The Activity-Based Work Environment in Dutch Offices, a Cultural Approach
by Stefan Lechner
15 SEP 2014
Objectives of this presentation:

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

• Stefan Lechner

• Hanze University of Applied Sciences, Groningen, the Netherlands
  – 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)
## 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

- Inhabitants: 4 mln.
- Area: 181,000 km²
- Density: 45

Netherlands

- Inhabitants: 17 mln.
- Area: 45,000 km²
- Density: 400

---

**Hanze Research**

University of Applied Sciences

NoorderRuisde, Area Development
What is the Dutch culture?

- Tulips?
- Cheese?
- Wooden shoes? (Klompen)
- Flat land (= the Netherlands)
- Van Gogh?
Black tulips
Typical tulip field
Materialisaton 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 (approx. 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 millenium
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>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>O# = Office + workplace number</td>
<td></td>
</tr>
<tr>
<td>OD = Office, working at a different department</td>
<td></td>
</tr>
<tr>
<td>OL = Working at a different office location</td>
<td></td>
</tr>
<tr>
<td>H = Home</td>
<td></td>
</tr>
<tr>
<td>T = Traveling</td>
<td></td>
</tr>
<tr>
<td>WE = Working extern (at client office)</td>
<td></td>
</tr>
</tbody>
</table>

### How?

- I = individual
- T1 = working together at one location
- T2 = working together at two locations
- G1 = group work at one location
- G2 = group work at two or more locations

### What?

- C = concentration task
- R = routine task
- F = formal meeting
- IF = informal meeting
- P = Phone call
- B = Break
- N = Not working

---

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

Blok et al. (2012)
Results (1)

Awareness:

54% of the employees got used to their new office

↑ flexible times,

↑ availability of ICT,

Blok e.a. (2012)
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 the open area

Measures only on M2

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

Business outcomes

• No difference in cooperation, satisfaction, suitability

• Decrease of knowledge sharing!
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’)

- Work environment
- Communication and concentration
- Productivity
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)

Sundstrom, Town et al., 1982
Sundstrom et al., 1982
Marans & Spreckelmeyer, 1982
De Croon et al., 2005
Van der Voordt & De Been, 2010

Work environment

Job satisfaction

Sundstrom et al., 1982
De Marco & Lister, 1985
Batenburg & Van der Voordt, 2008

Communication & concentration

Communication & concentration

Judge et al., 2001
Batenburg & Van der Voordt, 2008
Becking & Lechner, 2012

Productivity

De Croon et al., 2005
Blok et al., 2009

i.a. Haynes, 2008

i.a. Leaman & Bordass, 1999, 2005

Other factors

Leaman & Bordass, 1999, 2005
Brill, 1984
Brill & Weidemann, 2001
Van der Voordt & De Been, 2010
De Croon et al., 2005
Blok et al., 2009

Lechner, 2013
Batenburg & Van der Voordt, 2008
De Marco & Lister, 1985
Marans & Spreckelmeyer, 1982
Sundstrom et al., 1982

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 indexed according to number of encoded fragments
Framework, traditional and innovative office

Traditional
N = 13

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

Traditional environment

Innovative (HNW or NWW*)
N = 13

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

Innovative environment

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?