USABILITY BRIEFING - A PROCESS MODEL FOR COMPLEX BUILDINGS

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Outline

- Background, Purpose, Approach, Research limitations
- State of the art: Theories
- Usability
- Briefing
- Usability briefing process model
- Examples from case studies
- Additional details
- Summary
- Questions
Background

- complex buildings
- hospitals
- many users, contradictory requirements
Background Usability, Purpose

- Usability research - evaluations
- PhD project “Usability briefing for hospitals” - methods for capturing user needs at hospitals, feed to design processes, satisfy the users’ needs, maximise the effectiveness of facilities.
- Purpose: better buildings
Approach

Results based on: 3 hospital cases (observation, interviews, participation) literature, RIBA plan of work

Case 1, Denmark
Bispebjerg Hospital (BH)
2010-2012

Case 2, Denmark
Healthcare Innovation Lab (HIL) Herlev Hospital
2010-2012

Case 3, Norway
Skt. Olavs Hospital (SOH)
2012-2013
Research limitations

- Model is theoretical - needs to be applied and further tested.
- Empirical results - focus phase 1 and 2 (RIBA)
- Only 3 hospital cases DK and NO
State of the art: Theories

Usability
- Evaluations, POE, Usability Appraisal
- User involvement

Briefing
- User driven innovation, lead users
- Boundary objects
Usability definition

Overview of usability concept, Fronczek-Munter (2011)

- Support and shelter the users
  (Blackstad, et al 2010)

- contributes to:
  (ISO, 1998)
  - Efficiency
  - Effectiveness
  - Satisfaction

- depends on:
  (Alexander, 2008, 2010)
  - Context
  - Culture
  - Situation
  - Experience

Division of Usability and Functionality - subjective view of users
(Alexander, Jensen 2010)

+my focus - briefing, design
# Briefing - comparison

<table>
<thead>
<tr>
<th>Traditional briefing</th>
<th>Usability briefing</th>
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<tbody>
<tr>
<td>Concerns new building/construction</td>
<td>Concerns all client/user needs in existing or future facilities</td>
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<tr>
<td>A definite phase at an initial stage of construction</td>
<td>A continuous process with changing focus in all the phases of building life cycle, including occupancy</td>
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<tr>
<td>An expert based information collection</td>
<td>A co-learning and dialogue process</td>
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<tr>
<td>Users mainly involved as data sources</td>
<td>Users actively involved as co-designers and part of a corporate change process</td>
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<tr>
<td>The result is a brief, i.e. a requirement specification</td>
<td>continuous vision collecting and requirement specs, with changing detail and focus</td>
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Revised and adapted from Jensen et al. (2011) and Jensen and Pedersen (2009)
Usability Briefing

RIBA planning phases 2013:
Usability Briefing

Danish organisations:
FRI, PAR

Visual overview
Examples from case studies

Case 1 (BH) continuous user group

Case 2 (HIL) Co-creation, methods

Case 3 (SOH) Evaluation, USE tool
Summary

- Visual process model
- Combining 4 activities
- Continuous
- Better buildings
Questions, recommendations
### Overview of selected additional variables in the usability briefing model

<table>
<thead>
<tr>
<th>Phases</th>
<th>Phases 0-1 pre-design</th>
<th>Phases 2-5 design and construction</th>
<th>Phases 6-7 Handover and use</th>
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<tbody>
<tr>
<td>Users</td>
<td>Lead users, patient organisations managers, top level users</td>
<td>Various users: main (patients, relatives, doctors, nurses, architects, secretaries) and secondary (facility managers, service, operational staff),</td>
<td>Various groups, continuous involvement</td>
</tr>
<tr>
<td>Methods tools, boundary objects</td>
<td>Meetings, feasibility studies, document re-views, surveys - BUS, evaluations - PDE/POE, usability assessment - USEtool</td>
<td>Participatory workshops with users, co-designing, co-learning, design games, observation, evaluations of proposed solutions - simulations, AEDET, Healthcare Design Action Kit, commissioning</td>
<td>Soft landings - buildings operational manual and learning, satisfaction surveys, requirements tests and further improvements - WODI, DQM, POE, ST&amp;M, ASTM standards</td>
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<td>Focus</td>
<td>Visions, collect data, analyse needs, own existing facilities and best practice, common understanding, inspiration</td>
<td>usability, functionality, creativity, innovation, transforming visions to prioritised needs, from general to detailed and operational</td>
<td>Evaluations - tests and improvements, learning how to use the new facility</td>
</tr>
<tr>
<td>General results</td>
<td>Capturing needs and visions</td>
<td>Prioritising, innovation, requirement specification, inspiration for innovative design</td>
<td>Learning how to operate, documentations, improvements/adjustments</td>
</tr>
<tr>
<td>Results as documents:</td>
<td>Strategic brief, Initial project brief</td>
<td>Final project brief, Tactical FM brief, Operative FM brief</td>
<td>Documentations, survey results, benchmarking data</td>
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