Student Involvement in Facility Management Research in Hospitals
by Stefan Lechner
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This Presentation:

A. Two studies:
   1. Wayfinding
   2. Gerontologic test suits and strategic hospitality objectives
   3. Other studies

B. Different roles into practice:
   • Students
   • Researchers and lecturers
   • Participating hospitals
Objectives of this presentation:

1. Insight in student involvement
2. Lessons learned from student involvement

Introduction
Methods
Study 1
Wayfinding
Study 2
GERT suit
Other studies
Lessons learned

Orientation
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
Objectives of Living Lab HSD:

1. Applied research by students, practitioners, and researchers
2. Meet the most important challenge in Health Care: create innovative solutions
3. Let students experience real life research
Context: Living Lab Health Space Design

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Centre of Expertise Healthy Ageing

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Living lab HSD in action

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Study 1: Wayfinding

• Who has recently been in a hospital? 😊
• Who has recently visited a hospital where he had never been before?
• Who could find his way?
Study 1: Wayfinding

Study:
... research on the wayfinding of visitors and patients entering the hospital from the multi-storey car park

Setting:
Bachelor Engineering and bachelor Facility Management at the Living Lab Health Space Design
Wayfinding, method

Qualitative research:
- Shadowing

- Other methods
  - Observations
  - Documentary research
Shadowing

Qualitative research method, researcher follows a participant (McDonald, 2005)

• Registration of conscious and unconscious responses (id.)

• Objective observation of experiences (Eager & Oppenheim, 1996)
Wayfinding: results: bottlenecks *

* Koehorst & Meinsma, 2014
Koehorst, 2014
Results study 1 Wayfinding

- Quick wins: **advantage**: cheap
- New design of the central hall: **disadvantage**: expensive

Actually, the hospital is considering the new design of the central hall!
Further research: Arts College

Study:
Continue with preceding findings

Setting:
Fifteen 2nd and 3rd year Arts student, course ‘business oriented Arts design’
Wayfinding Arts:
Example 1 (Seidel & Veenstra, 2014)

Sketch of distinguished routes
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The ‘Cloud’ route
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The ‘Forest’ route
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**Wayfinding Arts: Example 2** *

* Uijtewaal, Wolff, & Idsinga, 2014

**Now**
Wayfinding
Arts:
Example 2

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Advice
Wayfinding Arts: Example 2

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Now

Advice

hsd health space design

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Wayfinding Arts: Example 3 (Kuik, 2014)

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Now
Wayfinding Arts: Example 3

Schiphol Airport Amsterdam
Wayfinding
Arts:
Example 3

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Advice
Recap: Wayfinding

- Student involvement
- Multi disciplinarity
- Value of applied sciences
Study 2: GERT suit

What is a GERT suit?
The age simulation suit offers opportunity to experience the impairments of older persons even for younger people

The age-related impairments are:

- loss of sight and hearing
- joint stiffness in the arms and legs
- narrowing of the visual field
- head mobility restrictions
- reduced grip ability and coordination skills

* http://www.age-simulation-suit.com
Study 2: GERT suit *

Study:
- Assess the hospitality and develop a policy
- Take into account the needs of the elderly

Setting:
- Two hospitals
- 50 second-year bachelor students of a course hospitality and 60 third-year bachelor students of a course facility management strategy in

* Zijlstra, forthcoming; De Vries & Lechner, unpublished data
GERT Suit: method

- Participant observation,

- Qualitative measures and quantitative measures:
  - Distance, time, number of heart beats
  - Events, such as stop, wait, and rest
  - Perception of effort and fatigue
  - Perception of wayfinding, hospitality, and physical environment
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Preparations in the porter’s lodge
Participant and observer are on their way
Good idea: they catch a golf cart!
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Participant and observer totally lost at the other side of the road
Elevator or stairs?
Arrived at the destination
Recap: GERT suit

- Study PhD student on hospitality and wayfinding
- Hospitality strategy assignments of 2 x 60 students enriched with real life observation data
- Miscellaneous
Other studies HSD

• Two elevator studies in nursing homes
• Healing garden in a nursing home
• Alignment Real Estate and FM department in a large hospital
• Stimulation of physical activity in a nursing home
Lessons Learned

- Roles
- Lessons learned
- Success factors
Roles

Students
• Student
• Researcher
• Junior Research Employee

Lecturers
• Lecturer
• Researcher
• Senior Research Employee
• Coach
• Mentor
• Principal

Principal
• Principal
• Supervisor
Lessons Learned

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Lessons learned

Dispute in a group

• Stimulate cooperation,
• Choice of supervision

Requirements differ amongst Schools

Stop watch does not work

Use of hardware is a risk

Students are lazy

Sometimes true, fortunately usually not true

Do you get credits?

Embed in educational system, formalize reward/credits

Rain

Some issues cannot be influenced

Must attend soccer training

• Make use of it!
• Break down barriers

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Succes factors

• Free choice by students
• Ownership
• Setting
  • Living Lab HSD
  • Cooperation of bachelors and PhD students, senior and junior students, honours students and regular students
• Hardware
• Research methods
Fail factors

- No free choice
- Ownership poorly defined
- Hardware problems
- Methods unappealing or difficult
Living Lab HSD in action

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