann, 2001
- De Croon et al., 2005
- Blok et al., 2009
- Haynes, 2008
Question

Which relationship will be the strongest?

Work environment  ?  Productivity

?  ?

Communication and concentration
Framework

Effect environment on productivity
(partial mediation by ability to communicate and concentrate on work and job satisfaction)

Lechner (2013)

Note: Relationships between constructs are indexated according to number of encoded fragments
Framework, traditional and innovative office

**Traditional**
N = 13

- Job satisfaction
  - Traditional environment
    - Communication & concentration
      - Productivity
        - Other factors

**Innovative (HNW or NWW*)**
N = 13

- Job satisfaction
  - Innovative environment
    - Communication & concentration
      - Productivity
        - Other factors

Note: Relationships between constructs are indexed according to number of encoded fragments

* HNW: Het Nieuwe Werken
  NWW: New Ways of Working

Lechner (2013)
Conclusion

Methods:
• Mono method research design > triangulation

Management implications:
• Facilitate the ability to concentrate on work
• Integrated implementation of office innovation
Recap

• The activity based environment is viable
• Integrated implementation seems essential
Thank you very much for your attention
Questions?