Who?

An active collaboration between clients, users, other stakeholders and architects.

What?

"Design Dialogues" is a framework with a design driven co-design approach, developed at the Department of Architecture at Chalmers University of Technology, Sweden. Its goal is to address the need for integrating user perspectives in order to reach innovative solutions in the design process.

The basic concept is to use design methodology and test scenarios and models to handle the complex commissions in Healthcare. It is in an iterative work process with identification and evaluation of needs and development of solutions in parallel.

How?

Crucial decisions about the design of healthcare facilities are made in the early phases of the design process. The initial phase of a project can be characterized as a conceptual phase in which stakeholders meet to discuss ideas and requirements concerning use of spatial solutions and functions. This phase also gives an opportunity to thoroughly review how the existing work is being done and how the facilities are used in relation to this, thus enabling a discussion on how work and facilities interact. This in turn enables innovation. Ideas about new innovative care models are thereby integrated with facility design development. User needs, as well as the healthcare organization’s strategic plan, must at this stage also be identified and properly articulated to be able to support an efficient design process. Furthermore, involvement of healthcare professionals in the design process is essential for integrating knowledge of the care processes into the design. When possible, representatives from patients and families should also participate. As the initial phase greatly influences the design of the finished facilities and its end results, it also impacts the organization’s ability to affect future clinical outcomes.

Why?

To support and enable integration and innovation, a conscious design approach is needed where healthcare future visions, requirements and spatial solutions can develop in parallel.

Design Dialogue Process

1. Workshop: Developing ideas about future care operations, flows and requirements of spatial relationship by using “quality images”. The images were mounted on cardboard and diagrams were mounted on larger cartons. The aim with this tool is to encourage visionary thinking and leave the "room list" level. It is also to stimulate internal dialogue and thereby create a common basis for further work.

2. Workshop: Inspirational material from other newly built neonatal units in Sweden and internationally.

3. Workshop: Design game - the task was to build the future neonatal ward at Karolinska Huddinge. The participants were divided into three multi-professional groups with representatives from different competencies, roles and professions. The rules was to build a conceptual outline draft of their new neonatal unit.

4. Workshop: Schematic layouts based on the design games and parent input where presented for the workshop group.

5. Workshop: Synthesis proposal was visualized as a large format plan and as an interactive 3D model. Scale figures and plastic game pieces where used to build and illustrate a number of scenarios, envisioned by the group. The digital model was used for deepen the understanding for ex. nighttimes, access to daylight etc. A number of points were discovered where corrections were required. Among them mirroring the NICU-unit.

Outcome

An evaluation of the process and intervention studies after two years in use has been done.

- The process, care environment and the procedures of the mothers’ maternity care were found to be very important to minimize the separation between the infants and the parents.
- Implementation of new family-centered care philosophy was hence facilitated and mother-infant separation due to postpartum (after delivery) care was significantly reduced, from 82% to 18%.
- A high proportion of parents stated that they were allowed to participate more in the baby’s care after the intervention.
- Furthermore, no transmission of multi-resistant bacteria between patients as well as reduced nosocomial infection has been found.
- Family Centred Care and NICU-design providing parents to stay 24/7 have an impact on:
  - Infant health: both in terms of length of stay, reduced risk for moderate-severe BPD, reduced infection rate.
  - Mother anxiety and sense of being competent as a parent.
  - Breastfeeding, both at discharge and at 3 months of corrected age.