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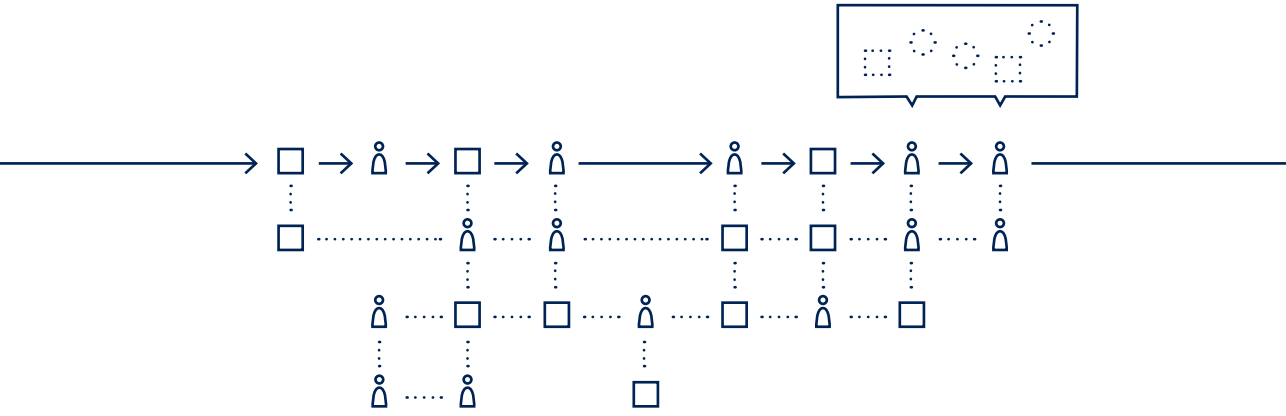
DESIGNING FOR SERVICE CHANGE

A STUDY ON HOW DESIGNERS ADDRESS IMPLEMENTATION OF SERVICE CHANGES DURING SERVICE DESIGN PROJECTS FOR HOSPITALS

BY
LOTTE RAUN

DISSERTATION SUBMITTED 2017



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AUTHOR CV

Lotte Raun, b. 1984, holds a master's degree in Industrial Design from Aalborg University (M.Sc. Eng. in Industrial Design 2010). During her early studies, Lotte developed a special interest in the strategic use of design in organisations and in service design in particular. Her master's project was one of the first from Aalborg University to focus particularly on service design. After finishing the project, she was hired by the international design consultancy Designit and worked as a professional service designer on various projects for large Norwegian organisations. With the intention to learn more about the practice of design within large organisations, she initiated her PhD project in December 2011. This project is the result of collaboration between Aalborg University, the Department of Architecture, Design and Media Technology, and the innovation unit Idéklinikken, Aalborg University Hospital. In this setup, Lotte has worked in close collaboration with healthcare professionals, designers and other disciplines.

During the past five years, Lotte has taught and supervised bachelor's and master's students at Aalborg University while concurrently conducting and supporting service design projects at Idéklinikken for departments at Aalborg University Hospital. Additionally, Lotte has presented her research at international conferences and published peer-reviewed papers in conference proceedings.

SUMMARY

Service design is an emergent and fast-moving field across the world. Private companies and public institutions hire designers to create new and improve existing services for the benefit of customers, citizens and organisations. Although service design is a relatively young discipline, it has already been recognised for its potential to create substantial changes in the service industry.

However, sometimes the potential of service design is left unexploited. It often happens that good ideas and concepts produced during service design projects end up on the 'concept shelf' and never result in actual changes to the services organisations provide. This 'challenge of implementation' and what designers do, or should do, to overcome it has not been accounted for in the existing literature.

Motivated by a wish to overcome the challenge of implementation, this research study focuses on investigating how designers successfully address implementation during service design projects. For this purpose, the study takes its point of departure in a healthcare context by investigating service design projects conducted by professional designers for public Scandinavian hospitals.

The study follows an abductive form of inquiry, in which service design theory, organisational change theory and four case studies are used to generate four different outcomes.

The first outcome is a conceptual model, a theoretical starting point for investigating how designers address implementation during service design projects for hospitals.

The second outcome is four individual case descriptions, providing four practical examples of how professional designers have addressed implementation during specific service design projects.

The third outcome is a series of characteristics identified across the four projects, wherein the two main characteristics include;

- Designers address implementation during the entire project period (from project start to project end). This means that they address implementation even though they do not know the end result of the design process, and thus do not know what should be implemented.

- Designers address implementation by considering both that the proposed services changes (the service concept and thus the 'content of change') are feasible to implement and that the right people within the organisation are committed to and capable of implementing the proposed service changes.

The final outcome is a set of focal points for designers and other people who apply service design in hospitals and aim for successful implementation. These state, for example;

- Implementation is enabled if designers identify a space for realistic service change by exploring, challenging and defining what can be changed in relation to the existing service, thus identifying the kinds of changes that are realistic to propose.

- Implementation is enabled if designers promote implementation commitment by attempting to ensure that the involved stakeholders have a sense of ownership of the project and are supportive, motivated and dedicated to making the proposed changes happen.

- Implementation is enabled if designers appropriately hand over the project to the organisation and hereby attempt to deliver the project and its results to the organisation in a manner that respond to local premises for further developing and implementing the proposed service changes.

The four different outcomes provide concepts, examples, characteristics and focal points that begin to articulate how to *design for service change*. This provides new perspectives for both service design research and practice.

The study has been co-financed by Idéklinikken, an in-house innovation unit at Aalborg University Hospital.

RESUMÉ

Servicedesign er en hurtigt-voksende disciplin verden over. Private virksomheder og offentlige institutioner ansætter designere til at skabe nye og forbedrede services til gavn for kunder, borgere og organisationer. På trods af at være en forholdsvis ung disciplin, er servicedesign allerede blevet anerkendt for dets potentiale til at skabe betydningsfulde forandringer i servicebranchen.

Desværre bliver servicedesigns fulde potentiale dog ikke altid udnyttet. Det sker ofte, at de gode idéer, som skabes i servicedesignprojekter, ender på 'koncepthylden' og derved aldrig resulterer i reelle forandringer i de services organisationer leverer. Denne 'implementeringsudfordring' og hvad designere gør eller burde gøre for at overvinde den, er der ikke gjort rede for i tidligere forskning.

Drevet af en motivation for at løse denne 'implementeringsudfordring' undersøger afhandlingen, hvordan designere succesfuldt adresserer implementeringen gennem servicedesignprojekter. Til dette formål tager afhandlingen udgangspunkt i fire konkrete cases udført af professionelle designere for offentlige skandinaviske sygehuse.

Gennem en abduktiv undersøgelsesform danner servicedesignteori, organisationsteori og fire casestudier grundlag for en række resultater, som alle bidrager med viden om, hvordan implementering kan imødekommes undervejs i servicedesignprojekter.

Det første resultat er en konceptuel model og herved et teoretisk udgangspunkt til at undersøge, hvordan designere adresserer implementering i løbet af servicedesignprojekter.

Det andet resultat er fire casebeskrivelser, der giver fire konkrete eksempler på, hvordan professionelle designere adresserer implementering.

Det tredje resultat er en række karakteristika, der er identificeret på tværs af de fire projekter. Disse beskriver blandt andet at:

- Designere adresserer implementering gennem hele projektperioden (fra projekt start til projekt slut), hvilket betyder, at de imødekommer implementering allerede inden de ved hvad, der skal implementeres.

- Designere adresserer implementering ved både at tage højde for, at det, de designer (de foreslåede serviceforandringer) er muligt at implementere i den lokale kontekst, og ved at sikre, at de rigtige personer i organisationen føler en forpligtelse til og vil være i stand til at implementere det.

Det fjerde resultat er et række fokuspunkter for designere og andre, der anvender servicedesign på hospitaler, og som tilstræber vellykket implementering. Disse beskriver bl.a. at det gavner implementering:

- hvis designere identificerer et rum for realistisk service forandring ved at udforske, udfordre og definere hvad der kan ændres i relation til den eksisterende service og herved identificerer hvilke typer af forandringer, som er realistiske at foreslå.

- hvis designere fremmer en følelse af forpligtelse i forhold til implementering ved at sikre at de involverede aktører har et ejerskab til projektet og at de er støttende, motiverede og dedikerede for at få forandringerne til at ske.

- hvis designere overleverer projektet og projektets resultater hensigtsmæssigt til organisationen, det vil sige på en måde, som passer til de lokale omstændigheder for implementering og videreudvikling af de foreslåede serviceforandringer.

De fire resultater sætter ord på, giver eksempler på og retter opmærksomhed mod hvad det vil sige at *designe for serviceforandring*. Dette giver nye perspektiver for både servicedesignforskning og -praksis.

Forskningsprojektet er medfinansieret af Idéklinikken, innovationsenhed på Aalborg Universitetshospital.

PREFACE

This thesis is the result of a professional and personal journey; a journey which began in December 2011. I had just moved back to Aalborg after working as a service designer in a large international design consultancy. At that time, I had only a vague idea of what the next years would offer, demand and lead to. Yet, I had something I wanted to know. I had a problem I did not know how to answer, a professional challenge, and thus, a deep motivation to engage in research.

In my early career as a practicing designer, I conducted several service design projects for various organisations that had chosen to invest in service design. This provided unique opportunities to use design as an approach to improve and innovate services as well as to make actual changes, both within organisations and in people's lives.

Unfortunately, many of the projects I worked on rarely seemed to lead to actual changes. The service concepts my colleagues and I designed, visualised, and described in detail were often left unimplemented. Somehow, they seemed to disappear within the organisations, sometimes leaving traces of great project processes – at other times not. This was frustrating to experience. As with most other designers, my motivation for conducting service design projects was (and still is) not just to create great concepts and well-written project reports, it is to change the world and have an actual impact.

Hence, I had a professional challenge I wanted to address, and therefore I initiated my PhD journey with great motivation and eagerness. But although I was motivated, I did not initially feel like the perfect candidate to conduct the actual research project. I perceived my background in design as an obstacle. It felt like I had to unlearn what I had previously learned in order to look at the world from the perspective of a researcher and not a designer. Research and design seemed to be two opposites that could not co-exist in the same person. Yet, step by step, I realised that the two perspectives were not as different as I had initially perceived them to be. They could in fact co-exist and I did not have to 'unlearn' my 'designerly' way of approaching the world in order to conduct research.

Thus, instead of perceiving my design background as an obstacle, I used it as a means to find answers to the professional challenge. I do believe that I have found some significant answers. Not all of them, but some. My hope is now that these answers can create understanding and lead to less frustration in relation to implementation among both designers (such as myself) and organisations that invest in design, with the aim of making actual changes within organisations and in people's lives.

In respect to my professional journey and the concrete results manifested in this thesis, many people deserve to be thanked for their contribution.

First of all, the people who took the main initiative in this PhD project: Kjeld Lisby, Pernille Mejer Højholt, Gorm Simonsen, Nicola Morelli and Michael Mullins. You deserve to be thanked for your initial drive, courage and willingness to find the financial resources and initiate this PhD project.

I also want to thank my two supervisors Nicola Morelli and Søren Bolvig Poulsen. You have followed me and my professional development since 2005, and I am grateful for the professional supervision and personal support that you have provided all these years.

During my project, I have been privileged to be part of two working environments with colleagues who have shown an impressive willingness to engage in my project, join discussions, listen to my thoughts and provide reflections that have challenged my perspectives. Thank you Flemming Eriksen, Bente Koch Pedersen, Suzanne Eide Mølgaard, Jesper Jønsson, Sanne Daugaard Nielsen, Jesper Bredmose Simonsen and all the rest of my former colleagues at Idéklinikken. And thank you Christian Tollestrup, Nis Ovesen and all my colleagues in the Industrial Design section at the Institute of Architecture, Design and Media Technology, Aalborg University. A special thanks to Louise Møller Haase for guiding me during the final phase of the writing the thesis.

Furthermore, I want to thank my fellow PhD colleagues. Ida Sofie Gøtzsche Lange, Tina Vestermann Olsen, Jacob Bjerre Mikkelsen, Ditte Bendix Lanng, Simon Hviid, Jacob Sabra, Kasper Rodil, Esben Skov Laursen and Linda Nhu Laursen. Thank you for engaging in discussions, showing your empathy and providing uplifting comments over the years.

I also want to thank the people I have had the privilege to interview and collaborate with; the designers and healthcare professionals who have shared their stories with me and now also with the readers of this thesis. It goes without saying that your contributions have been essential to the writing of this thesis.

Finally, I want to thank my family. Christian, my husband, and our two children, Ella (3 years) and Viggo (1 year). Thank you for unconditional support and for forcing me out of the rather captivating PhD bubble – every single day.

Lotte Raun, Aalborg, July 2017.

CONTENTS

CHAPTER 1
INTRODUCTION

“To see far is one thing, going there is another”
Constantin Brancusi, 1876–1957

1.1. RESEARCH FOCUS

1.1.1. THE CHALLENGE OF IMPLEMENTATION

This study concerns the practice of *service design*, i.e. when design as an approach is used to create new, or improve existing, services. Dating back to the early 1990s, service design is a relatively young discipline, yet it has already been recognised for its potential to create substantial changes in the service industry (e.g. Strand 2011) and is a growing field of practice worldwide (Mager 2016, p. 9). Both public and private organisations are investing in service design by hiring external design companies or employing in-house designers with the purpose of practicing service design for the benefit of their organisations.

However, in spite of the growing interest in the field and its recognised potential, service design practice is not free of challenges. This study investigates one particular challenge to service design practice: the challenge of implementation.

The challenge of implementation is often mentioned in the professional and academic service design communities (e.g. Lin et al. 2011; Kronquist et al. 2014; Keller et al. 2013; Ivey-Williams 2017; Schaeper 2013; Overkamp & Holmlid 2016). Experience indicates that designers have difficulty following through with their work from concept design to implementation, and that the results of potentially successful service design projects often end up on the 'concept shelf' without ever going live (Kronquist et al. 2014).

Seeing the result of one's work tabled cannot be perceived as ideal for designers or for organisations that choose to invest in service design. In the literature the aim of design has been described as 'changing existing situations into preferred ones' (Simon 1996, p. 111); furthermore, it has been argued that 'those who cannot change existing situations into preferred ones fail in the process of design' (Friedman 2003, p. 509). Hence, it could be perceived as a failure when suggestions for new or improved services developed during service design projects are not implemented and thus do not lead to actual changes to the services organisations provide.

Currently available research has not investigated how many service design projects never lead to implementation; thus, the size of this problem is unknown. However, the indications from practice suggest that further attention needs to be given to this field of interest.

1.1.2. A STUDY ON WAYS TO ADDRESS IMPLEMENTATION

Motivated by the challenge of implementation in service design practice experienced by designers, this research study is particularly concerned with what designers do to successfully address implementation during service design projects. This means not what they do after a service concept has been designed, but rather what strategies they follow and what actions they take from the very beginning and throughout the project period with the aim of ensuring that ideas and concepts are implemented in the organisation for which they are intended.

This research focus touches upon a dilemma within service design, and design in general. In this thesis, the practice of design is perceived as a form of inquiry in which problems are approached as 'wicked problems' (Buchanan 1992; Rittel 1972) and where knowledge about problems and knowledge about solutions co-evolve (Dorst & Cross 2001). Thus, it is a practice in which the end result (e.g. the content of a service concept) cannot be determined in advance.

This presents a theoretical dilemma: how can designers address implementation from the very beginning of the service design project when they do not know the end result, and thus do not know what should be implemented? Though this seems contradictory, this study is based on the conviction that some designers *are* capable of such efforts. This conviction is in turn based on the fact that some service design projects are successfully implemented and that some designers seem to be aware of how their actions support implementation (e.g. Kronquist et al. 2014). The specific strategies designers follow and the actions designers take, and how these should be understood from a theoretical point of view, are still unknown, and are thus the phenomena under investigation in this study.

1.1.3. FOCUSED ON CREATING CHANGES TO HOSPITAL SERVICES

This research study takes its point of departure in a specific research context: service design practice in hospitals. This provides a certain focus, as well as limitations. The study investigates four service design projects in which professional designers, in collaboration with public Scandinavian hospitals, redesign specific hospital services. Thus the study focuses on projects where designers mainly work on improving existing services (rather than creating new ones) within a specific type of organisation (public Scandinavian hospitals).

The choice of hospitals as the research context is a consequence of the stakeholders involved in the research project. The research project has been initiated and financed by the innovation unit Idéklinikken, located at Aalborg University Hospital. As Idéklinikken primarily works within the area of hospitals, they naturally have a profound interest in research results related to this context. Furthermore, Idéklinikken has provided the opportunity to conduct research activities within Aalborg University Hospital, further clarifying the choice of research context.

However, hospitals are not only interesting from the perspective of Idéklinikken, but also from the perspective of service design practice and the challenge of implementation. First of all, hospitals (and health care organisations in general) are a common context for service design practice. According to a recent survey, 40.7% of service design agencies work within the field of healthcare (see Sangiorgi et al. 2015, p. 36), making it, and hospitals, a rather common context for service design practice.

Furthermore, hospitals are a rather particular and extreme context. The hospitals in this research study are public organisations, that is, places with bureaucracies and strict hierarchies where innovation and change are often said to succeed in spite of (rather than because of) the dominant structures and systems (Mulgan 2007, p. 4). In other words, in a hospital context, change and implementation cannot be perceived as a natural consequence of a service design project. The projects investigated in this research study can therefore provide insight into what designers do to address implementation under particularly challenging conditions, conditions where it is unlikely that implementation and actual change will happen by themselves.

1.2. RESEARCH QUESTIONS

As mentioned, this study is based on the conviction that (some) designers address implementation from the very beginning of and throughout service design projects. This belief is manifested in the following main research question, which guides the research study:

How do designers address the implementation of proposed service changes during service design projects for hospitals?

The question contains some core terms and phrases, briefly clarified below:

- *Designers*: professional designers working within the field of service design.
- *Implementation*: the process by which an idea is realized and becomes an actual change.
- *Proposed service changes*: ideas/propositions for changes to existing services (often communicated in form of – or as part of – a service concept).
- *Service design*: a human-centred design approach with the aim of creating new or improving existing services.
- *Service design projects*: projects (focused and time limited) in which service design is applied as the main approach.
- *Hospitals*: large healthcare institutions offering medical treatments to citizens. In this study, hospitals are public and Scandinavian.

The main research question is answered through two operational research questions:

RQ1: Which theoretical starting point is appropriate for investigating the way designers address the implementation of proposed service changes in service design projects for hospitals?

RQ2: What characterizes the way designers address the implementation of proposed service changes in service design projects for hospitals?

The first question aims at a rather abstract theoretical answer: the generation of the theoretical starting point for investigating specific service design projects. This theoretical answer is also a means for answering the second question, which aims at more concrete and practice-oriented answers in which specific findings are drawn from actual service design projects.

1.3. OVERVIEW OF THE CHAPTERS

In additions to this introductory chapter, the thesis includes the following chapters;

Chapter 2: Research Design

Chapter 2 presents the research design of the study. It describes how the study relates to general considerations about the production of scientific knowledge by positioning the study within theories of science. This includes a presentation of the ontology, epistemology and methodology for the research study. Furthermore, the chapter outlines the specific methods applied for collecting and analysing the research material.

Chapter 3: Theoretical Foundation

Chapter 3 presents the theoretical foundation on which the research study relies. It describes the disciplinary field of service design and the notion of 'design for services'. Furthermore, it elaborates the characteristics of service design practice, how service design research addresses implementation and change, and pinpoints a gap in the present knowledge, which this research study intends to address. Moreover, the chapter presents theory on organisational change, which in combination with theory on service design provides a theoretical foundation for developing a conceptual model.

Chapter 4: Conceptual Model

Chapter 4 presents the conceptual model developed in this research project. The conceptual model provides a theoretical starting point for analysing the way designers address implementation of proposed service changes during service design projects. The chapter explains the key concepts/terms within the model and the theoretical foundation on which the model is based.

Chapter 5: Cases

Chapter 5 presents, describes and analyses four service design projects (cases). Each case is analysed on the basis of the conceptual model (presented in Chapter 4) and describes the way the designers addressed implementation in each individual case.

Chapter 6: Cross-case Analysis

Chapter 6 examines the similarities and differences among the four cases presented in the previous chapter. This analysis results in a number of empirical findings, outlining some characteristics of the ways the designers addressed implementation across cases.

Chapter 7: Discussion

Chapter 7 relates the empirical findings to existing theory, reiterating the theoretical knowledge presented in Chapter 3 and relating it to the cross-case analysis presented in Chapter 6. The discussion results in a number of arguments that provide additional theoretical explanations of the empirical findings.

Chapter 8: Conclusions and Perspectives

Chapter 8 presents the conclusion of the research study by relating the research questions to the research results presented and discussed in the previous chapters. On this basis, some focal points for addressing implementation during service design project will be suggested. Furthermore, the chapter positions and limits the research results in relation to present knowledge and outlines a set of future perspectives for both research and practice.

1.4. LIST OF CONTRIBUTING PAPERS

The published papers in the list below have all contributed to the writing of this thesis. None of the papers is directly included in the content of the thesis. However, some of the chapters contain revised and elaborated content from the papers.

- Christiansen, L., 2016. Design for Service Change. In O. B. Jensen, ed. *Design Research Epistemologies II*. Aalborg.

  (Has contributed to the content in Chapter 2: Research Design)

- Christiansen, L., 2015. Strategies and Tactics for Service Implementation. In R. Valkenburg, C. Dekkers, & J. Sluijs, eds. *Proceedings of the 4th Participatory Innovation Conference 2015*. The Hague: The Hague University of Applied Science, pp. 168–175.

  (Has contributed to the content in Chapter 5: Cases)

- Christiansen, L. et al., 2013. Reframing Practice through Provocative Co-Design. In H. Melkas & J. Buur, eds. *Proceedings of the Participatory Innovation Conference 2013*. Lahti: LUT Scientific and Expertise Publications, pp. 335–339.

  (Has contributed to the content in Chapter 5: Cases)

CHAPTER 2
RESEARCH DESIGN

2.0. PROLOGUE

This chapter intends to outline and clarify the research design used in the study.

Although this study focuses on service design, it is first and foremost a *research* study with the aim of producing scientific knowledge. Hence, it is relevant to describe how the study relates to general considerations about the production of scientific knowledge as well as the specific research methods applied to answer the research questions presented in the previous chapter.

This chapter takes its point of departure in abstract philosophical considerations by positioning the study within theories of science. This includes considerations about the ontology and epistemology of the study, that is, how this study relates to the philosophical questions of 'what is reality' and 'what can be known about reality'. Secondly, the chapter introduces the methodology of the study, including more concrete and practical considerations, whereby it elaborates the methods used for data collection and data analysis. The chapter concludes by presenting an illustration of the full research design.

2.1. POSITION WITHIN THEORIES OF SCIENCE

This study adheres to pragmatism (Bacon 2012) as a philosophical position and meta-theoretical standpoint. Therefore, pragmatism underlies the ontology, epistemology and methodology of this study.

2.1.1. ONTOLOGY

Ontology concerns fundamental assumptions about the nature of reality. This means that the ontology of a philosophical position describes how this position relates to the question of 'what is reality'. For this study, the perception of 'what reality is' has implications for how the phenomenon of 'addressing implementation of service changes' is understood and studied. Therefore, this will now be elaborated.

Constructivism and realism

A typical distinction between different ontologies is between realism and constructivism. Realism takes its point of departure in the assumption that 'reality' exists independently from the human understanding thereof, suggesting that objective knowledge, or 'truths', about reality are obtainable. In contrast, constructivism takes its point of departure in the assumption that what we understand as 'reality' is contingent upon what we can perceive; therefore, knowledge is 'constructed' and can never be obtained with absolute certainty (Egholm 2014).

The ontology of pragmatism cannot be characterized as purely realistic or as constructivist. From a pragmatic perspective, a social phenomenon is interpreted by the individuals who are part of it, therefore this aspect indicates a constructivist worldview. However, pragmatism also claims that the interpretation of a phenomena is always contingent of a specific situation (an objective reality), therefore this aspect implies a realistic worldview (Egholm 2014, p. 172). In other words, from a pragmatic perspective what we say about reality will always be constructed; however, these constructions are limited by the situation (the reality), meaning that what we say must relate to it.

As such, pragmatic ontology is neither purely realistic nor constructivist. It assumes an objective reality and that our understanding of this reality will always be based on our subjective perception of it. Thus, our understanding of reality is constructed.

Multiple 'truths'

In this context, the notion of pluralism comes into play, namely 'that different people, societies and cultures think different things true and important' (Bacon 2012, p. 71). According to William James, it is important to embrace pluralism, that is, we should 'come to recognize that none of us is entitled to regard ourselves as in possession of the whole truth' (Bacon 2012, p. 72). This means that pragmatism recognises that

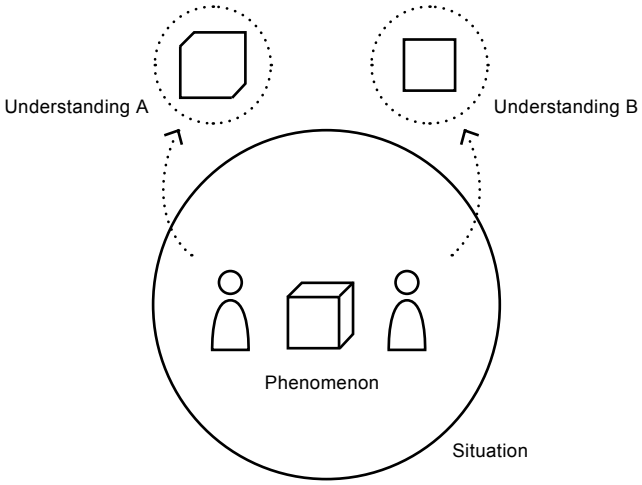


Figure 2.1. Simple illustration of the ontology of this PhD study, which recognizes multiples perspectives or 'truths' of the same phenomenon. Understanding A and understanding B are different, but not less true.

multiple perspectives can provide different understandings, or 'truths', about the same phenomenon (fig. 2.1, p. 27).

For the study, this ontology is significant in its recognition of different understandings, and thus 'truths', in order to address implementation in service design projects, including those of designers and of the healthcare professionals. Both parties are engaged participants in service design projects, but due to their different backgrounds, experiences, areas of interest and roles in the project, how they perceive and understand 'how the implementation of service changes is addressed' may vary. However, the existence of multiple variations does not imply that one understanding is more 'true' than another.

This study embraces pluralism and combines the two perspectives of designers and healthcare professionals in order to establish a joint perspective. Furthermore, it also combines different theoretical perspectives (service design theory and organisational change theory). In spite of this effort, the study never claims to present the whole truth. New theoretical lenses, new empirical material and new perspectives from other individuals will always have the ability to present a different 'truth' and supplement the results in this study.

Situations

John Dewey argued that 'the world is a scene of risk; it is uncertain, unstable, uncannily unstable. Its dangers are irregular, inconstant, not to be counted upon as their times and seasons. Although persistent, they are sporadic, episodic' (Dewey 1925, p. 41). As such, from a pragmatic perspective, reality is considered dynamic rather than static or, as Dewey also put it, 'every existence is an event' (Dewey 1925, p. 71). This implies that all human activity should be seen as situated and that human thought and action should be understood in the larger frame of the situation constituted by the subject and the surrounding environment. Hence, the ontology of pragmatism is based upon an understanding of phenomena as dynamic and bound to given contexts or 'situations'– to use the term by John Dewey.

For this study, this perception of 'what reality is' has implications for how the phenomenon of 'addressing the implementation of service changes' is to be understood and studied. It highlights the necessity of understanding the actions of designers and project groups as being contingent on their contextual conditions, which are constituted by the individuals themselves (their knowledge and experience) and their surrounding environment (the service design projects and the organisational conditions).

2.1.2. EPISTEMOLOGY

Having outlined how the study relates to 'what reality is', this section shows how the study relates to the question of 'what can be known about reality', that is, it gives the underlying epistemological considerations.

Humble truth criterion

Pragmatism focuses on the usefulness of ideas and knowledge for communities in practice, rather than on universal truths. From a pragmatic perspective, 'a statement is true if and only if it is useful in the long term' (Translated from Lippert-Rasmussen 2010, p.335). Thus, pragmatism does not consider an idea to be true only when it can be compared to 'the world as it is' (correspondence) or because it can be agreed upon (consensus), but rather when we as a community can benefit from it in practice (Brinkmann 2006, p.33). The classical pragmatists, including Dewey, believed that 'ideas are not 'out there' waiting to be discovered, but are tools – like forks, and knives and microchips – that people devise to cope with the world in which they find themselves' (Menand 2001, p. xi).

As such, the pragmatic position implies a certain humbleness towards the notion of truth. John Dewey himself refrained from using the concept of truth. Instead he used the notion of 'warranted assertibility', because the notion of 'truth' referred to a 'fixed' state (Bacon 2012, p. 101), which does not align with the pragmatic perspective of reality as one of change and uncertainty.

Having usefulness as a truth criterion might be understood as 'anything goes', meaning that as long as an idea, concept or theory is useful to someone, then it must be true. However, this is not the case. William James argued that, 'we cannot just think something is true because we find it useful, for experience provides a check upon how useful we might find a belief: I might find it useful to believe that astrology provides a guide to the future, but experience will confound this belief' (Bacon 2012, p. 68). Therefore, conclusions, even if they are 'useful', should always be seen in the light of existing knowledge and experiences; a rule which has also been followed in this research study.

2.1.3. METHODOLOGY

This section elaborates how the study relates to the question of 'how valid statements about reality can be established', thereby presenting the underlying methodical considerations for the research study.

Abductive reasoning

A pragmatic approach to knowledge production takes its point of departure in a concrete problem or situation. 'Inquiry is prompted when we confront a situation in which there is some issue or problem that must be resolved' (Bacon 2012, p. 96). John Dewey referred to this as an 'indeterminate situation'. In this research study, 'the challenge of implementation' can be referred to as an indeterminate situation. The aim of the study is to generate knowledge that can potentially assist designers in handling the challenges of implementation, and thus help turn the situation from an indeterminate situation (a situation which is difficult to handle) towards a determinate situation (a situation which can possibly be handled).

According to Dewey, humans yearn for something more fixed and certain. 'The quest for certainty is a quest for a peace which is assured, an object which is unqualified by risk and the shadow of fear which action casts' (Dewey 1929, p. 8). Thus, we try to transform indeterminate situations into determinate situations 'by examining possible solutions, tentatively adopting a hypothesis which we then investigate to see whether it answers our needs' (Bacon 2012, p. 53). In pragmatism, this analytical approach (trying to understand an indeterminate situation by suggesting and investigating hypotheses) takes its point of departure in abductive reasoning.

Abductive reasoning is an inferential procedure (or analytical approach) credited to the classical pragmatist Charles Sanders Peirce. Abductive reasoning differs from traditional deductive reasoning and inductive reasoning (fig. 2.2). Deductive reasoning proceeds from the general (the theoretical) to the particular (the empirical). This means that deduction is the process of reaching a logical and *certain* conclusion from the premise of a general statement (theory). In contrast, inductive reasoning proceeds from the particular (the empirical) to the general (the theoretical). This means that induction is the process of formulating a *probable* statement from a limited number of observations (Fischer 2001). Where induction and deduction have their obvious strengths in producing logical conclusions, abductive reasoning holds a creative element that can be used to provide plausible explanations for phenomena that cannot be explained using existing knowledge (Egholm 2014). Abductive reasoning seeks to formulate *possible* statements by introducing explanatory hypotheses (in the form of a minimal theory, an idea, a rule or a law-like hypothesis) (Fischer 2001). With use of hypotheses, abductive reasoning enables a cyclical process of inquiry that proceeds from the particular (the empirical) to the general (the hypothetical/theoretical) to the particular and so forth.

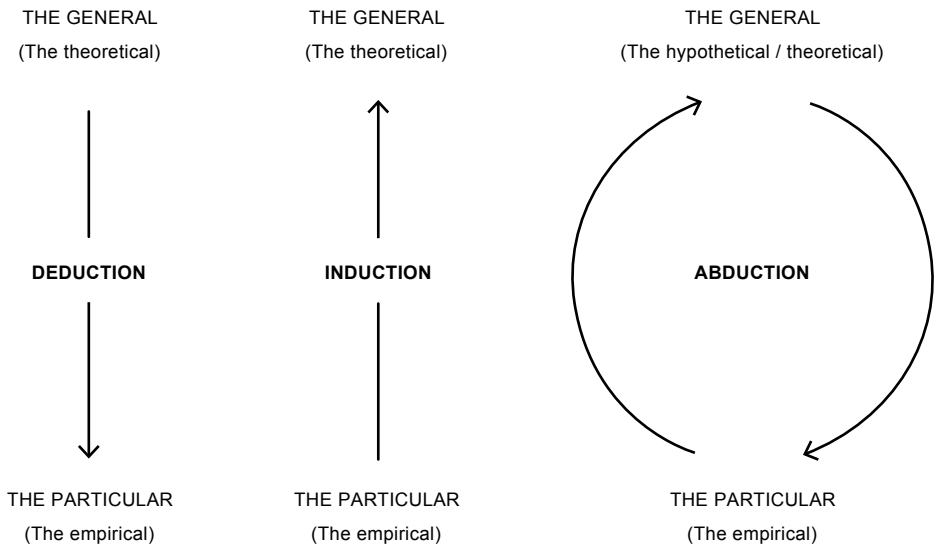


Figure 2.2. Forms of inference. Deductive reasoning provides 'certain' conclusions by proceeding from the general (the theoretical) to the particular (the empirical). Inductive reasoning provides 'probable' conclusions by proceeding from the particular (the empirical) to the general (the theoretical). Abduction is a cyclical process that provide 'possible' conclusions by proceeding from the particular (the empirical) to the general (a hypothesis) to the particular and so forth.

In this research study, this cyclical process of inquiry constitutes the main methodological approach to knowledge production. Through this abductive process, the development and refinement of a theoretical starting point (a conceptual model) for investigating the way designers address the implementation of proposed service changes occurred simultaneously with the analyses of the empirical material (case analyses) (fig. 2.3). This means that a conceptual model was suggested and was then used to analyse specific service design projects (cases). This has resulted in case analyses which were evaluated and provided input for the revision of the conceptual model, which led to a new model, and so forth. This thesis will later present the final version of the conceptual model (Chapter 4) as well as four individual case analyses (Chapter 5) and a cross-case analysis (Chapter 6). The conceptual model as well as the case analyses are the result of several iterations of going back and forth between the general (the conceptual model) and the particular (the cases).

During this abductive process of inquiry, the constructed nature of empirical material has been recognised, as has the fusion of theory and empirical material in the research process (Alvesson & Kärreman 2011). 'We don't believe in the theory-data separation. After all, you can't count heads without having a theory of what a head is and why it is worth counting in the first place.' (Alvesson & Kärreman 2011, p. 58). This also means that empirical material is not viewed as a 'guide to or as the ultimate validator for knowledge claims' (Alvesson & Kärreman 2011, p. 15) but rather as a 'partner for critical dialogue' (Alvesson & Kärreman 2011, p. 14) as empirical material makes both a variety of readings and potentially different knowledge results possible.

The process of developing the conceptual model (to theorize in relation to service design and implementation) can best be understood as 'disciplined imagination' (Mills 1959; Weick 1989). It is imaginative because both existing theory and the empirical material from the various cases provide ideas and input for creative thinking, namely challenging existing frameworks and suggesting new ones. It is disciplined because the empirical material 'creates and outer limit for […] imagination' (Alvesson & Kärreman 2011, p. 61). This means that the researcher does not have license to follow every creative hunch. 'Still, the empirical material has a very important and critical role as dialogue partner, putting considerable constraints on what can be done with particular material' (Alvesson & Kärreman 2011, p. 61). In other words, some constructions make more sense than others and some conceptual models suggested during the study have made more sense than others (or, more precisely, been more appropriate for investigating the way designers address the implementation than others).

Engaged researcher

A pragmatic abductive inquiry is informed by specific situations in the empirical world (providing the data) as well as by existing knowledge (theories). However, a pragmatic abductive inquiry is also based on the researcher's ability to provide interpretations and 'qualified guesses' on how to understand a certain unknown phenomenon or

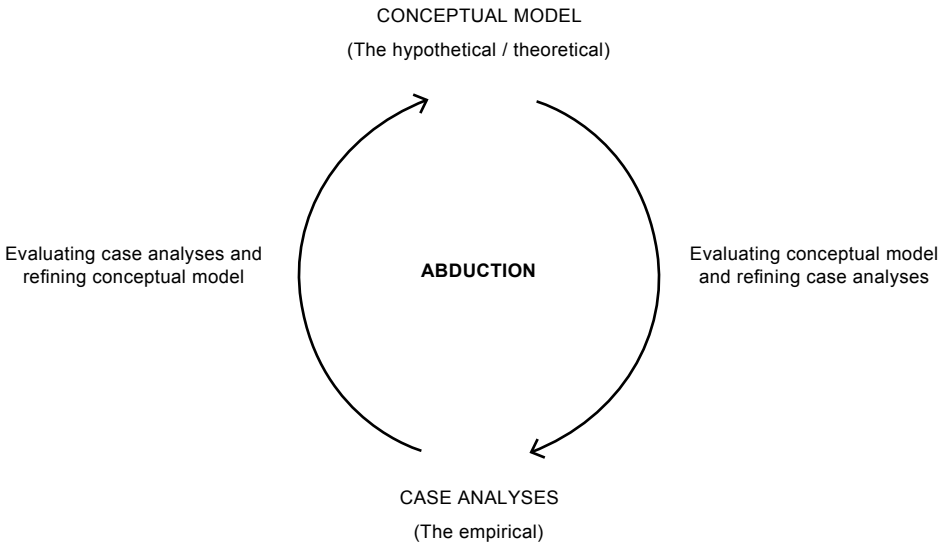


Figure 2.3. The study follows a cyclical process of inquiry: Suggesting and refining a conceptual model - and continuously evaluating the model in relation to how well it forms the basis for describing how implementation is addressed in specific service design projects.

'indeterminate' situation. From a pragmatic perspective, 'we are not spectators looking at the world from outside but rather agents operating within it' (Bacon 2012, p. 184) and we do not engage in qualitative inquiry (or any problem) 'with wholly naïve or virgin mind; we approach it with certain acquired habitual modes of understanding, with a certain store of previously evolved meanings, or at least experiences from which meaning may be educed' (Dewey 1910, p. 106).

Thus, pragmatism places the researcher in an active role, introducing subjectivity to the research situation. For the study, this means that the researcher (I, the author of this thesis) has had an opportunity to engage in the field of study and actively use existing knowledge and experience in the research process. For example, the researcher has engaged in service design practice and has thus become part of the empirical material. Furthermore, the researcher has used her existing knowledge and experience in interview situations and in the process of producing hypotheses.

Due to the pragmatic view on the value of an active researcher, the author has not tried to 'leave behind' previous experience and knowledge, but instead has used it actively in the research process. This being said, the researcher has still made a virtue of reflecting upon her own engagement as both designer and researcher, stepping in and out of the different roles and trying to relate herself objectively to the research material – bearing in mind that she will never be entirely neutral.

End of inquiry

Dewey and Peirce both emphasized the necessity of testing possible explanations (hypotheses). Dewey argued that 'no scientific inquirer can keep what he finds to himself or turn it to merely private account without losing his scientific standing. Everything discovered belongs to the community of workers. Every new idea and theory has to be submitted to this community for confirmation and test' (Dewey in Bacon, 2012, p. 118). In this project, the conceptual model (or hypothesis) has been repeatedly 'tested', meaning it has been evaluated on the basis of how well it describes the way designers addressed the implementation of service changes in specific projects. This means that the empirical material has provided feedback to the model, thus providing a basis for evaluation and revision. Moreover, different versions of the conceptual model and case analyses have been shared with the communities of design research and design practice which has led to evaluation and several revisions.

According to Dewey, this cyclical process of inquiry ends when there is no further need for doubt. 'If inquiry begins in doubt, it terminates in the institution of conditions which remove the need for doubt' (Dewey 1938, p. 15). Moreover, the pragmatic truth criterion implies that conclusions should be the most applicable, plausible and reliable at the time of formulation, however, they should always be open for revision and doubt (Egholm 2014). This also applies to the knowledge produced in this study. The conceptual model and the case analyses should be understood as the most applicable,

plausible and reliable at the time of handing in this thesis and based on the specific context from which they were produced – revised and evaluated several times by the researcher and members of the design research community. However, the conclusions should not be considered final 'truths'. They will always be open for new revisions and should be considered not as ends but rather as the means for coping with issues related to the implementation of service changes in service design projects, in academia as well as in practice.

2.1.4. SUMMARY

This section has presented considerations on how the research study relates to scientific knowledge production. To recapitulate;

- The research study adheres to pragmatism as a philosophical position and meta-theoretical standpoint.

- The study recognises that there are multiple understandings for how designers address implementation in service design projects and attempts to embrace this by combining different professional perspectives (designers and healthcare professionals) and different theoretical perspectives (service design theory and organisational change theory) in the research process.

- In spite of this effort, the study never claims to present the 'whole truth'. Rather it aims to produce plausible explanations and indications.

- The analytical process takes its point of departure in abductive reasoning and hereby follow a cyclical process of inquiry, in which a conceptual model and specific case analyses are developed and refined simultaneously.

- The researcher engages in service design practice and uses her existing knowledge and experience as an asset in the research process.

2.2. METHODS

Following the outlining of the considerations regarding the ontology, epistemology and general methodology of this study, the specific research methods will now be introduced. This subchapter includes a presentation of;

- Multiple-case study (representing the primary method of investigation).
- Research through design (characterising the way one of the cases has been investigated)
- Qualitative interviews (characterising the way the three remaining cases have been investigated).
- The analytical process.

2.2.1. MULTIPLE-CASE STUDY

This research study explores how designers address implementation during service design projects for hospitals. Hereby, it focuses on going in-depth and studies the *qualities* of what designers do rather than the quantities. Furthermore, the study investigates these qualities *in context* (in service design projects for hospitals) rather than out of context. This is undertaken with *case studies* as the methodical research approach.

'A case study is an empirical inquiry that investigates a contemporary phenomenon (the 'case') in depth and within its real-world context' (Yin 2014, p. 16). In contrast to, for example, surveys or laboratory experiments, case studies are relevant when there is a deliberate focus on studying a phenomenon in depth and on uncovering the contextual conditions.

This research study follows a *multiple*-case study approach (Yin 2014, pp. 56-65), meaning that more than a single case are included in the study. In total, four service design projects conducted by professional designers for different hospital departments (i.e. four different cases) constitute the empirical basis for the research project. The study of multiple cases instead of a single case offers the opportunity to investigate such questions as are there similarities between how designers address implementation across projects; are there differences; and are some of the contextual conditions particularly significant? Hence, by studying multiple cases this research study can produce knowledge that introduces and compares what different designers do under different contextual conditions.

The exploration of what designers do in different cases, and thus under different contextual conditions, is relevant for the study. Designers engage in service design projects that are often very different – even though they may all take place within a hospital

context. Therefore, it is relevant to include projects of different kinds in order to embrace the fact that designers working on service design projects within hospitals are often faced with very different tasks and conditions.

The investigated cases in this research project are very different in relation to the topic and scope of the project. The case selection strategy can therefore be characterised as what Flyvbjerg would describe a 'maximum variation of cases' (Flyvbjerg 2006, p. 230). This means that the study follows a case selection strategy that has the purpose 'to obtain information about the significance of various circumstances for the case process and outcome' (Flyvbjerg 2006, p. 230). Flyvbjerg specifically mentions cases that are very different regarding one dimension (size, form of organization, location, budget). The cases selected for this study are particularly different in relation to topic and scope (i.e. what kind of services they intend to change within a hospital context).

Selected cases

The four cases (fig. 2.4, p. 38) include;

- One service design project conducted by designers from Idéklinikken (including the author of this thesis) for a department at Aalborg University Hospital (DK).

- Three service design projects conducted by external design companies for departments at Randers Region Hospital (DK), Odense University Hospital (DK) and Oslo Legevakt (NO).

The cases were selected on the basis of the following criteria;

- They should all be defined and recognised as service design projects, and thus represent service design practice.

- They should all be conducted by professional designers and, thus by designers who have experience in service design practice.

- They should all be conducted for Scandinavian hospitals or other healthcare institutions, and thus share a similar organisational context.

- They should all (to some extent) be focused on redesigning existing services, and thus all be concerned with making changes to services already provided by healthcare organisations.

- They should all have implementation as a high priority and a significant part of the design process.

During the investigation of these cases, it was found that three (Case A, Case B and

CASE A	CASE B	CASE C	CASE D
TITLE			
The Unmanned Blood Depots (2012)	The Complex Ward (2009)	The Patient Hotel (2009)	The Duty Doctor (2010)
HOSPITAL / INSTITUTION			
Aalborg University Hospital (DK)	Randers Region Hospital (DK)	Odense University Hospital (DK)	Oslo Legevakt (NO)
DESIGNERS			
Idéklinikken (in-house design team)	Hatch and Bloom (external design firm)	Designit (external design firm)	Making Waves (external design firm)
PROJECT SCOPE			
To redesign the procedure for collecting blood from two unmanned blood depots	To redesign the service for patients in need of cross-disciplinary treatment	To introduce a service concept in the clinical departments building upon 'hotel thinking'	To improve patient experience, reduce friction and encourage flow at Legevakten
IMPACT			
Implemented	Implemented	Not implemented	Implemented
PRIMARY METHOD OF INQUIRY			
Research through design (active researcher engagement in practice)	Interview with design project manager and hospital project manager	Interview with design project manager, hospital project manager and project participant.	Interview with design project manager and hospital project manager
DATA MATERIAL			
First-hand experiences, project material, sound- and video recordings and field notes	Interview transcriptions and project report	Interview transcriptions and project report	Interview transcriptions and project presentation
TIME PERIOD FOR DATA COLLECTION			
From 04.01.2012 to 02.07.2013	21.03.2013 and 22.08.2014	04.04.2013 and 14.05.2013	04.06.2013 and 05.06.2013

Case D) had been successful with regards to implementation (this means that most of the proposed service changes had been implemented). The remaining case (Case C) had not been successful with regards to implementation.

The three service design projects conducted by external design companies were identified on the basis of an online search (May 2013).

Addressing multiple perspectives

In all four case studies, the inclusion of different perspectives on the investigated phenomenon was a high priority, namely the perspective of the designers and the perspective of the hospital representatives. As mentioned earlier, these two perspectives reveal different interpretations. This provides an understanding of designers' intentions regarding certain actions in addition to how these intentions were received within the organisations. This further provides knowledge on what occurred before, during and after the designers' interventions.

Figure 2.4. The four cases constituting the empirical basis for the research study.

2.2.2. RESEARCH THROUGH DESIGN (CASE A)

Two different and complementary approaches to investigation were applied in the respective cases. Case A was investigated on the basis of *research through design* (Frayling 1993; Fallman 2008; Koskinen et al. 2011). Cases B, C and D were investigated on the basis of *qualitative research interviews* (Kvale & Brinkmann 2009). This section will present research through design and clarify the process of obtaining knowledge and collecting data in Case A.

Research through design

Research through design was originally introduced by Christoffer Frayling (1993), inspired by Herbert Read (1944). Research through design also goes under the names of research by design (e.g. Friedman 2008) and constructive design research (Koskinen et al. 2011). Koskinen et al. (2011) define research through design (in their words constructive design research) as 'design research in which construction – be it a product, system, space, or media – takes centre place and becomes key means in constructing knowledge' (Koskinen et al. 2011, p. 5). This means that the process of designing (in this case the process of designing services) becomes a vehicle for producing knowledge. Research through design thus concerns research in which the researcher engages in the act of designing in order to develop scientific knowledge.

According to researchers such as Anne Louise Bang (2012), 'it is, today, widely appreciated that Research-through-Design allows for designers to produce knowledge based on the skills and capacities of the design field itself' (Bang et al. 2012, p. 2). This research approach is furthermore in line with pragmatism in the sense that it recognises the value of active researcher engagement in practice. As argued for in interaction design research, 'a number of recent contributions have explored and developed the notion of research through design […] in which researchers engage in design in order to develop new understandings. This approach, which too blurs the line between the roles of researcher and designer, rings true with pragmatism' (Dalsgaard 2014, p. 153).

The application of research through design has been an implicit part of this research project from the beginning. In fact, research through design as a methodical approach had been chosen before the research topic was defined. At Idéklinikken, who has co-financed the research project, service design was not yet being practiced when this study was initiated, and by investing in the research project, Idéklinikken intended to invest in service design not only as a research field but also as a practice. This dual request (research and practice) called for a research design that combined research and practice; thus, an approach was adopted in which practical work on concrete service design projects for hospital departments could serve as a means of producing academic knowledge.

Research through design 'in the field' and 'in practice'

There are several approaches to conducting research through design. Koskinen et al. (2011) outline three distinct approaches that are shaped by the different research contexts: lab, field and showroom. Each of these contexts is characterized by its own research culture, adapted from other research traditions, namely natural sciences (lab), social sciences (field) and art (showroom). This project follows the field approach, meaning that the investigation of how designers address implementation is studied in the context of real and specific service design projects within hospitals.

This is also what interaction design researcher Daniel Fallman refers to as design research in which design practice constitutes the activity area for the researcher. The research activities 'are very close, and sometimes identical, to the kinds of activities they [designers] would undertake when practicing interaction design outside of academia, such as working for a commercial interaction design organization, a consultancy company working with client commissions, or an in-house design department' (Fallman 2008, p. 6). This definition is in line with the research activities in Case A. Here, the researcher (the author of this thesis) engaged in the specific service design project as if she were a design practitioner.

Fallman argues that 'allowing first-person perspectives to enter design research has the potential to provide findings unattainable with only an outside perspective, and thus add significantly to the overall quality and the relevance of design research' (Fallman 2008, p. 17). When actively engaged in practice and committed to a certain design task, the design researcher is able uncover the tacit knowledge and competence involved in the processes that eventually lead to a final outcome (e.g. a redesigned service).

This type of research through design resembles action research (Reason & Bradbury 2001) which 'bring[s] together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally the flourishing of individual persons and their communities' (Reason & Bradbury 2001, p. 1). Action research and research through design are both characterised as activities in which both creation and intentional change in specific settings are understood as a means to gain knowledge about a certain phenomenon.

The service design project that constitutes Case A was initiated one month into the project period of the research study. During the project, the researcher first and foremost was engaged as a designer and focused on the design task, following the recommendations of Daniel Fallman that the 'design researcher should not be part of the design team as an outside observer, first and foremost a researcher, but rather be part of the design team as a designer' (Fallman 2008, p. 6). By thus engaging in practice, the researcher was knowingly exposed to the 'nitty-gritty' of service design practice for hospitals, including participating in an in-house team, communicating with different stakeholders, applying for various permissions, conducting ethnography-inspired field

work, organising meetings and workshops months in advance without knowing how many would be able to leave their departments to participate, and so on. The researcher thus felt the nervousness, the relief, the despair and the happiness related to the job of designer.

Data collection

Daniel Fallman stresses that when researchers engage in practice as a means of obtaining knowledge 'they must do so with an explicit design research question in mind, or with the clear intent of forming such a question from their activities' (Fallman 2008, p. 6). As mentioned in the preface, Case A was initiated with a motivation to study the challenge of implementation. However, how to do this and what research questions to address, what not defined. This lack of initial focus implied that the documentation on the project activities was extensive as there were no initial limits to the relevance of different types of data material. Data collection included;

- Video-documentation: all meetings, interviews and workshops with representatives from the hospital were video-recorded.

- Sound-documentation: several internal meetings, internal workshops and informal conversations with the design team were sound-recorded.

- Field notes: personal experiences and reflections were noted in a digital notebook (Evernote); notes were taken after special events (e.g. meetings and workshops) and when certain kinds of critical incidents happened.

- Digital storing of project documents: process documents (e.g. presentations, working documents, workshop material, etc.) were stored digitally and, in some situations, physically.

Some video and sound recordings were roughly transcribed. The main data collection activities are illustrated (fig. 2.5). In addition to the tangible data just outlined, the participation by the researcher as facilitating designer also provided first-hand project experience and thus non-documented and tacit knowledge embedded in the researcher.

Identification of a research focus

During Case A, the researcher experienced the effort put into ensuring that the proposed service changes would be implemented and not simply end up 'on the concept shelf'. The researcher experienced that the design team took several initiatives with the intention of accommodating implementation, including strategic actions of different kinds that all served the purpose of ensuring that the redesigned service (the proposed changes to the existing service) would be implemented. For example, the design team sent weekly email status updates to the project owners (the stakeholders within

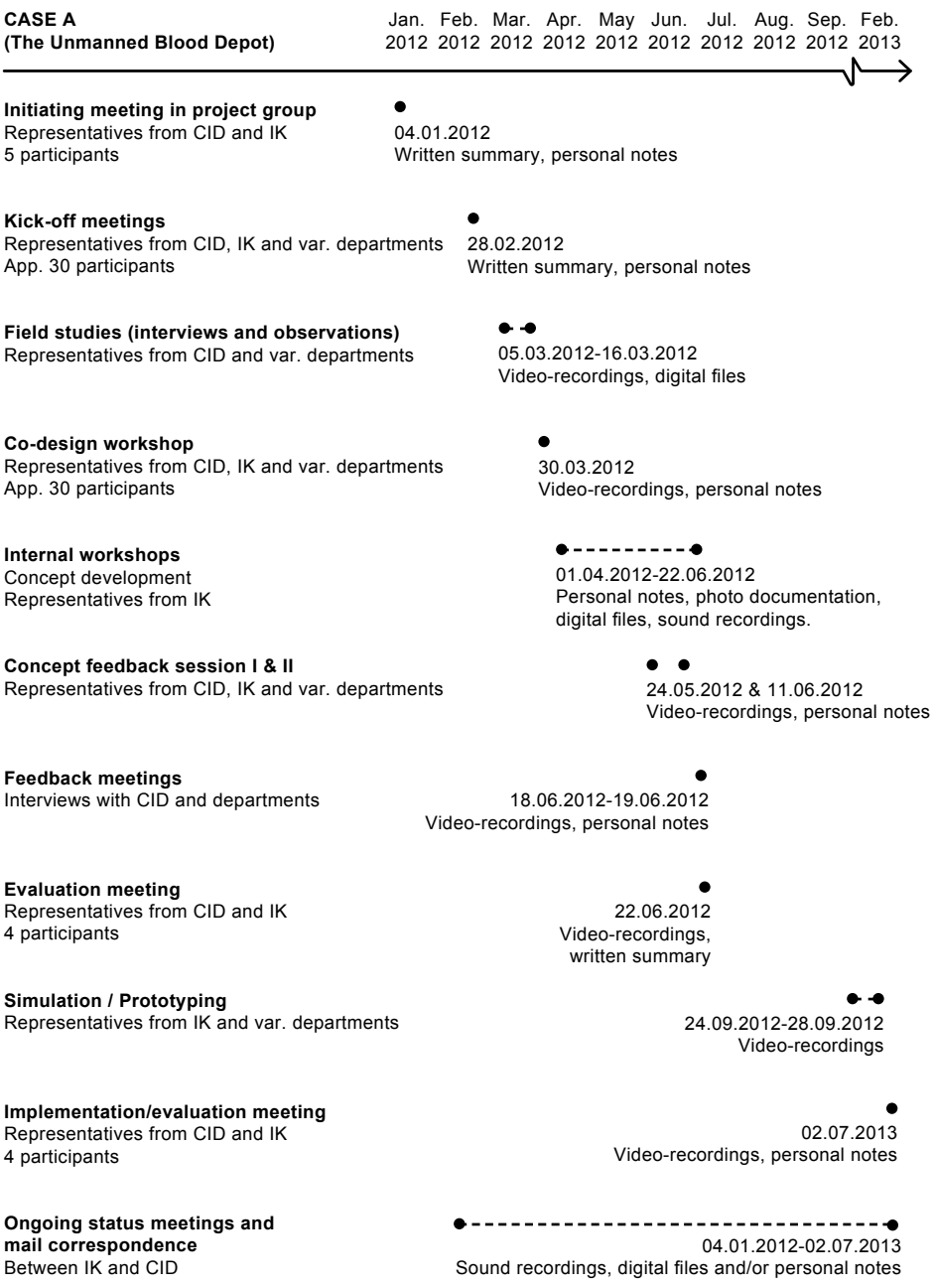


Figure 2.5. Main data collection activities in Case A.

the hospital departments who would later be responsible for implementation). This initiative was intended to create a sense of ownership of the project and the proposed changes (the service concept), which had the potential to motivate the project owners to implement the proposed changes at the end of the project period. The design team conducted many similar initiatives throughout the project period. These initiatives were found to be particularly interesting and relevant for further investigation. Thus, based on the experiences from Case A, it was decided to focus the study on 'how designers address implementation'.

2.2.2. QUALITATIVE INTERVIEWS (CASE B, C AND D)

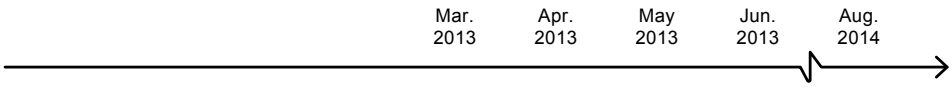
As previously mentioned, a multiple-case study offered the opportunity to investigate whether the experience from Case A match the experiences from other cases, namely whether designers in other projects also strategically addressed implementation from the beginning of the project period, and whether there were similarities or differences.

Therefore, three other service design projects (Cases B, C and D) were investigated through qualitative research interviews (Kvale & Brinkmann 2009, p. 17). 'The qualitative research interview attempts to understand reality through the perspectives of interview respondents, unfold the meaning which is tied to their experiences, uncover their life world prior to scientific explanations' (translated from Kvale & Brinkmann 2009, p.17). Hence, the interviews offered the opportunity to investigate the experiences of other designers and hospital representatives in relation to how they had addressed implementation in their respective projects.

Interview preparations

Prior to the interviews, the researcher collected and investigated project material from the three cases, including project reports (available for the defence committee in Appendix A), press coverage and other relevant public material, which was collected through online search and email correspondence with project stakeholders. Based on the project material, six interviews were carried out with seven respondents: three interviews with the project managers from the design companies (three respondents) and three interviews with project managers and a project participant from the hospitals (four respondents) (fig. 2.6).

According to Kvale and Brinkmann (2009, p. 125), the first phase of an interview-based study includes the identification of themes and herein the clarification of the why (purpose), the what (topic) and the how (approach) of the interview. The general theme of the interviews was defined (how designers address implementation), but the research study was still quite open regarding how to understand, describe and explore the phenomenon. Hence, semi-structured interviews (Brinkmann & Tanggaard 2010, p. 36) with a flexible and open agenda were pursued.



CASE B (The Complex Ward)

Hospital Project Manager
Project Manager and Development Nurse,
Randers Region Hospital
21.03.2013
Interview, Sound-recorded

Design Project Manager
Project Manager and Designer,
Hatch and Bloom
22.08.2014
Skype interview, Sound-recorded

CASE C (The Patient Hotel)

Hospital Project Manager
Project Manager and Head of the Patient Hotel,
Odense University Hospital
04.04.2013
Joint interview, Sound-recorded

Hospital Project Participant
Project participant and Head of Development,
Odense University Hospital
04.04.2013
Joint interview, Sound-recorded

Design Project Manager
Project Manager and Designer,
Designit
14.05.2013
Interview, Sound-recorded

CASE D (The Duty Doctor)

Hospital Project Manager
Project Manager and Head of Oslo Legevakt,
Oslo Legevakt
04.06.2013
Interview, Sound-recorded

Design Project Manager
Project Manager and Designer,
Making Waves
05.06.2013
Interview, Sound-recorded

Figure 2.6. Overview of the interviews with representatives from Case B, Case C and Case D.

Interview guides were prepared prior to each interview (two generic versions are available for the defence committee in Appendix B). The interview guides all involved the following topics;

- The challenges regarding implementation in the project.
- The actions taken (at that time referred to as tactics) in order to overcome the challenges and address implementation.
- The implementation process and the effects (actual changes) derived from the service design project.

Each interview was supported by a unique interview guide, whereby the specific project and the specific respondent were taken into account for the formulation of the questions.

Interview situations

The interviews lasted between one and two hours. Five interviews were conducted face to face and one interview was conducted through online video correspondence (Skype). All respondents signed a declaration of consent accepting that the interviews were sound-recorded and would contribute directly to the research study. Project reports or project presentations were used actively during the interviews to support communication. In addition, the researcher's experiences from Case A also supported the conversations, as the researcher possessed a vocabulary and degree of knowledge that enabled the professional conversations to proceed at an advanced level.

Dishonesty (or deliberately avoiding direct answers to certain questions) is always a potential bias in interview studies. Interviewees may have a lot at stake in relation to the topic of interest and may adjust their answers based on personal motivations. As Kvale and Brinkmann emphasise, interviewees might have more or less prepared answers with the purpose of promoting specific points of view (2009, p. 167). During the interviews, several actions were taken in order to prevent the respondents from only presenting 'the good side of the story' and not disclosing less successful parts. Firstly, direct and specific questions were asked in relation to specific points of interest. Secondly, topics were addressed from different perspectives. Thirdly, the interviewer shared less successful stories from her own and other relevant projects in order to create a space for sharing such confessions. Finally, respondents were invited to review the material from the interviews before it was made public. In spite of the concerns, the respondents were found to be open and honest. They shared the awkward and less successful parts of their projects together with the success stories and did not act as 'salesmen' for their respective organisations.

Transcriptions

The sound-recorded interviews were subsequently transcribed onto separate word documents. According to Kvale and Brinkmann (2009), the coarseness and style of transcription is always a subjective judgment as there is no universally 'right' way to transform interviews from the oral to the written form. Hence, the researcher should ask, 'what transcription type is useful for my research objectives?' (translated from Kvale & Brinkmann 2009, p. 209). For the purpose of this study, the transcription was merely a means to establish a profound understanding of each case in relation to the topics of interest. Each transcription was therefore carried out in a rather rough manner; however, those statements that specifically concerned challenges and actions for implementation were transcribed into written quotes.

2.2.4. ANALYTICAL PROCESS

The analytical process was initiated by following an approach similar to affinity diagrams (Martin & Hanington 2012, p. 12) and the KJ-method (Kawakita 1982). This means that the transcriptions from the interviews were printed and physically cut into small pieces – paragraph by paragraph and sometimes even quote by quote. The different pieces were then clustered on the basis of their affiliation, leading to the identification of the initial themes, concepts and areas of interest.

Subsequently, literature reviews were conducted to identify potentially relevant theories that could be used to better understand the empirical material, and herein elaborate or reorganise the pieces of the transcriptions. The literature reviews were based on database searches and backward snowballing searches (e.g. Jalali & Wohlin 2012). Further theories were also recommended by members of the research community (including supervisors, conference participants and fellow PhD students).

These initial activities were the starting point for the following abductive process of going back and forth between theory and empirical material while attempting to develop both a conceptual model (an analytical lens) as well as the specific case analyses. This analytical process can be described as 'systematic combining' (Dubois & Gadde 2002), which is characterised as a 'continuous movement between an empirical world and a model world' (Dubois & Gadde 2002, p. 554), and is a process that aims to match theory with empirical material while simultaneously developing both a framework (or model) and the case analyses.

In the process of systematic combining, case analyses are tools as well as the final products. 'One important consequence of systematic combining is that the case evolving during a study can be regarded as a 'tool', as well as a 'product'. The design of a case study, thus, becomes a matter of how to sharpen this 'tool' since this will be decisive of the final case, which is a 'product' that cannot be planned in advance' (Dubois & Gadde 2002, p. 558). In this study, both the case analyses and the conceptual model

have been tools in the analytical process – and have also become the results of the research process.

Therefore, the analytical process has not been linear. Instead, it has been an abductive process of going back and forth between theory and empirical material while attempting to understand how specific designers address implementation in specific projects while also developing a conceptual model upon which to base these understandings. This is a process in which the data have been organised, reorganised, described, and described again, based on several iterations of the conceptual model.

The analytical process, and the study in general, has an expansive purpose (Krogh et al 2015). This means, that rather than focusing on a particular action and investigating this in-depth, the study aims to create an overview of the different types of actions designers take and the different types of strategies designers follow with the purpose of addressing implementation. Hence, the study aims to produce outcomes that should widen the perspective and extend the concerns designers should include in their practice - as well map out new areas for future research.

2.2.5. SUMMARY

This section has presented the methods used to produce the research results of this thesis. including;

- Multiple-case studies, which constitute the primary method of investigation.
- Research through design, which characterises the way Case A has been investigated.
- Qualitative interviews, which characterise the way Case B, Case C and Case D have been investigated.
- Systematic combining, which describes the analytical approach.

2.3. RESEARCH DESIGN

The full research design is illustrated in fig. 2.7. The illustration serves to present an overview of the different elements that together create the basis for the production of the research results, namely the conceptual model and the case analyses (including both within-case and cross-case analyses).

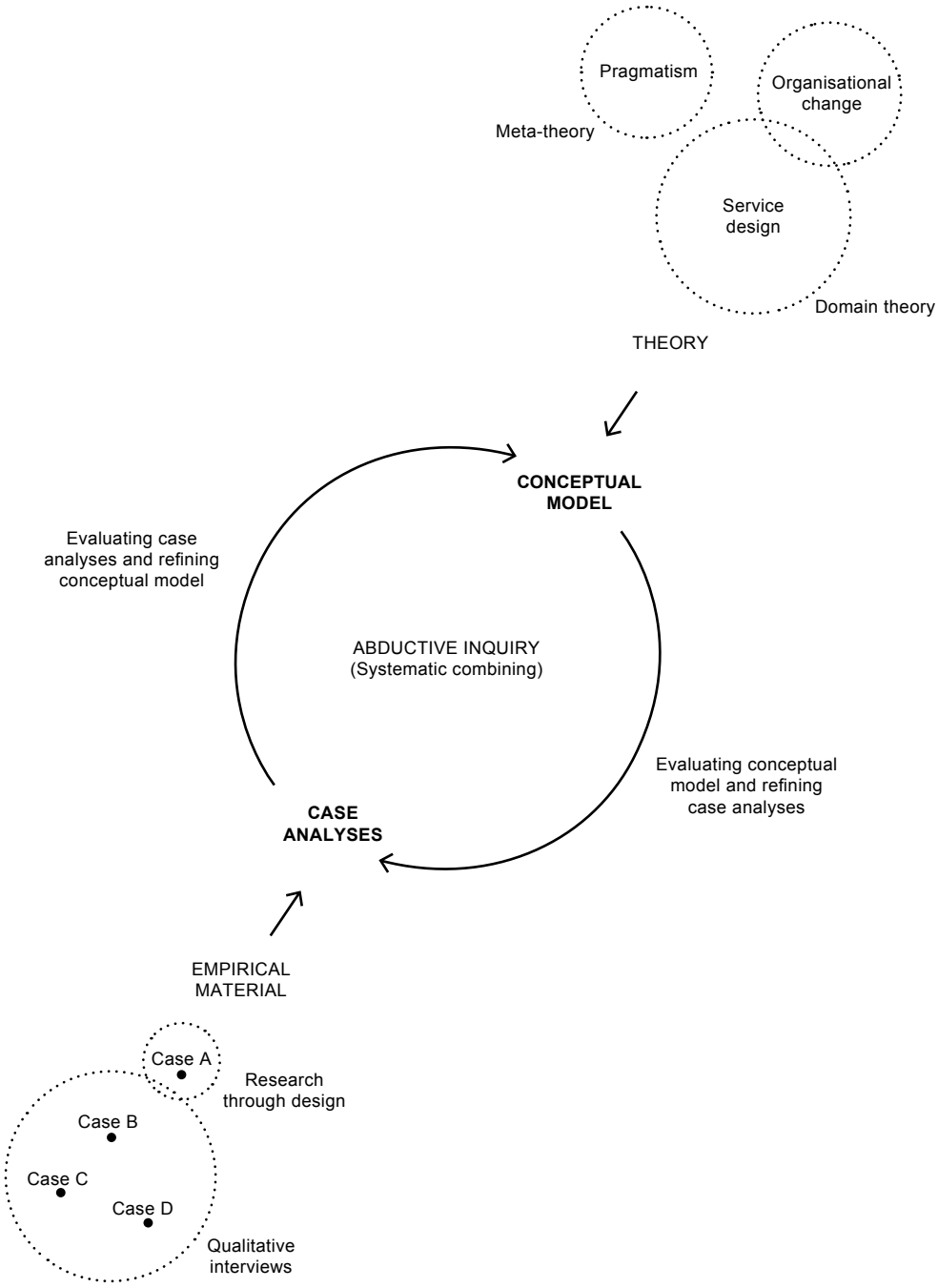


Figure 2.7. The research design.

2.4. EPILOGUE

This chapter has outlined the research design of this study, including an introduction to pragmatism as a philosophical position which underlies the ontology, epistemology and methodology of the research setup. The study follows the humble pragmatic truth criterion, in which statements are evaluated on the basis of usefulness and their ability to provide plausible explanations to phenomena which are difficult to define and understand on the basis of existing knowledge. Through an abductive inquiry, the study produces abstract theoretical knowledge manifested in a conceptual model as well as in concrete case analyses (within and across cases).

CHAPTER 3
THEORETICAL FOUNDATION

3.0. PROLOGUE

This chapter outlines the theoretical foundation of the research study. First, it introduces service design as well as 'design for services' as an approach to designing within the field of services. Second, the chapter outlines some of the main characteristics of service design practice. Third, the chapter introduces how existing service design theory addresses implementation and organisational change, thereby pointing towards a gap in the existing knowledge.

Subsequently, theory on organisational change is presented, highlighting different ways to think about organisations and how they change. Together with theory on service design, this provides a theoretical foundation for investigating how designers address the implementation of proposed service changes in service design projects for hospitals.

3.1. SERVICE DESIGN AND DESIGN FOR SERVICES

This first section will present and describe service design, including 'design for services', thus outlining the main characteristics of the discipline investigated in this study.

3.1.1. SERVICES HAVE LONG BEEN DESIGNED

Service design is a design discipline in which practitioners, such as professionally educated designers, use design as an approach, or way of thinking, to improve or innovate services.

Service design is just one approach to design within the field of services. Services have long been designed, primarily without the interference of professionally educated designers. Hospitals, the first institutions to provide medical care services, were established and designed not by professionally educated designers but rather by people with religious backgrounds (Risse 1999). Later, these institutions were redesigned under the influence of various professional disciplines (such as e.g. management and engineering), and only recently have professional designers entered this domain. This does not only apply to hospitals, but also to most other existing services.

However, professional designers are now entering the field of services, where they provide approaches, methods and points of interests that contribute to existing alternative approaches. In this context, design (or service design) is often understood to contribute with a particular human-centred approach manifested 'in the capacity and methods to investigate and understand people's experiences, interactions and practices as main source of inspiration for redesigning and imaging new services' (Meroni & Sangiorgi 2011, p. 203).

3.1.2. THE EMERGENCE OF SERVICE DESIGN

The first researcher to introduce the idea that services could be designed was Lynn Shostack (Shostack 1982). A decade later, the notion of service design emerged as a contribution to what a certain group of researchers (among others Hollins and Hollins 1991; Erlhoff, Mager, & Manzini 1997) started to describe as a new design agenda. In the early 1990s, the growing economic role of the service sector in most developed countries stood in clear contrast to the dominant practice of design, which at that time mostly focused on physical and tangible outcomes. Thus, design, as a discipline and approach, had untapped and unexploited potential within the field of services. Design was not the only discipline attracted by the growing service sector, but one of many, including marketing, management and engineering (Meroni & Sangiorgi 2011, p. 9).

It was (and still is) acknowledged that design is not limited to a specific type of outcome such as a physical product. As Richard Buchanan argued, 'the subject matter of design is potentially universal in scope, because design thinking may be applied to any area

of human experience' (Buchanan 1992, p. 16). Hence, services can also be an outcome of design, because design is not defined on the basis of the type of outcome, but rather as the approach or way of thinking and thus is applicable for many different purposes.

Service design was first introduced in education at the Köln International School of Design in Germany and in research at the Politecnico di Milano in Italy. Since its introduction in the early 1990s, it has become a recognised field of research and practice and has a growing international network of practitioners and academics. Last year (2016), the fifth academic conference focusing solely on service design took place (ServDes), while the Service Design Network facilitated its ninth global conference focusing mainly on service design practice. Various design consultancies such as LiveWork, Engine, IDEO and Designit have for several years offered service design for private companies as well as the public sector. Likewise, private and public companies hire in-house designers to conduct or embed service design in their organisations. Idéklinikken is one of several examples of public innovation units in which service design is a priority.

3.1.3. DESIGN FOR SERVICES

Service design is often used as the discipline-related term to describe when design as an approach is used within the field of services. However, the increasing interest in the discipline has facilitated discussions about the role and contribution of design in relation to services. These discussions are progressing towards the idea of *design for services,* in which the design activity is seen as an inquiry and services are perceived to be facilitated by the work of the designer rather than as an 'output' of the design process.

Kimbell (2011) argues that two key tensions shape the understanding of service design while comparing the literature of the fields of design and management: ways to think about design and ways to think about service. These two key tensions outline four distinct ways of considering and approaching service design, whereby design for services (or, in her terms, designing for services) is one of them (fig. 3.1). On the basis of this model, design for services is described as an approach in which design is thought of as an inquiry and services are thought of as a basic unit of economic exchange (rather than something different from products).

Kimbell argues that design can either be thought of 'as problem-solving that aims to realize what has already been conceived of, or as an exploratory enquiry involving constructing understanding about what is being designed, involving end users and others in creating meaning' (Kimbell 2011, p. 45). Here, she highlights the tension between a deterministic view of design, in which design is seen as a problem-solving activity aimed at working towards a desired state of affairs that can be determined in advance, or as an exploratory inquiry in which a desired state of affairs cannot be determined in advance (fig. 3.2, p. 61).

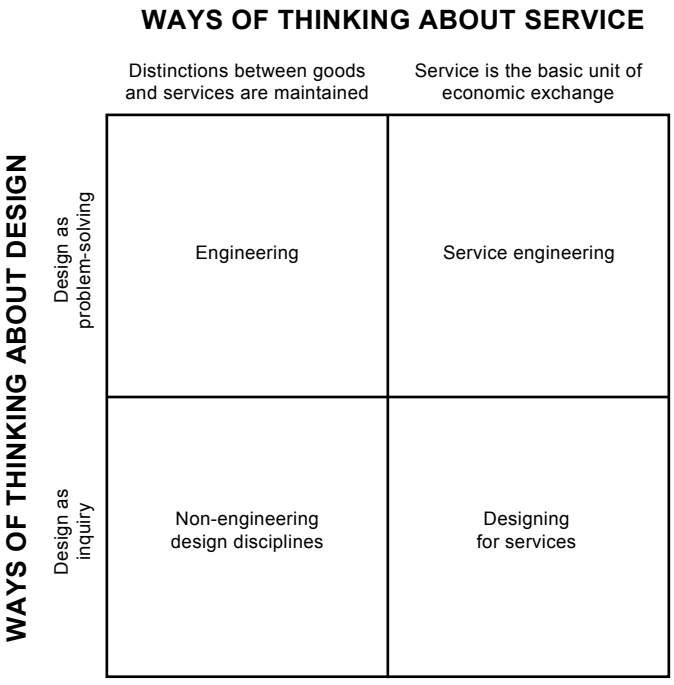


Figure 3.1. Four approaches to designing services shaped by two key tensions: Ways of thinking about services and ways of thinking about design. The model is adopted from Kimbell (2011).

Design as an exploratory inquiry describes a way to think about design that is characteristic of design for services and thus characteristic of how design is considered in this research study. This implies that the act of designing is understood as a form of inquiry, where problems are approached as 'wicked problems' (Rittel & Webber 1973; Buchanan 1992). This will be further elaborated later in this chapter.

Kimbell further argues that services can be thought of in two distinct ways; first, through the perspective that 'the distinction between goods and services matters significantly' (Kimbell 2011, p. 45), or second, through the perspective that 'service is better understood as a fundamental activity with multiple actors within a value constellation' (Kimbell 2011, p. 45). Kimbell here refers to the work by Vargo and Lusch (2004), who argue that there are two different dominant logics for how to think of services: a goods-centred dominant logic and a service-centred dominant logic.

Within the goods-centred dominant logic, services can be perceived 'as a category of market offerings' (Edvardsson, Gustafsson, & Roos 2005, p. 118). From this perspective, services are characterised as 'that which is not a product'. Frameworks such as the IHIP-framework (originally introduced by Zeithaml, Parasuraman, & Berry 1985) can be said to be derived from this logic. The IHIP framework characterises services on the basis of the following characteristics (or shortcomings when compared to products): intangibility, heterogeneity, inseparability and perishability. The IHIP logic describes the characteristics of services that distinguish them from products. In addition, the goods-centred dominant logic considers the process of value production for services to occur in the same way as for products. This means that value is perceived to be embedded in services, which can be provided and bought like products or goods.

Within the service-centred dominant logic, services are not characterized by their difference to products. Instead, services are perceived as the basic unit for economic exchange, and material objects (or 'goods') are seen as a distribution mechanism for service provision, meaning that the value of a good stems from its ability to produce a desired value (the service it provides) (Vargo & Lusch 2004). 'Customers do not buy goods or services: they buy offerings which render services which create value […] [A]ctivities render services, things render services' (Gummesson 1995, pp. 250-251). Hence, products (just as people and activities) can offer services and are therefore not separate from services. By this logic, value is perceived to be co-created by the user (also referred to as the service beneficiary (e.g. Vargo & Lusch 2016)) and is thus not 'embedded' and defined by the provider. 'A service-centred dominant logic implies that value is defined by and co-created with the consumer rather than embedded in output' (Vargo & Lusch 2004, p. 6).

If the service-centred dominant logic is applied to the context of this research study, namely public hospitals, it implies the understanding that hospital services are co-created by the patient and that therefore the patient (the service beneficiary) is an essential part of the value creation. To give an example (a rather extreme example), a service such as

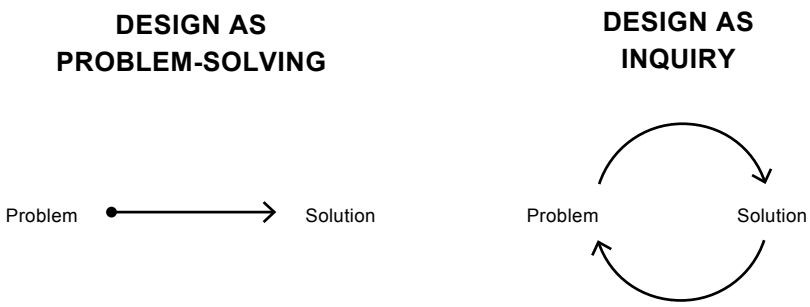


Figure 3.2. Design can be thought of as a problem-solving activity initiated with a well-defined problem, or design can be thought of as an inquiry where problems are initially ill-defined and where problems and solutions co-evolve. This study considers design as an inquiry.

a leg operation only becomes a leg operation if the patient is at the hospital and provides a leg to be operated on. Thus, the value of a leg operation is not simply provided by the hospital, but is rather co-created in the meeting between it and the patient. Without patients who show up and agree to have their leg operated, leg operations would not happen and there would be no value. Hence, from the perspective of service-centred dominant logic, value is not 'embedded' in or defined by the provider (the hospital), but rather co-created in the encounter between the provider and the beneficiary.

The service-centred dominant logic describes a way to think about service that is characteristic of 'design for services' and thus characteristic of how the term 'services' is considered in this research study (fig. 3.3).

The term '*design for services'* is itself derived from the theory of service-centred dominant logic. Service-centred dominant logic implies that service providers can only provide value *propositions* because value is co-created with the beneficiary and not determined by the provider (Vargo and Lusch 2004, p. 11). In other words, services happen in the encounter between service provider and service beneficiary, which means that providers can only deliver value propositions.

From a service design perspective, the service-centred dominant logic implies that services as such cannot be designed and can be only designed *for,* as researchers such as Ezio Manzini argue. 'Design no longer 'designs something' but rather 'designs for something (or to get something to happen)'' (Manzini in Meroni & Sangiorgi 2011, p. 3). In this context, Manzini states that a service as such cannot be designed – only the prerequisites for service delivery can be designed. This argument is in line with service-dominant logic as it recognises that what is being designed is not an end result (the interaction between service beneficiary and service provider in which value is created), but rather the prerequisites for value creation. Therefore, Manzini and Meroni and Sangiorgi (2011) prefer to apply the term design *for* services rather than design *of* services. What designers can design, Manzini argues, are action platforms on which diverse actors can engage over time (Manzini in Meroni & Sangiorgi 2011 p. 3). These action platforms are also referred to as *service propositions* (e.g. Polaine, Løvlie, & Reason 2013), which resembles what Vargo and Lusch (2004) describe as value propositions.

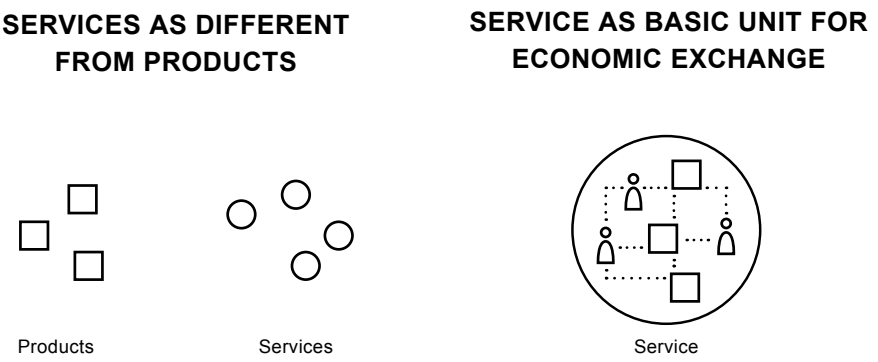


Figure 3.3. Services can be thought of as something separate from products and where value is embedded (a goods-centred dominant logic) or as the basic unit for economic exchange where value creation is shaped by a constellation of actors during interaction (a service-centred dominant logic). This study considers service as a basic unit for economic exchange.

3.1.4. SUMMARY

To recapitulate, this research study investigates service design, whereby this is understood as ‘design for services’. This implies a specific approach to redesigning and imaging new services that is characterised by being design-driven and human-centred and in which design is considered an inquiry and services are considered the fundamental activity for economic exchange; thus it follows a service-centred dominant logic. The service-centred dominant logic further underlies the concept that designers cannot design services, but rather design *for* services to happen, namely by designing service propositions.

These points are illustrated in the visual overview (fig. 3.4), which will be further elaborated throughout this chapter.

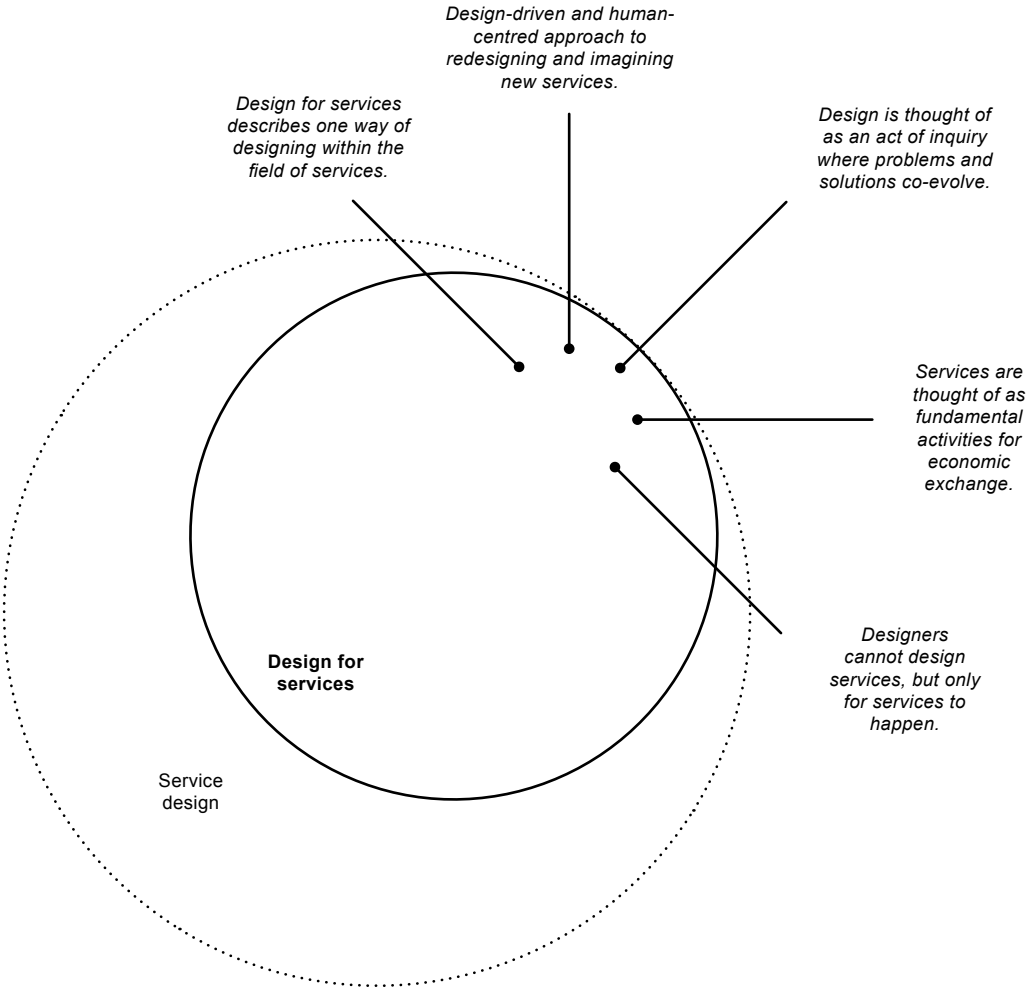


Figure 3.4. This research study investigates service design understood as 'Design for services' which implies a specific approach to redesigning and imagining new services. The illustration is an accumulative visual overview of the theoretical foundation of the research study. It will be further elaborated in the following sections.

3.2. SERVICE DESIGN PRACTICE

This next section will outline some of the characteristics of service design practice. It will elaborate upon the characteristics presented in the previous chapter and present further characteristics of the specific kind of service design practice investigated in this research study. This will provide a basic understanding of how designers approach their work and thus offer a point of departure for understanding how they address implementation.

3.2.1. SERVICE DESIGN AS A HUMAN-CENTRED DESIGN DISCIPLINE

Service design as a design discipline

In service design, design is applied as an approach and a way of thinking to improve or innovate services. This does not simply mean the application of a specific set of tools, such as brainstorming or prototyping, but rather implies a way of thinking and doing that is characterised by a certain paradigm, a number of core principles and specific practical methods (Laursen, Lassen, & Tollestrup 2014). As previously highlighted, it is an act of inquiry where problems are approached as wicked problems (Rittel 1972; Buchanan 1992), namely complex, indeterminate and ill-defined problems with no right or wrong solution.

A wicked problem is contrary to a tame problem as it cannot be 'exhaustively formulated so that it can be written down on a piece of paper which can be handed to a knowledgeable man who will eventually solve the problem without needing any additional information' (Rittel 1972, p. 392). Wicked problems are unique and have no definitive formulation or stopping rules. This entails that wicked problems cannot be solved in a linear procedure, such as the following sequence of (as identified by Horst Rittel (1972)) 1) understand problem, 2) gather information, 3) analyse information, 4) generate solutions, 5) assess solution(s), 6) implement, 7) test, and 8) modify.

Instead, wicked problems have to be solved in an iterative fashion, whereby an understanding for the problem co-evolves with the generation of solutions. This implies that designers use abductive reasoning (Dorst 2011) and reflective practice (Schön 1983), whereby action, the generation of solutions, and reflection – both in action (while doing) and on action (after doing) – serve as a means to develop an understanding of the problem as well as potential solutions. This iterative approach means that designers learn about the problem and potential solutions simultaneously (Brown 2008). This makes the design process a learning process as well as an act of inquiry, but it also implies that service design is a practice in which the end result cannot be determined in advance.

Service design as a human-centred activity

Service design is furthermore human-centred (e.g. Meroni & Sangiorgi 2011), although it is sometimes also referred to as stakeholder-centred (Segelstrom 2013) or user-centred (Stickdorn & Schneider 2011). Being human-centred implies that service design practice observes people in their communities (in their physiological, cultural and social contexts), considers the experience of all the actors, and tries to provide a response to their latent needs (Meroni & Sangiorgi 2011, p. 38).

In service design practice, deep qualitative insights into people's needs, motivations and behaviours are used to inform the design process (Polaine, Løvlie, & Reason 2013, pp. 38-39). Thus, service design practitioners tend to base their work on deep, specific and qualitative information rather than on the general 'truths' provided by quantitative research. 'Statistics are not very actionable for designers – we need to know the underlying reasons' (Polaine, Løvlie, & Reason 2013, p. 39). In other words, deep and specific insights (rather than general truths) provide a basis for designers to develop an understanding of the problems and generate potential solutions.

Service design as facilitative activity

'Service design is about designing *with* people rather than *for* people' (Polaine, Løvlie, & Reason 2013, p. 41). This means that designers apply a participatory approach in which co-design activities are often an essential part of the design process. Designers consciously create situations that facilitate the generation and evaluation of ideas (Stickdorn & Schneider 2011, p. 39), often with heterogeneous stakeholder groups. This is due to the fact that service design is often interdisciplinary by necessity (Mager 2009a) as it often requires action from people with different disciplines. In the example of hospital services, the service of breast cancer diagnoses is not provided solely by a doctor, but also by several other disciplines such as receptionists, nurses, radiographers, radiologists and secretaries. Often, all these disciplines are involved in and contribute to the service design process.

In service design practice, the creative role is not assigned solely to the designer, but rather distributed among actors. This means that service design relies on different peoples' individual capabilities to design. Service design thus builds upon the understanding that 'design is a general human process, that we use to understand and to shape our world' (Manzini 2012, p. xi).

In service design projects, the designer often has the role of enabler, facilitator and connector rather than that of director (Junginger & Sangiorgi 2009). This approach to service design does not rely on 'big-ego design', in which design is considered 'the act of a particularly gifted individuals capable of imprinting their personal stamps on artefacts and environments' (Manzini 2012, p. 66). In service design, the designer is often depicted as 'an actor able to listen to users and facilitate the discussion about

what to do' (Manzini in Meroni & Sangiorgi 2011, pp. 3-4).

In order to facilitate and support actors during design activities, service designers often think and work visually (Mager 2009b, p. 38), whereby they apply a wide range of different representation techniques to visualise and support the design process (e.g. Morelli & Tollestrup 2007) as well as to prototype in different levels of detail at different stages in the design process (e.g. Blomkvist 2014).

3.2.2. SERVICES AS DESIGN OBJECT

'Services' is not a simply defined design object

Service design has no simply defined 'design object'. As previously emphasised, service design concerns the design of services – or more precisely the design *for* services. However, what does designing for services include? What is the design object and what does a design contribution potentially consist of?

Bill Moggridge (2007) argues that 'service design is the design of intangible experiences that reach people through many different touchpoints, and that happen over time', emphasising that the design object comprises experiences mediated through touchpoints (i.e. tangible elements). Similarly, Johan Blomkvist (2014) argues that service design is about designing relationships between touchpoints rather than any specific touchpoint by itself (Blomkvist 2014, p. 50). Manzini instead stresses that it is characteristic of service design to produce 'action platforms' (Manzini in Meroni & Sangiorgi 2011, p. 3), which are platforms (touchpoints, links between touchpoints, interactions) that support the actions of the actors in a service.

These different suggestions for what designers actually design indicate that the 'design object' in service design is not simple to define. In contrast to 'product design', for example, in which products are design objects, service design does not have a simply defined 'design object'. In line with this, Meroni and Sangiorgi (2011) argue that 'designers can work on parts and segments of services, redesigning interactions and experiences, or can foster wider service reconfigurations, suggesting new business models and value networks; moreover they can use services as vehicles for societal change, generating the conditions for a more sustainable society and economy to come' (Meroni & Sangiorgi 2011, p. 203). As such, service design can have different roles, objectives and outcomes.

In relation to organisations, service design projects can impact changes at different levels within an organisation, including changes to artefacts, changes to behaviours, changes to norms, changes to values and even changes to fundamental assumptions (Junginger & Sangiorgi 2009). This means that the design object can be very concrete (when related to changing a specific artefact or behaviour) but also very abstract (when related to changing norms, values or fundamental assumptions). In relation to

implementation, this further entails that the process of implementing service changes can consist of many different things. For example, implementation can include hanging up new signs in waiting rooms (changing artefacts) and informing and training staff in new procedures (changing behaviours), but it can also include changing how doctors in general perceive their role within the hospital (changing norms, values and maybe even fundamental assumptions).

Healthcare services as design object

This research study focuses on service design practice with the purpose of redesigning existing healthcare services. Hence, it concerns a specific kind of service design practice, one that takes place within organisations and has the role of improving existing services by facilitating a process and delivering a design outcome in the form of a service concept (i.e. proposed changes to an existing service).

As argued by Tien and Goldschmidt-Clermont (2009), healthcare is a complex service system comprising an integrated and adaptive set of people, processes and products, whereby these can be considered as the components of a healthcare service. Furthermore, in contrast to, for example, digital services (such as internet banking), healthcare services are often very people-intensive as people, such as doctors and nurses, constitute a significant component of healthcare.

3.2.3. SUMMARY

To recapitulate, service design practice (and thus the main field of interest in this research study) is characterised by;

- Being a design approach in which problems are approached as wicked problems and where problems and solutions co-evolve in an iterative fashion through abductive reasoning, making the service design process one of learning as well as an act of inquiry.

- Being a human-centred activity that is often practiced in heterogeneous stakeholder groups, where deep qualitative insights (rather than quantitative 'truths') provide understandings of the problems and inform the generation of solutions.

- Being a facilitative activity in which designers have the roles of enablers, facilitators and connecters rather than directors.

- Not having a simply defined design object, as services are different and can be approached in different ways.

These points are added to the accumulative visual overview of the theoretical foundation for the study (fig. 3.5).

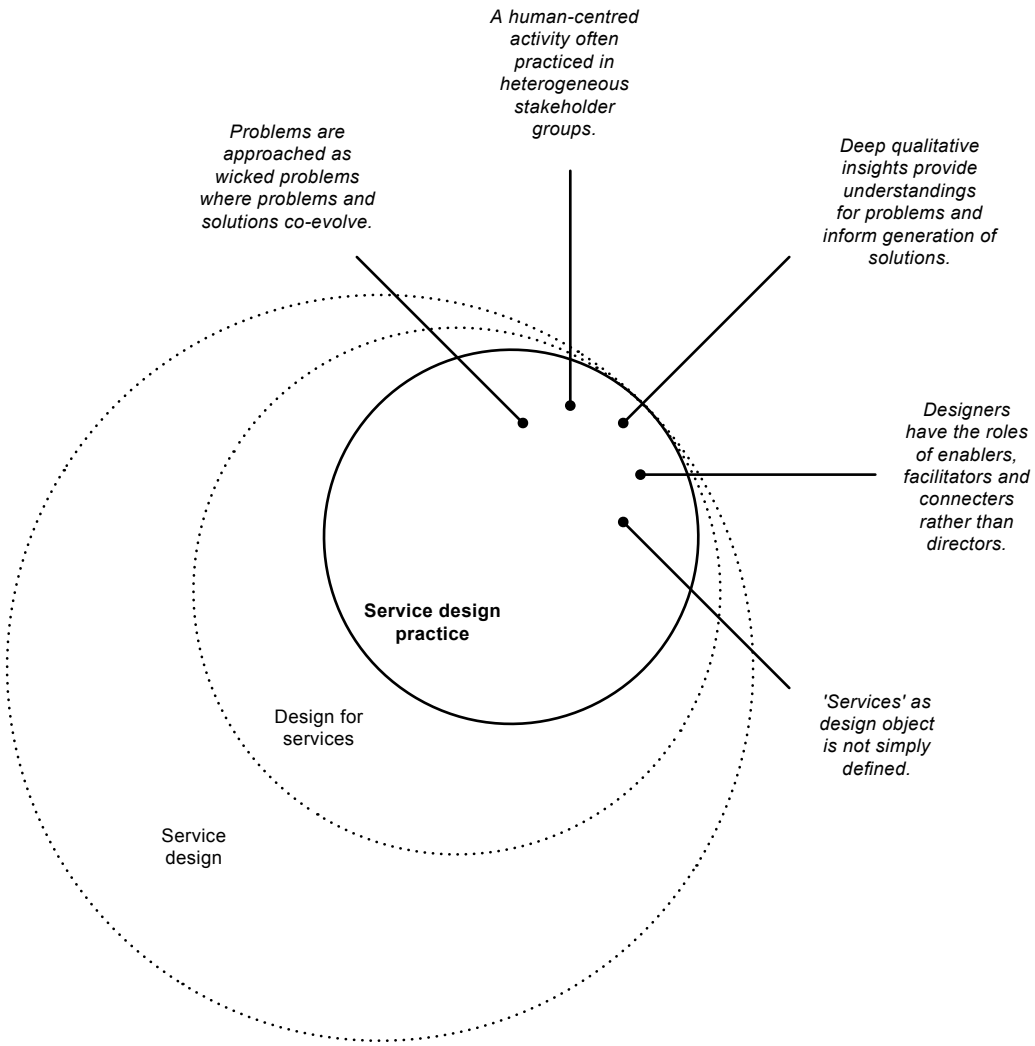


Figure 3.5. Some characteristics of service design practice which is the main field of interest in this study.

3.3. SERVICE DESIGN AND CHANGE IN ORGANISATIONS

This study intends to investigate how designers address the implementation of proposed service changes during service design projects for hospitals. Hence, it addresses the redesign of services in organisational contexts. This section will elaborate how implementation and change are described in the current service design literature and present three distinct roles that service design can play in organisations, thus showing three distinct ways in which service design is assumed to effect change.

3.3.1. SERVICE DESIGN AND CREATION OF CHANGE

As mentioned in the introductory chapter, Simon once articulated that design is devising 'courses of action aimed to changing existing situations into preferred ones' (Simon 1996, p. 111) and Friedman later stated that 'those who cannot change existing situations into preferred ones fail in the process of design' (Friedman 2003, p. 509). These descriptions of design emphasize the desired role of design in creating actual changes in the world; not simply creating great ideas or service concepts, but rather actual changes and thus employing some form of implementation.

However, despite this aim, implementation, and thus the creation of actual changes, is a challenge in service design practice (Lin et al. 2011; Keller et al. 2013; Schaeper 2013; Kronquist, Koivisto & Vaajakallio 2014; Overkamp & Holmlid 2016; Ivey-Williams 2017), where designers furthermore are being criticised for 'not matching their skills in creativity with skills in implementation' (Mulgan 2014, p. 4). As this study investigates how designers address the implementation of proposed service changes during service design projects for hospitals, it also investigates how designers influence actual changes in the way hospital organisations deliver services or, in other words, how designers effect change in organisations.

3.3.2. ASSUMPTIONS ON HOW TO AFFECT CHANGE IN ORGANISATIONS

Change in organisations (or organisational change) concerns various types of changes within organisations: from small incremental changes, such as the introduction of new equipment, to large radical changes affecting fundamental patterns of thoughts (Bakka & Fivelsdal 2004, p. 307). Likewise, potential changes in organisations created on the basis of service design projects can be of many different types, because services can differ significantly from each other and designers can approach services in different ways.

Recently, a group of service design researchers (Sangiorgi et al. 2015) identified three different typologies for service design with three distinct ways for how service design can approach and effect change in organisations. The typologies and approaches to change include;

- *Service design as a skilled contribution*. Designers are chosen for their skills (e.g. user studies and engagement, co-design, visual or creative skills). The process is oriented toward outputs and focused on developing/improving a service proposition. The design outputs are distinct and designed deliverables. Changes are influenced by the design contribution.

- *Service design as a people-centred, creative and systemic process*. Designers are chosen for their process and organisational fit. The process is open and exploratory and focused on developing and improving a service proposition The design outputs are progress documents and prototypes. Changes are led by the design process.

- *Service design as a people-centred and collaborative mindset and approach.* Designers are chosen for their approach to change and innovation. The process is open and exploratory and focuses on learning a new way of doing things. There is no definite deliverable. Change is enabled through learning. (Sangiorgi et al. 2015, pp. 62-63)

The three typologies resemble the Design Ladder (DDC 2015) and point towards different ways of applying service design in organisations. The three typologies further indicate three distinct assumptions of how service design can affect change in organisations (fig. 3.6, p. 75).

Category 1: Change informed by the design contribution

In the first category, service design is assumed to affect change through a specific design contribution, namely a contribution, such as a service concept, that can inform change. 'Changes are informed by design contribution and can spread through the organisation via the implementation processes' (Sangiorgi et al. 2015, p. 62). This is perhaps the most common or direct perception of how service design contributes to changes in organisations: designers deliver an outcome (a finished 'product') and the rest (the implementation or utilisation) is up to the organisation. As such, this approach to change resembles the commonly accepted view that designers deliver drawings, specifications, blueprints, and so on to the manufacturer, who then produces the outcome (e.g. a product) according to the intentions of the designer.

This view on how service design affects change is, however, problematized by experiences from practice. In a research paper based on a service design project within an American private hospital, Lin et al. (2011) highlight some of the problems connected with viewing the service concept (this means the design contribution) as the key remedy affecting change in organisations. On the basis of experiments in practice, the paper promotes issues related to addressing the human-aspects of change *during* the design process, whereby the service concept is not final but rather open to local redesign by stakeholders. This means that the researchers question the assumption of

contribution-informed change (category 1 in fig. 3.6) and instead promotes the assumption that the *design process* is as the driver of change (category 2 in fig. 3.6).

This view is furthermore supported by design practitioners also working within a healthcare context. According to Brown and Martin (2015), services such as healthcare can be perceived as very complex design artefacts. They argue that 'with very complex artifacts, the design of their 'intervention' - their introduction and integration into the status quo - is even more critical to success than the design of the artifacts themselves' (Brown & Martin 2015, p. 58). Therefore, the design contribution alone (or the artefact) might not be sufficient when aiming for change in a complex service such as healthcare.

Category 2: Change driven by the design process

In the second category, service design is assumed to affect change through the design process. 'Change is driven by design processes and can inform the creation of new service offerings and interfaces and affect organisational delivery and innovation processes' (Sangiorgi et al. 2015, p. 62). To assume that the service design process drives change includes the assumption that change is driven by the people-centred, creative and systemic process of service design. In such a process, designers, in collaboration with organisations (clients), work openly and in an exploratory mode, while still focusing on developing or improving a specific service proposition (Sangiorgi et al. 2015, p. 62). Hence, it includes the assumption that the design process, and thus the design intervention, is what drives change rather than the design contribution alone.

This particular view on how the service design process is assumed to affect change is further supported by the literature from the participatory design domain. Here, the design process is considered a mutual learning process (Eriksen 2014) in which designers and organisations learn from each other while learning about the problem and its potential solution concurrently.

According to Thomas Binder 'innovation as a process of change and learning makes it obvious that invention has to go hand in hand with rehearsing what this invention entails' (Binder 2010, p. 179). He thus emphasises that a design process is not just about designing a certain outcome, but also about letting stakeholders (e.g. within organisations) 'rehearse' the consequences of the outcome and, hence, learn about the problem and its potential solution. Binder specifically mentions prototyping as a way of rehearsing the future and states that 'acting it out gives innovation a thrust that bridges the gap between plan and implementation' (Binder 2010, p. 179). Prototyping can thus be a way of addressing change and implementation during the design process because it enables people within organisations to rehearse what the proposed changes entail.

Category 3: Change enabled through learning

While the first two categories are outcome-oriented, that is, focused on developing

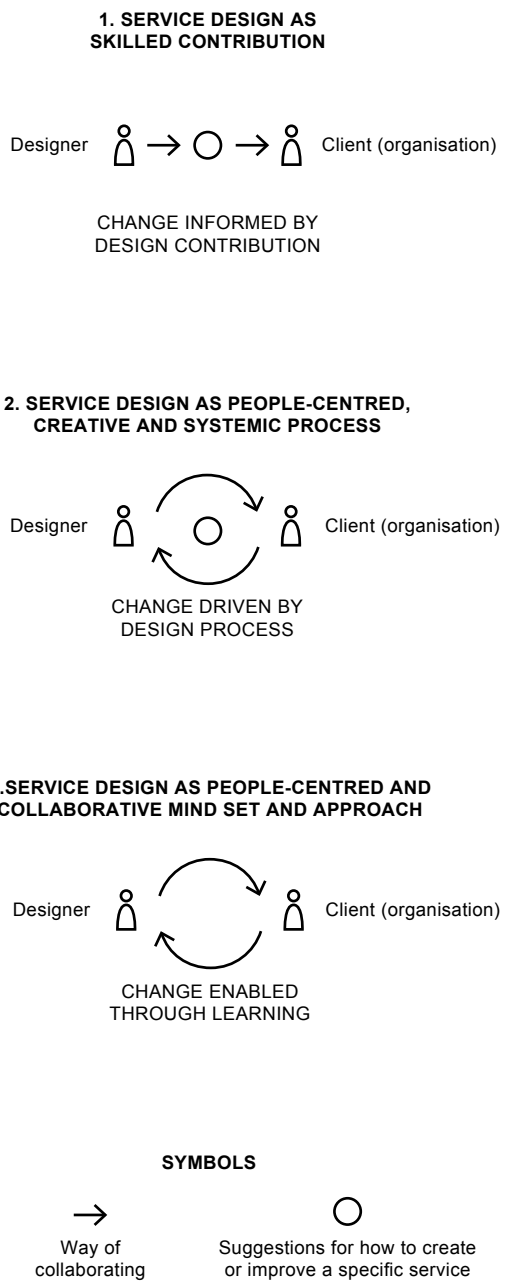


Figure 3.6. Three typologies for service design in organisations linked to the three assumptions on how service design affects change. The illustration is the author's attempt to visualize the three typologies presented by Sangiorgi et al (2015).

or improving a specific service proposition, the third category is not. In the third category, service design is assumed to enable change through learning, meaning that changes are driven by instructing organisations on how to apply service design as a mindset and an approach. 'Change is enabled through learning and can transform the way services are designed and delivered and the way the client organisation perceives their own work and identity' (Sangiorgi et al. 2015, p. 63). In this category, designers focus on embedding service design knowledge and skills in organisations (e.g. Bailey 2012). This category of service design projects is also referred to as transformation design (Burns et al. 2006) and is described as 'leave[ing] behind not only the shape of a new solution, but the tools, skills and organisational capacity for ongoing change' (Burns et al. 2006, p. 21).

This application of service design is a very significant field of interest as it has great potential to effect radical and transformative changes in organisations. However, this research study is particular interested in outcome-oriented projects, that is, service design projects which have the primary aim of redesigning an existing service and thus deliver a certain outcome (concrete suggestions for how to change an existing service). Therefore, Category 2 and the assumption that the service design process drives change (category 2 in fig. 3.6) is considered particularly relevant in this research study. In this context, it is pertinent to show how the design process (both as a creative process and as an intervention in an organisation) can drive actual change, by investigating what actions, such as prototyping (as mentioned by Binder (2010)), designers take to ensure that their design (the service concept/the proposed service changes) is implemented within the organisation.

3.3.4. SUMMARY

To recapitulate, implementation and the creation of actual changes is generally perceived to be an aim of design but also represents a challenge to service design practice. This makes it an interesting field to investigate.

In service design research, three different roles of service design, and thus three potential assumptions on how service design can affect change in organisations, include;

- The assumption that change is informed by the design contribution.
- The assumption that change is driven by the design process.
- The assumption that change is enabled through learning the skills of service design.

In this context, the assumption that change is driven by the design process is considered relevant in this research study. This point is added to the accumulative visual overview of the theoretical foundation for the study (fig. 3.7).

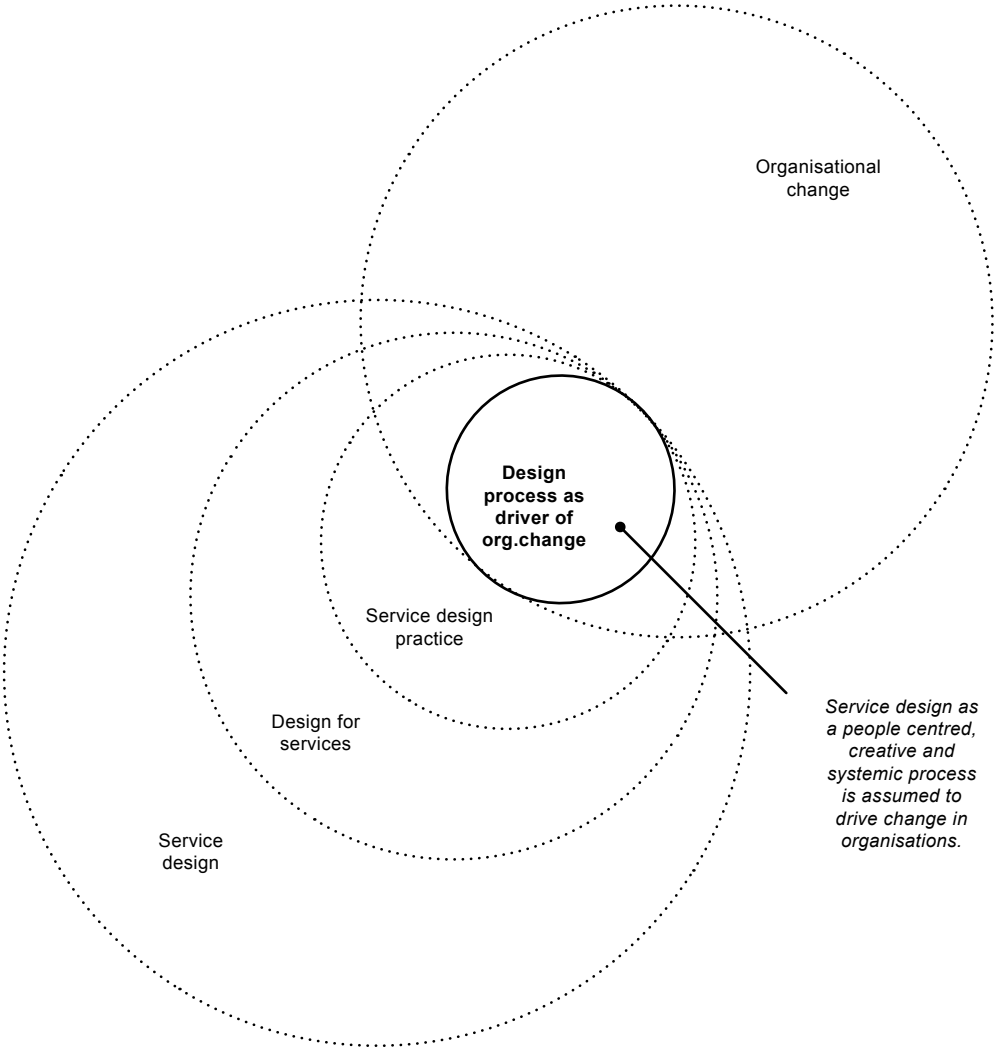


Figure 3.7. In this research study, the assumption that the service design process drives change is found relevant to investigate.

3.4. GAPS AND INDICATIONS IN THE PRESENT KNOWLEDGE

This next section will briefly summarise the gaps in the existing knowledge which this research study intends to address. It will further present excerpts from service design literature, which provide some indications in relation to gaining an understanding and building new knowledge with regards to the gaps.

3.4.1. GAPS IN THE PRESENT KNOWLEDGE

As previously mentioned, designers in general seem to perceive implementation (or change) as a challenge in service design practice (e.g. Lin et al. 2011; Keller et al. 2013; Schaeper 2013; Kronquist, Koivisto, & Vaajakallio 2014; Overkamp & Holmlid 2016; Ivey-Williams 2017). Although the service design process is assumed to affect change in organisations (Sangiorgi et al. 2015), how designers specifically address, or should address implementation and change, during the service design process is not very well researched. There seems to be a gap in the present knowledge with regards to this particular aspect.

The gap is further related to a theoretical dilemma within service design as well as within design in general. In this thesis, the act of designing is perceived to be a form of inquiry rather than a problem-solving activity. This implies that problems are approached as wicked problems (Rittel 1972; Buchanan 1992), namely complex, indeterminate and ill-defined problems, and problems and solutions are considered to be co-evolving (Dorst & Cross 2001). In other words, design is a practice in which the end result (e.g. a service concept) cannot be determined in advance. Furthermore, service design can have different roles and objectives and produce outcomes of different character (Meroni & Sangiorgi 2011). Thus, when initiating a service design project, the designers do not necessarily know if the new or redesigned service has, for example, a digital or physical character. Hence, designers cannot always determine in advance whether implementation requires such things as contacts and finances for IT professionals or something completely different. Implementation is thus not only a practical issue, but also a theoretical one. It seems contradictory that designers should address implementation when they do not know what should be implemented.

In spite of this obvious dilemma, this research study is based on the conviction that (some) designers do in fact address implementation even though they are unaware of what should be implemented. As previously mentioned, Binder (2010) argues that certain design activities, such as prototyping, can have the purpose of addressing implementation during the design process as these enable people within organisations to rehearse what the proposed changes entail. Furthermore, some practitioners seem to be aware of how their actions support implementation (e.g. Kronquist, Koivisto, & Vaajakallio 2014).

However, there is a need to establish a theoretical standpoint from which design activities

targeting implementation can be further understood and analysed. Furthermore, there is a need for an investigation into the characteristics of these activities.

3.4.2. INDICATIONS FOR THE CREATION OF NEW KNOWLEDGE

Although current service design research does not particularly demonstrate how designers address implementation, it does provide some indications that can be used in the process of creating new knowledge on the topic.

Addressing that the service solution is 'implementable'

The American design consultancy IDEO argues that human-centred design (and thus service design) should have the aim of suggesting solutions that are 'desirable, feasible and viable' (IDEO 2009, p. 6). This argument is supported by service design research. 'Successful service innovations hit the 'sweet spot' between desirability (what people want), feasibility (what is possible) and viability (the business model behind it)' (Meroni & Sangiorgi 2011, p. 261). It is suggested that the three lenses (desirability, feasibility and viability) simultaneously and iteratively 'are applied throughout the whole service design process; from the inspiration and insight that is the foundation of great design through idea generation and in guiding experimentation in building and delivering the service' (Meroni & Sangiorgi 2011, p. 261).

Hence, the actions of designers throughout the design process are intended to address not only what is most desirable for people as well as financially viable, but also what can feasibly be implemented in an organisational context within a given time frame. This implies that addressing feasibility (that 'what' they design can be implemented) should be implicit in how designers work throughout service design projects. Thus, an investigation of how designers specifically ensure that 'what' they design can be implemented might provide significant answers in relation to the knowledge gap.

Addressing that implementation is a process of change

Service design researchers Mark Stickdorn and Jacob Schneider argue that 'the implementation of new service concepts by necessity demands a process of change' (Stickdorn & Schneider 2011, p. 134). In this context, Stickdorn and Schneider refer to change management theory and suggest that designers follow guidelines such as;

- Basing the change on a consistent service concept formulated and tested during earlier stages.
- Communicating the service concept clearly to different stakeholders.
- Involving the clients (representatives from the organisation) from the beginning of a service design process.

- Keeping an overview of the improved processes and deliverables at an organisational level.
- Illustrating changes through a service blueprint.
- Making sure managers are convinced of the service concept.
- Accompanying employees during the implementation process.
- Etc. (Stickdorn and Schneider 2011, pp. 134-135)

Not all these guidelines are linked to the *creation* of a service proposition (or a service concept). For example, 'making sure that managers are convinced by the service concept' does not concern the *creation* of the service proposition/concept as it assumes this has already been done. This guideline instead focuses on gaining management commitment and is therefore linked to aspects of change management. Thus, an investigation into how designers address the aspect of change management for implementation may also provide significant answers in relation to the knowledge gap.

3.4.3 SUMMARY

To recapitulate, there is a gap in the present knowledge with regards to how designers specifically address the implementation of proposed service changes during the design process. This gap is considered to be relevant for investigation in this research study.

The current design and service design literature provide some indications in relation to gaining an understanding and building new knowledge within this area, namely;

- During the service design process designers should (or might) address implementation by considering whether 'what they design' can in fact be feasibly implemented in an organisational context within a given time frame.
- During the service design process designers should (or might) address implementation by considering change management-oriented aspects.

The gap is added to the accumulative visual overview of the theoretical foundation for the study (fig. 3.8).

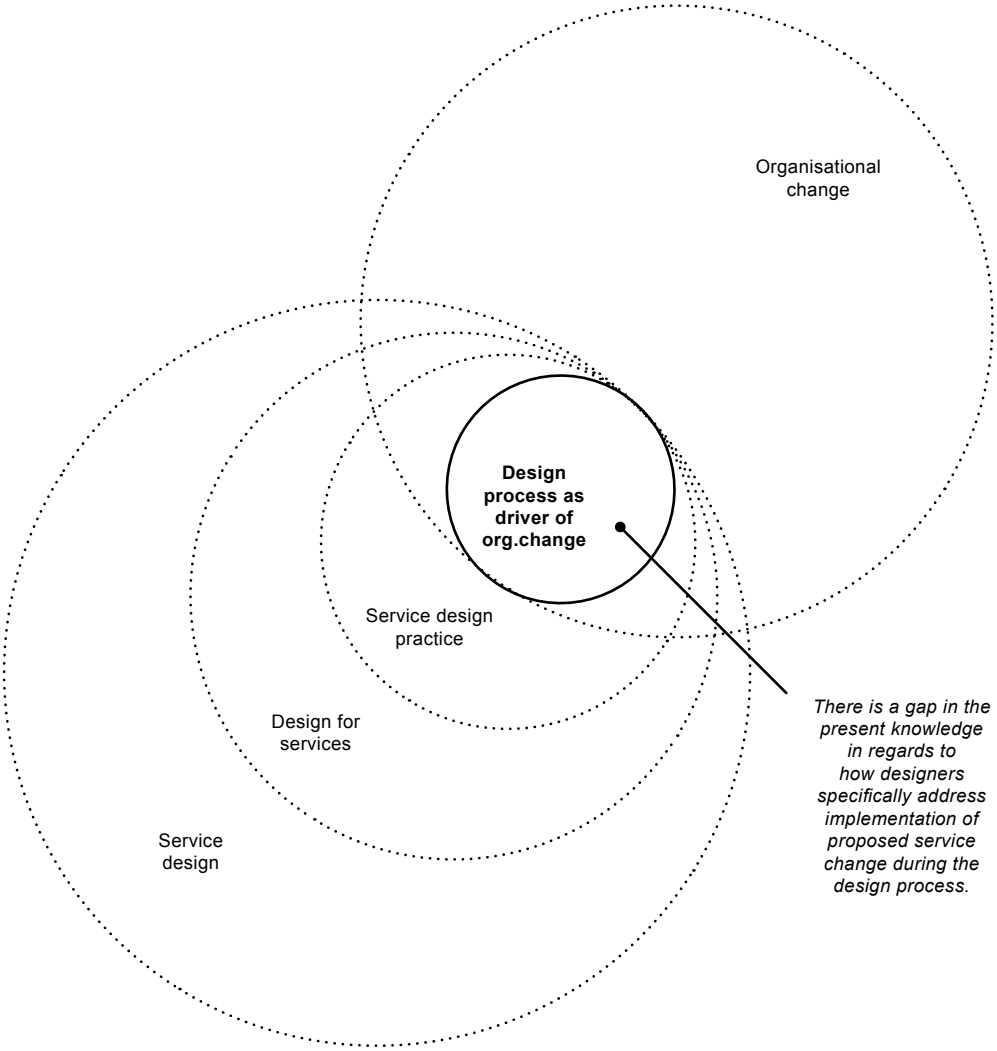


Figure 3.8. This research study addresses a gap in the present knowledge.

3.5. CRITICAL FOCUS AREAS FOR ORGANISATIONAL CHANGE

In order to investigate how designers address the implementation of proposed service changes during the design process, the theoretical field of organisational change (and thus change management) is brought into the study. The following sections will show how organisational change processes can be perceived, approached and investigated and will present different ways of looking at and approaching organisations and how they change.

3.5.1. CONTENT, PEOPLE, PROCESS

Organisational change concerns various types of changes within organisations, from small incremental changes such as the introduction of new equipment to large radical changes affecting fundamental patterns of thought (Bakka & Fivelsdal 2004, p. 307). Hence, changes in organisations also include changes to the services organisations provide.

According to organisational change practitioners (Anderson & Anderson 2010), successful organisational change requires attention to three critical focus areas, namely 1) content 2) people and 3) process (fig. 3.9).

'*Content* refers to *what* about the organization needs to change, such as strategy, structure, systems, processes, technology, products, services, work practices and so on. Content refers to tangible aspects of the organization undergoing change, which are quite observable and reside in the external world we can all see. *People* refers to the human dynamics of change, including behaviours, skills, emotions, mindset, culture, motivation, communications, engagement, relationships, and politics. People includes the less tangible, 'soft' dynamics of the inner thought and feelings of human beings who are designing, implementing, supporting, or being impacted by the change. *Process* refers to how the content and people changes will be planned for, designed and implemented. In other words, process denotes the decisions and actions that will produce both the content and people outcomes' (Anderson & Anderson 2010, p. 24).

From a service design perspective, addressing *content* aspects thus refers to the creation of service propositions, that is, the design of *what* is supposed to change. Creating the content of change (the service propositions) is essential to service design and could even be considered its core. Much of the service design literature presents theory, tools and examples regarding how to create new or improve existing service propositions (Miettinen & Koivisto 2009; Stickdorn & Schneider 2011; e.g. Polaine, Løvlie, & Reason 2013).

Being a human-centred discipline, *people* aspects are also considered within service design in the sense that designers observes people in their communities, considers their

Figure 3.9. Three critical focus areas for successful organisational change: content, people and process.

experience, and try to provide a response to their latent needs (Meroni & Sangiorgi 2011, p. 38). However, *people* aspects in form of the human dynamics taking place when a service proposition is being implemented, is not equally addressed in current service design literature (the work by Lin et al. (2011) and the guidelines presented by Stickdorn and Schneider (2011) are among the few exceptions). In contrast, the discipline of change management often primarily focuses on people-aspects (in form of the human dynamics of change) and not as much on content-aspects. 'The sphere of influence of change managers is often only in the area of *people*' (Anderson & Anderson 2010, p. 29).

Anderson and Anderson (2010) consider it a potential problem if content-aspects and people-aspects are not properly integrated in the process. In relation to service design, the lack of integration is a potential problem. 'Content-changes set up the potential for improvement, but they do not guarantee it. The potential benefits of well-designed content only gets realized when the change process is efficient, does not impact operations negatively, and is driven by passionate people who 'own' the new content and are committed to applying it and improving it over time' (Anderson & Anderson 2010, p. 25). This emphasise that for change to happen on the basis of a service design project, there need to be a focus on the human dynamics of change during the service design process.

In the previous section, it was argued that;

- During the service design process designers should (or might) address implementation by considering whether 'what they design' can in fact be feasibly implemented in an organisational context within a given time frame.

- During the service design process designers should (or might) address implementation by considering change management-oriented aspects.

In relation to the focus areas of content, people and process, the first point relates to content, that is, it regards the content of change (the proposed change to the existing service). The second point relates to people and concerns the human dynamics of change.

If or how designers address both content-aspects and people-aspects during the design process is relevant to investigate as both aspects are perceived to be significant in relation to creating actual and successful change or, in other words, effecting the successful implementation of proposed service changes.

3.5.2. SUMMARY

To recapitulate, the theoretical field of organisational change is introduced into the study as it is assumed to provide an additional theoretical basis for investigating how designers address the implementation of proposed service changes during the design process. Within this field, content, people and process are considered three critical focus areas for successful organisational change (including changes to the services organisations provide). Hereby, *content* refers to *what* the designers design (the proposed service changes) and *people* refers to the *human dynamics of change* (change management aspects).

On this basis, how or if designers address both content-aspects and people-aspects during the design process is considered particularly relevant to investigate. These points are added to the accumulative visual overview of the theoretical foundation for the study (fig. 3.10).

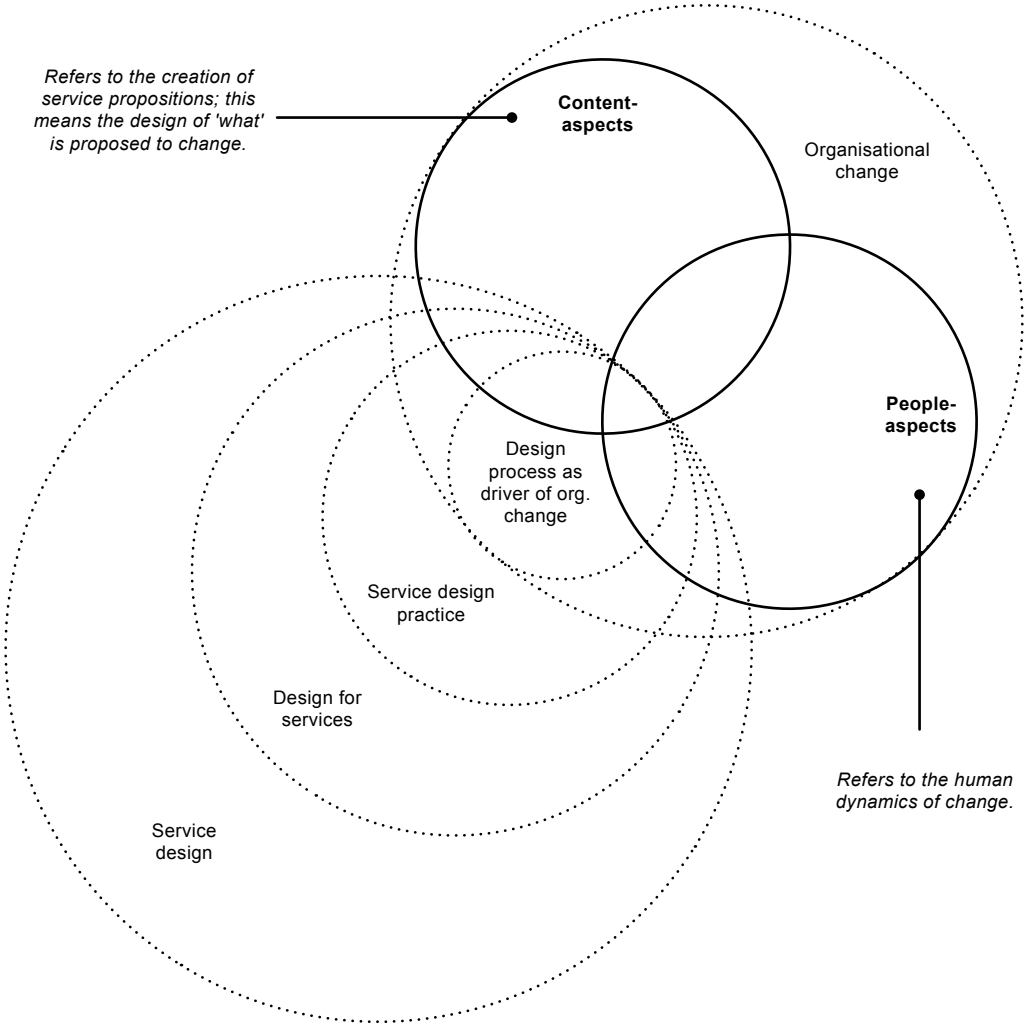


Figure 3.10. Organisational change literature separates content-aspects from people-aspects. How both aspects are addressed during the design process (and thus the change process) is found relevant to investigate.

3.6. TWO PERSPECTIVES ON ORGANISATIONS AND CHANGE

In organisational change theory and practice, metaphors are often used to describe different ways of perceiving organisations and how they change. This section will describe two distinct schools of thought, including metaphors that encapsulate different assumptions of organisations and how they change. This can be used to support an understanding for how change occurs on the basis of service design projects, and thus support the investigation of how designers address the implementation of service change during service design projects.

3.6.1. ORGANISATIONS AS SYSTEMS OR PATTERNS OF HUMAN INTERACTION

In organisational change theory, it is argued that our beliefs and assumptions of how organisations work influence our perception of how organisations change (Morgan 2006; Cameron & Green 2012). Thus, if we believe that organisations work as systems, we expect change to occur in a certain way. However, if we believe that organisations are patterns of human interaction, we expect change to occur in a completely different way. This also affects how we perceive that changes occur to the services organisations provide.

Two distinct schools of thought within organisational change theory are presented here. The first includes those who believe that change is linear, passes through a series of well-defined phases, and can therefore be controlled. The second includes those who believe that change is non-linear and chaotic and can therefore be influenced but not controlled.

These schools of thought represent two opposites, whereby organisations are understood and approached either as machines/systems or as conversations/patterns of human interaction (Suchman 2011; Cameron & Green 2012). Hence, they bring two very different perspectives on the understanding of how change occurs on the basis of service design projects.

Change through planning

John Kotter (1995) belongs to the first school of thought and argues for an approach to transforming organisations that is based on a planned, linear, and top-down initiated model for change. He presents a prescriptive model for leading change that consists of a series of eight steps: 1) establishing a sense of urgency; 2) forming a powerful guiding coalition; 3) creating a vision; 4) communicating the vision; 5) empowering others to act on the vision; 6) planning for and creating short-term wins; 7) consolidating improvements and producing still more change; and 8) institutionalising new approaches. This approach begins with the top manager, who creates a climate appropriate for change and later facilitates change through short-term wins before finally implementing systems that sustain the change.

Change through interactions

Other scholars (Stacey, Griffin, & Shaw 2000; Shaw 2002; Stacey & Mowles 2016) belong to a second school of thought, that of ‘complex responsive processes’. These scholars argue that what an organization becomes emerges from ‘the relationships of its members rather than being determined simply by the global choices of individuals’ (Stacey, Griffin, & Shaw 2000, p. 8). This school of thought critiques the dominant discourse within organisational change and change management, whereby organisations

are perceived of and approached as if they were systems; this includes the model suggested by Kotter (1995).

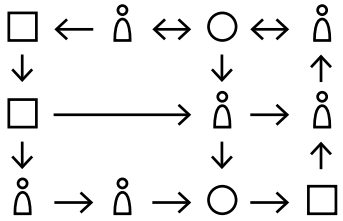
According to Stacey et al. (2000), most of the existing models and theories within the dominant discourse are based on the assumptions that organisations are, or should at least be considered as if they were, systems (Stacey 2011, p. 4). Thus, Stacey et al. (2000) criticise the perception of organisations as 'things' separate from people or 'things' that managers can direct and move about. From their perspective, organisations are not controllable systems because organisations are *human* organisations consisting of human beings who have individual capacities to choose actions, that is, make individual choices, and therefore cannot be controlled as 'parts' within a system. From this perspective, changes are believed to occur on the basis of many local interactions between individuals over time, while organisations themselves are considered to be 'patterns of human interactions' rather than as 'systems' (Stacey & Mowles 2016, pp. 302-337).

Different assumptions have different strengths

The two different schools of thought represent two distinct perspectives on organisations and bring different assumptions on how change in organisations occurs and can be addressed (fig. 3.11). These two perspectives have different strengths. Considering an organisation as a system can be beneficial when there is a need to understand and design interactions of a repetitive nature (Stacey, Griffin, & Shaw 2000, p. 186). This aligns with the widespread application of systems thinking in service design or, in other words, the concept whereby services are often investigated and designed from a systemic perspective (see e.g. Morelli 2002). Perceiving services as systems provides a means for understanding a product as part of a larger system, and hence offers a means for integrating multiple factors and perspectives into the design process. Thus, to understand organisations as systems might be beneficial in relation to addressing the *content* of change, this means when designing the proposed service changes and ensuring that these are feasible to implement.

In relation to *people* aspects, however, it might be more beneficial to view organisations as patterns of human interaction in which changes are believed to occur on the basis of many local interactions between individuals over time. According to Stacey, Griffin and Shaw (2000), managers often cannot explain 'how things get done' in their organisations on the basis of the traditional models (such as Kotter's (1995)), which are based on the idea that managers can stand outside an organisation (the system) and control it. Instead, the authors argue that how things get done (how change actually happens) needs to be understood on the basis of the local interactions between people – the leader, the manager, the employee and (in this case) the designer. 'They (people with authority) may be articulating desires for the population-wide pattern, the 'whole', but this will be a gesture into the ongoing conversation and what happens will depend upon the responses evoked in many, many local interactions' (Stacey & Mowles 2016,

ORGANISATIONS AS SYSTEMS



ORGANISATIONS AS PATTERNS OF HUMAN INTERACTION

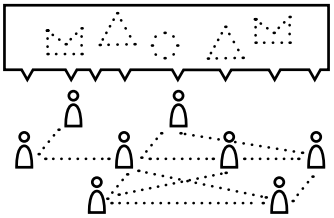


Figure 3.11. Organisations can be thought of as a) systems or b) patterns of human interaction.

p. 300). ‘The most powerful can choose their gestures but will be unable to choose the responses of others so that their gestures will frequently produce surprising outcomes’ (Stacey & Griffin 2005, p. 9). Thus, understanding organisations as patterns of human interaction might be beneficial in relation to addressing *people* aspects, that is, the human dynamics of change.

Therefore, this research study suggests that how designers address implementation should be understood based on the two different organisational metaphors, namely as systems and as patterns of human interaction. This encompasses that what designers do to address implementation should be investigated from two perspectives;

- How designers address that ‘what’ they propose to change (the service concept) can feasibly be implemented within the organisation as a system.

- How designers address the fact that people within the organisation ‘make the change happen’ by affecting patterns of human interaction.

This is shown in the illustration (fig. 3.12).

3.6.2. DETAILING THE TWO PERSPECTIVES

The following details the theoretical considerations of the two perspectives.

Designing feasible changes to a system

As previously mentioned, creating the *content* of change is essential to service design and can even be considered its core. Therefore, many principles and tools that are applied in service design practice (contextual interviews, desktop walkthroughs, prototyping, service blueprints, etc.) are often used with the intent to create a service concept that makes sense or fits within the context for which it is intended. Hence, with the aim of making services 'more useful, usable, desirable for clients and efficient as well as effective for organisations' (Moritz 2005, p. 6) as well as 'desirable, feasible and viable' (Meroni & Sangiorgi 2011, p.261), designers are accustomed to designing service concepts that fit into a certain organisational context and thus a systemic context.

Changing patterns of human interaction

As previously mentioned, *people* aspects (seen from a change management perspective in which *people* aspects relate to the human dynamics of a change process) are not widely addressed in the current service design literature. Although service design is a human-centred activity, the current service design literature does not widely address how, for example, designers ensure that managers are convinced by a service concept or how designers accompany employees through an implementation process (as suggested by Stickdorn & Schneider 2011). Likewise, the current service design literature

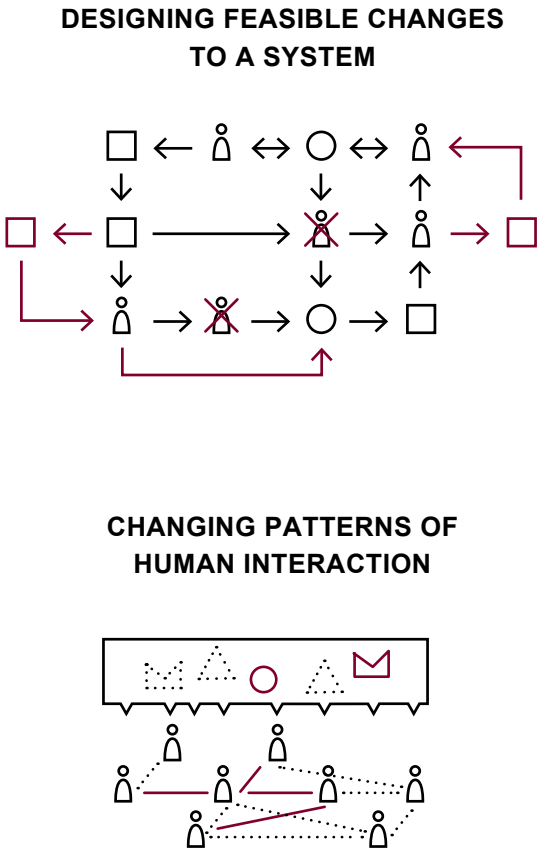


Figure 3.12. This research study suggests that what designers do to address implementation should be investigated from two perspectives: 1) How designers address that what they propose to change (the service proposition) is feasible to implement within the organisation as a system, and 2) how they address that people within the organisation 'make the change happen' by affecting patterns of human interaction.

does not account for how designers address change in patterns of human interaction during the design process.

From the perspective that organisations are patterns of human interaction, changes occur on the basis of many local interactions between individuals over time. In these interactions, changes emerge as patterns of themes within conversations. What emerges and changes is not random, but rather affected by many local interactions in which people respond to other peoples' actions; in other words, change emerges on the basis of the on-going responsive processes of relating (Stacey & Mowles 2016, pp. 302-337).

According to Shaw (2002), affecting change is about changing conversations in organisations and if someone wants to affect change, they need to join the on-going conversations as participant sense-makers, helping to develop the opportunities inherent to these conversations. Within organisational conversations there are two kinds of patterns: patterns of meaning (what people are saying and thinking) and patterns of relating (how people are interacting) (Suchman 2011, p. 44).

Following this perspective, changes to how organisations deliver their services are affected by the different ways designers try to join and affect patterns of both meaning and relating in the on-going conversations in organisations. The service design process provides many potential ways to join on-going conversations. Designers interact with many different people from the organisations throughout the design process, such as when they bring together heterogeneous stakeholder groups in workshop settings (Mager 2009b). In these situations, designers affect the on-going conversations by placing new themes on the agenda (e.g. the objective of the service design project) while also bringing together people and creating new relationships. As such, the design process joins the on-going conversations in organisations and has the possibility to change patterns of both meaning (what people think and talk about) and relating (how people interact with each other).

Furthermore, design tools can trigger, support and summarize social conversations (Manzini 2012, p. 133), and thus provide a means to join the on-going conversations and potentially change them. Manzini argues that shared ideas can be perceived as 'conversation subjects' as they are 'conceived to stimulate reactions and interactions between different potentially interested actors' (Manzini 2012, p. 133). Visualisations can further be perceived as 'conversation prompts' because they 'are communication artifacts aimed to facilitate social conversations' (Manzini 2012, p. 133). Hence, the service design process provides many means to join and potentially change the patterns of human interaction in organisations.

Diversity and responsiveness

Diversity and responsiveness are particularly significant factors for the creation of new patterns in conversations and thus significant for the creation of change and novelty

in organisations (Stacey 2011; Suchman 2011) as well as for the creation of changes to services.

'An organization's diversity – the multiplicity of perspectives arising from different roles, personal histories, and professional backgrounds – seeds novelty; it is the main source of serendipitous differences and disturbances that instigate new patterns' (Suchman 2011, p. 46). This means that if everyone in a conversation holds similar views, then new patterns of understanding are unlikely to emerge. However, if a wide variety of themes and opinions are introduced in conversations, then there is a greater opportunity for new patterns of meaning to emerge. This further means that conflict and tension between viewpoints and intentions are important features for the emergence of change and novelty. 'Explorative conflict is conversational, negotiating processes in which people explore how to interpret generalisations and negotiate different interpretations with each other to make them particular, and in doing so they make (unconscious) adjustments to themselves and the people with whom they are negotiating' (Stacey & Mowles 2016, p. 370).

Diversity does not create novelty on its own; it must be combined with responsiveness. 'People in conversation must be susceptible to being changed by one another' (Suchman 2011, p. 46). A conversation could not be considered a conversation if the participants acted entirely without awareness of one another, or if they were acting in a predetermined way, such as by following a script. For it to be a conversation and for novelty to emerge, participants have to react to each other's gestures. Hence, the combination of diversity and responsiveness is key to the creation of novelty.

In relation to service design processes, this implies that designers should be aware of the presence of diversity and responsiveness in the interactions between people as these factors are essential for the creation of novelty and thus essential for changing how organisations deliver services. These points of attention have also been highlighted in participatory design research. Jacob Buur and Henry Larsen (2010) argue that innovation is a result of the negotiation of crossing intentions and that 'conflict and crossing intentions can be drivers of innovation' (Buur & Larsen 2010, p. 137). In other words, conflicts and crossing intentions (i.e. diversity) can be generative and thus enable innovation and change.

In this context, Buur and Larsen (2010) emphasise improvisation and spontaneity (i.e. responsiveness), and highlight that facilitators (and thus designers) have the crucial role constantly relating with other project participants. Henry Larsen and Marcel Bogers (2014) add to this point by arguing that 'innovation processes involve getting into highly spontaneous conversations, which are inevitably risky and uncertain as one cannot predict the outcome of those involved' (Larsen and Bogers 2014, p. 396). Hence, embracing spontaneity, engaging in uncertain situations, and thus responding to the changing situations in interaction with others are significant for innovation and change in organisations – and thus significant for innovating and creating service changes.

3.6.3. SUMMARY

To summarize, this section has presented two distinct schools of thought within organisational change research related to two distinct ways of thinking about organisations and how they change: as system or as patterns of human interaction. This research study suggests that how designers address implementation is best understood and investigated on the basis of both these organisational metaphors. This is added to the accumulative visual overview of the theoretical foundation for the study (fig. 3.13).

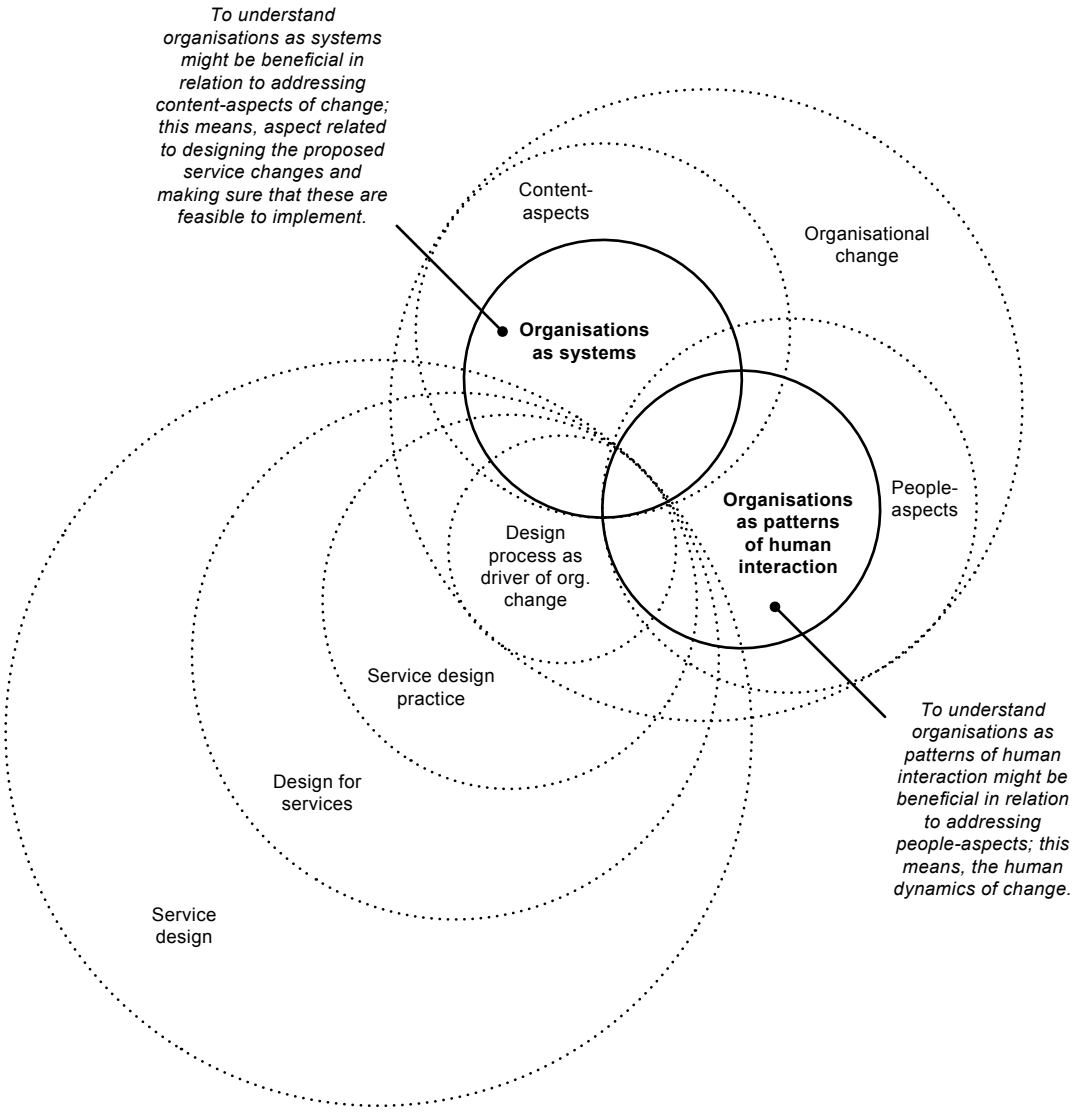


Figure 3.13. This research study suggests that two different organisational metaphors can be used to understand and investigate the way designers address implementation of proposed service changes.

3.7. HOSPITALS AS AN ORGANISATIONAL CONTEXT

3.7.1. HOSPITALS AS A COMMON CONTEXT FOR SERVICE DESIGN

This study investigates service design practice within the specific context of hospitals (i.e. large healthcare organisations). As mentioned in Chapter 1, hospitals are a common context for service design practice. Some of the largest hospitals in Europe and the USA, namely the NHS in the United Kingdom (Schaeper, Maher, & Baxter 2009), and the Mayo Clinic (Smith 2010) and Kaiser Permanente (Lin et al. 2011) in the United States, as well as different public hospitals in Scandinavia (see e.g. Erhvervs- og Byggestyrelsen 2010; Solli 2013) are applying service design as an approach to improve healthcare services.

3.7.2. HOSPITALS AS AN EXTREME CONTEXT FOR SERVICE DESIGN

Although hospitals are a common context for service design practice, they are a rather extreme context for innovation (Lansisalmi 2006) and thus service design. The hospitals investigated in this study are furthermore public, which places them in a particular group of organisations that are often associated with having features that are inherently 'anti-innovation' (Bason 2010, p. 15). Public organisations are subject to very different requirements and conditions compared to private organisations when it comes to innovation and change. 'In business, organisations need to innovate – or die. In the public sector it is unlikely that organisations will collapse due to lack of innovation' (Mulgan and Albury 2003, p. 33). The public sector has a single service provider and a steady customer base (Mulgan & Albury 2003), and innovation, including service innovation, is often said to succeed in spite of, rather than because of, the dominant structures and systems (Mulgan 2007, p. 4). Hence, there are many barriers to innovation within the public sector, and public hospitals in particular, indicating that this type of organisations faces particular challenges in this regard.

In the Danish context, some of the barriers to public innovation are argued to include the zero-error culture (i.e. practitioners do not speak out when mistakes occur), silo thinking (i.e. departments do not collaborate), systems inertia (i.e. slow decision-making processes due to bureaucratic procedures) and legal frameworks (i.e. many formal rules and regulations) (Jensen et al. 2010, pp. 70-78).

In line with this, current research argues that healthcare innovation (including service design projects within hospitals) represent a unique and rather complex case in relation to innovation within other sectors (Lansisalmi 2006) because;

- It is difficult to change the behaviours of clinicians (Greco & Eisenberg 1993), current medical practices and healthcare organisations as a whole (Shortell, Bennett, & Byck 1998; Shortell et al. 2001).

- Innovations in patient care, treatment practices and hospital procedures may include significant risks in relation to financial, social and ethical issues (Collier 1994; Faulkner & Kent 2001).

- The implementation of healthcare innovations (including e.g. a service concept) is often regulated by laws and subject to thorough examination too ensure that potential harmful innovations are not implemented (Faulkner & Kent 2001).

- Performance gaps (e.g. dissatisfied patients or staff, errors, accidents or deaths) are typical starting points for an innovation process. This, together with healthcare practitioners' tendencies to protect their individual autonomy and reputation, can promote a culture of blame that inhibits learning and innovation (Huntington, Gillam, & Rosen 2000).

Hence, there are many potential barriers to service design projects and the implementation of service changes within the public sector, and public hospitals in particular. In this sense, hospitals are essentially a relevant context to study implementation because they constitute an extreme context with significantly challenging conditions for the implementation of service changes.

3.7.3. SUMMARY

To summarize, hospitals are a common context for service design practice. However, they also represent an extreme context with significant barriers to innovation, whereby this is often said to succeed in spite of, rather than because of, the dominant structures and systems. This also makes hospitals a relevant context for an investigation into how designers address the implementation of service changes, because innovation, and thus the implementation of service change, faces especially challenging conditions in hospitals.

3.8. EPILOGUE

This chapter has outlined the theoretical foundation for this study. First, it presented the theory on service design and service design practice, which comprise the main field of interest in this research study. This included an introduction to the particular kind of service design practice investigated here. Second, the existing service design research on implementation and change in an organisational context was introduced. This included the identification of a gap in the existing knowledge as well as indications for the creation of new knowledge. Third, theory on organisational change was presented, highlighting different ways to think about organisations and how change occurs in organisations.

The chapter provides a theoretical foundation (fig. 3.14) for the investigation into how designers address the implementation of service changes during service design projects for hospitals and, in particular, offers a theoretical foundation for the conceptual model that will be presented in the following chapter.

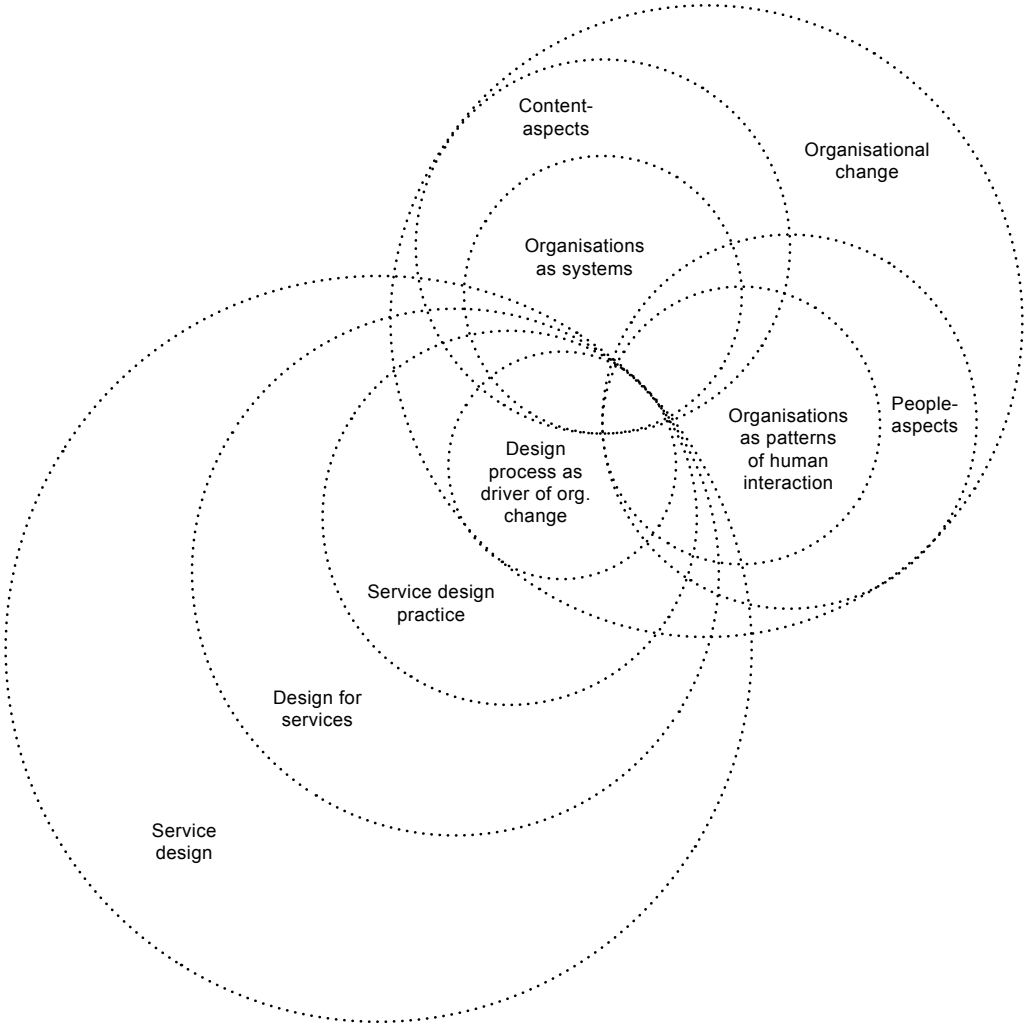


Figure 3.14. A visual overview of the theoretical foundation for the research study.

CHAPTER 4
CONCEPTUAL MODEL

4.0. PROLOGUE

This chapter introduces and describes the conceptual model that was developed in this research project.

This chapter will present first the model and then its theoretical foundation, which clarifies and enhances some of the theoretical considerations that have informed the conceptual model and which substantiate it.

4.1. CONCEPTUAL MODEL

The conceptual model (fig. 4.1) includes the following key concepts;

- *Implementation conditions:* the contextual circumstances for proposing changes to the existing service and thus the circumstances for addressing implementation.

- *Implementation strategies:* what designers do (their plans of action) with the intent to address implementation. Implementation strategies are divided into two strategies;

    - *Content-related implementation strategies:* what designers do (their plans of action) with the intent of ensuring that 'what' they design (the content of change/the service concept) can feasibly be implemented in the organisation.

    - *People-related implementation strategies:* what designers do (their plans of action) with the intent of ensuring that people within the organisation are committed to and capable of implementing the changes (the human dynamics of change).

By including both implementation conditions and strategies, the conceptual model suggests an investigation into the interdependencies between context and actions, thus investigating the way designers address implementation while taking the specific context into account.

By dividing implementation strategies into content-related strategies and people-related strategies, the conceptual model moreover suggests investigating the way designers address implementation from two different perspectives: a design-oriented perspective (content-related strategies) and a change-oriented perspective (people-related strategies). The design-oriented perspective focuses on initiatives related to the creation of proposed changes to an existing service (also known as the service concept or the service proposition), namely addressing *what* should be designed and then implemented. The change-oriented perspective focuses on strategies related to engaging people within the organisation to implement the proposed service changes, namely addressing *who* should make the changes happen.

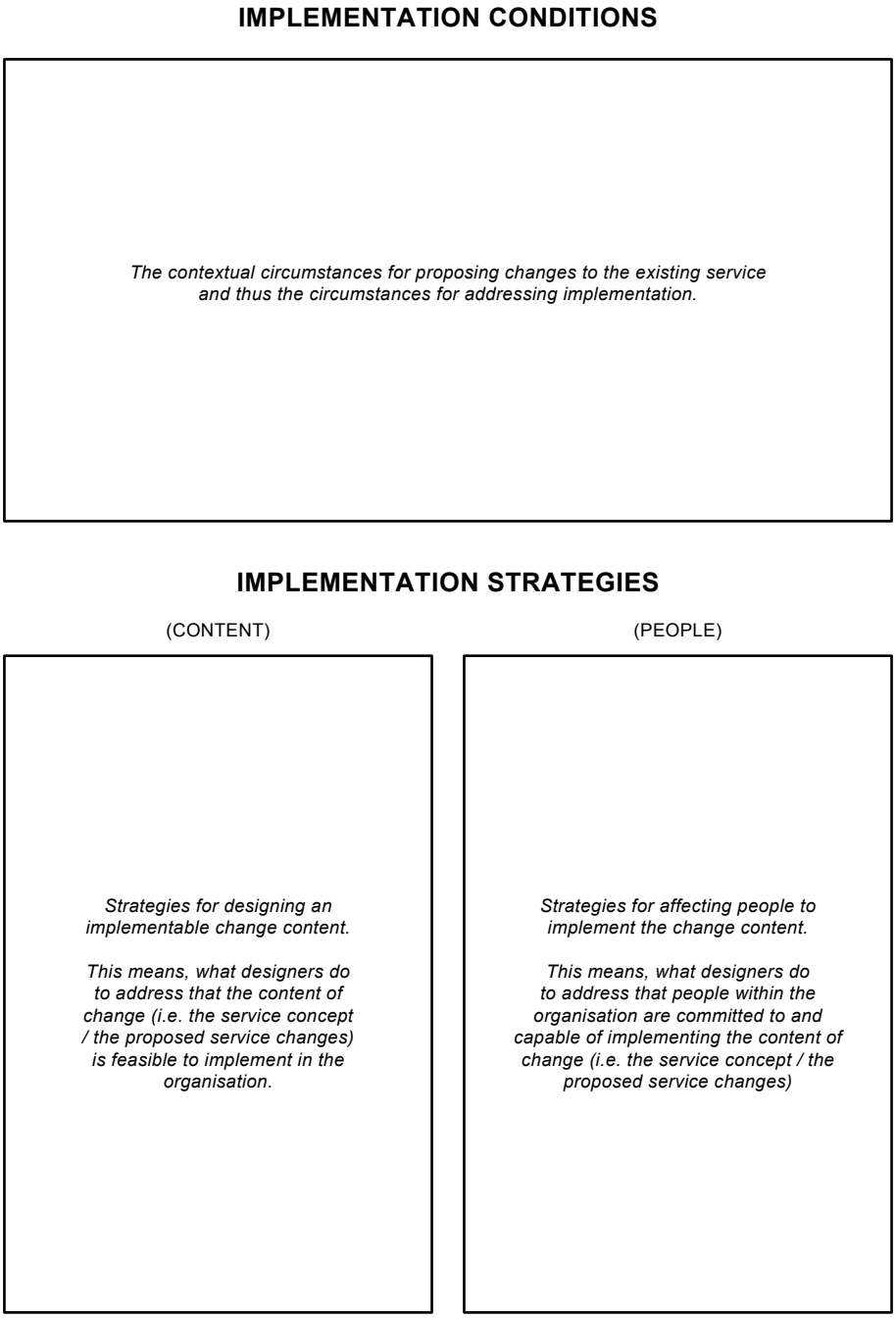


Figure 4.1. Conceptual model.

4.2. MAIN THEORETICAL FOUNDATION

The theoretical foundation for the conceptual model has, to some extent, already been presented in the previous chapter (Chapter 3). However, in order to provide an elaborated description of the model, the central arguments behind it are outlined here.

The conceptual model is based on the conviction that designers cannot design *that* changes in hospital services happen, but can only design *for* changes to happen. This combines two perspectives;

1. The perspective that services are co-produced by the service users/beneficiaries (Vargo & Lusch 2004), which means that designers cannot design services but can only design the prerequisites for services to happen (Meroni & Sangiorgi 2011); this can be referred to as service propositions (e.g. Polaine, Løvlie, & Reason 2013).

2. The perspective that changes in organisations (and thus changes in how such organisations as hospitals deliver service propositions) occur on the basis of local interactions between people (Stacey & Mowles 2016); this means that designers can only address, but not control, whether the designed service propositions are actually implemented in an organisation through their interactions with people.

The conceptual model includes *implementation conditions*. In this way, the model underlines the need to develop an understanding of the way designers address implementation in relation to the contextual circumstances. Understanding the context for implementation might reveal some reasons for why designers address implementation the way they do.

The conceptual model further includes *implementation strategies*. The service design literature (Stickdorn & Schneider 2011) proposes that implementation should be addressed by, for example, basing the change on a consistent service concept, communicating the concept clearly, and involving employees from the beginning of the service design process (Stickdorn & Schneider 2011, p. 134). In the conceptual model, these suggestions are understood to be potential implementation strategies.

In the conceptual model, there are two types of implementation strategies: content-related strategies and people-related strategies. This division, in addition to the related terms, links to organisational change theory (Anderson & Anderson 2010, p. 24). Seen from an organisational change perspective, the creation of a proposed service change (the service concept) concerns the *content of change*, whereas addressing motivation, engagement, power relations, and so on concerns the *people in change*.

Much of the service design literature (e.g. Stickdorn & Schneider 2011; Polaine, Løvlie, & Reason 2013) concerns the creation of new or improved services, and thus the

creation of a content of change. This means that creating a 'content of change' is essential to service design and might even be considered its core. Moreover, a common aim of service design projects is ensuring that this 'content of change' is not only desirable for people and financially viable, but could also be feasibly implemented in an organisation (Meroni & Sangiorgi 2011, p. 261). This means that designers are expected to address the fact that the content of change (what they design) can feasibly be implemented. Thus, in the conceptual model, *content-related implementation strategies* relate to how designers address that the content of change (what they design) can feasibly be implemented in the organisational context.

Addressing the people who take part in change is often considered to be within the area of change management (Anderson & Anderson 2010, p. 29). However, some of the service design literature (Lin et al. 2011; Stickdorn & Schneider 2011) suggests that designers pay attention to this aspect. For example, designers are encouraged to clearly communicate the concept (the service proposition), involve employees from the beginning of the service design process, and so on (Stickdorn & Schneider 2011, p. 134). Based on the perspective that changes in organisations (and thus changes in services provided by organisations) occur through local interactions between people (e.g. Stacey & Mowles 2016), such activities can be understood as a means to change the patterns of human interaction by providing gestures into the on-going conversations. In the conceptual model, such activities are understood as potential *people-related implementation strategies*.

Content-related implementation strategies are thus different from *people-related implementation strategies* and are also related to different perceptions of organisations: content-related implementation strategies are related to a systems-oriented view of organisations, that is, that organisations are perceived to be systems which can be changed on the basis of a 'feasible' design. People-related implementation strategies are related to a human-oriented view of organisations, that is, that organisations are perceived to be patterns of human interaction which can be changed by providing gestures into the on-going conversations (fig. 4.2, p. 112).

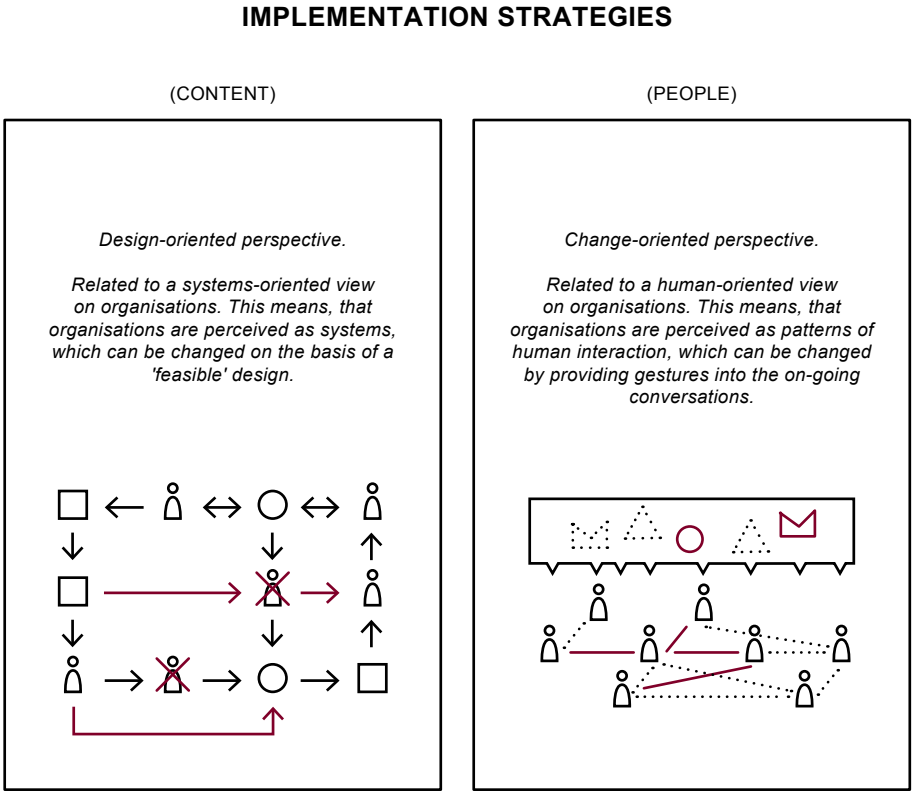


Figure 4.2. The conceptual model combines two perspectives on addressing implementation.

4.3. EPILOGUE

This chapter has introduced the conceptual model developed in this research project. Informed by service design theory and organisational change theory, this model provides an analytical tool for an investigation into how designers address implementation during service design projects for organisations such as hospitals. In the following chapter, the conceptual model will be used to analyse four different service design projects.

CHAPTER 5
CASES

5.0. PROLOGUE

This chapter presents, describes and analyses four service design projects conducted between 2009 and 2012 by professional designers and public hospitals in Denmark and Norway (fig. 5.1).

Each case will be introduced with a short case description, including;

- The project background
- The project organisation and resources
- The design process
- The design outcome

Subsequently, the cases will be analysed on the basis of the conceptual model presented in the previous chapter. This means that each case will be analysed step by step in regards to;

- The implementation conditions
- The implementation strategies related to content
- The implementation strategies related to people

On this basis, each case analysis will show how the designers in the individual service design projects addressed implementation.

Figure 5.1. The four cases.
(The illustration is identical to fig. 2.4)

CASE A	CASE B	CASE C	CASE D
TITLE			
The Unmanned Blood Depots	The Complex Ward	The Patient Hotel	The Duty Doctor
YEAR			
2012	2009	2009	2010
HOSPITAL			
Aalborg University Hospital (DK)	Randers Region Hospital (DK)	Odense University Hospital (DK)	Oslo Legevakt (NO)
DESIGNERS			
Idéklinikken (in-house design team)	Hatch and Bloom (external design firm)	Designit (external design firm)	Making Waves (external design firm)
PROJECT SCOPE			
To redesign the procedure for collecting blood from two unmanned blood depots	To redesign the service for patients in need of cross-disciplinary treatment	To introduce a service concept in the clinical departments building upon 'hotel thinking'	To improve patient experience, reduce friction and encourage flow at Legevakten
IMPACT			
Implemented	Implemented	Not implemented	Implemented
PRIMARY METHOD OF INQUIRY			
Research through design (active researcher engagement in practice)	Interview with design project manager and hospital project manager	Interview with design project manager, hospital project manager and project participant.	Interview with design project manager and hospital project manager
DATA MATERIAL			
First-hand experiences, project material, sound- and video recordings and field notes	Interview transcriptions and project report	Interview transcriptions and project report	Interview transcriptions and project presentation

5.1. CASE A: DESCRIPTION

'The Unmanned Blood Depots' is a service design project from 2012 that was conducted by the in-house innovation unit Idéklinikken in collaboration with the Clinical Immunological Department at Aalborg University Hospital.

5.1.1. PROJECT BACKGROUND

Aalborg University Hospital has two unmanned blood depots; these are two separate rooms at different locations at the hospital from which nurses can quickly and easily collect bags of blood for their patients. This is a service provided by the Clinical Immunological Department, a department also known as the Blood Bank.

Blood transfusion, that is, giving blood donations to patients, is a serious matter. Giving a wrong type of blood to a patient can have a fatal outcome. This means that the procedure regarding collecting blood and giving a blood transfusion must be carefully followed in all situations. Prior to the service design project, this did not always happen.

In order to collect blood from the unmanned blood depots, the nurses were required to follow a formal procedure, which included the electronic control of the collected bag of blood before it left the unmanned blood depot. However, six times a month, on average, the Clinical Immunological Department registered that bags of blood had not been correctly controlled. This meant that six times a month, on average, a patient was potentially at risk of being given a wrong type of blood.

The Clinical Immunological Department had already attempted to solve the problem in different ways: by buying expensive equipment (which had never been installed), by placing a basket of candy in strategic spots, and finally by systematically reporting every instance in a shared database as a kind of written warning to the nurses. None of the attempts had had an effect.

A member of the top management of the hospital recommended that the Clinical Immunological Department contact Idéklinikken, the in-house innovation unit at the hospital, in order to set up a service design project to develop a solution. The project was initiated with a formulation of a project description and a suggested project plan. The aim of the project was to improve the existing service by raising patient safety and by supporting the work procedures both for nurses (the service beneficiaries) and for the staff of the Clinical Immunological Department (the service providers). This included the specific aim of reducing the number of missed electronic controls of blood bags collected from the unmanned blood depots (fig. 5.2).

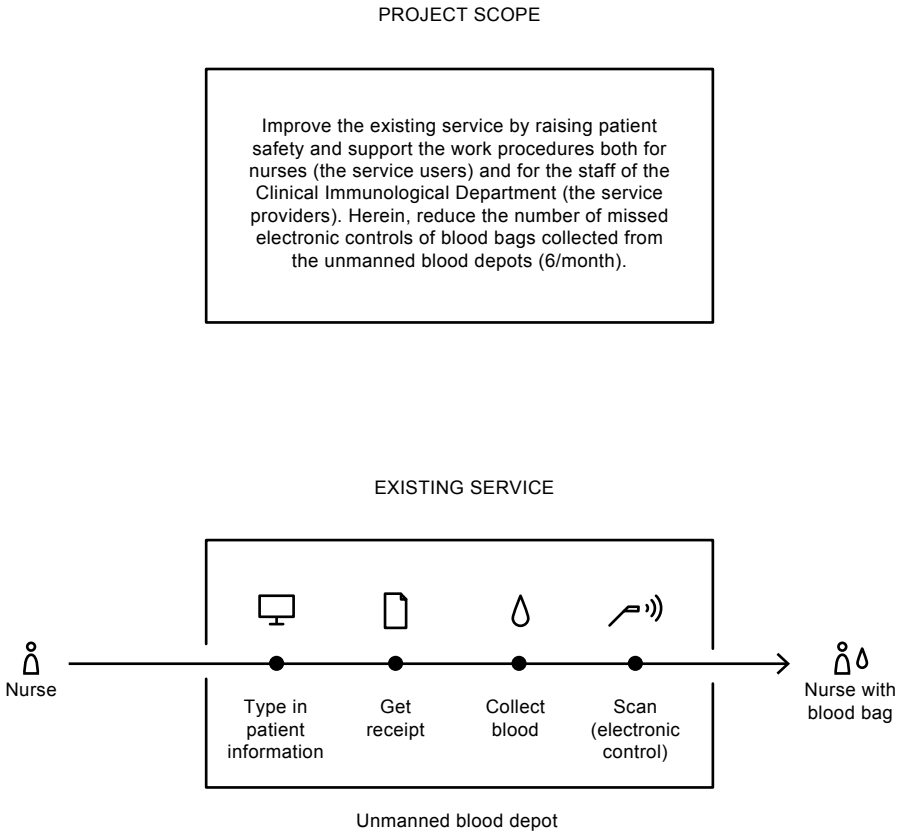


Figure 5.2. The objective of Case A (The Unmanned Blood Depots) was to redesign the procedure for collecting blood from two unmanned blood depots prior to blood transfusions. In particular, to reduce the number of missed electronic controls of blood bags.

5.5.2. PROJECT ORGANISATION AND RESOURCES

The project organisation consisted of a project group and an extended project group. The project group included three representatives from Idéklinikken (a designer, a design researcher (the author of this thesis) and an anthropologist) and three representatives from the Clinical Immunological Department (a member of the department management, the staff member responsible for the unmanned blood depots and the staff member responsible for IT). The extended project group included the members of the project group plus representatives from initially four and later six selected departments that used the existing service.

The project did not have a fixed budget, however it did receive 100,000 DKK to cover implementation costs.

The project lasted approximately 10 months, from the initial meetings to the prototyping and describing of the proposed changes.

5.1.3. DESIGN PROCESS

The design team from Idéklinikken initiated the project by writing a design brief (project description) in collaboration with the Clinical Immunological Department. The design brief clarified the purpose, objective and expected process of the project as well as the roles and responsibilities of the project group members.

The project was kicked off with an initial presentation for all potentially relevant stakeholders within the organisation. This enabled a discussion about the objective of the project and how the project process and results would potentially affect the daily work in the different departments.

Following the kick-off meeting, the design team from Idéklinikken subsequently conducted video and in-person observations inside the unmanned blood depots and interviewed staff from the Clinical Immunological Department as well as nurses, managing nurses and safety representatives from the selected departments who used the existing service. These research activities did not solely relate to the issue of electronic control, they also uncovered aspects related to the entire procedure for donating blood, that is, both before, during and after the collection of blood from the unmanned blood depot as well as revealing 'work-arounds' with regards to the existing procedure. The findings included problems involving;

- Finding the key for the unmanned blood depots.
- Remembering different procedures for collecting different types of blood.
- Using the user interface on the computer.
- Managing traceability (who has collected which bag of blood).
- Going into the refrigerated room for storing blood (nurses were anxious about going inside).
- Taking phone calls during procedures.
- Using the electronic control (the primary reason for initiating the project).
- Collecting more blood than the procedure prescribed (the nurses sometimes collected up to six bags of blood although the rules required them to collect only one at a time).
- Manually controlling the blood bag at the patient's bedside.

Hence, the findings were multiple and involved more than the single problem regarding

the electronic control that had initiated the project.

The findings were used as a means to kick-start a co-design workshop with participants from both the Clinical Immunological Department and the departments that used the existing service. During this workshop, the participants collaboratively developed ideas on how to improve the existing service on the basis of the presented findings. As with the findings, the ideas were multiple and related not only to electronic control but also to several other aspects.

The workshop was followed by internal workshops in which the design team synthesised and refined the ideas into three concepts. These concepts were subsequently evaluated through two feedback sessions, consisting of one session with the project group members and a second with nurses from selected departments. On the basis of the evaluations, the concepts were selected, refined and prototyped within the locations of Idéklinikken. Representatives from both the Clinical Immunological Department and the departments that used the existing service tested out the prototype over the course of four days.

After the prototype, the project group representatives from the Clinical Immunological Department started to prepare the implementation (contacting the IT-provider, technical department, etc.). Less than one year after the project had been initiated, most of the proposed changes had been implemented.

The figure (fig. 5.3) provides a simplified illustration of the design process.

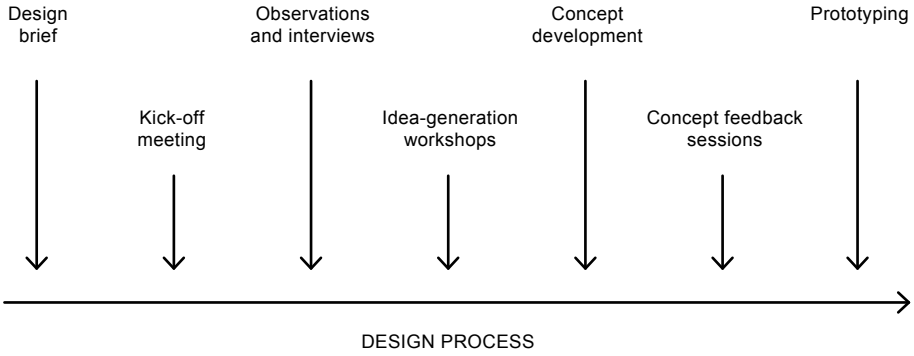


Figure 5.3. A simplified illustration of the design process in Case A (The Unmanned Blood Depots).

5.1.4. DESIGN OUTCOME

The project resulted in a number of proposed service changes, including changes to the procedure for collecting blood, changes to the IT-system, and investment in new equipment (fig. 5.4), specifically including;

1. The rearrangement of the procedural steps and the introduction of location slips in order to secure the correct electronic control of the blood bags.

2. A new procedure for collecting multiple bags of blood in order to reduce nurses' workarounds when collecting multiple bags of blood.

3. The introduction of a low-tech monitoring system for emergency blood in order to keep track of the supply and to ease the collection procedure.

4. Access to the unmanned blood depots with the use of ID cards instead of physical keys in order to overcome problems with finding the key and to improve traceability.

5. The redesign of the visual user interface in the IT system in order to improve the user experience and reduce confusion when collecting different types of blood.

6. The replacement of the refrigerated room with a refrigerated cabinet in order to improve the nurses' experiences when collecting the blood bag.

While the first proposed change responded to the problem regarding electronic control, the five other proposed changes responded to the other significant findings which had been revealed during the project.

Most of the proposed service changes where implemented less than one year after the project was initiated and are still in use. Concerning the original problem, the implemented service changes resulted in a significant reduction in the annual number of missed controls of blood bags. The average of 6 missed controls per month prior to the project was reduced to only one missed control in the year following the implementation of the changes.

Some proposed changes were not implemented as intended: 1) instead of introducing a new procedure for collecting multiple bags of blood for the same patient, the Clinical Immunological Department chose to keep the existing procedure and instead change the rules for collecting multiple bags of blood; 2) the redesign of the visual interface of the IT system was not implemented due to costs, and 3) the refrigerated room was not replaced with a refrigerated cabinet due to costs and staff preferences.

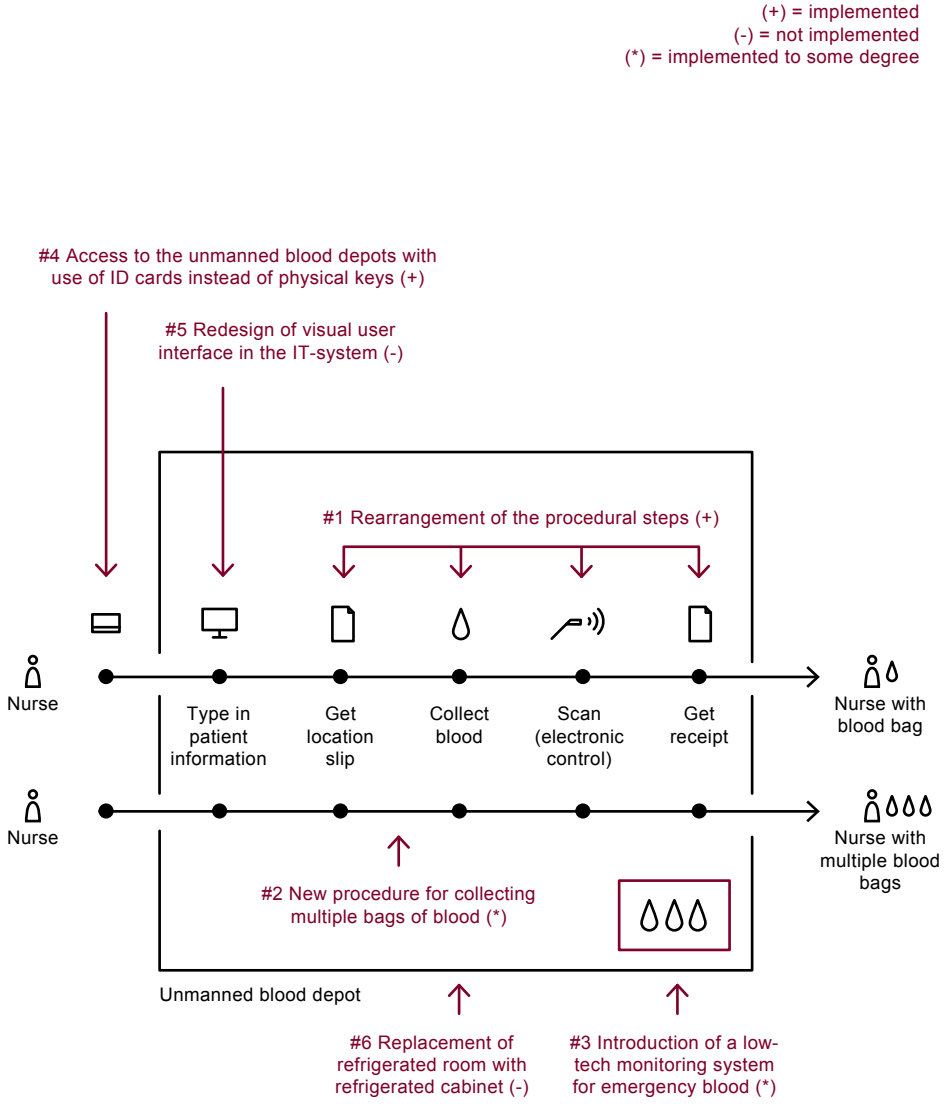


Figure 5.4. Proposed service changes in Case A (The Unmanned Blood Depots).

5.2. CASE A: ANALYSIS

This section presents an analysis of Case A, 'The Unmanned Blood Depots'. With its point of departure in the conceptual model (presented in Chapter 4), the analysis intends to clarify how the designers addressed implementation during the design process by describing the implementation conditions and the implementation strategies.

5.2.1. IMPLEMENTATION CONDITIONS

First, this section describes the implementation conditions, that is, the contextual conditions for proposing changes to the existing service and thus the conditions for addressing implementation (fig. 5.5). These conditions relate to the project positioning within the organisation, the project ownership, the project group capabilities and the project scope. In Case A, the conditions were mainly positive and thus enabling for implementation.

Project positioning

The project focused on making changes to a service provided by a single department: the Clinical Immunological Department. This department had initiated the project with support from the general hospital management, which had requested that the department solve the problems with the existing service. Thus, the project was supported by people who had a formal mandate and the opportunity to change the existing service, namely the department providing the service and the general hospital management. Hence, the project received strong support within the organisation; this was a positive implementation condition.

Project ownership

The project was formally owned by the department that provided the service (the Clinical Immunological Department). This was a positive implementation condition because it meant that project ownership belonged to the people who had the primary mandate as well as the opportunity to change the existing service.

However, the project was facilitated and managed by the designers (and thus not by the service provider). The role of project manager was given to one of the designers due to her experience with running similar projects and due to the service provider's lack of experience with project management in general. The designers perceived this as a potential barrier to implementation. From the role of project manager there often follows a sense of ownership of both the project and the project results. Thus, there was a potential lack of a sense of ownership among the service providers (those who had the mandate and the opportunity to implement the results). This was a potential negative implementation condition.

IMPLEMENTATION CONDITIONS

PROJECT POSITIONING

· Solid project support within the Clinical Immunological department and within the top-management (positive condition)

PROJECT GROUP CAPABILITIES

· Competent project group in relation to decision-making and execution of actual changes (positive condition)

PROJECT OWNERSHIP

· Project formally owned by service provider (positive implementation condition)
· Project facilitated and managed by designers (potential negative condition)

PROJECT SCOPE

· Narrow project scope concerned with a single procedure within a single department (both positive and negative condition)

Figure 5.5. Implementation conditions for Case A (The Unmanned Blood Depots).

Project group capabilities

The project group members included a member of the department management, the staff member responsible for the unmanned blood depots and the staff member responsible for IT. These three people had competencies with regards to making management decisions, making sure the changes fulfilled national and international legislation, making changes to the IT system, and in general making changes within their department. Therefore, they had the competencies to make decisions and execute actual changes in relation to the existing service. Furthermore, they had the resources to engage deeply with the project as well as the resources to implement the proposed service changes, both in regards to time and money. This was a positive implementation condition.

Project scope

The project focused on redesigning the service of the unmanned blood depots; raising patient safety and supporting the work procedure for nurses (the service beneficiaries) as well as for the staff of the Clinical Immunological Department (the service providers). This included the specific aim of reducing the number of missed electronic controls of blood bags collected from the unmanned blood depots. Hence, the scope of the project was rather narrow, concrete and limited; it aimed to propose changes to a rather tangible and well-described service provided by a single department. This was a positive implementation condition in the sense that the content and the people who would most likely be affected by the proposed changes were already known. More importantly, the people who were to implement the changes (the Clinical Immunological Department) were prepared to introduce such changes and had a great willingness to do so.

However, the narrow project scope was not only positive. During the initial research activities within the project, the designers uncovered aspects related to the entire procedure for donating blood and thus revealed significant findings before, during and after the collection of blood as well as 'work-arounds' with regards to the existing procedure. This included the finding that nurses sometimes collected multiple bags of blood at one time, even though this was strictly forbidden by the service provider (the Clinical Immunological Department). This finding was significant and needed to be solved. However, the problem was not strictly speaking part of the original narrow project scope, which was primarily concerned with reducing the number of missed electronic controls of blood bags. This meant that the service providers (the representatives from the Clinical Immunological Department) did not have the initial willingness to change this aspect of the service as they were not prepared for this kind of change.

In summary, the rather narrow project scope constituted both a positive and a negative implementation condition. Positive, because the people who were to implement the changes (the Clinical Immunological Department) were prepared to introduce changes and had a great willingness to do so. Negative, because the people from the Clinical

Immunological Department were not as prepared to introduce changes ‘outside’ the initial scope.

5.2.2. IMPLEMENTATION STRATEGIES (CONTENT)

This section elaborates the implementation strategies related to content. It describes how the designers ensured that the proposed service changes (what they designed) could feasibly be implemented in the organisational context. The implementation strategies relate to the project framing (how the design task was approached), content characteristics (what idea- and concept characteristics were preferred) and content evaluation (how ideas and concepts were evaluated) (fig. 5.6).

Project framing

Regarding the project framing, the designers were concerned with identifying a space for realistic service change, that is, investigating the elements of the service to see whether or not they could be changed. This took place through interaction with the hospital representatives during meetings, interviews and workshops throughout the design process.

During the initial interviews and the meeting with project group representatives, the designers acknowledged that elements such as the locations of the unmanned blood depots could not be changed due to the priorities of the general hospital management; neither could the blood bag itself be changed because it followed a European standard. However, it was possible to change elements like the IT system because the Clinical Immunological Department had a contract with the IT provider, which enabled them to propose changes once a year.

The designers furthermore challenged the space for change, that is, they tried to challenge what they could propose as changes by renegotiating the project scope. As previously mentioned, early user interviews revealed that the initial project scope did not include significant problems with the existing service. Nurses collected multiple bags of blood at a time, even though this was strictly forbidden by the service provider (the Clinical Immunological Department). As this problem was outside the original project scope, the service providers did not have the initial willingness to change this aspect of the service. In other words, ‘the collection of multiple bags of blood’ was initially an element that could not be changed and which was outside the space for change. However, the designers decided to challenge this. They arranged a workshop assignment in which representatives from the Clinical Immunological Department (the service providers) together with nurses (the service users) had to co-create ideas that could solve the issue of collecting multiple bags of blood a time. Hence, they tried to challenge the service providers’ perception of what ‘could not be changed’ by forcing them to look at the issue from the perspective of the nurses and co-create ideas and thus renegotiate the project scope. The effort was successful. The representatives from the Clinical Immunological Department acknowledged the need to change the procedure for collecting multiple bags of blood simultaneously, thus extending the project scope and the space for change.

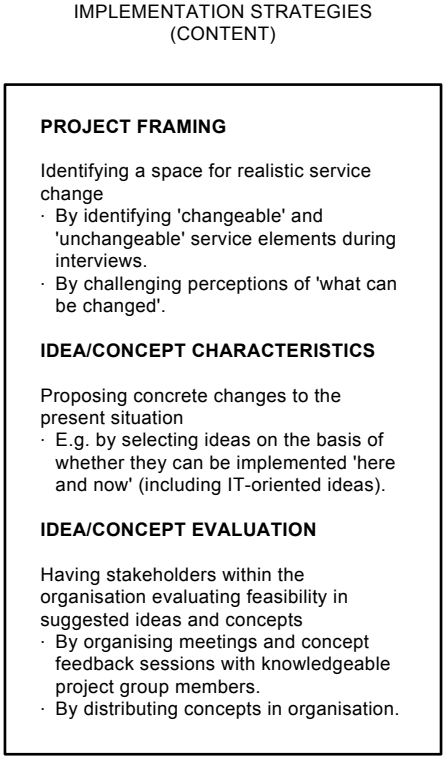


Figure 5.6. Implementation strategies related to content for Case A.

The strategy of identifying (and challenging) a space for realistic service change had a positive effect on implementation because it helped to clarify what the designers could propose changes to (and what they could create a potential solution with) while avoiding significant barriers to implementation.

Content characteristics

Regarding the content characteristics, the designers were concerned with proposing concrete changes to the present situation. Thus, instead of designing visionary ideas for the future, they focused on designing concrete changes to the local unmanned blood depots.

For example, ideas were generated during co-creation workshops with hospital representatives and during internal workshops within the design team. The ideas were divergent; some were very concrete and related to the present situation at the unmanned blood depots, while others were very visionary and related to future hospital buildings still under construction. In order to ensure that the project would result in a solution which the hospital representatives could implement, the designers chose to categorise the ideas in relation to a timeline for potential implementation: 'here and now', 'in between' and '10 years ahead' (fig. 5.7). Only ideas belonging to the first category of 'here and now' were selected for further development.

The strategy of proposing concrete changes to the present situation had a positive effect with regards to implementation because the proposed changes did not presuppose conditions which were not yet available (such as future hospital buildings). Furthermore, the concrete character of the proposed changes enabled the hospital representatives to quickly focus on how to implement them. This was in contrast to a situation where the proposed changes had a more abstract character, which would have required the hospital representatives to concretise the changes themselves prior to implementation.

Content evaluation

Regarding the evaluation of the change content, the designers were concerned with having stakeholders evaluate the feasibility of selected ideas. Meaning that they utilized the hospital representatives (mainly the project group members from the Clinical Immunological Department) and their knowledge and experience to evaluate whether ideas were 'implementable' or not.

First of all, the designers organised meetings and concept feedback sessions. For example, the designers held meetings with the staff member responsible for IT to evaluate the feasibility of implementing ideas in relation to IT. The designers furthermore held meetings with the primary staff members responsible for the unmanned blood depot to evaluate whether ideas could feasibly be implemented in relation to finances, resources and national and international legislation. Moreover, the designers

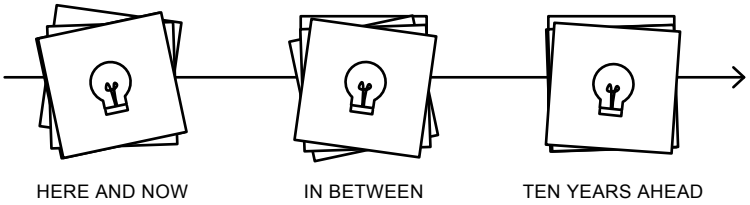


Figure 5.7. The designers divided ideas into three categories. Ideas belonging to the first category (Here and now) were selected for further development.

facilitated a concept feedback session, where all three project group members from the Clinical Immunological Department were asked to provide feedback on a series of service concepts, including feedback related to feasibility. These activities made it possible for the designers to evaluate whether the proposed changes could feasibly be implemented in relation to various aspect such as IT, legislation, budget and so forth.

Secondly, the designers created concept storyboards, whereby concepts were communicated as step-by-step procedures printed as sets of cards which could be mixed and matched into new concepts (fig. 5.8). The cards were distributed to selected stakeholders within the organisation, that is, to stakeholders within the Clinical Immunological Department and within some of the departments using the existing service. In this way, the designers received additional feedback from stakeholders who were not able to participate in the organised meetings or feedback sessions.

The strategy of having stakeholders evaluate the feasibility of selected ideas had a positive effect on implementation because it helped the designers to select, align and adjust the proposed changes with regards to implementation.

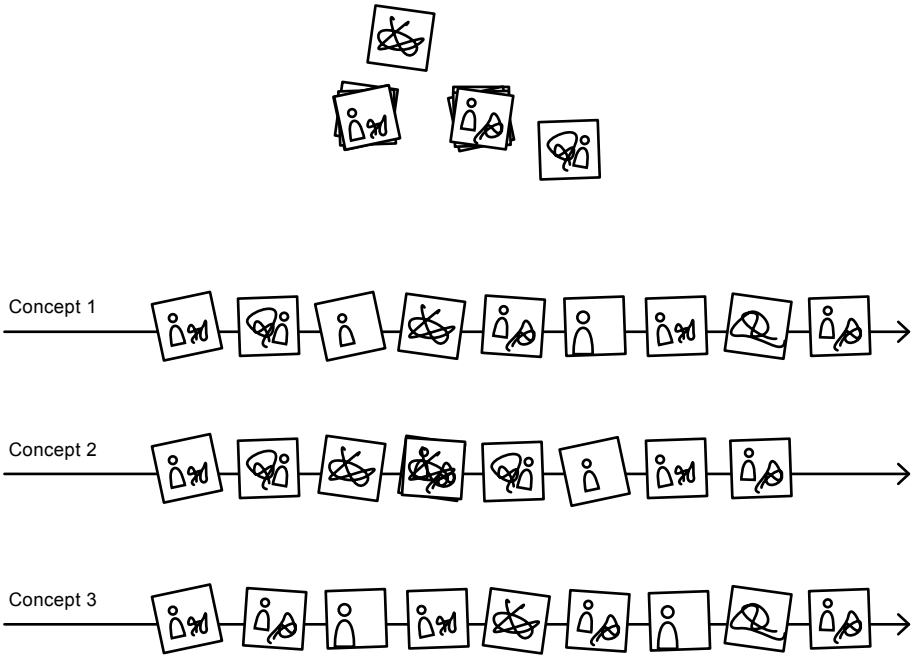


Figure 5.8. The designers created concept storyboards; this means, step-by-step procedures printed as sets of cards that could be 'mixed and matched' into different concepts.

5.2.3. IMPLEMENTATION STRATEGIES (PEOPLE)

This next section provides the implementation strategies related to people. It describes how the designers ensured that the right people within the organisation were committed to and capable of implementing the proposed service changes. The implementation strategies relate to stakeholder inclusion, stakeholder engagement and project handover (fig. 5.9).

Stakeholder inclusion

Regarding stakeholder inclusion, the designers were committed to involving the right people in the process, namely key stakeholders who could either enable or potentially challenge implementation. In this regard, the project began under rather positive conditions as it was initiated by the management of the Clinical Immunological Department with support from the top management of the hospital, in other words, by people who had the formal power and the competencies to change the existing service.

However, because the service was an internal service within the hospital – provided by one department for a range of other departments – changes to the service would potentially affect changes to many different departments within the hospital. The designers were concerned that stakeholders within these departments could potentially oppose implementation if they were not properly involved in the project. Therefore, the designers chose to widely invite and involve people from these departments from the beginning and throughout the project. This included people such as management representatives, patient safety representatives, and nurses who used the existing service.

For example, the designers identified all the departments that used the existing service in collaboration with the project group representatives from the Clinical Immunological Department. Management representatives from these departments were invited to the project kick-off meeting. Approximately 25 people attended, representing the majority of the affected departments. At the meeting, some representatives shared their scepticism. A managing nurse pointed out that the number of missed scans only represented a small percentage of the total number of collected blood bags and thus doubted the priority of the project regarding its use of resources. In response, the manager of the unmanned blood depots quickly answered that the project had been prioritized and initiated by a representative from the general hospital management. With this information, the managing nurse accepted the prioritization of the project and was later actively involved in the project. At the end of the meeting, the project team received additional enquiries from departments which wanted to take an active part in the project. An extended project group was formed which included representatives from initially four and later six selected departments.

The strategy of involving the right people in the project (including representatives from the departments that used the existing service) had a positive effect on implementation

Figure 5.9. Implementation strategies related to people for Case A.

as it addressed potential resistance while also enabling a dialogue among participants in relation to the subject.

Stakeholder engagement

Regarding stakeholder engagement, the designers were concerned with promoting implementation commitment during the project, thus they tried to ensure that the involved stakeholders were supportive, motivated and dedicated to making the changes happen.

Firstly, the designers instituted an implementation promise from the project group representatives. The designers included 'implementation' as a project phase in the design brief and project plan (despite not knowing what this 'implementation' would specifically include). Both the designers and the representatives from the Clinical Immunological Department signed the project brief. In this way, they promised each other that the final result of the project would lead to actual changes to the existing service. The design brief and project plan were shared within the organisation through meetings and emails, meaning the promise was shared with stakeholders in the organisation, which also included representatives from the general hospital management and the users of the service.

Secondly, the designers made an effort to continuously remind the project group representatives from the Clinical Immunological Department that the project ownership belonged to them (including the responsibility for making the changes happen), although the role of project manager belonged to one of the designers. In the design brief, for example, it was stated that the Clinical Immunological Department was the project owner and that the responsibilities, such as gaining internal project support in the department, contributing with human and material resources, and so on, belonged to them. Furthermore, the design team made sure that all project materials (emails, different information material, etc.) had the Clinical Immunological Department noted as sender even though the design team had prepared them. Moreover, the design team emailed short weekly updates to the representatives from the Clinical Immunological Department to keep them informed about all the project activities conducted each week. All activities had the purpose of formally and mentally placing the project ownership with the Clinical Immunological Department (and thus not with the design team).

Thirdly, the designers aimed to create ownership for the project ideas with as many stakeholders as possible, that is, both within the Clinical Immunological Department and within the departments that used the existing service. For example, the designers organised a co-design workshop with participants from both the Clinical Immunological Department and the departments that used the existing service, aiming to ensure that the participants jointly generated ideas. The designers further organised concept feedback sessions with both the Clinical Immunological Department and the service beneficiaries. In these feedback sessions, the designers created concept storyboards, whereby concepts were communicated as step-by-step procedures printed as sets

of cards (as previously mentioned and illustrated in fig. 5.8). These cards could be 'mixed and matched' and were thus open for revision by both representatives from the Clinical Immunological Department and representatives from the departments using the existing service. Furthermore, the cards were given to the Clinical Immunological Department and some selected departments to enable co-design outside the workshop setting and involve even more stakeholders in the design process. This experimental approach was very successful among the staff within the Clinical Immunological department, who perceived the initiative as a nice gesture; this created an additional positive attitude towards the project.

Finally, the designers aimed to create general project support in the organisation by communicating the project objectives and plan to both the top management and several department managements. The designers presented the project at monthly meetings between the hospital management and furthermore at a management assembly where managers from different departments were present.

All these different activities followed the general strategy of promoting implementation commitment throughout the project. The strategy had a positive effect with regards to implementation because it gave the representatives from the Clinical Immunological Department a feeling of ownership towards both the project and the proposed changes to the existing service. The representatives from the Clinical Immunological Department were also committed to making the changes happen. Furthermore, no one resisted implementation because those people who had been reluctant regarding the project were involved early on. Finally, the project received an implementation budget (100,000 DKK), most likely due to the great awareness the project had received among the different department managements, including within the management of the Clinical Immunological Department.

Project handover

The designers were concerned with appropriately handing over the project to the Clinical Immunological Department by the end of the project period and hereby altering their original plans in regards to the final phases in the design process.

The designers had the idea that they would have a significant role with relation to the actual implementation and that they would have to expend a lot of resources late in the project period, such as in the creating detailed service blueprints, communicating with the IT provider, and being present at the unmanned blood depots when the new procedure was in place. However, after the designers facilitated an experience prototype in which nurses tried out the suggested solutions, the Clinical Immunological Department took over the project and the designers' roles were diminished. The designers chose to let go of the project and trust that the Clinical Immunological Department had learned enough from the process to complete the details in a manner that was most suitable for them (the service providers) as well as the nurses (the service beneficiaries).

The strategy of appropriately handing over the project to the Clinical Immunological Department (and hereby changing the original plans) had a positive effect on implementation as it accommodated the eagerness of the representatives from the Clinical Immunological Department and their implementation capabilities. It also meant that some of the proposed changes were not implemented as the designers had intended (specifically, some of the details regarding collecting blood during emergencies). However, the majority of the proposed changes were implemented as described and were communicated through the experience prototype and concept presentation.

5.2.4. SUMMARY

The illustration (fig. 5.10) provides a blueprint and thus sums up the implementation conditions and the implementation strategies for Case A (The Unmanned Blood Depots). It presents a case with mainly positive implementation conditions, which the designers addressed by following different implementation strategies related to both content and people.

The project resulted in a successful implementation, whereby most of the proposed service changes were implemented less than one year after the project had been initiated.

IMPLEMENTATION CONDITIONS

PROJECT POSITIONING

· Solid project support within the Clinical Immunological department and within the top-management (positive condition)

PROJECT OWNERSHIP

· Project formally owned by service provider (positive implementation condition)
· Project facilitated and managed by designers (potential negative condition)

PROJECT GROUP CAPABILITIES

· Competent project group in relation to decision-making and execution of actual changes (positive condition)

PROJECT SCOPE

· Narrow project scope concerned with a single procedure within a single department (both positive and negative condition)

IMPLEMENTATION STRATEGIES

(CONTENT)

PROJECT FRAMING

Identifying a space for realistic service change
· By identifying 'changeable' and 'unchangeable' service elements during interviews.
· By challenging perceptions of 'what can be changed'.

IDEA/CONCEPT CHARACTERISTICS

Proposing concrete changes to the present situation
· E.g. by selecting ideas on the basis of whether they can be implemented 'here and now' (including IT-oriented ideas).

IDEA/CONCEPT EVALUATION

Having stakeholders within the organisation evaluating feasibility in suggested ideas and concepts
· By organising meetings and concept feedback sessions with knowledgeable project group members.
· By distributing concepts in organisation.

(PEOPLE)

STAKEHOLDER INCLUSION

Involving the right people in the project
· By widely involving people from all potentially affected departments within the project.

STAKEHOLDER ENGAGEMENT

Promoting implementation commitment
· By instituting an 'implementation promise'.
· By continously articulating the service providers as project owners.
· By creating ownership for project ideas within relevant departments.

PROJECT HANDOVER

Appropriately handing over the project
· By 'letting go' and handing over the project earlier than anticipated when it suited the service provider (the Clinical Immunological Department)

Figure 5.10. The implementation conditions and -strategies in Case A.

5.3. CASE B: DESCRIPTION

'The Complex Ward' is a service design project from 2009 conducted by the design consultancy Hatch and Bloom in collaboration with Randers Regional Hospital (fig. 5.11).

5.3.1. PROJECT BACKGROUND

At Randers Regional Hospital, it has traditionally been a difficult and resource-demanding task to coordinate the continuity of care of patients with multiple concurrent diseases, as these so-called 'complex' patients are in need of cross-disciplinary treatment from both surgical and medical specialties. This is an issue that is also recognized in other hospitals.

In 2009, Randers Regional Hospital had the opportunity to apply for public funding for service design projects with external design companies. On this basis, Randers Regional Hospital formulated the following problem statement, which was part of a project proposal sent out to different design companies;

How can Randers Regional Hospital improve the continuity of care for complex patients with the aim of ensuring faster recovery, more efficient and coordinated treatment and a better service experience for both complex patients and their relatives?

Hatch and Bloom was the winning design company who replied to the project proposal by outlining a project description on how they would approach the task.

5.3.2. PROJECT ORGANISATION AND RESOURCES

The project included a small project group consisting of the design team, namely the design project manager, a designer and an anthropologist, as well as three representatives from the hospital, namely a chief physician from a medical department (the project owner), a development nurse (the hospital project manager) and a representative from the quality department.

The project had a budget of approximately 250,000 DKK financed by the Business and Construction Authority. An additional 100,000 DKK was financed by Randers Region Hospital to cover 'implementation costs'. Both budgets were to allocated Hatch and Bloom to cover salaries and expenses.

The project lasted approximately six months from the initial meetings to the description of the proposed changes.

PROJECT SCOPE

Improve the continuity of care for complex patients. Ensure faster recovery, more efficient and coordinated treatment and a better service experience for both complex patients and their relatives.

EXISTING SERVICE

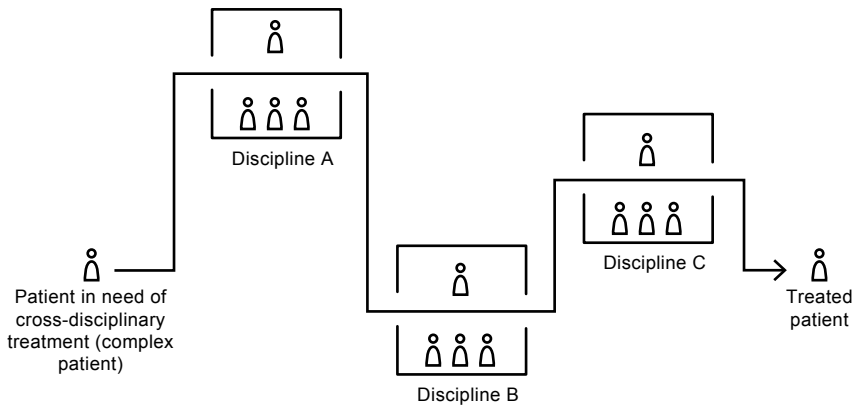


Figure 5.11. The objective of Case B (The Complex Ward) was to redesign the service for patients in need of cross-disciplinary treatment.

5.3.3. DESIGN PROCESS

The design process was initiated with observations inside both the surgical and medical departments as well as with interviews with patients, relatives and staff. The purpose was to gain an insight into the everyday activities of the hospital. The designers and anthropologist from Hatch and Bloom furthermore interviewed external experts in medicine, architecture and patient flows. The different research activities revealed several findings related to the specific group of patients, patient flows, the physical environment and the collaboration between disciplines, including the following;

The complex patient

- There are many different definitions of a complex patient.
- No one takes responsibility for those patients who do not fit into one department.

Patient flow

- Patients' information needs vary.
- Relatives experience being ignored and uninvolved.

Locations and conditions

- Practical tools are important for workflows, but they can be optimized.
- Mood and a homely atmosphere are important.

Collaboration

- Collaboration between surgeons and physicians can be improved.
- Physical meetings provide better collaboration across departments.
- Doctors are bottlenecks for staff, patients and relatives.

With a point of departure in these findings, Hatch and Bloom conducted a series of idea generation workshops together with the hospital staff, external experts, relatives and representatives from patient organisations. A vast number of ideas were gathered in a catalogue and selected ideas were further developed. Through repeated iterations in collaboration with the hospital staff, a service concept was developed and prepared for implementation.

The figure (fig. 5.12) provides a simplified illustration of the design process.

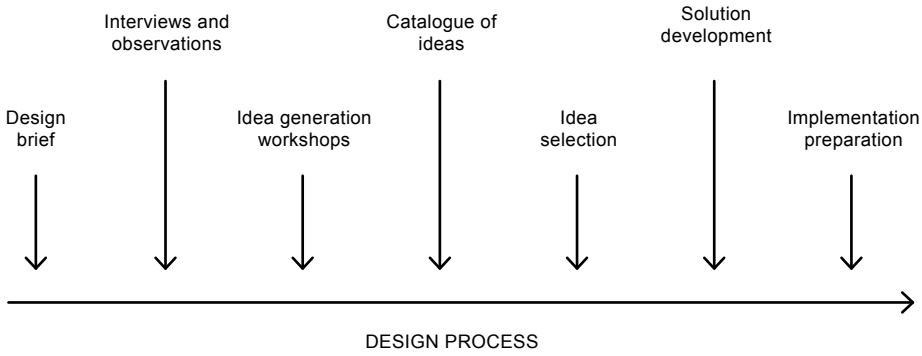


Figure 5.12. Simplified illustration of the design process in Case B (The Complex Ward).

5.3.4. DESIGN OUTCOME

The project resulted in a service concept with a number of proposed service changes (fig. 5.13). These included;

1. Changing the name from ‘complex patients’ to ‘cross patients’ in order to provide a clear and more positive explanation of the specific group of patients.

2. Offering a new ward dedicated to ‘cross patients’ in order to provide better physical locations for the patients and better conditions for collaboration between surgeons and physicians.

3. Hiring a coordinating doctor who was responsible for the ‘cross patients’ .

4. Establishing a team of expert nurses in order to improve cross-disciplinary collaboration.

5. Establishing new guidelines and tools for optimized workflows.

6. Re-decorating rooms in order to create a homely atmosphere.

7. Creating new information material for patients with different needs.

8. Creating new communication material about ‘cross patients’ for staff.

The concept was based on the general idea of organising the hospital around the patient (letting the healthcare professionals come to the patient) instead of the other way around; this meant providing the specific group of patients with a location and a primary responsible staff member and thus a place to belong within the hospital.

Most of the proposed service changes were implemented. Proposed changes that were not implemented as intended included: 1) the new position of a coordinating doctor (which only lasted two weeks), and 2) some of the interior and communications solutions for patients (due to hygiene regulations and costs).

The changes were initially intended as a six-month trial period, but the trial ended up lasting two years. After two years, the hospital underwent a general restructuring which caused the ward to be closed down. Some of the proposed changes, however, continued to be used, including the team of expert nurses, which was a significant part of the proposed service changes.

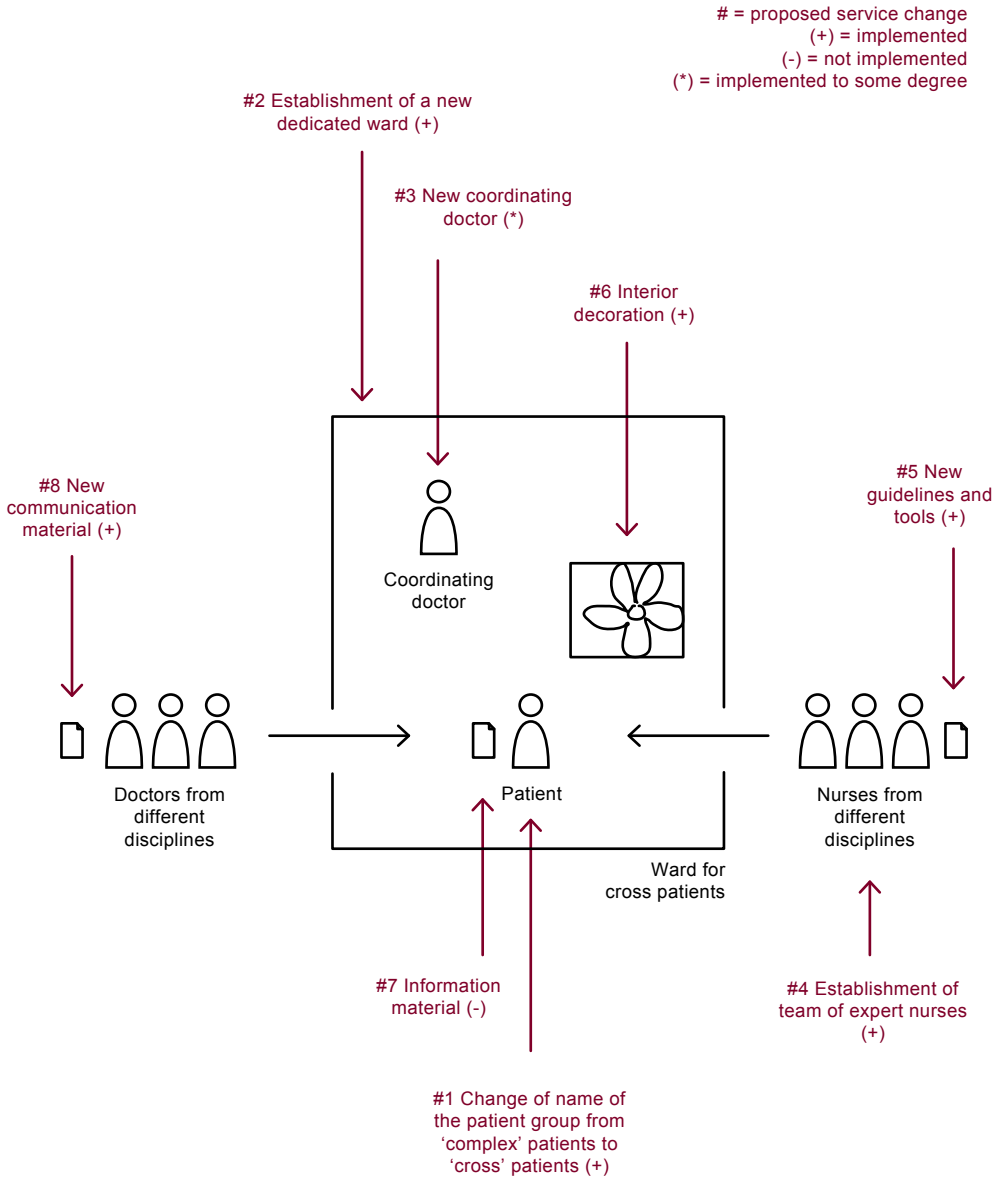


Figure 5.13. Case B (The Complex Ward) resulted in a service concept consistent of a new name for the group of patients, a dedicated ward for the particular group of patients, an allocated coordinating doctor, a team of expert nurses, new guidelines and tools, interior decoration and communication material. The concept was based on the general idea of organising the hospital around the patient (letting the healthcare professionals come to the patient) instead of the other way around.

5.4. CASE B: ANALYSIS

This section presents an analysis of Case B, 'The Complex Ward'. With its point of departure in the conceptual model (presented in Chapter 4), the analysis intends to clarify how the designers addressed implementation during the design process by elaborating both the implementation conditions and the implementation strategies.

5.4.1. IMPLEMENTATION CONDITIONS

First, this section gives the implementation conditions, that is, the contextual conditions for proposing changes to the existing service and thus the conditions for addressing implementation (fig. 5.14). These conditions relate to the project positioning in the organisation, the project ownership, the project group capabilities and the project scope. In Case B, the conditions were rather negative, and thus challenging for implementation.

Project positioning

The project focused on introducing changes across departments in the organisation and on improving the collaboration between different disciplines, and thus different departments, paying particular attention to the collaboration between medical and surgical departments. In spite of this cross-organisational focus, the project was initiated solely by a medical department, therefore no surgical departments participated in the initiation of the project. This led to a lack of commitment, and even a sense of reluctance, within these departments from the beginning of the project.

'The idea sprang from a medical department, which in itself can be a barrier. It would be better if the idea had sprung from a joint decision. The fact that it was a medical department that had raised the money and afterwards had to go the surgical departments and say that they had to play along brought resistance from the beginning.' (Hospital Project Manager)

Thus, the project did not initially have strong support within the organisation as it was not initiated by those departments that were to co-provide the service. This was a negative implementation condition.

Project ownership

The fact that the project was solely initiated by a medical department further meant that this department had full project ownership. They had applied for and received funding to conduct the project and had thus both formal and informal project ownership. This represented both a negative and a positive condition. It was positive because the medical department had the primary (coordinating) role in the new service, which made them the primary service providers and thus were particularly significant in relation to implementation, but it was also negative because the project was not co-owned by the

IMPLEMENTATION CONDITIONS

PROJECT POSITIONING

· The project did not have strong support in the organisation (negative condition)

PROJECT OWNERSHIP

· The project was owned by only one department (negative condition)
· This department was to have a primary role in the new service (positive condition)
· The project was managed by external designers (potentially negative condition)

PROJECT GROUP CAPABILITIES

· Competent project group in relation to knowledge and decision-making (positive condition)
· Limitid financial and human ressources for implementation (negative condition)

PROJECT SCOPE

· Cross-organisational and related to fundamental issues within the organisation (negative condition)

Figure 5.14. The implementation conditions in Case B (The Complex Ward).

departments that were to co-provide the service.

Furthermore, the project was facilitated and managed by the designers (and thus not by the medical department); this was a potential negative implementation condition. The role of project manager often includes a sense of ownership of the project and the project results, and thus there was a potential lack of a sense of ownership among the service providers (those who had the mandate and the opportunity to implement the results). The design project manager explains why this was particularly significant in this particular (hospital) context;

'To our private clients, we need to tell them what to do. If we don't do that, they think we are useless as consultants. We need to provide solutions and tell them: Do this! What you do today is wrong. Within hospitals, if we need them to change behaviour, we should not tell them what they do wrong and what they should do differently. We need to have a dialogue which enables them to articulate the problems and the required solutions. This is where we should help them.' (Design Project Manager)

Hereby, the design project manager emphasises the importance of establishing and maintaining a sense of ownership of the ideas created in the project among hospital representatives. As he states, clients such as people within hospitals want to figure out 'what to do' by themselves. Hereby, they need to have a strong sense of ownership of the ideas created in the project, which could be hampered by the fact that the project was facilitated and managed by the designers (and thus not by the medical department). Thus, there was a potential negative implementation condition in that the project was facilitated and managed by the external design team (Hatch and Bloom) and not by the medical department.

Project group capabilities

The project group was small and consisted of the designers and three representatives from the hospital (the chief physician from the medical department, a nurse, and a representative from the quality department). The hospital representatives were all very experienced and knew how to make changes happen within this bureaucratic, hierarchic and rather inert organisation. They knew the formal structures and procedures for introducing changes, but they also knew how to work around the established systems and had the courage to do so.

'…he [the chief physician] had the understanding that if you wanted to innovate within the system, then sometimes, you should just do it. You should not wait. Well, it was better to ask for forgiveness than permission.' (Design Project Manager)

In this case, this bold and, to some extent, anti-authoritarian attitude within the project group was a positive implementation condition as it meant that the project group was not afraid to make decisions and act on them.

The project group was very capable in relation to making decisions about changes, but they had only limited financial and human resources to make these changes happen. Initially, the project had no implementation budget, although the designer subsequently negotiated an additional 100,000 DKK for implementation. However, this was still a small budget when related to the project objective of establishing an entire new ward. Hence, the limited financial and human resources represented a negative implementation condition.

Project scope

The project aimed at improving the continuity of care for complex patients in need of concurrent treatment from different medical disciplines. With this scope, the project addressed cross-organisational challenges related to fundamental issues within the hospital, namely the fact that it is organised into medical specialities and departments, and the resulting implications for patients.

The hospitals have a good reason for the rather rigid organisation of medical specialities; with increased specialisation, healthcare professionals have become increasingly competent at curing specific diseases. However, this division in medical specialities is also an underlying problem for the treatment of complex patients – as well as a problem that would be significantly challenging to change.

'…they are very much divided in their disciplines. I think that just the idea of having to have an opinion about something [such as a patient diagnosis] in collaboration with another discipline was very strange to them.' (Design Project Manager)

'The medical staff have their departments and the surgeons operate. There is no understanding for jointly looking at a patient. Their time schedules and daily rhythms are not designed for it.' (Hospital Project Manager)

Hence, the project scope aimed to propose changes to something which was particularly resistant to change, namely the fundamental issues of being organised into medical specialities and departments and the resulting implications for patients. It concerned new ways of collaboration and treating patients and was thus concerned with changing the perceptions and behaviours of many different people within the organisation. All in all, the project scope represented a negative implementation condition, because the project focused on making changes to something that was particularly resistant to change.

5.4.2. IMPLEMENTATION STRATEGIES (CONTENT)

This section elaborates the implementation strategies related to content. It describes how the designers ensured that the proposed service changes (what they designed) could feasibly be implemented in the organisational context. The implementation strategies relate to the project framing, content characteristics and content evaluation (fig. 5.15).

Project framing

Regarding the project framing, the designers were concerned with identifying a space for realistic service change by defining the characteristics for 'implementable' changes. This was enabled by utilising the designers' previous experience with similar projects and by interacting with the hospital representatives and thus using their experience and knowledge.

Early on in the project, the designers started to identify the space for change on the basis of their own experience from previous projects, meaning they defined the characteristics of the kind of changes that were relevant to propose on the basis of their existing knowledge.

The designers recognised that they were not able to change the core of the problem (the fundamental issue of being organised in medical specialities) within the frames of the project, and that they had to perceive their project as being a small step towards changes in the perceptions and values of many different people within the organisation. If the project was to have some kind of effect (if the content of what they designed was to be implemented and lead to actual service change), they needed to propose concrete and tangible changes – not abstract visions and guidelines.

'…we had to be concrete. This we had actually told ourselves from the beginning, but also to them [the hospital representatives].' (Design Project Manager)

Furthermore, the designers used their initial interaction with the project group members to investigate whether some of the existing service elements were particularly difficult to change and thus outside the space for change. For example, the designers asked about different things, such as IT systems, which were not possible to change within the framework of the project.

'…we noticed some obstacles and asked: Why haven't you done something about this? And then he [the chief physician] replied, 'Well, it is so difficult for us because it needs to go through this and that system. We have a chief technician or caretaker who is in control of these things and he decides. Is he in a good or bad mood? This is what matters if things get done.'' (Design Project Manager)

IMPLEMENTATION STRATEGIES
(CONTENT)

PROJECT FRAMING

Identifying a space for realistic service change
- By identifying the characteristics for feasible changes based on experience.
- By identifying 'difficult to implement'-service elements through interactions with project group members.
- By receiving concrete information about 'changeable' service elements.

IDEA/CONCEPT CHARACTERISTICS

Proposing concrete changes to the present situation
- By turning abstract aims into concrete ides.
- By selecting only 'realisable' ideas (excluding IT-oriented ideas).

IDEA/CONCEPT EVALUATION

Having stakeholders within the organisation evaluating feasibility in suggested ideas and concepts
- By involving knowledgeable project group members in idea selection.

Figure 5.15. The implementation strategies related to content in Case B (The Complex Ward).

Moreover, the hospital representatives helped identify the space for change (and thus the characteristics for the proposed changes) by contributing with concrete information about 'changeable' service elements. For example, the chief physician dedicated a few specific locations for a potential new ward. In these locations, the designers could change the interior, among other things. Furthermore, the chief physician was committed to taking a coordinating and responsible role in relation to the specific group of patients. Hence, it was possible to include him in the proposed service changes as well.

The strategy of identifying a space for realistic service change had a positive effect on implementation because it helped clarify what the designers could propose changes to (and what they could create a potential solution with) while avoiding significant barriers to implementation.

Content characteristics

Regarding the content characteristics, the designers were primarily concerned with proposing concrete changes to the present situation. Although the project aimed to change some quite fundamental issues within the hospital, the designers followed a strategy of proposing concrete and tangible changes that could be quickly implemented.

Numerous ideas were generated as part of the project. In collaboration with the project group representatives, the designers selected ideas to be further developed on the basis of the parameters of what is realisable, what is viable and what is needed (fig. 5.16). Hence, 'what was realisable' was a significant factor for selecting ideas. Having 'what is realisable' as a central factor for selecting ideas meant that it was not necessarily the best ideas, as seen from a long-term perspective, that were chosen for further development, but rather those ideas that were best as seen from a short-term perspective.

'A lot of the ideas that were deselected as potential solutions were deselected because they could not be realised immediately after [the project period]. There were plenty of good ideas that were very much based on technology, but where we had to say that: These ideas are actually really good and had we had three more years this would be the way to go. But because we had set the requirement that it [the proposed solution] should be implemented when the project had finished, we had to save them [the ideas] in the gross list of good ideas.' (Design Project Manager)

The strategy of proposing concrete changes to the present situation instead of selecting visionary changes more relevant to a long-term perspective had a positive effect on implementation. It made the proposed changes feasible to implement with the available resources and did not presuppose resources and conditions that were not available (such as a large budget for new technology).

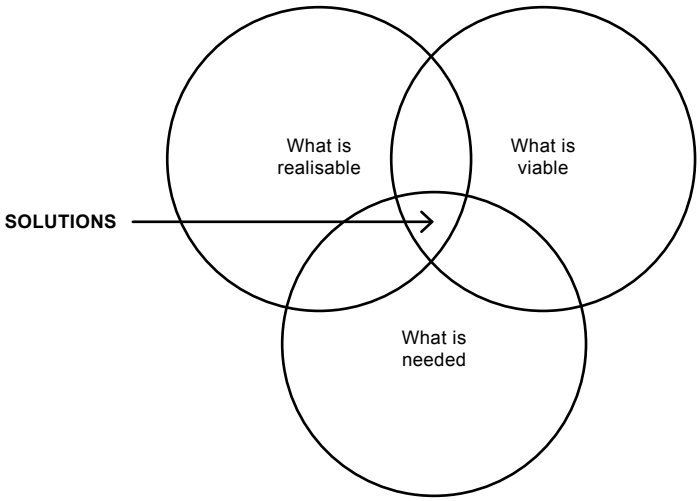


Figure 5.16. The designers selected ideas on the basis of three factors: What is realisable, what is viable and what is needed. The illustration is adapted and translated from the project report.

Content evaluation

Regarding the evaluation of the change content, the designers were concerned with having stakeholders evaluate the feasibility of the selected ideas, thus they utilized the hospital representatives and their knowledge and experience to evaluate whether the ideas were implementable or not.

As previously mentioned, the designers organised for the project group representatives from the hospital to participate in the process of selecting which ideas to further develop. Each idea was evaluated on the basis of the following parameters: what is realisable, what is viable and what is needed. This activity thus entailed that the hospital representatives joined the process of evaluating whether ideas could be feasibly implemented or not, meaning that their experience in relation to making changes within the organisation was utilised.

The strategy of having stakeholders evaluate the feasibility of selected ideas had a positive effect on implementation because it helped the designers to select which ideas to further develop and thus what changes to propose in order to for these to be implemented.

5.4.3. IMPLEMENTATION STRATEGIES (PEOPLE)

This next section provides the implementation strategies related to people. It describes how the designers ensured that the right people within the organisation were committed to and capable of implementing the proposed service changes. The implementation strategies relate to stakeholder inclusion, stakeholder engagement and project handover (fig. 5.17).

Stakeholder inclusion

In respect to stakeholder inclusion, the designers were strategic regarding which people to involve in the process.

Firstly, the designers chose to work ‘under the radar’ of the general management, whereby they excluded key stakeholders from the project. Based on several years’ experience of working in the hospital, the hospital representatives within the project group had a general understanding of the inertia inherent to the hospital. Thus, the designers understood that if (even small) things needed to be changed quickly, it needed to be done by the people within the project group and should not be left to the established ‘systems’ within the hospital. In this context, the project group was fortunate to have different capabilities for making the actual changes themselves. The project owner had the main management responsibility within his department and could more or less independently decide upon changes within that specific department; the nurse had many years’ worth of experience in working within different departments at the hospital and

Figure 5.17. The implementation strategies related to people in Case B (The Complex Ward).

had dedicated time to spend on the project; and the designers had various competencies, such as making communication material in-house. By recognizing the inertia within the system and the project group's capability to create concrete and immediate changes themselves (their own agility), the designers, in collaboration with the hospital representatives, took the radical decision of working 'under the radar', whereby they did not pursue the formal channels through the system to make specific changes and did not involve the general hospital management before taking action.

'[The chief physician and project owner] said: Well, we just do it. We shouldn't have anyone involved in this. He was a man of action and it was not because he was anti-authoritarian in any way, but rather because he had the understanding that if innovation was to happen within this system, then sometimes one just had to do it; not wait. I mean, it was better to ask for forgiveness than permission. The process would be too long and he was afraid that if we did it sooner [ask for permission], it might be taken to the region [the Central Region of Denmark] and we would never finish.' (Design Project Manager)

The project was not a secret held from the general management or the technical department. However, the general management was not involved in the project in a formal or structured manner during its course, and neither was the technical department. For example, in order to change the physical environment within the hospital, the designers had proposed painting a wall yellow. Instead of asking the technical department for permission and help, the designers painted the wall themselves.

'We did a lot of things in the dark of the night.' (Design Project Manager)

This action created quite a fuss in the hospital, but it also created a quick and concrete change in the physical environment and thus a change within the existing service (a yellow wall).

However, at the end of the project period, the project owner and chief physician left the project due to a career change. In this situation, the designers and the project group had to rethink their approach of working under the radar of the general hospital management as they no longer had a person with management responsibility within the project group. Hence, the development nurse (the hospital project manager) worked hard to gain acceptance and permission from the general hospital management to continue and finish the project without an affiliated chief physician; a permission that was granted.

Secondly, the designers strategically selected which stakeholders from different departments to involve in the project. Initially, the designers and the project group did not know which specific departments were to be part of the redesigned service and therefore which specific people were particular significant in relation to making changes happen. In this context, they used their early research activities as a means to identify the most relevant departments and people to involve in the following process. This did

not solely include people in management positions, but also involved people from all levels within the organisation.

'Initially we conducted the research part, which was quite open. It obviously included many departments in order to obtain diversity [in the collected material]. When we had the insights, we identified some patterns in specific types of treatment programs or diagnoses. On this basis, we could identify the departments that were particularly relevant to involve. When we had the workshops, these included representatives from the [selected] departments. [The representatives] were on different levels.' (Design Project Manager)

The strategy of involving the right people in the project (and hereby excluding the top management) had a positive effect on implementation. 'Working under the radar' allowed the project group to introduce quick changes without having to wait for slow decision-making processes. Furthermore, the strategic selection of stakeholders from different departments allowed the designers to involve, and thus affect, the most relevant stakeholders from the departments that were to co-provide the service in collaboration with the medical department; these were stakeholders who could either enable or challenge implementation.

Stakeholder engagement

Regarding stakeholder engagement, the designers were concerned with promoting implementation commitment during the project, that is, they tried to ensure that key stakeholders were supportive, motivated and dedicated to making the changes happen.

Firstly, the designers ensured that hospital representatives within the project group had a strong sense of ownership towards the project and potential solutions. The designers had the general goal of working *with* rather than *for* the hospital representatives and thus continuously held working meetings, which enabled joint decision-making.

'We have jointly made decisions, developed and qualified ideas and planned next steps.' (Project Report)

The approach very specifically affected how the designers presented their findings derived from the initial interviews and observations. The designers made an effort to not simply present a finished solution, but instead presented information about the problems with the existing service in such a way that it enabled the hospital representatives to formulate solutions by themselves; this represented a more facilitative and less expert-oriented behaviour of the designers.

'This is where we use our insights as a kind of mirror. This is where they can see that what they do is undesirable. But they have to come up with the solution themselves. The entire way we present them [the insights] are perhaps less concluding and more

descriptive.' (Design Project Manager)

Secondly, the designers promoted implementation commitment by communicating about the project across the organisation throughout the project period.

The project began with a lack of commitment and even some reluctance within some of the departments that were to co-provide the service. The designers were very aware of the initial lack of commitment to the project in the organization and tried to address this by focusing on communicating the project as much as possible to relevant stakeholders across departments. They wanted to create a positive attitude towards the project and prepare the people within the organisation for how the project might involve or affect them. Therefore, the designers created various materials, such as flyers, posters and pamphlets. These were distributed throughout the organisation to inform about the initiation of the project.

'We made a big effort in regard to informing employees during the entire project. We have made everything from flyers to information posters, small pamphlets, et cetera. It was all internal. It was placed in staff break rooms and was given to the department managers in order for them to have something tangible and enable them to tell that 'by the way, this [project] is going on'. […] It was already from the beginning where we should inform that someone was going to make observations and interviews et cetera. And 'what is this about?' Just to inform about the project; safety, confidentiality, everything. I mean, what is this about?' (Design Project Manager)

Thirdly, the designers promoted implementation commitment by designing and launching two interconnected campaigns. Improved interdisciplinary collaboration between people from many different departments within the hospital was a prerequisite for the proposed changes to work as intended. This meant, that for the proposed service change to happen many people had to change practices as well as perceptions. In other words, many people across the hospital who had not been involved in the project had to "implement" different practices and perceptions and thus had to change something about themselves. In order to address this, the designers chose to launch two interconnected campaigns.

The first campaign, which was a collaboration campaign, had the purpose of improving cross-disciplinary collaboration and dialogue by making people acknowledge the need to change perceptions and practices in relation to interdisciplinary collaboration – in particular between the medical and surgical departments. The collaboration campaign illustrated the problematic and absurd categorisation of patients as either medical patients or surgical patients. The campaign consisted of thought-provoking posters asking questions such as 'Should patients learn to think in departments?' as well as post-its questioning disciplinary territories by marking a coffee pot, a toilet or an elevator as 'Only for surgical staff'. (fig. 5.18).

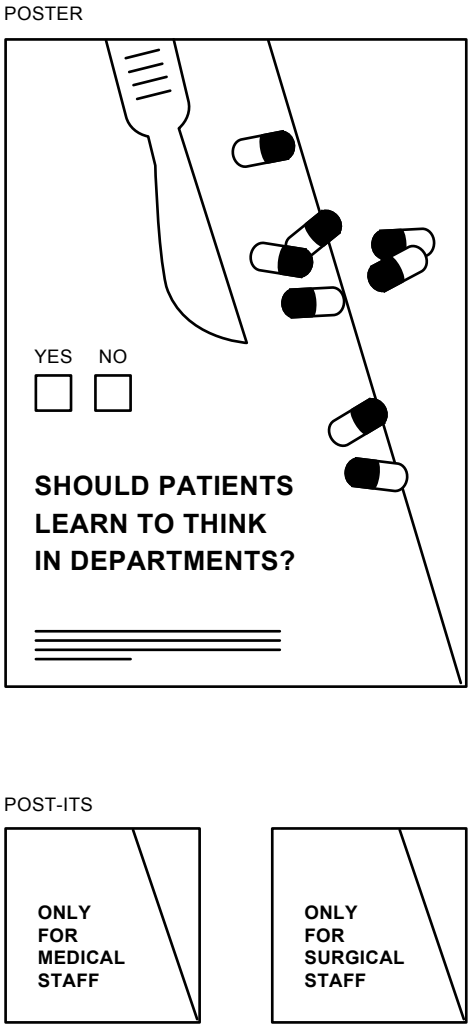


Figure 5.18. The collaboration campaign consisted of thought-provoking posters and post-its. The illustration is adapted and translated from the project report.

The second campaign, which was an information campaign, had the purpose of creating clarity among staff about 'cross patients' and putting this specific patient group on the agenda. The information campaign informed about issues related to 'cross patients' as well as the initiatives taken (the service solution) to accommodate these issues. The information campaign consisted of a pamphlet that was given to staff and distributed through break rooms and lunchrooms. The pamphlet informed about the new initiatives and provided a manual for the individual to help improve the treatment of this specific group of patients.

All these different activities followed the general strategy of promoting implementation commitment during the project. The strategy had a positive effect on implementation. To work *with* rather than *for* the hospital entailed a feeling of ownership towards the project and the potential solutions among the hospital representatives in the project group. The broad communication about the project effected general project support within the organisation despite the initial resistance. Finally, the design and launch of two interconnected campaigns triggered reflections on the core issue of concern (being organised in medical specialities or silos and the resulting implications for patients), which had the purpose of challenging perceptions and thus affecting changes within the many different people who were to be co-providers of the service.

Project handover

The designers were concerned with appropriately handing over the project to the organisation.

Firstly, the designers decided to deliver functioning prototypes of most of the proposed changes. As previously mentioned, the designers understood that if (even small) things, such as furniture, needed to be changed quickly, this needed to be done by the people within the project group and should not be left to the established 'systems' within the hospital. Hence, instead of simply handing over illustrations and recommendations for the proposed service changes, the designers chose to hand over functioning prototypes of all the proposed changes that were possible to prototype. Therefore, the designers took the limited resources and inertia within the hospital seriously and chose to prepare and install most of the proposed changes themselves. The designers purchased material, for example at IKEA, or went down to the basement of the hospital and collected furniture that was cheap and could easily change the interior of the new ward, thereby creating effective changes with cheaper materials. These changes were not necessarily long-lasting, but they served the purpose of immediate implementation.

'I might as well say, that [if the designers had only delivered a report and not functioning prototypes] it would never have been made. If they had not framed the pictures… I would never have framed them, I don't know if it was 50 pictures.' (Hospital Project Manager)

Secondly, the designers provided materials which enabled the hospital representatives to influence change through communication. The kinds of changes the designers were able to prototype, in other words, make themselves, were rather tangible, such as changes to the interior or printed material. However, the project group was still aware that these tangible changes were insufficient. For the proposed service changes to work as intended, they needed to make stakeholders understand the relevance of the solution and what changes were required within their respective departments. Hence, the designers created communication materials for a project group representative to use during meetings within the hospital.

‘I went around and presented at meetings while they [the designers] delivered the written material. Hence, it included two processes. They [the designers] were not part of going around and presenting. They tried to present it to the general management, but it did not make sense because it had to spread all the way to the individual. I had it included in the telephone book, et cetera. I knew the means for getting it through internally.’ (Hospital Project Manager)

In this case, the strategy of appropriately handing over the project implied that the designers prepared and installed functioning prototypes and delivered tangible communication material. Hence, the designers took part in the actual implementation of the proposed service changes. This was positive (and necessary) because the changes would otherwise not have been implemented.

5.4.4. SUMMARY

The illustration (fig. 5.19) provides a blueprint and thus sums up the implementation conditions and the implementation strategies for Case B (The Complex Ward). It presents a case with rather negative (or challenging) implementation conditions, which the designers addressed by following different implementation strategies related to both content and people.

The project resulted in a successful implementation in the sense that most of the proposed service changes were implemented by the end of the project period.

IMPLEMENTATION CONDITIONS

PROJECT POSITIONING

· The project did not have strong support in the organisation (negative condition)

PROJECT OWNERSHIP

· The project was owned by only one department (negative condition)
· This department was to have a primary role in the new service (positive condition)
· The project was managed by external designers (potentially negative condition)

PROJECT GROUP CAPABILITIES

· Competent project group in relation to knowledge and decision-making (positive condition)
· Limitid financial and human ressources for implementation (negative condition)

PROJECT SCOPE

· Cross-organisational and related to fundamental issues within the organisation (negative condition)

IMPLEMENTATION STRATEGIES

(CONTENT)

PROJECT FRAMING

Identifying a space for realistic service change
· By identifying the characteristics for feasible changes based on experience.
· By identifying 'difficult to implement'-service elements through interactions with project group members.
· By receiving concrete information about 'changeable' service elements.

IDEA/CONCEPT CHARACTERISTICS

Proposing concrete changes to the present situation
· By turning abstract aims into concrete ides.
· By selecting only 'realisable' ideas (excluding IT-oriented ideas).

IDEA/CONCEPT EVALUATION

Having stakeholders within the organisation evaluating feasibility in suggested ideas and concepts
· By involving knowledgeable project group members in idea selection.

(PEOPLE)

STAKEHOLDER INCLUSION

Involving the right people in the project
· By working 'under the radar'.
· By strategically involving stakeholders from selected departments.

STAKEHOLDER ENGAGEMENT

Promoting implementation commitment
· By working with rather than for the hospital.
· By broadly communicating about the project in the organisation.
· By designing and launching two interconnected campaigns.

PROJECT HANDOVER

Appropriately handing over the project
· By preparing and installing functioning prototypes.
· By delivering tangible communication material.

Figure 5.19. The implementation conditions and -strategies in Case B (The Complex Ward).

5.5. CASE C: DESCRIPTION

'The Patient Hotel' is a service design project from 2009 that was conducted by the design consultancy Designit in collaboration with Odense University Hospital (fig. 5.20).

5.5.1. PROJECT BACKGROUND

In 2009, Odense University Hospital had the opportunity to apply for public funding for service design projects with external design companies. With the general vision of becoming the patients' preferred university hospital and a need for financial savings, the hospital intended to investigate the potential of transferring some of the principles of their patient hotel into the clinical departments. Satisfaction surveys had revealed that both staff and patients were more satisfied with the patient hotel than with the general hospital. Hence, the hospital director sought to utilise the good experiences from the patient hotel, as this was also a cost-effective solution. On this basis, the hospital director and the manager of the patient hotel formulated a project proposal, which was distributed to different design companies. Designit was selected to do the project after they had replied to the project proposal by writing a detailed design brief (project description) on how they would approach the task.

The project had the mission to discover how the principles of the patient hotel (the way of thinking and specific service offerings) could be embedded in the clinical departments. The aim was to create a new ward as a service for a different clinical department, based on principles from the patient hotel.

The primary success criteria stipulated that:

- The new ward should be an attractive place for patients, relatives and staff.
- The design should improve user satisfaction.
- The implementation should contribute to financial savings.

5.5.2. PROJECT ORGANISATION AND RESOURCES

The service design project was part of a larger internal project focusing on how to embed the principles from the patient hotel inside the clinical departments. Hence, the service design project was part of a large formal project organisation with a steering group (including members of the top management of the hospital), a project group (including the designers and four representatives from the patient hotel and the hospital in general) and six task groups.

The project had a budget of approximately 250,000 DKK, financed by the Business and Construction Authority. The budget was allocated to Designit to cover salary and expenses. The project lasted approximately six months.

PROJECT SCOPE

Uncover how the principles from the patient hotel (way of thinking and specific service offerings) can be embedded into the clinical departments. Specifically, create a new ward as a service to different clinical department; making it an attractive place for patients, relatives and staff, while improving the user satisfaction and contributing to financial savings.

EXISTING SERVICES

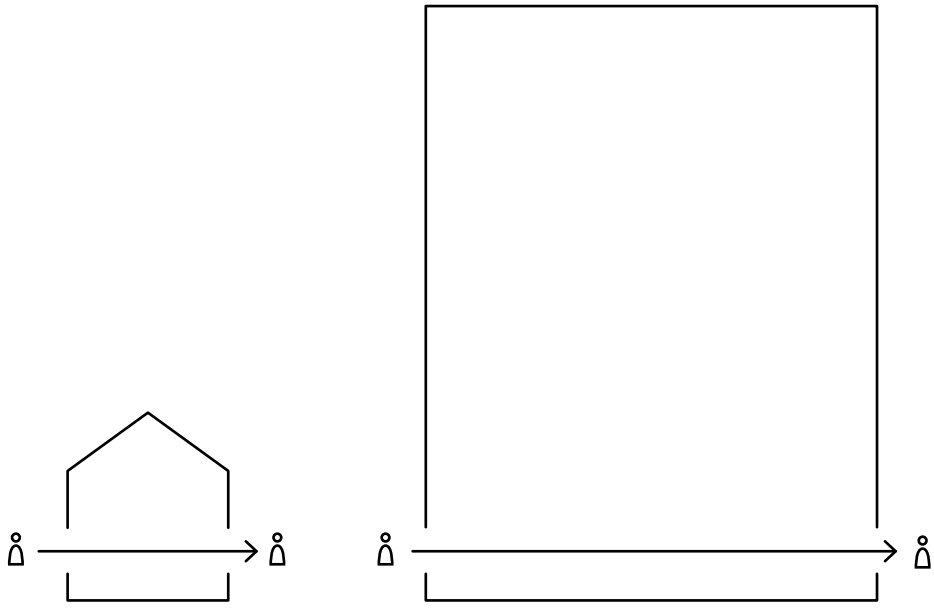


Figure 5.20. The objective of Case C (The Patient House) was to uncover how the principles from the patient hotel could be embedded into the clinical departments.

5.5.3. DESIGN PROCESS

The project was initiated with what the designers described as the project foundation. This included initial desk research and observations and interviews at the patient hotel as well as a workshop focussing on how to measure the potential impact of the project. The purpose of these activities was to clarify the conditions and expectations of the project as well as the needs of the hospital. The activities were followed by interviews with experts and an investigation of the best practices at other hospitals and related institutions. The designers further conducted research activities within the clinical departments, whereby they observed and interviewed both patients and staff.

The general aim of the project was to create a new ward as a service for various clinical department, based on principles from the patient hotel. Therefore, the designers made an effort to discover the characteristics of both the patient hotel and the clinical departments, while looking at the advantages and disadvantages of the two. This resulted in eight demands for the future ward;

1. Coherent and safe patient flows
2. High professional standards and good interdisciplinary collaboration
3. Integrity and de-stigmatisation of patients
4. Great work environment
5. Clear guidelines for patient categories
6. Use of latest technology
7. Optimised and inspiring physical environment
8. Healthy and balanced diets

With a point of departure in the collected insights and the constructed demands for the new ward, the designers facilitated a series of idea generation workshops with patients, relatives, staff and experts. The designers subsequently synthesised and further developed the ideas into three concepts, which were then visualised and presented to the project group, which selected their preferred concept. This concept was then refined, visualised and described in a presentation and report.

The figure (fig. 5.21) provides a simplified illustration of the design process.

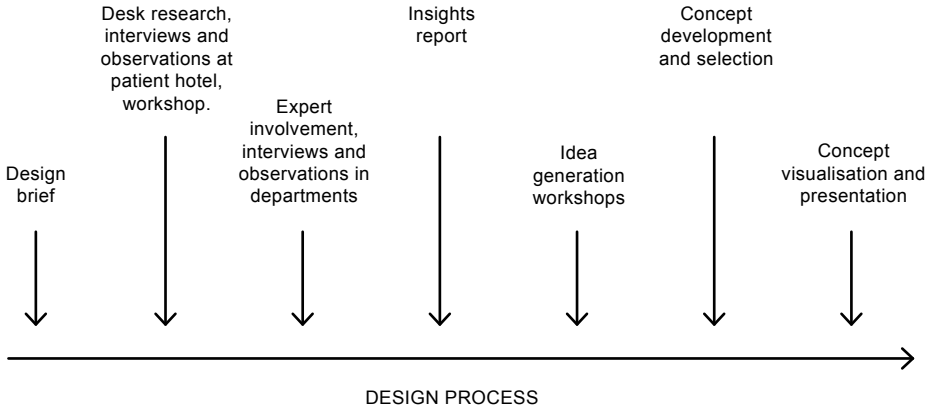


Figure 5.21. A simplified illustration of the design process of Case C (The Patient House).

5.5.4. DESIGN OUTCOME

The design process resulted in a service concept called the Patient House, which was a new ward at Odense University Hospital with facilities and staffing to handle more care-demanding patients than at the current patient hotel (fig. 5.22). The designers communicated the service concept through visual scenarios and by providing a series of recommendations (in words) for the Patient House. The recommendations were related to:

1. The identity of the new ward.
2. How to secure efficient and coherent patient experiences.
3. The approach for addressing patient empowerment.
4. The approach for using relatives as resources.
5. The placement of the Patient House in the organisations and management affiliation.
6. The professional competencies within the Patient House.
7. The collaboration across departments within the Patient House.
8. The communication material for the Patient House.
9. The aesthetics when eating within the Patient House.

Together, the visualisations and recommendations intended to communicate how the Odense University Hospital could establish a new ward that was an attractive place for patients, relatives and staff and which improved the experienced user satisfaction within the clinical departments while contributing to financial savings.

None of the recommendations were implemented as intended. At the end of the project period, the top management within the hospital was replaced. The new management prioritised neither the project and thus nor the implementation of the proposed service concept.

= proposed service change
(+) = implemented
(-) = not implemented
(*) = implemented to some degree

RECOMMENDATIONS FOR:

#1 The identity of the new ward (-)

#2 How to secure efficient and coherent patient experiences (-)

#3 The approach for addressing patient empowerment (-)

#4 The approach for using relatives as resources (-)

#5 The placement of the Patient House in the organisations and management affiliation (-)

#6 The professional competencies within the Patient House (-)

#7 The collaboration across departments within the Patient House (-)

#8 The communication material for the Patient House (-)

#9 The aesthetics when eating within the Patient House (-)

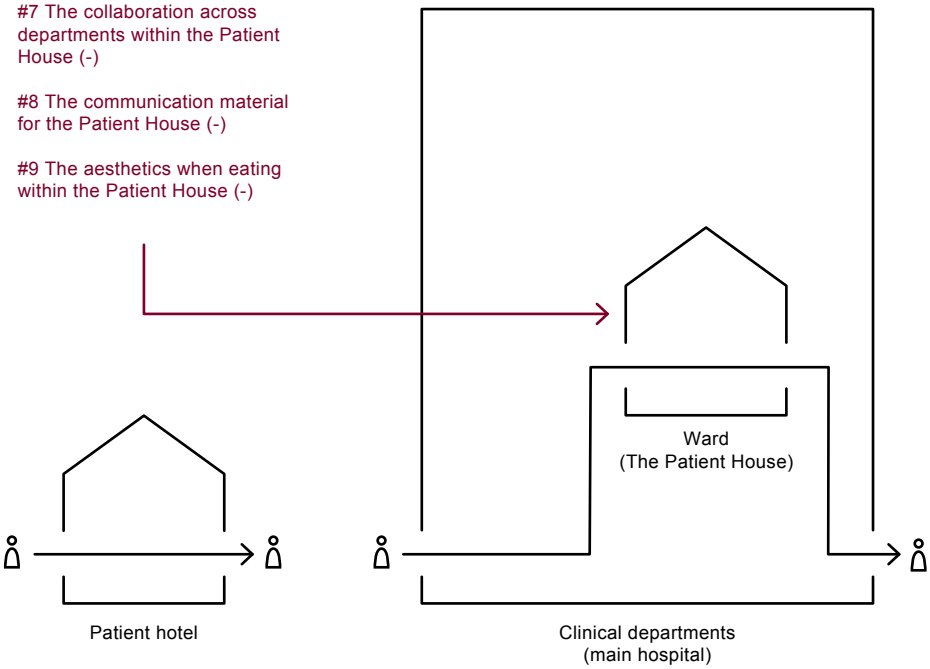


Figure 5.22. The project resulted in a service concept for the new ward (The Patient House). This included visualisations and recommendations.

5.6. CASE C: ANALYSIS

This section presents an analysis of Case C, 'The Patient House'. With its point of departure in the conceptual model (presented in Chapter 4), the analysis intends to clarify how the designers addressed implementation during the design process by giving the implementation conditions and the implementation strategies.

5.6.1. IMPLEMENTATION CONDITIONS

First, this section describes the implementation conditions, that is, the contextual conditions for proposing changes to the existing service and thus the conditions for addressing implementation (fig. 5.23). These conditions relate to the project positioning within the organisation, the project ownership, the project group capabilities and the project scope. In Case C, the conditions were rather negative, and thus particular challenging with regards to implementation.

Project positioning

The project focused on making changes within the clinical departments and on establishing a new joint ward for selected departments. However, the project was not initiated within the clinical departments (those that were to co-provide the service). Instead, it was initiated by the management of the patient hotel in collaboration with the general hospital manager. This meant that the project was not supported within the departments that were to co-provide the service. Furthermore, the specific departments that were to co-provide the service had not been defined.

In addition, the project did not have support from the general hospital management in agreement. The hospital director was very positive towards the general idea behind the project, namely to extend and bring in the principles from the patient hotel to the clinical departments. However, other members of the general hospital management did not share this opinion and were not positive towards the idea.

Thus, the project did not have strong support within the clinical departments, nor within the general hospital management. This was a negative implementation condition.

Project ownership

The project was initially owned by the hospital director and the manager of the patient hotel. The hospital director had the formal power to introduce changes within the organisation. However, at the end of the project period, the hospital director was dismissed. This meant that the project lost its primary owner and thus the key person with the formal power to introduce the proposed service changes.

'From my perspective, what went wrong was the fact the project owner suddenly lost

IMPLEMENTATION CONDITIONS

PROJECT POSITIONING

· The project did not have strong support in the organisation (negative condition)

PROJECT GROUP CAPABILITIES

· Large project organisation, but without capabilities for making decisions (negative condition)

PROJECT OWNERSHIP

· The primary project owner (general hospital manager) was lost during the project (negative condition)
· The project was not owned by the clinical departments who were to co-provide the service, because these department were not defined (negative condition)

PROJECT SCOPE

· A 'political hot potato' (negative condition)
· Cross-organisational and related to values and practices of many people (negative condition)

Figure 5.23. The implementation conditions in Case C (The Patient House).

his mandate. It is very critical for every project if the project owner suddenly is not there anymore, or the fact that it does not have the kind of support as it had when it was initiated.' (Hospital Project Participant)

When the hospital director was replaced by someone who was not supportive of the project, the manager of the patient hotel was left with full-project ownership. However, she did not have the formal power to implement the changes herself.

Furthermore, the clinical departments that were to co-provide the service were never defined. The organisation was undergoing a significant amount of change at the time of the project. A general reshuffle implied that the specific departments that were to be involved in the new ward were not decided upon prior to the initiation of the project. This meant that the project target group (which staff and patients to include in the new ward) was not defined. It also meant that no project ownership could be given to those people who could influence whether changes were implemented or not.

All in all, the project was not owned by people who had the opportunity to implement the proposed changes. This was a negative implementation condition.

Project group capabilities

The project included a large project organisation with a steering group, a project group and several task groups.

'We think we did a very professional piece of work establishing the project organisation. We had the clinical departments, we had the staff, we had organised so there would not be any problems regarding finances, and in a format where decisions could be made in the right way by the board of directors.' (Hospital Project Participant)

However, in spite of the well-organised setup, the project organisation was not very capable of making decisions due to the ongoing changes in the organisation and the lack of general support and commitment to the idea behind the project. This was a negative implementation condition.

'It was probably mostly wishful thinking. It became sort of a pseudo project. If you do not have support from the top management and if it is not clearly communicated that it has significance to be part of a task group… I mean, if it is not clearly stated that we believe in merging the hospital operations with the patient hotel operation and now we take the necessary decisions… I mean, if that is missing, you can have all the project organisation you like. Nothing will happen.' (Design Project Manager)

Project scope

The project was initiated on the basis of the rather visionary idea of extending and bringing in the principles of the patient hotel into a new ward for the clinical departments. Hereby, the idea behind the project was not simply to, for example, change the interior of some specific locations, but also to embed a new way of thinking about and treating patients, meaning the aim was to affect perceptions and behaviours within and across departments. It was further connected to a rather tense value-driven discussion between parties, namely those who were for the idea of bringing the principles of hotel thinking into the hospital, and those who were against it. The Design Project Manager describes the whole idea behind the project as a political 'hot potato'.

'… it was a political hot potato. I mean, there was a hidden internal power struggle between the patient hotel and the hospital in general. The whole value-driven discussion regarding whether or not to have more or less hotel'" (Design Project Manager)

To introduce cross-organisational changes linked to the perceptions and behaviours of many different people within an organisation that does not agree on the idea behind the project represents a significant challenge with regards to implementation. Hence, the project scope provided a rather a negative implementation condition.

5.6.2. IMPLEMENTATION STRATEGIES (CONTENT)

This section elaborates the implementation strategies related to content. It describes how the designers ensured that the proposed service changes (what they designed) could feasibly be implemented in the organisational context. The implementation strategies relate to the project framing, content characteristics and content evaluation (fig. 5.24).

Project framing

In respect to the project framing, the designers attempted to identify a space for realistic service change by trying to gain concrete information about the service and the new ward they had been asked to design.

The project was challenged by a great number of 'unknowns'. The departments that were to co-provide the new service, as well as the location of the new ward, were not defined, neither was the group of patients who were to use the new service. This challenged the designers, because they did not have concrete information with which to form a concrete solution.

First, the designers tried to be proactive and clarify to the representatives from the hospital the importance of deciding upon some specifications for the new ward, such as selecting departments and finding locations.

'I constantly tried to be proactive in relation to getting the right information and trying to clarify why it was crucial that we took the right decisions at the right time – and influencing that they were more proactive in their internal communication. […] As I recall, it was clarification of locations and time schedules [which I mainly tried to influence]. What we could do something about. It was difficult to create a final concept when so many factors were still unknown. And (I) also (tried to) push for some framework conditions, e.g. how many employees, what level of service could be maintained, how many square meters, how many patients to make room for, if we could create room for relatives, if we had some specific locations, if we could tear down walls. There were a lot of practicalities. (…) And simply to get the target group defined.' (Design Project Manager)

In spite of the proactive initiatives of the Design Project Manager, the hospital representatives were not able to make the decisions or provide the necessary information to the designers.

The designers then chose to tentatively select some departments that could potentially become co-providers of the new service, which also implied a tentative selection of which patients to design for. This provided something concrete, something which could inform the creation of a solution.

IMPLEMENTATION STRATEGIES
(CONTENT)

PROJECT FRAMING

Identifying a space for realistic service change
- By being proactive and clarifying the importance of deciding upon the concrete conditions for the new ward (such as what department to involve).
- By tentatively selecting departments.

IDEA/CONCEPT CHARACTERISTICS

Proposing concrete changes to the present situation
- By working 'reality driven' and with the aim of creating physical support points for more fundamental changes.

IDEA/CONCEPT EVALUATION

Having stakeholders within the organisation evaluating feasibility in suggested ideas and concepts
- By e.g. letting stakeholders choose which concept to further develop.

Figure 5.24. The implementation strategies related to content in Case C (The Patient House).

‘There is a great difference if you work with endocrinological patients, I mean patients with anorexia, who could have monthly stays and have different needs compared to people who were there to receive treatment for breast cancer. Was it [the] elderly? Was it children?’ (Design Project Manager)

Hence, the designers attempted to follow the implementation strategy of identifying a space for realistic service change by being proactive and pressing for decisions to be made by the hospital representatives. When this did not happen, the designers chose to tentatively select some departments which could potentially become co-providers of the new service.

Content characteristics

In respect to the content characteristics, the designers attempted to follow the strategy of proposing concrete changes to the present situation.

First of all, the designers worked from the principle of being ‘reality-driven’ and with the aim of creating physical support points for more fundamental changes within the organisation.

The project aimed to transfer some of the principles from the patient hotel into the clinical departments, thus embedding a new way of thinking about, and treating patients within, the clinical departments and therefore affecting the values and behaviours within and across departments. The designers had the perception that this kind of change was not something they could design as this change had to be led by people within the organisation. However, all the designers could do was create physical support points that enabled the change of values and behaviours within and across departments.

‘The manager [who was going to run the new ward] had to create the culture which was new […] But physical support points that exemplified and supported these procedures and way of thinking would relatively easy contribute to the creation of the new culture.’ (Design Project Manager)

In this context, the designers aimed to create cheap but effective solutions by choosing the cheapest, yet still functional, alternatives such as wall stickers instead of real windows and analogue pin-up boards instead of digital screens.

‘… with most things, we had a lot of thoughts about how we fast and cheap could create a different visual environment. For example, by using wall stickers and paste foil with windows on the walls. […we] also [created] a pin-up board with the possibility to personalise and visualise characteristics of the individual patient. We could have chosen an expensive smartboard solution, but we did not.’ (Design Project Manager)

Thus, the designers attempted to follow the strategy of proposing concrete, tangible and

cost-effective changes for the present situation that could function as physical support points for effecting more fundamental changes of values and behaviours within and across departments in a long-term perspective.

Content evaluation

Regarding the evaluation of the change content, the designers were concerned with having stakeholders evaluate the feasibility of selected ideas.

The designers asked stakeholders within the organisation to evaluate whether suggested ideas and concepts could feasibly be implemented. On the basis of several idea generation workshops and a subsequent concept development, the designers presented three different concepts to the project and steering groups, which had to select one of these. In this process, feasibility was a central factor in the evaluation.

'At some point, we had to select a concept. They [the designers] presented some different suggestions. Some of them were like 'WOW!', but with one of them we thought that this concept was not possible here [within this organisation]." (Hospital Project Manager)

Thus, the designers used different hospital representatives to select concepts – and thereby deselect concepts that could not be feasibly implemented.

5.6.3. IMPLEMENTATION STRATEGIES (PEOPLE)

This next section provides the implementation strategies related to people. It describes how the designers ensured that the right people within the organisation were committed to and capable of implementing the proposed service changes. The implementation strategies relate to stakeholder inclusion, stakeholder engagement and project handover (fig. 5.25).

Stakeholder inclusion

Regarding stakeholder inclusion, the designers were committed to involving the right people in the process, namely key stakeholders who could either enable or potentially challenge implementation. In this respect, the project was initiated under rather challenging conditions. In spite of a well-orchestrated project organisation, the specific departments that were to be involved in the new ward had not been decided upon prior to the initiation of the project and were therefore not part of the project. This meant that those people who were to co-provide the service, and thus could either enable or challenge implementation, were not known.

As previously mentioned, the designers tentatively selected some departments to involve in the process. This initiative was not only an attempt to concretise the design task by 'identifying a space for change', it was also an attempt to create ownership of the proposed solutions among those people who would potentially be significant when it came to implementation.

However, the strategy was not effective. Their involvement was based on a tentative designer decision, not a formal decision by the top management. This meant that the representatives from the tentatively selected departments never felt a strong sense of ownership of the project and the proposed solutions.

'We had no possibility to engage a management who subsequently should be responsible for implementation together with their employees. […] Nobody had that sense of ownership which could have made a difference.' (Design Project Manager)

'It was difficult [to address ownership and involvement] because everything was so open – even when we finished. It was difficult to say: 'Now, dear leader, now you can start tomorrow.'' (Design Project Manager)

Hence, the initiative of involving tentatively selected departments was not effective with regards to implementation as it did not create a strong sense of ownership among those people who could potentially enable implementation.

IMPLEMENTATION STRATEGIES
(PEOPLE)

STAKEHOLDER INCLUSION

Involving the right people in the project
- By tentatively selecting departments to involve.

STAKEHOLDER ENGAGEMENT

Promoting implementation commitment
- By being humble, communicative and present in the organisation.
- By utilising the project group members to establish first contact with significant stakeholders.
- By inciting project group members to enhance communication and interaction with different departments.

PROJECT HANDOVER

Appropriately handing over the project
- By presenting and handing over project material (report with recommendations and visualisations) to the people who had potential capabilities for bringing it further.

Figure 5.25. The implementation strategies related to people in Case C (The Patient House).

Stakeholder engagement

Regarding stakeholder engagement, the designers were concerned with promoting commitment to implementation during the project, thus they tried to ensure that stakeholders were supportive, motivated and dedicated to the project and thus committed with regards to implementation.

Firstly, the designers attempted to be humble, communicative and present in the organisation. Early on in the project, the designers became aware of the general reluctance towards the project within the departments. They had encouraged the hospital representatives to inform the different departments regarding the aim of the project, but unfortunately this was not done. Hence, many departments perceived the project as a lean management project focused only on financial savings, which resulted in a negative atmosphere. The designers tried to address this by being humble and communicative in how they approached the different departments.

'Even though they were not from the healthcare sector, they quickly had a cultural understanding about how to behave in a hospital, with a certain humbleness and respect.' (Hospital Project Participant)

The designers interacted with many stakeholders during the project period; they held meetings, conducted interviews, sent out cultural probes, facilitated workshops and presented milestones to larger groups of people. Their approach was to 'leave the office' and be present at the hospital in order to gain support across the organisation.

Secondly, the designers utilised the hospital representatives to establish the first contact with significant stakeholders in the organisation, such as department managers. The hospital representatives perceived this as a big, but also necessary, task for establishing contact and gaining support in the organisation.

'There was a lot for us [within the hospital] to do with them [the designers]. For this [project] to succeed, they had to be assisted in different ways. It was like curling. I think that if we had not done it, it would have been very difficult for them to complete the project.' (Hospital Project Manager)

Thirdly, the designers encouraged the hospital representatives in the project group to enhance their communication and interaction with the different departments during the project period. This included the person who was supposed to become the manager of the new ward.

'We incited them [the hospital representatives] to handle it [the general reluctance] and invited to discussion meetings. She did go, the new manager [of the ward to be]. She went to all the potential users, the departments, in order to enter into dialogue with them and I think it was very good. But I also think she met severe resistance.' (Design

Project Manager)

It thus becomes clear that, the designers took several initiatives in order to ensure that stakeholders were supportive, motivated and dedicated to the project and thus committed in regards to implementation.

Project handover

The designers were concerned with appropriately handing over the project to those people who could potentially bring it further within the organisation.

At the end of the project period, the general hospital manger, and thus the primary project owner, was dismissed. With his dismissal, the project lost significant support in the organisation. A new hospital top management was formed, but this management had very different intentions regarding the overall strategic focus of the hospital. Instead of having a primary focus on the patient experience, they wanted to focus on getting the hospital economy on track.

Thus, at the end of the project period, the designers recognised that the future of the project was rather unknown. At this point in time, the political climate around the project was challenging and the general support was missing. Therefore, the designers chose to hand over the project in the best possible way to those who had the potential capabilities to bring it further within the organisation. This included the people within the patient hotel and other stakeholders selected by the project group. The designers created an elaborated project report as well as visual scenarios that communicated the proposed service solutions.

‘As I recall, we had a big presentation for a broad group of people. As a kind of theme day […] We tried to pass it on [the project] to [people from] the Patient Hotel. We thought that they were the ones who should fight for it.’ (Design Project Manager)

5.6.4. SUMMARY

The illustration (fig. 5.26) provides a blueprint and sums up the implementation conditions and the implementation strategies for Case C (The Patient House). It presents a case with particular challenging implementation conditions. The designers tried to address these by following different implementation strategies related to both content and people. These strategies had the purpose of addressing the feasibility of implementing the proposed service changes (what they designed) in the local context and ensuring that the right people within the organisation were committed to and capable of implementing the proposed service changes. However, the proposed service changes were not implemented and the strategies were therefore not successful.

IMPLEMENTATION CONDITIONS

PROJECT POSITIONING

· The project did not have strong support in the organisation (negative condition)

PROJECT GROUP CAPABILITIES

· Large project organisation, but without capabilities for making decisions (negative condition)

PROJECT OWNERSHIP

· The primary project owner (general hospital manager) was lost during the project (negative condition)
· The project was not owned by the clinical departments who were to co-provide the service, because these department were not defined (negative condition)

PROJECT SCOPE

· A 'political hot potato' (negative condition)
· Cross-organisational and related to values and practices of many people (negative condition)

IMPLEMENTATION STRATEGIES

(CONTENT)

PROJECT FRAMING

Identifying a space for realistic service change
· By being proactive and clarifying the importance of deciding upon the concrete conditions for the new ward (such as what department to involve).
· By tentatively selecting departments.

IDEA/CONCEPT CHARACTERISTICS

Proposing concrete changes to the present situation
· By working 'reality driven' and with the aim of creating physical support points for more fundamental changes.

IDEA/CONCEPT EVALUATION

Having stakeholders within the organisation evaluating feasibility in suggested ideas and concepts
· By e.g. letting stakeholders choose which concept to further develop.

(PEOPLE)

STAKEHOLDER INCLUSION

Involving the right people in the project
· By tentatively selecting departments to involve.

STAKEHOLDER ENGAGEMENT

Promoting implementation commitment
· By being humble, communicative and present in the organisation.
· By utilising the project group members to establish first contact with significant stakeholders.
· By inciting project group members to enhance communication and interaction with different departments.

PROJECT HANDOVER

Appropriately handing over the project
· By presenting and handing over project material (report with recommendations and visualisations) to the people who had potential capabilities for bringing it further.

Figure 5.26. The implementation conditions and -strategies in Case C (The Patient House).

5.7. CASE D: DESCRIPTION

'The Duty Doctor' is a service design project from 2010 conducted by the design consultancy Making Waves (at that time called Zoot) in collaboration with Oslo Legevakt (Oslo Duty Doctor) (fig. 5.27).

5.7.1. PROJECT BACKGROUND

Oslo Legevakt (Oslo Duty Doctor) provides medical aid at nights and during weekends when citizens do not have the opportunity to visit their own doctors. Oslo Legevakt is located in the centre of Oslo in old and compound buildings from the 18th century. An increased number of patients and a complex floor plan have led to an unpleasant people flow and waiting experiences affecting patients, relatives and staff.

In 2010, Oslo Legevakt was given the opportunity to receive public funding for a service design project together with an external design company. On this basis, they formulated a project brief with the clear purpose of improving patient experience, reducing friction and encouraging flow. Making Waves was the winning design company who applied to the project brief by outlining a project description on how they would approach the task.

5.7.2. PROJECT ORGANISATION AND RESOURCES

The project organisation consisted of a project group with a team of designers and five representatives from Oslo Legevakt (two physicians, a medical secretary, a nurse and a safety representative). The project further included a steering group consisting of four representatives from Oslo Legevakt (including the director of Oslo Legevakt, the managing chief physician of the department and two other physicians).

The project had a budget of approximately 450,000 NOK financed by Norsk Form. An additional 250,000 NOK was financed by Oslo Legevakt to cover implementation costs. Both budgets were allocated to Making Waves.

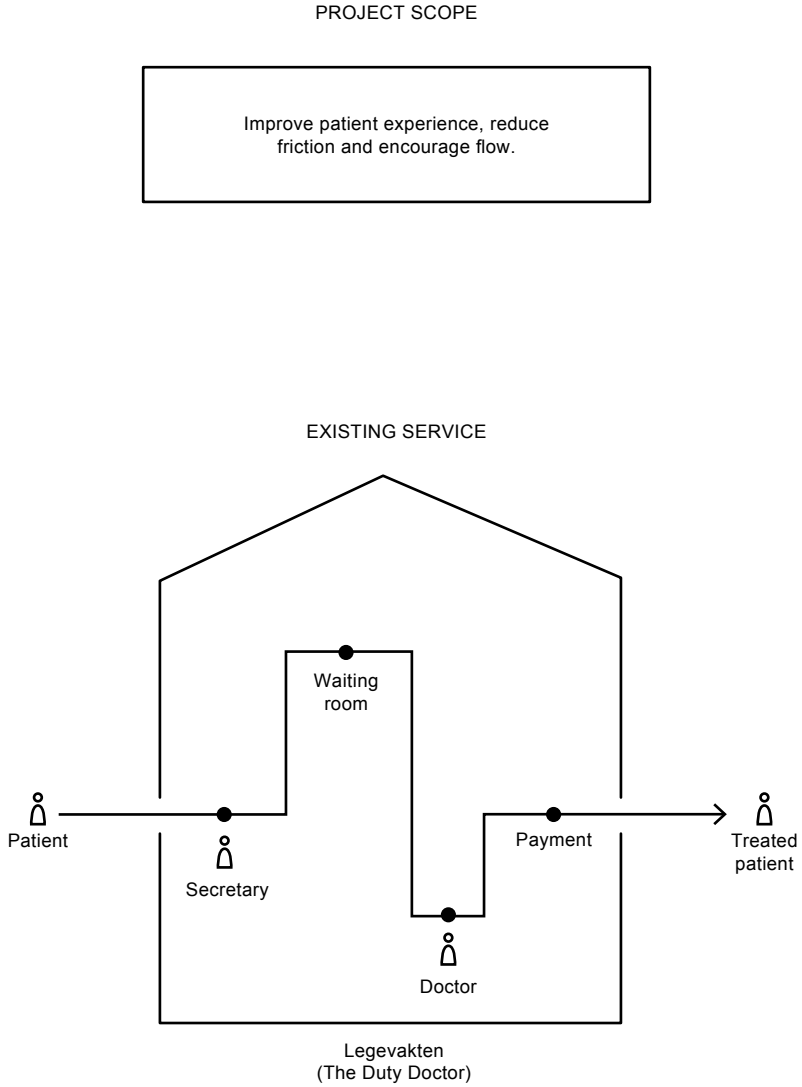


Figure 5.27. The objective of Case D (The Duty Doctor) was to improve the patient experience, reduce friction and encourage flow within Oslo Legevakt.

5.7.3. DESIGN PROCESS

The design process was initiated with a kick-off meeting for the members of the project group and steering group. In this kick-off meeting, the designers presented the project scope and plan and showed a series of small video sequences of citizens describing their experiences with the existing service at Oslo Legevakt.

The kick-off meeting was followed by field studies within Oslo Legevakt where the designers observed and interviewed patients and front-line staff. On the basis of this work, the designers produced a presentation of the insights, summing up the key findings, which include;

- On arrival, patients are confused and do not know what to do, where to go, or who they should speak to.

- Legevakten's system for prioritising a patient's need and consequent waiting time is invisible to the patients.

- The system pacifies the patients because they are left uninformed and not knowing how long to wait or what to expect.

These findings were shared both with the project group and later on with the steering group.

Subsequently, the designers facilitated a co-design workshop with staff representatives and management representatives. In this workshop, key findings and user profiles were used to enable idea generation. At the end of the workshop, the participants were asked to select their preferred ideas, which were to be further developed by the designers.

The designers took the ideas and travelled to London, where they further developed the ideas in collaboration with another design consultancy that had experience with similar projects. This work resulted in a series of concepts which the designers illustrated through concept posters. The concept posters were shared in the organisation, including with the project group, with the steering group and with different staff groups.

Subsequently, the designers tested some of the elements within the concepts through full-scale prototypes that were placed inside Legevakten, and had staff and patient experience and evaluate them. After this activity, the project had reached its end. The designers negotiated an additional budget (250,000 NOK) and with this money, they refined the service concept, ran an additional prototyping session, and delivered a concept presentation, full-scale prototypes of certain service elements (such as signs) and print-ready files.

The figure (fig. 5.28) provides a simplified illustration of the design process.

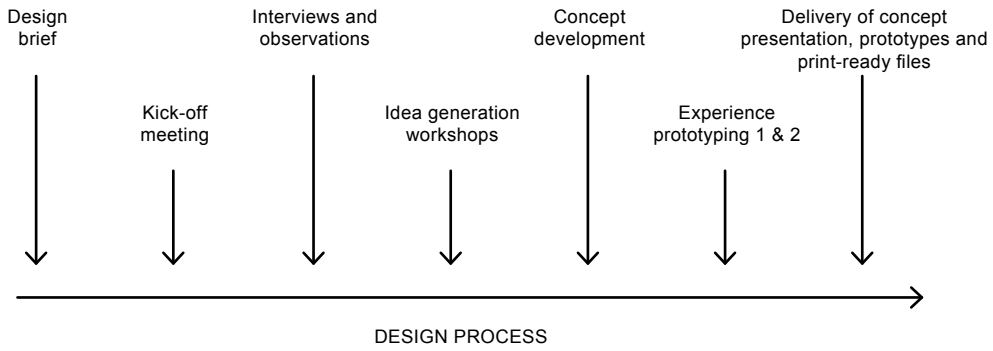


Figure 5.28. Simplified illustration of the design process in Case D (The Duty Doctor).

5.7.4. DESIGN OUTCOME

The design process resulted in a service concept under the title *Kort Forklart* ('Informed and Secure from Hello to Goodbye') (fig. 5.29). The service concept, and thus the proposed service changes, included multiple elements such as;

1. A patient card (similar to a boarding card) visualising how the staff has prioritised the specific patient in relation to the urgency of the treatment. This was in order to create an understanding among patients as to why some patients are seen sooner by a doctor than other patients.

2. A service script for front-line staff in order to improve the communication to patients and reduce confusion upon arrival.

3. A digital sign with the estimated waiting time inside the waiting area in order to provide the patients with information enabling them to consider whether to wait or to go home and see their own doctor the next day.

4. Patient information material in order to reduce confusion and the feeling of being uninformed.

5. Various types of signs showing patients where to go and what to do.

All analogue and prototyped service elements were implemented (i.e. all elements except the digital sign with estimated waiting time). The digital sign was not implemented due to general challenges concerning the IT systems and the low prioritisation of introducing IT-based changes.

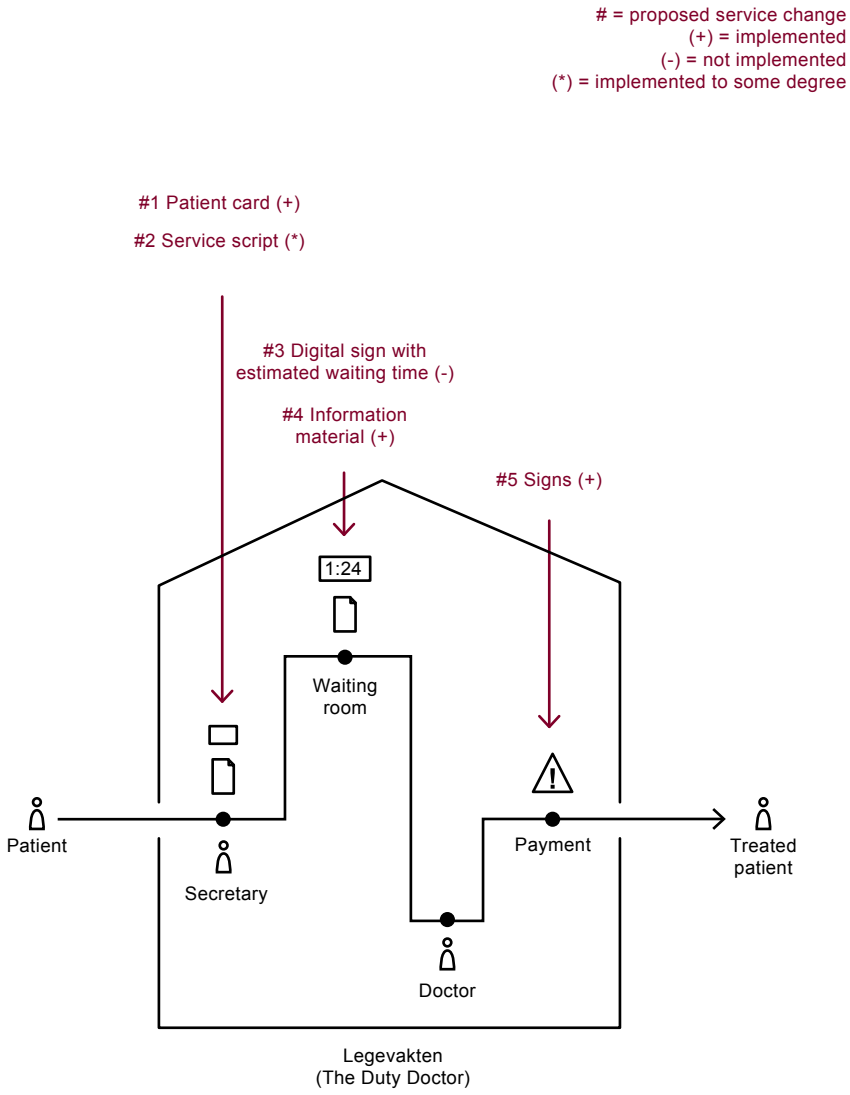


Figure 5.29. The design process resulted in a service concept under the title 'Informed and Secure from Hello to Goodbye' including a series of elements and thus a series of proposed service changes.

5.8. CASE D: ANALYSIS

This section presents an analysis of Case D, 'The Duty Doctor'. With its point of departure in the conceptual model (presented in Chapter 4), the analysis intends to clarify how the designers addressed implementation during the design process by elaborating the implementation conditions and the implementation strategies.

5.8.1. IMPLEMENTATION CONDITIONS

First, this section describes the implementation conditions, that is, the contextual conditions for proposing changes to the existing service and thus the conditions for addressing implementation (fig. 5.30). These conditions relate to the project positioning within the organisation, the project ownership, the project group capabilities and the project scope. In Case D, the conditions were both positive and negative, and thus both enabling and challenging for implementation.

Project positioning

The project focused on making changes to a service provided by a single department (the department of the duty doctor). A managing physician had initiated the project with support from the top management of the department. Thus, the project was supported by people who had the formal power and the opportunity to change the existing service. Hence, the project had strong support in the organisation, which was a positive implementation condition.

Project ownership

The project was formally owned by the department that provided the service and was supported by the different staff groups in the department, who saw an urgent need for it.

'I believe this project was welcome because it was a project everyone saw the need for. […] The project was concrete and related to the daily work. Everyone understood the problem of patients yelling at you.' (Hospital Project Manager)

Hence, the project was owned and supported by people who had both the formal power to change the existing service as well as a strong influence. This was a positive implementation condition.

However, the project was facilitated and managed by the designers (and thus not by the service provider). From the role of project manager there often follows a sense of ownership of the project and the project results. Therefore, there was a potential lack of a sense of ownership among the service providers (those who had the formal power and the opportunity to implement the results). This was a potential negative implementation condition.

IMPLEMENTATION CONDITIONS

PROJECT POSITIONING

- The project had strong support in the organisation (positive condition)

PROJECT GROUP CAPABILITIES

- Competent project group in relation to decision-making (positive condition)
- Project group not able to change IT or architecture (negative condition)
- No allocated implementation budget (negative condition)

PROJECT OWNERSHIP

- The project was formally owned by the service provider and supported by different staff groups (positive condition)
- The project was managed by external designers (potentially negative condition)

PROJECT SCOPE

- Narrow and well-defined project scope (positive condition)
- Existing problems partly caused by the physical architecture which could not be changed (negative condition)

Figure 5.30. The implementation conditions in Case D (The Duty Doctor).

Project group capabilities

The project group members included two physicians, a medical secretary, a nurse and a safety representative. The project further included a steering group consisting of four representatives from Oslo Legevakt (including the director of Oslo Legevakt, the managing chief physician of the department and two other physicians). Hence, the project group was competent in relation to making management decisions within the department. This was a positive implementation condition.

However, the project group did not have the possibility to introduce IT-related changes or changes to the architecture (the physical buildings), which partly caused the current challenges within the existing service. Furthermore, the project group did not initially have an allocated implementation budget. These two circumstances constituted negative implementation conditions.

Project scope

The project scope was narrow and well defined. Its main focus was on improving patient experiences and flow at Oslo Legevakt before and after medical treatment. It focused on one specific department with a limited number of healthcare professionals and a relatively well-described, predictable and tangible service. This was a positive implementation condition in the sense that the content and people most likely to be affected by the proposed changes were already known. More importantly, the people who were to implement the changes (the director, managing physician and the different staff groups) were prepared to introduce changes and had motivation to do so. However, the project focused on changing a service which was particularly challenged by the architecture (the physical buildings), which could not be changed; this provided a negative implementation condition. Nevertheless, all in all the project scope constituted mainly positive implementation conditions.

5.8.2. IMPLEMENTATION STRATEGIES (CONTENT)

This section elaborates the implementation strategies related to content. It describes how the designers ensured that the proposed service changes (what they designed) could feasibly be implemented in the organisational context. The implementation strategies relate to the project framing, content characteristics and content evaluation (fig. 5.31).

Project framing

Regarding the project framing, the designers were concerned with identifying a space for realistic service change, namely what they should and could propose changes to in relation to the existing service.

IMPLEMENTATION STRATEGIES
(CONTENT)

PROJECT FRAMING

Identifying a space for realistic service change
- By narrowly scoping the project.
- By sharing ideas with stakeholders during the entire project period.

IDEA/CONCEPT CHARACTERISTICS

Proposing concrete changes to the present situation
- By proposing analogue changes oriented towards the relationship between people.

IDEA/CONCEPT EVALUATION

Having stakeholders within the organisation evaluating feasibility in suggested ideas and concepts
- By sharing ideas during initial interviews.
- By using project group members as test bed for ideas during regular meetings.
- By organising experience prototyping.

Figure 5.31. Implementation strategies related to content in Case D (The Duty Doctor).

First, the designers made sure to properly scope the project in collaboration with the hospital representatives, whereby they ensured that the project focused on a particular part of the existing service which could realistically be changed within the framework of the project. This included an initial framing of the project known as *Trygg og Informert fra A til Å* ('Safe and Informed from A to Z'). The designers made an effort to stick to this rather narrow scope during the design process despite the hospital representatives' eagerness to expand it.

'We had many potential approaches to the issue related to the patient flow. Zoot [Making Waves] believed that we should concentrate on the [defined] focus area, so nothing was created outside that [focus area]. As amateurs, we had probably believed that we could have done this and that concurrently.' (Hospital Project Manager)

Second, the designers explored the 'space for change' by investigating the elements of the service in relation to whether or not they could be changed. This took place during the interaction with the hospital representatives, with whom the designers shared ideas throughout the project period. For example, during the initial interviews with different staff groups, the designers not only observed and asked questions, but also shared initial ideas. Hence, they did not follow the perspective that project phases such as 'research' and 'idea generation' should be kept separate; rather the contrary. This way, they tried to identify which kind of changes could feasibly be introduced.

'If you can quickly sketch an idea and test it, I think you should try it.' (Design Project Manager)

Initially, it had not been explained to the designers that certain changes, for example to IT, could not be feasibly implemented. Therefore, many of the initial ideas were based on changes of a digital nature. However, by sharing and testing these ideas in practice, the designers recognised the difficulties related to the implementation of those kind of changes. These experiences influenced the character of the specific type of changes the designers chose to propose, whereby they chose to focus on analogue service elements rather than digital service elements. Furthermore, they proposed changes that focused on relationships between people instead of changes to the existing architecture.

'We had to think very analogue if this concept was going to see the light of the day. [… And] we needed to work more general and have flexible principles. It needed to be more about the relations between people. Patient and patient, and patients and medical staff.' (Design Project Manager)

Thus, the designers followed the strategy of defining and identifying a space for realistic service change by narrowly scoping the project and by continuously sharing and testing ideas throughout the project period. In this way, they were able to focus their efforts on a specific part of the service and define the basic characteristics for realistic and implementable service changes. This had a positive effect on implementation.

Content characteristics

Regarding the content characteristics, the designers were concerned with proposing concrete changes to the present situation. Instead of suggesting new buildings and mobile applications, they focused on designing realistic and concrete changes to the present service which the local conditions allowed for.

For example, the designers proposed elements such as a patient card (similar to a boarding card) as well as service scripts for the medical secretaries. These elements were based on the acknowledgement that changes needed to be analogue and focused on the relations between people, rather than digital and based on changes to the architecture.

The strategy was effective because it meant that the proposed changes were possible to implement and did not presuppose conditions that were not present. However, it also meant that the proposed changes were not as radical as the hospital representatives had expected.

'It was not like: WOW! Now we have received a designed product. It probably would have if Zoot [Making Waves] had permission to do more, but they had the [existing] locations to work with.' (Hospital Project Manager)

Content evaluation

Regarding the evaluation of the change content, the designers were concerned with having stakeholders evaluate the feasibility of the selected ideas. Throughout the design process, the designers conducted various activities with the purpose of letting stakeholders contribute with their knowledge and continuously evaluate proposed ideas.

First, the designers shared initial ideas during the interviews with different stakeholders (mainly frontline staff) in the organisation.

Second, the designers continuously utilized the project group members as a 'test bed' for ideas during regular meetings. This also included idea selection and concept evaluation.

'[Our role was to] function as test bed for ideas and help facilitate their [the designers] work during the project period. And perform reality checks of their ideas. Result oriented. This was done during meetings from February to June. There were a lot [of meetings]. Ten maybe.' (Hospital Project Manager)

Third, the designers used a central hallway as a touchpoint between them and the different staff groups. Here, they placed posters illustrating different concepts, upon which the different staff group could comment.

Fourth, the designers organised two experience prototyping sessions, in which the proposed changes were tested in full scale and within the actual locations. This allowed the frontline staff to help evaluate whether the proposed changes were feasible or not.

The strategy of having stakeholders evaluate the feasibility of the selected ideas had a positive effect on implementation because it helped the designers to select, align and adjust the proposed changes with regards to implementation.

5.8.3. IMPLEMENTATION STRATEGIES (PEOPLE)

This next section provides the implementation strategies related to people. It describes how the designers ensured that the right people within the organisation were committed to and capable of implementing the proposed service changes. The implementation strategies relate to stakeholder inclusion, stakeholder engagement and project handover (fig. 5.32).

Stakeholder inclusion

Regarding stakeholder inclusion, the designers were committed to involving the right people in the process, that is, key stakeholders who could either enable or potentially challenge implementation. In this respect, the project was initiated with rather positive conditions from start as it was owned, supported and anchored by those people who had the formal mandate and the opportunity to change the existing service (i.e. the management within the department and the top management). The project was furthermore well supported among the different staff groups, namely by those people who potentially would have to make changes to their daily work or who would – at least – be affected by the changes. The designers made an effort to actively use and maintain the project support by actively involving both managers and frontline staff in the design process.

Firstly, the designers actively involved the top management (steering group representatives) through meetings and by inviting them to project activities (e.g. co-design workshops).

Secondly, the designers involved representatives from different staff groups in the design process. These people were involved in early interviews as well as in the co-design and prototyping activities.

Thirdly, the designers attempted to involve the rest of the people in the department in the design process by making project material available in a central hallway. For example, the designers were aware that not everyone who would potentially be affected by the project could be included in the formal project activities. In order to compensate for this, they experimented with different approaches to opening up the project to those stakeholders who would be affected by the proposed service changes, but who

IMPLEMENTATION STRATEGIES
(PEOPLE)

STAKEHOLDER INCLUSION

Involving the right people in the project
- By involving top management representatives.
- By involving representatives from different staff groups.
- By attempting to involve all potentially affected people from the department.

STAKEHOLDER ENGAGEMENT

Promoting implementation commitment
- By challenging perceptions of the existing service.
- By having regular meetings in project- and steering group.
- By activily involving management and staff in different design activities.

PROJECT HANDOVER

Appropriately handing over the project
- By attempting to negotiate a following project and thus a larger role (and budget) for the designers.

Figure 5.32. Implementation strategies related to people in Case D (The Duty Doctor).

were not directly involved in the project.

'We were concerned with the fact that we had singled out some of the people in the organisation to work with us. They [the members of the project and steering groups] were like the privileged few. So, we wanted to be even more democratic. So, we experimented with a lot of different techniques and methods, which we had a hunch might work.' (Design Project Manager)

These experiments included the designers dedicating a wall in a central staff hallway to the display of project material, which served as an interface between the project group and the rest of the staff in the department. The content on the wall was replaced with new material during the project period.

'They placed empty posters for writing and placing post-its along the glass corridor. And everyone who passed could contribute with their points of view in relation to the project. There was also a mail box in which one could put ideas and input. […] They [the designers] presented how far they had reached e.g. with patient interviews. So, we could keep up with what they had done.' (Hospital Project Manager)

The strategy of involving the right people in the project (including management representatives, front-line staff and people within the department in general) had a positive effect on implementation as it maintained and strengthened the solid project support in the organisation from those who had the formal power and the opportunity to change the existing service but also among those who potentially would have to make changes to their daily work or be affected by some of the changes.

Stakeholder engagement

Regarding stakeholder engagement, the designers were concerned with promoting implementation commitment during the project, thus they tried to ensure that the involved stakeholders were supportive, motivated and dedicated to making the changes happen.

First, the designers challenged the hospital representatives' perceptions of the existing service. Prior to the initial kick-off workshop, the designers went to the streets in Oslo with a video camera and asked random citizens about their experiences with Oslo Legevakt. These videos were presented to representatives from the hospital at the subsequent kick-off meeting (fig. 5.33).

'We also went out before we had our initial kick-off workshop and did some 'voxpops'. [This was in order] to get the immediate response people have when you say the word Legevakten. It comes from brand development. [… It was] a way of provoking that conversation or that dialog [of what the service experience for patients in reality was].' (Design Project Manager)

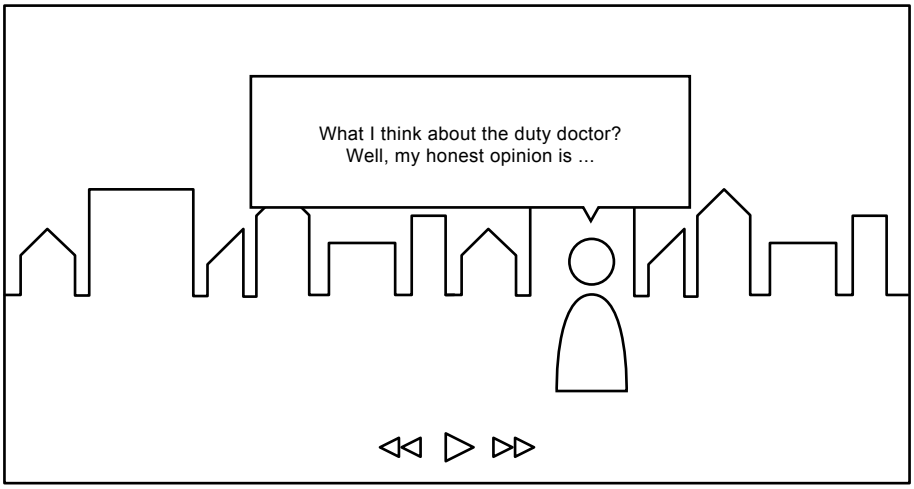


Figure 5.33. Small video sequences with formers patients (citizens in Oslo) were used in the early phases of the project with the purpose of initiating a recognition for the need of changing the existing service.

The videos showed rather dissatisfied previous patients and this emphasised the conflict between the patients' and the staff's points of view in relation to the existing service; what could be expected from it and what was provided. The acknowledgement of this conflict was the first step towards a changed perception of the existing service and thus a potential acknowledgement of the need to change it. The videos were perceived as rather provocative to some people.

'People were provoked. People got angry.' (Design Project Manager)

However, the designers did not perceive this to be a problem. Rather the contrary, they perceived it as a healthy start to kick off the project as well as a constructive element to reinforce the subsequent process as it challenged the service providers' perception of the existing service and thus initiated a recognition of the need for changing it.

The videos were used to generate an understanding among the hospital representatives of the problematic issues with the existing service that were not immediately apparent from their point of view. This was perceived to be significant not only at the beginning of the project, but throughout the project period. As a continuation of the videos, the designers created user profiles that summed up some of the different patient experiences as well as problematic issues the designers had identified during interviews and observations. These user profiles were used in workshop sessions, but also when concepts were presented. In this way, the designers attempted to use the user profiles as a means to create an understanding for the problems while communicating the potential solutions.

Second, the designers organised regular meetings within the project group and steering group in order to facilitate a shared process and joint decision making.

'This was constant contact. Off and on and down to decision making.' (Design Project Manager)

Third, the designers actively involved both management and staff in the different design activities. As previously mentioned, the designers invited both representatives from the top management and different staff groups to participate in, for example, co-design workshops and prototyping activities, and also placed project material in a central hallway in order for people who were not included in the formal design activities to be involved and able to contribute to the design process.

These different activities followed the general strategy of promoting implementation commitment during the project. The strategy had a positive effect with regards to implementation because it led to a feeling of ownership of the project and the proposed changes to the existing service among the top management, the department management and the different staff groups within the department, that is, among those who had the formal mandate to change the existing service and those whose daily work

would need to change.

Project handover

Regarding project handover, the designers were concerned with appropriately handing over the project; however, their attempts were not entirely successful.

The representatives from Legevakten and the representatives from Making Waves had divergent expectations in relation to how the changes were to be implemented and thus different expectations regarding the project delivery and the follow-up process. The representatives from Legevakten expected the designers to deliver 'implementation-ready' elements such as print-ready digital files of certain service elements at the end of the project period.

'We […] interpreted it as if they were to deliver finished material ready for print.' (Hospital Project Manager)

The designers had completely different expectations in this regard. They perceived the project as an initial project which should be followed by a second project as well as an on-going collaboration between the designers and Legevakten.

'We wanted to be part of the pilot that launched this to a far greater degree. I wanted to run courses; I wanted to put in place this kind of knowledge, which would enable new employees to get on board quicker. To work more with the service script so that everyone could be comfortable with it. And maybe that also could be co-created.' (Design Project Manager)

The different expectations ended up in discussions between the two parties with regards to the design delivery and the subsequent process. The designers tried to argue for a larger role (and thus budget) in relation to implementation in order to secure that the changes were implemented as intended. However, the discussions resulted in a compromise whereby the designers were paid an additional 250,000 NOK to detail the proposed service changes and develop functioning prototypes of analogue service elements.

In the end, the designers handed in a final delivery consisting of functional prototypes, files to be printed and a project report with a complete presentation of the service concept, which also included a service blueprint and descriptions of suggested digital service elements that were not prototyped. Subsequently, the hospital representatives took over the project and launched the service changes by ordering printing, placing the prototyped service elements in the right locations, and informing staff about the new concept at a morning meeting.

'It became such that the steering group explained it [the proposed service solution] at a morning meeting: that from today we will use this card [a significant element within

the service solution], and so on.' (Hospital Project Manager)

Neither the designers nor Oslo Legevakt were, however, satisfied with the compromise. The proposed changes were based on the relations and interactions between patients and staff, but this was not properly addressed when the steering group presented it at the morning meeting. The tangible service elements were highlighted, but not the interconnected intangible elements, such as how the medical secretary interacted and communicated with the patient. As such, the implemented changes primarily included physical artefacts and did not change the patient experience as the designers had intended it.

'As an amateur [in design], you do not understand the comprehensiveness of holistic thinking. What it requires in relation to time and resources.' (Hospital Project Manager)

Hence, the designers attempted to appropriately handover the project to Legevakten by arguing for a larger role (and thus budget) in relation to implementation. The designers saw a need for them to support the implementation process. However, the designers were not successful in convincing the project owners of the necessity of prioritising time and resources regarding implementation.

5.8.4. SUMMARY

The illustration (fig. 5.34) provides a blueprint and thus sums up the implementation conditions and the implementation strategies for Case D (The Duty Doctor). It presents a case with both positive and negative implementation conditions, which the designers addressed by following different implementation strategies related to both content and people.

The project resulted in a successful implementation, in the sense that most of the proposed service changes were implemented at the end of the project period; although the proposed changes were not precisely implemented as the designers intended.

IMPLEMENTATION CONDITIONS

PROJECT POSITIONING

· The project had strong support in the organisation (positive condition)

PROJECT GROUP CAPABILITIES

· Competent project group in relation to decision-making (positive condition)
· Project group not able to change IT or architecture (negative condition)
· No allocated implementation budget (negative condition)

PROJECT OWNERSHIP

· The project was formally owned by the service provider and supported by different staff groups (positive condition)
· The project was managed by external designers (potentially negative condition)

PROJECT SCOPE

· Narrow and well-defined project scope (positive condition)
· Existing problems partly caused by the physical architecture which could not be changed (negative condition)

IMPLEMENTATION STRATEGIES

(CONTENT)

PROJECT FRAMING

Identifying a space for realistic service change
· By narrowly scoping the project.
· By sharing ideas with stakeholders during the entire project period.

IDEA/CONCEPT CHARACTERISTICS

Proposing concrete changes to the present situation
· By proposing analogue changes oriented towards the relationship between people.

IDEA/CONCEPT EVALUATION

Having stakeholders within the organisation evaluating feasibility in suggested ideas and concepts
· By sharing ideas during initial interviews.
· By using project group members as test bed for ideas during regular meetings.
· By organising experience prototyping.

(PEOPLE)

STAKEHOLDER INCLUSION

Involving the right people in the project
· By involving top management representatives.
· By involving representatives from different staff groups.
· By attempting to involve all potentially affected people from the department.

STAKEHOLDER ENGAGEMENT

Promoting implementation commitment
· By challenging perceptions of the existing service.
· By having regular meetings in project- and steering group.
· By activily involving management and staff in different design activities.

PROJECT HANDOVER

Appropriately handing over the project
· By attempting to negotiate a following project and thus a larger role (and budget) for the designers.

Figure 5.34. The implementation conditions and -strategies in Case D (The Duty Doctor).

5.9. EPILOGUE

This chapter has presented, described and analysed four service design projects conducted between 2009 and 2012 by professional designers and public hospitals in Denmark and Norway. Each case analysis describes how the designers in the individual service design projects addressed implementation by uncovering the implementation conditions and implementation strategies.

The cases indicate both similarities and differences with regards to how the designers addressed implementation. This will be elaborated in the following chapters, which compares and discusses the cases.

CHAPTER 6
CROSS-CASE ANALYSIS

6.0. PROLOGUE

This chapter presents a cross-case analysis comparing the similarities and differences among the four cases presented in the previous chapter. Once again, the chapter takes its point of departure in the conceptual model. This means that the cross-case analysis presents step-by-step the similarities and differences among the four cases in relation to:

- The implementation conditions;
- The implementation strategies related to content;
- The implementation strategies related to people.

This analysis results in a number of empirical findings, which concern some of the general characteristics of the way the designers addressed implementation.

6.1. IMPLEMENTATION CONDITIONS ACROSS CASES

6.1.2. IMPLEMENTATION CONDITIONS: COMPARISON

This section compares the implementation conditions across the four cases; these conditions relate to project positioning within the organisation, project ownership, project group capabilities and project scope.

Project positioning

With regards to project positioning within the organisation, two of the projects (Case A, 'The Unmanned Blood Depot', and Case D, 'The Duty Doctor') had strong project support within the organisation. The projects were supported by the people who had the formal power as well as the opportunity and capabilities to change the existing services, namely the top management, department management and staff. The solid project support was a positive and enabling implementation condition because people within the organisation had a positive attitude towards the implementation of service changes.

In contrast, the two remaining projects (Case B, 'The Complex Ward', and Case C, 'The Patient Hotel') had weak support within the organisation. The projects concerned proposing changes across departments; however, the projects were initiated solely by single departments. This meant that the projects were not supported by the management and staff in the departments that were to co-provide the service and thus co-owned both the formal power and the opportunity to implement the changes. This lack of project support within the organisation was a negative and challenging implementation condition because people within the organisation had a reluctant attitude towards the implementation of service changes.

Project ownership

With regards to project ownership, two of the projects (Case A, 'The Unmanned Blood Depot', and Case D, 'The Duty Doctor') were formally owned by the single departments providing the services and were supported by the department staff. Hence, the people who had the power and opportunity to implement the changes also had a strong sense of ownership of the project. This was a positive and enabling implementation condition.

In contrast, the two remaining projects (Case B, 'The Complex Ward', and Case C, 'The Patient Hotel') were not owned by all the departments that were to co-provide the service. The projects had been initiated by single departments (e.g. only a medical department) in spite of the fact that several other departments were to co-provide the new service. Hence, not all the people who had the power and opportunity to implement the changes had a strong sense of ownership of the project because they had not been included in the initiation of the project. This was a negative and challenging

implementation condition.

Furthermore, the fact that all the projects were facilitated and managed by external design teams (including both the external design companies and the in-house design team, which was also external in the sense that they were not part of the specific department that provided the service and formally owned the project) was a general challenge for ownership. The role of project manager often engenders a sense of ownership of the project and its results. Therefore, there was a potential lack of a sense of ownership among the service providers (those who had the mandate and opportunity to implement the results). This did not become a challenge in any of the projects, but it was something the designers were aware of and addressed.

Project group capabilities

With regards to project group capabilities, three of the projects (Case A, 'The Unmanned Blood Depot', Case B, 'The Complex Ward', and Case D, 'The Duty Doctor') had a decision-capable project group; that is, the project group members had the authority and/or competence to make decisions relating to the project during the project period. This was a positive implementation condition because it enabled the designers to take concrete actions. For example, the project group in Case B decided which departments should be involved in and co-provide the new service; they did not wait for the decision to be made by the top management of the hospital. This enabled the designers to contact the specific departments and involve them in the design process.

In contrast, Case C did not have a decision-capable project group, which left the designers in a situation where they were not able to take concrete actions. For example, the project group was not able to decide which departments should co-provide the new service. This meant that the designers were not able to define a target group for the new service and were not able to involve and engage people from the different departments that co-owned the opportunity to implement the changes. Thus the lack of a decision-capable project group was a negative implementation condition.

With regards to project group capabilities, the four projects were also subject to different conditions with regards to their competences and resources for implementing the proposed service changes. For example, where Case A had a project group with the competences and resources to make changes to IT systems, this was not the situation in Case B or Case D. Due to the IT competences within the project group in Case A, there was an opportunity to implement changes in IT. This was a positive implementation condition, whereas the opposite situation in Case B and Case D was a negative condition. Generally speaking, the existence of many competences and human resources within the project group or available to the project group is positive and enabling condition for implementation.

None of the projects initially had a budget for implementation, which was a negative

condition and a challenge for implementation. However, in three of the projects (Case A, 'The Unmanned Blood Depot', Case B, 'The Complex Ward', and Case D, 'The Duty Doctor'), the project groups received an additional implementation budget and thus had the financial resources to implement the changes, at least to some degree. This situation changed the negative condition to a positive condition and was a significant enabler with regards to implementation.

Project scope

With regards to project scope, two of the projects (Case A, 'The Unmanned Blood Depot', and Case D, 'The Duty Doctor') had narrow project scopes focused on quite concrete changes (such as artefacts and formalized procedures) affecting a few people within single departments. In contrast, Case B (The Complex Ward) and Case C (The Patient Hotel) had wide project scopes focused on abstract changes (such as values) affecting many people across multiple departments within the organisation. Hence, the 'design tasks' and thus the project scopes were very different across the cases.

While the project scopes in Cases A and D were mainly enabling with regards to implementation, this was not true of Cases B and C. For example, the designers in Cases B and C described difficulties with the task of proposing changes requiring collaboration across departments because the departments were not accustomed to collaboration or encouraged to collaborate. Furthermore, the designers also described difficulties with the task of proposing abstract changes (such as changes in values) in contrast to more concrete changes (such as artefacts). Moreover, proposing changes that affect many people or (worse) proposing changes that require that many people change is likely to be more challenging than if only a few people need to change something. This should be understood in the sense that few people are more agile than large groups of people.

6.1.2. IMPLEMENTATION CONDITIONS: EMPIRICAL FINDINGS

The empirical findings derived from comparing the implementation conditions across cases will here be summarised.

The cross-case analysis of the implementation conditions indicate that the service design projects had both enabling and challenging implementation conditions related to project positioning within the organisation, project ownership, project group capabilities and project scope. In this regard, the analysis indicates that enabling implementation conditions can include:

- Strong project support within the organisation from people who have the formal power as well as the opportunity and capability to implement the proposed service changes;

- A strong sense of ownership of the project among people who have the formal power as well as the opportunity and capability to implement the proposed service changes;

- A decision-capable project group with competences and resources to implement the proposed service changes;

- A narrow project scope focused on concrete changes (such as artefacts and formalized procedures) for a few people within a single department of an organisation.

The analysis further indicates that challenging implementation conditions can include;

- A lack of project support within the organisation from people who have the formal power as well as the opportunity and capability to implement the proposed service changes;

- A lack of a sense of ownership of the project from people who have the formal power as well as the opportunity and capability to implement the proposed service changes;

- A decision-incapable project group without competences and resources to implement the proposed service changes;

- A wide project scope focused on abstract changes (such as values) related to many people across multiple departments of an organisation.

The enabling and challenging implementation conditions are listed in the illustration (fig. 6.1).

	Enabling implementation conditions	Challenging implementation conditions
Project positioning	Strong project support within the organisation from people who have the formal power as well as the opportunity and capability to implement the proposed service changes	A lack of project support within the organisation from people who have the formal power as well as the opportunity and capability to implement the proposed service changes
Project ownership	A strong sense of ownership of the project among people who have the formal power as well as the opportunity and capability to implement the proposed service changes	A lack of a sense of ownership of the project from people who have the formal power as well as the opportunity and capability to implement the proposed service changes
Project group capabilities	A decision-capable project group with competences and resources to implement the proposed service changes	A decision-incapable project group without competences and resources to implement the proposed service changes
Project scope	A narrow project scope focused on concrete changes (such as artefacts and formalized procedures) for a few people within a single department of an organisation	A wide project scope focused on abstract changes (such as values) related to many people across multiple departments of an organisation

Figure 6.1. Enabling and challenging implementation conditions related to the project positioning, the project ownership, the project group capabilities and the project scope.

6.1.3. IMPLEMENTATION CONDITIONS: COMPARISON OF A SUCCESSFUL VS. AN UNSUCCESSFUL PROJECT

This section compares the implementation conditions for Case B (The Complex Ward) and Case C (The Patient Hotel). These two projects had particularly challenging implementation conditions. However, where Case B was successful with regards to implementation, Case C was not. Therefore, a comparison between the two cases may reveal whether some conditions are more essential for successful implementation than others.

Regarding project positioning within the organisation, project ownership and project scope, the two cases had similar and challenging implementation conditions. Both cases had:

- An initial lack of project support within the organisation;
- An initial lack of sense of ownership of the project among the people who had the power and opportunity to implement the proposed service changes;
- A wide project scope focused on abstract changes (such as values) related to many people across multiple departments of the organisation.

However, regarding project group capabilities, one condition was fundamentally different: whether the project group was decision-capable, in other words, the project group's ability, opportunity and courage to make decisions.

In Case B the project had a small but decision-capable project group. This was a project group with a project owner who was able to make such decisions as which departments to include in the service, which locations to use, and so on. This enabled the designers to ensure that the proposed service changes (what they designed) could be feasibly implemented and that the right people within the organisation were committed to and capable of implementing the proposed service changes. This was simply because the designers were provided with knowledge about what they could propose changes to (e.g. the specific locations and departments) and whom they should involve in the process (e.g. managers and staff from specific departments).

In contrast, Case C did not have a decision-capable project group. They had a large project organisation, but it did not have the ability to make decisions concerning such things as which departments to include in the service or which locations to use. This 'decision vacuum' challenged the designers and was an obstacle for addressing implementation. The designers were not provided with information about what they could propose changes to or whom they should involve in the process.

6.1.3. IMPLEMENTATION CONDITIONS: EMPIRICAL FINDINGS DERIVED FROM THE COMPARISON OF A SUCCESSFUL VS. AN UNSUCCESSFUL PROJECT

The comparison between Case B and Case C indicates that a decision-capable project group is a significant implementation condition that can be an essential prerequisite for successful implementation.

The fact that Case B was subject to very challenging conditions (with regards to project positioning, project ownership and project scope) but was still successful in implementation further indicates that challenging conditions within these areas are not necessarily a hindrance to successful implementation, as long as they are properly addressed. In other words, an initial lack of project support within the organisation, an initial lack of a sense of ownership of the project among the people who had the opportunity to implement the proposed service changes and an abstract project scope focused on intangible changes (such as values and perceptions) related to many people across multiple departments of an organisation do not mean that the project cannot lead to a successful implementation of service changes. However, success requires that the project have a competent and decision-capable project group that is able to address the challenging conditions.

6.2. IMPLEMENTATION STRATEGIES (CONTENT) ACROSS CASES

This section compares the content-related implementation strategies across the four cases.

In all four cases, the designers followed implementation strategies related to content; that is, the designers addressed implementation by ensured that the proposed service changes (what they designed) could feasibly be implemented in the organisational context. This included strategies related to project framing, idea/concept characteristics and idea/concept evaluation.

6.2.1. IMPLEMENTATION STRATEGIES (CONTENT): COMPARISON

Project framing

Regarding project framing, the designers in all four cases were concerned with *identifying a space for realistic service change* (fig. 6.2), i.e. exploring, challenging and defining what could be changed in relation to the existing service and thereby identifying the kinds of changes that were realistic to propose. For example, whether the IT system could be changed, the location could be changed or certain procedures could be changed.

The designers took three different types of actions in this regard.

First, all designers explored what could realistically be changed during their interactions with stakeholders (the hospital representatives). Thus the designers utilized interviews and meetings with people from the organisation to gain information about what could or could not be changed in relation to the existing service.

Second, some designers challenged the stakeholders' perception of what could be changed; thus they questioned and tried to affect the hospital representatives' perceptions of what could be changed with regards to the existing service.

Third, some designers actively defined the limits and characteristics of the service change, whereby they defined some boundaries for the space for service change, for example by narrowly scoping the project.

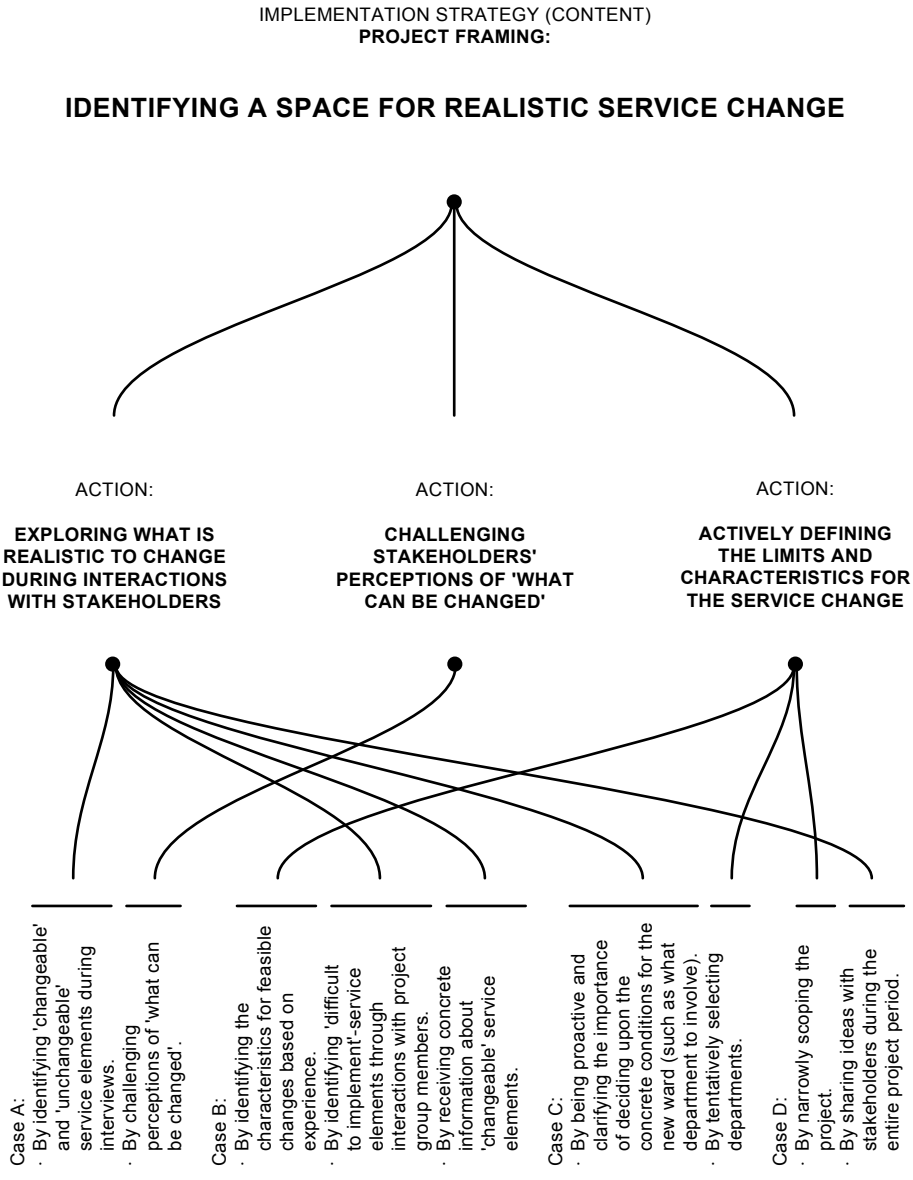


Figure 6.2. Implementation strategy (content) related to project framing.

Idea/concept characteristics

Regarding the characteristics of the ideas and concepts, the designers in all four cases were concerned with *proposing concrete changes to the present situation* (fig. 6.3); that is, the designers did not pursue abstract or radical changes for the future, but rather aimed to propose concrete and incremental changes that could be implemented under the present circumstances in the organisations. This strategy was followed by both the projects with narrow and concrete project scopes concerned with changing artefacts and procedures (Case A and Case D) and the projects with wide and abstract project scopes concerned with changing the values perceptions and behaviours within the organisations (Case B and Case C).

The designers took two types of actions with regards to the strategy.

First, the designers in projects with rather abstract project scopes (Cases B and C) were particularly concerned with turning abstract aims into concrete ideas. The designer in Case B explained, 'We had to be concrete', implying that if the project was to have any kind of effect (if the content of what they designed was to be implemented and lead to actual service change) they needed to propose concrete and tangible changes in spite the project's abstract scope.

Second, all the designers were concerned with selecting and proposing ideas to be implemented 'here and now'. What could be implemented 'here and now' was, however, different across the cases. In Case A, IT-oriented ideas could be implemented 'here and now', whereas this was not the situation in Cases B and D. This was a consequence of different identified spaces for realistic service change across projects.

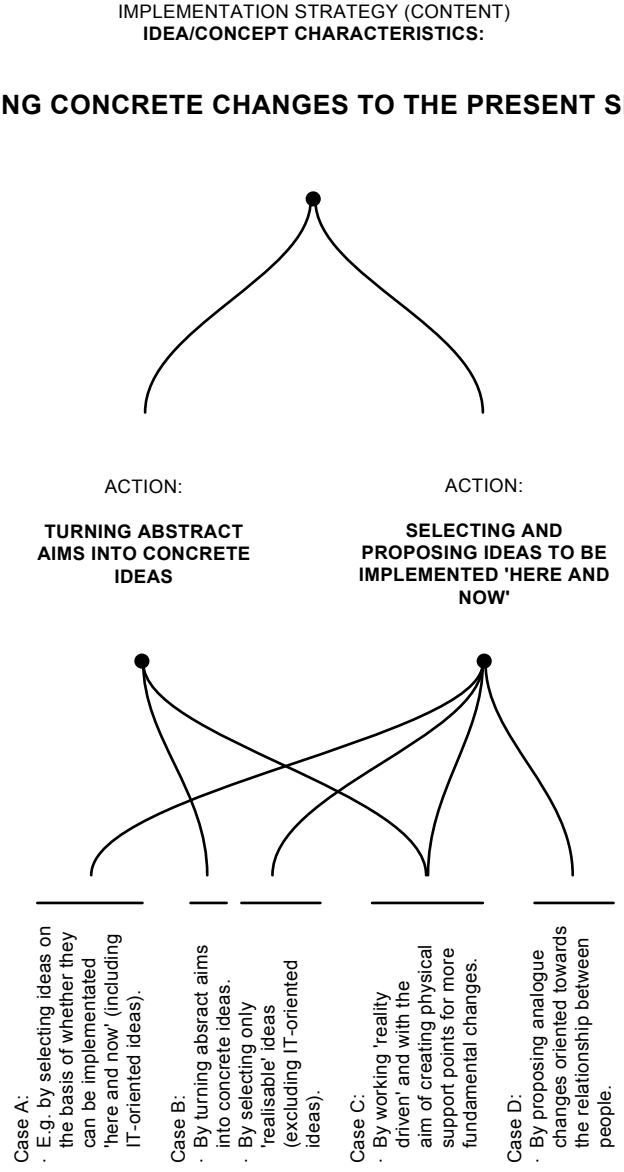


Figure 6.3. Implementation strategy (content) related to idea/concept characteristics.

Idea/concept evaluation

Regarding content evaluation, the designers were concerned with *having stakeholders within the organisation evaluating feasibility in suggested ideas and concepts* (fig. 6.4). The designers utilised the hospital representatives and their knowledge and experience to evaluate whether the ideas were implementable or not.

The designers took four types of actions with regards to this strategy.

First, some designers shared their early sketches during the initial interviews with various stakeholders within the organisation.

Second, all the designers organised feedback sessions where they shared and presented ideas and/or concepts with selected stakeholders within the organisation and enabled them to take part in the process of selecting which ideas and/or concepts to further develop.

Third, some designers placed concept materials within the organisation in order to receive feedback from stakeholders who were not directly involved in the process, that is, stakeholders who were not part of the project group as well as stakeholders who had not participated in organised meetings or feedback sessions. One example of this was placing posters illustrating different concepts in a central hallway.

Fourthly, some designers created experience prototypes of the concepts; these were full-scale prototypes that could be tested by users and evaluated by the stakeholders providing different parts of the service.

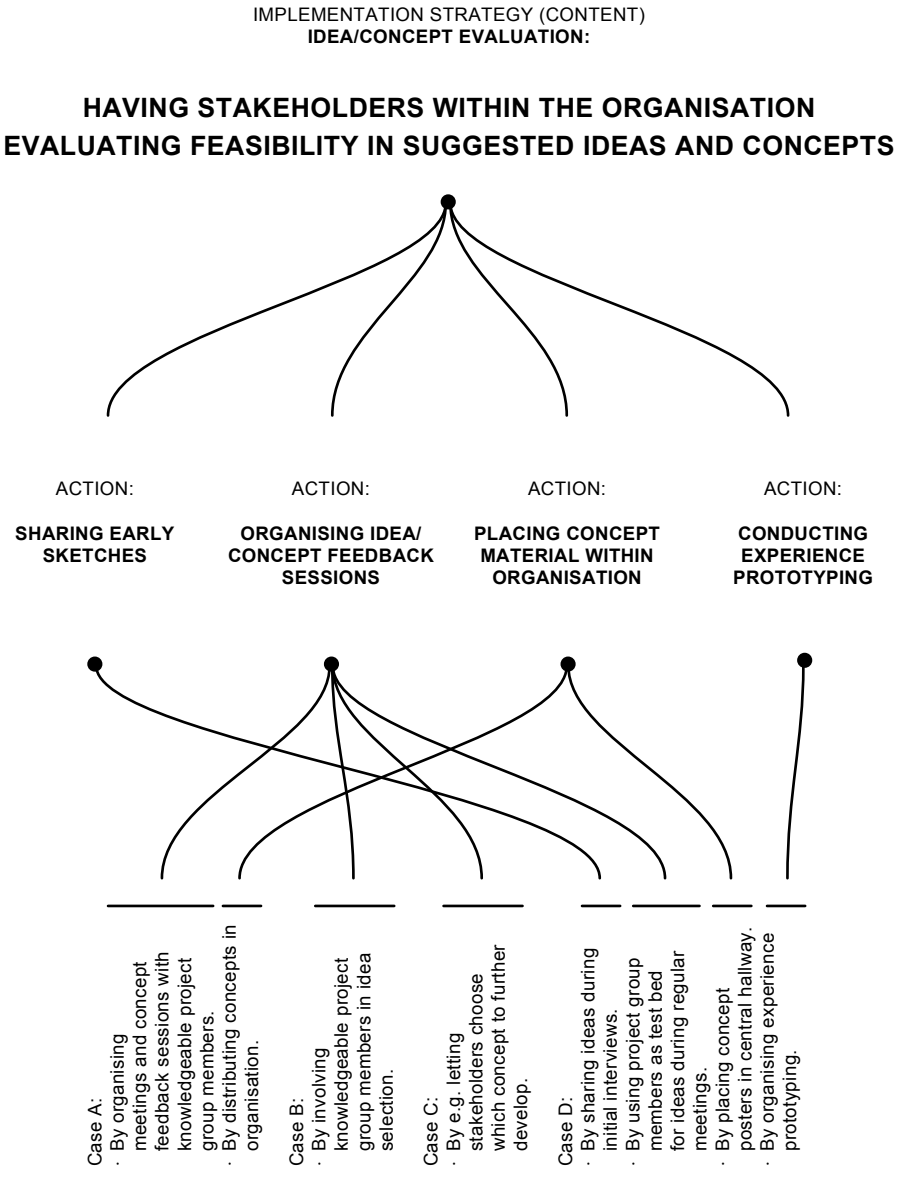


Figure 6.4. Implementation strategy (content) related to idea/concept evaluation.

6.2.2. IMPLEMENTATION STRATEGIES (CONTENT): EMPIRICAL FINDINGS

The analysis of the content-related implementation strategies across the four cases has resulted in the following empirical findings:

- The designers addressed implementation by following content-related implementation strategies relating to the project framing, the content characteristics and the content evaluation.

- In spite of different implementation conditions, the designers followed similar content-related strategies, including:

    - Identifying a space for realistic service change;

    - Proposing concrete changes to the present situation;

    - Having stakeholders within the organisation evaluate the feasibility of suggested ideas and concepts.

- In spite of following similar strategies, the specific actions taken by the designers were not always similar.

The empirical findings are shown in the illustration (fig. 6.5).

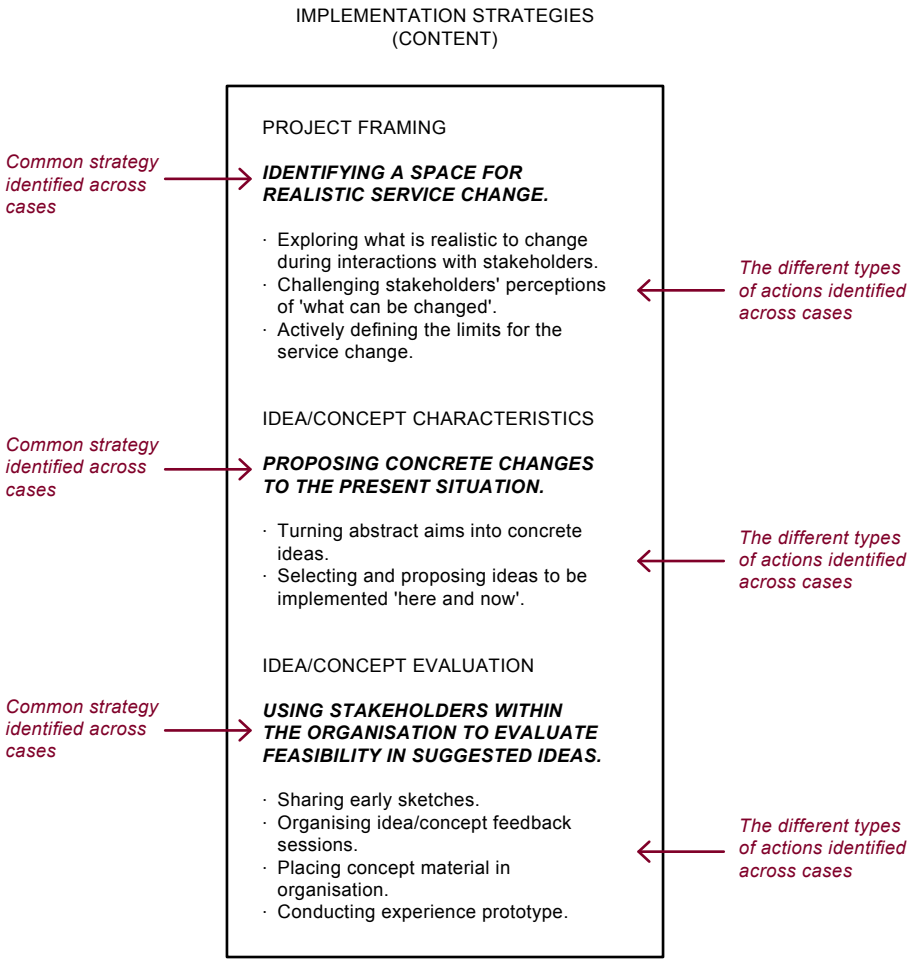


Figure 6.5. The designers followed similar content-related implementation strategies across cases, but conducted different types of implementation actions in respect to the strategies both within and across cases.

6.3. IMPLEMENTATION STRATEGIES (PEOPLE) ACROSS CASES

This section compares the people-related implementation strategies across the four cases.

In all four cases, the designers intentionally followed implementation strategies related to people. This means that the designers addressed implementation by addressing *who* should make the changes happen, thus ensuring that the right people within the organisation were committed to and capable of implementing the proposed service changes. The strategies used related to stakeholder inclusion, stakeholder engagement and project handover.

6.3.1. IMPLEMENTATION STRATEGIES (PEOPLE): COMPARISON

Stakeholder inclusion

Regarding stakeholder inclusion, the designers were concerned with *involving the right people in the project* (fig. 6.6); thus the designers oriented themselves within the organisation and actively considered which people from the organisation would be relevant to involve in the project. This enabled the designers to interact with stakeholders who could either enable or challenge implementation.

The designers took three types of actions with regards to this strategy.

First, most of the designers aimed to identify and involve people with the formal power to implement changes related to the existing service within the organisation. These included top managers, department managers and people with specific responsibilities related to the service (such as the primary staff member responsible for a specific service).

Second, all the designers involved people with the opportunities and capabilities to implement the changes. These included staff (such as nurses) and/or people with certain competences (such as IT staff) and thereby people who could influence whether or not a service change would be implemented by, for example, changing behaviour or by making changes to the IT system.

Thirdly, some designers actively chose to exclude potential bottlenecks; that is, they did not involve the top management or the manager of technical departments because these people could potentially hinder implementation. This was a rather radical action that only took place in one case (Case B).

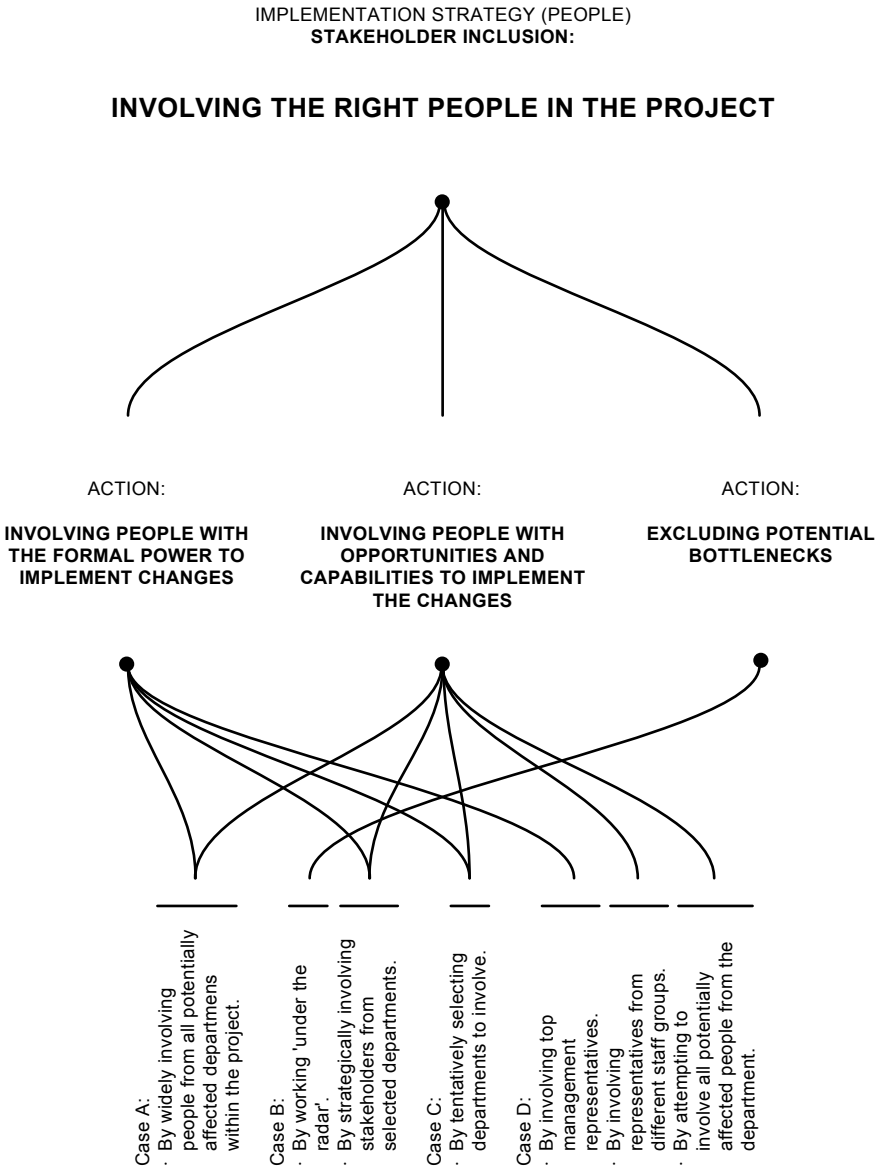


Figure 6.6. Implementation strategy (people) related to stakeholder inclusion.

Stakeholder engagement

Regarding stakeholder engagement, the designers were concerned with *promoting implementation commitment* (fig. 6.7); thus they tried to ensure that the involved stakeholders had a sense of ownership of the project and were supportive, motivated and dedicated to making the proposed changes happen. This particularly concerned stakeholders (both managers and staff) who had a key role in providing or co-providing the service or people who would somehow be affected by the changes or required to change on the basis of the project.

The designers took four types of actions with regards to this strategy.

First, some designers promoted implementation commitment by instituting an implementation promise. This included, for example, adding 'implementation' as a phase in the project plan within the design brief that was signed by hospital representatives. By signing the design brief, the organisation committed to implementation in writing.

Second, some designers articulated the problems with the existing service in order to create a sense of urgency and motivation among stakeholders for changing the existing service. For example, some designers showed videos of previous patients telling about their bad experiences with the existing service. Other designers created campaigns that emphasised the problems with the existing service.

Third, all designers focused on enhancing the feeling of ownership of the project and project ideas among stakeholders within the hospital, managers as well as staff. In this context, the designers were concerned with working *with* rather than *for* the hospital, ensuring that ideas were co-created and co-evaluated by people from within the organisation. This was mostly done using co-design workshops in which managers and staff from within the organisation co-generated ideas. Moreover, the feeling of ownership was enabled by placing project ideas and concepts in selected locations (such as in central hallways). These types of actions aimed to create openness in the projects and emphasise that the projects did not belong to the designers nor the project groups alone. The projects belonged to many different people within the organisation, and these people were invited (and encouraged) to contribute to the design process. Being invited into the design process helped create a sense of ownership of the project and the ideas and concepts generated in the project, which engendered a commitment to implementing the ideas.

Fourth, some designers focused on promoting implementation commitment by securing a generally positive attitude towards the project within the organisation. Some designers broadly communicated about the initiation of the project within the organisation, for example, by sending informative emails or by placing pamphlets in lunch rooms, thus ensuring that people felt well-informed about the initiation of the project. Other designers focused on behaving nicely, making sure that they contacted people (such

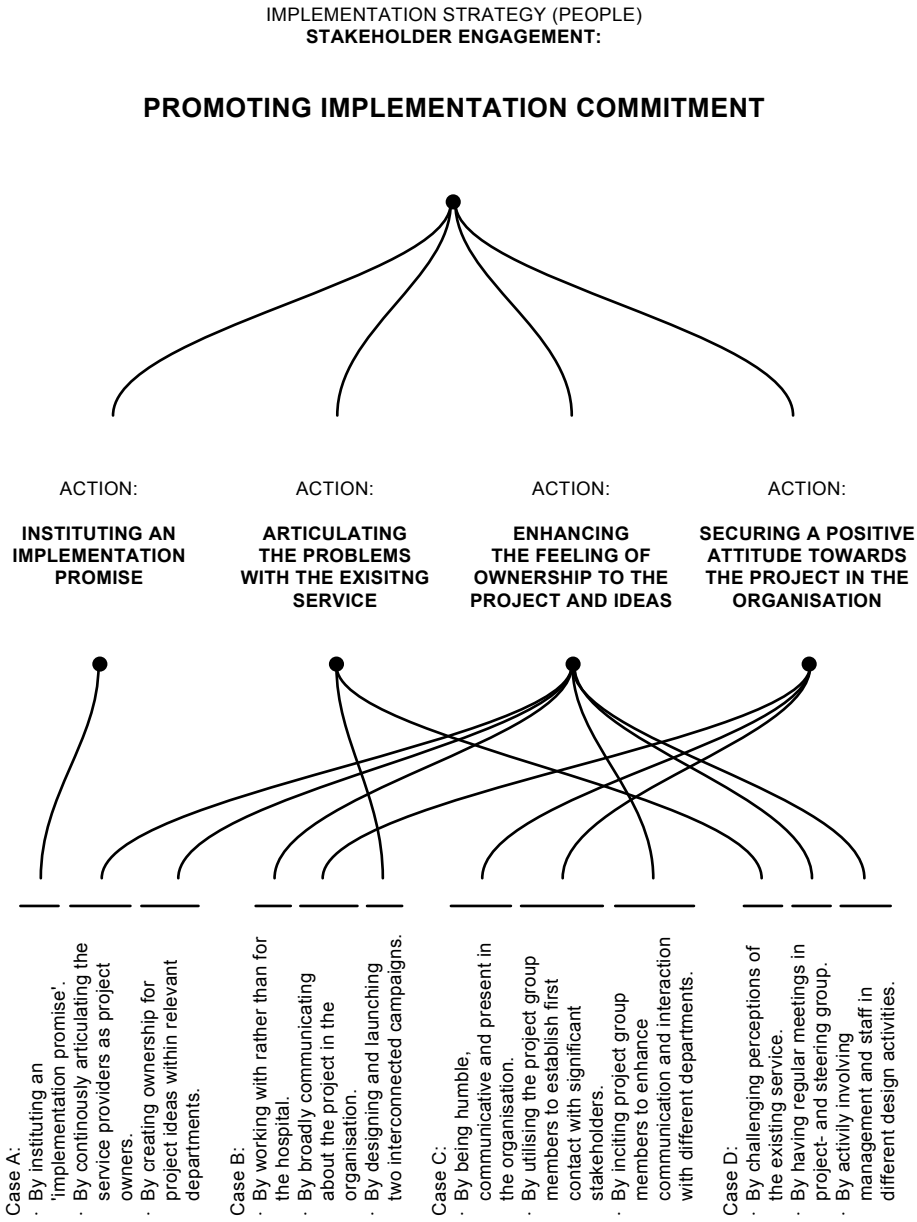


Figure 6.7. Implementation strategy (people) related to stakeholder engagement.

as managing doctors) in an appropriate manner, and in this way secured a positive attitude towards the project in general.

Project handover

Regarding project handover, the designers were concerned with *appropriately handing over the project to the organisation* (fig. 6.8); thus the designers attempted to hand over the project and its results to the organisation in a manner that responded to local premises for further developing and implementing the proposed service changes.

The designers took four types of actions with regards to this strategy.

First, some designers gradually let hospital representatives take over the project. This meant that the designers did not hand over a final deliverable, such as a detailed concept description with a service blueprint. This aligned with the capabilities of the project group members from the hospital in the specific case (Case A), who were ready to and capable of finalising and implementing the proposed changes themselves without support from the designers.

Second, some designers prepared and installed functional prototypes. This meant that the designers had a large role in making the actual changes (for example by putting pictures in frames and hanging them on the wall). This aligned with the capabilities of the project group members from the hospital in the specific case (Case B), who did not have the resources or the capabilities to do it themselves.

Third, some designers delivered communication materials about the proposed service changes that hospital representatives from the project group could use in future meetings with stakeholders within the organisation. These primarily concerned proposed changes that could not be implemented by the project group alone. These included, for example, new perceptions and behaviours in different departments (Case B) and recommendations for a new ward across departments (Case C).

Fourth, some designers negotiated (or attempted to negotiate) a larger role with regards to implementation in order to ensure that the proposed service changes were in fact implemented – and implemented as the designers intended.

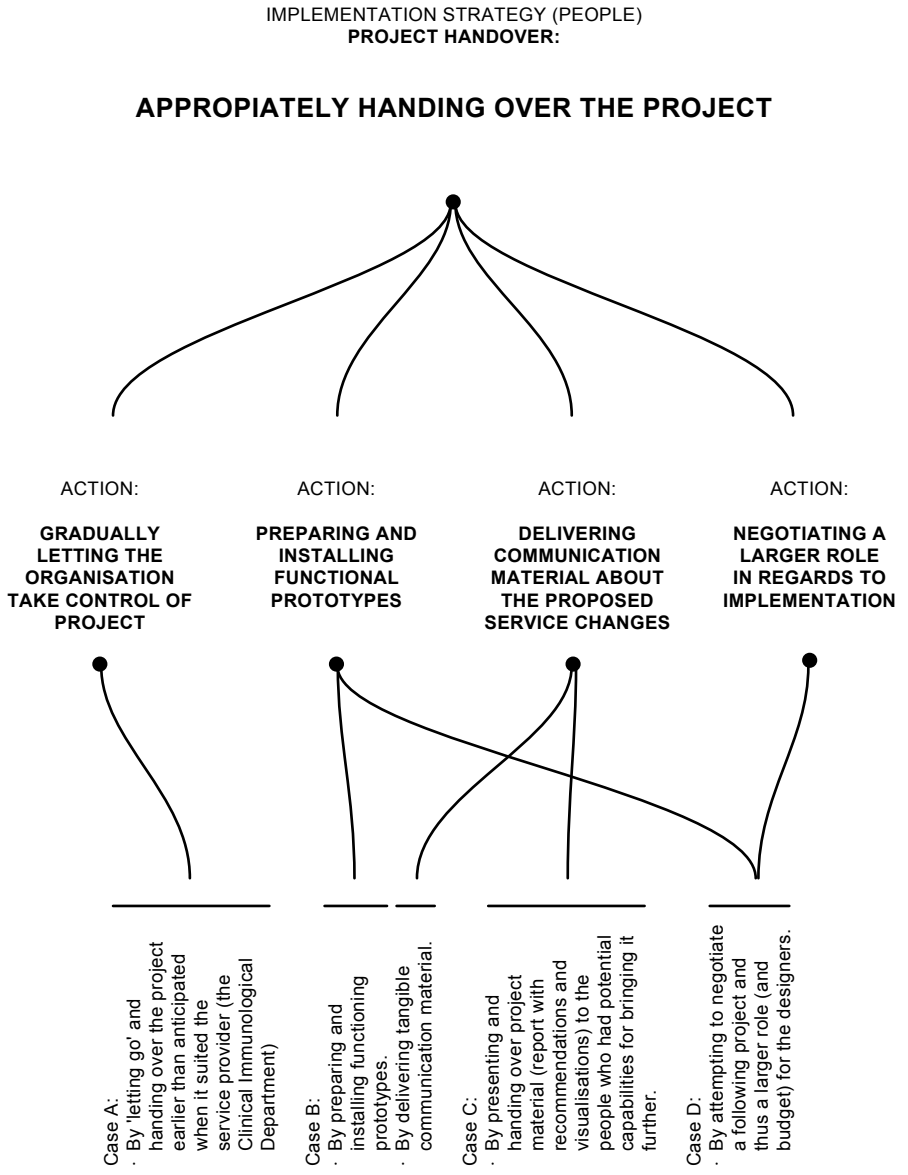


Figure 6.8. Implementation strategy (people) related to project handover.

6.3.2. IMPLEMENTATION STRATEGIES (PEOPLE): EMPIRICAL FINDINGS

To sum up, the analysis of the people-related implementation strategies across the four cases has resulted in the following empirical findings:

- The designers addressed implementation by following people-related implementation strategies relating to stakeholder inclusion, stakeholder engagement and project handover.

- In spite of different implementation conditions, the designers followed similar people-related strategies, including:

    - Involving the right people in the project;

    - Promoting implementation commitment;

    - Appropriately handing over the project to the organisation.

- In spite of following similar strategies, the specific actions taken by the designers were not always similar.

The empirical findings are shown in the illustration (fig. 6.9).

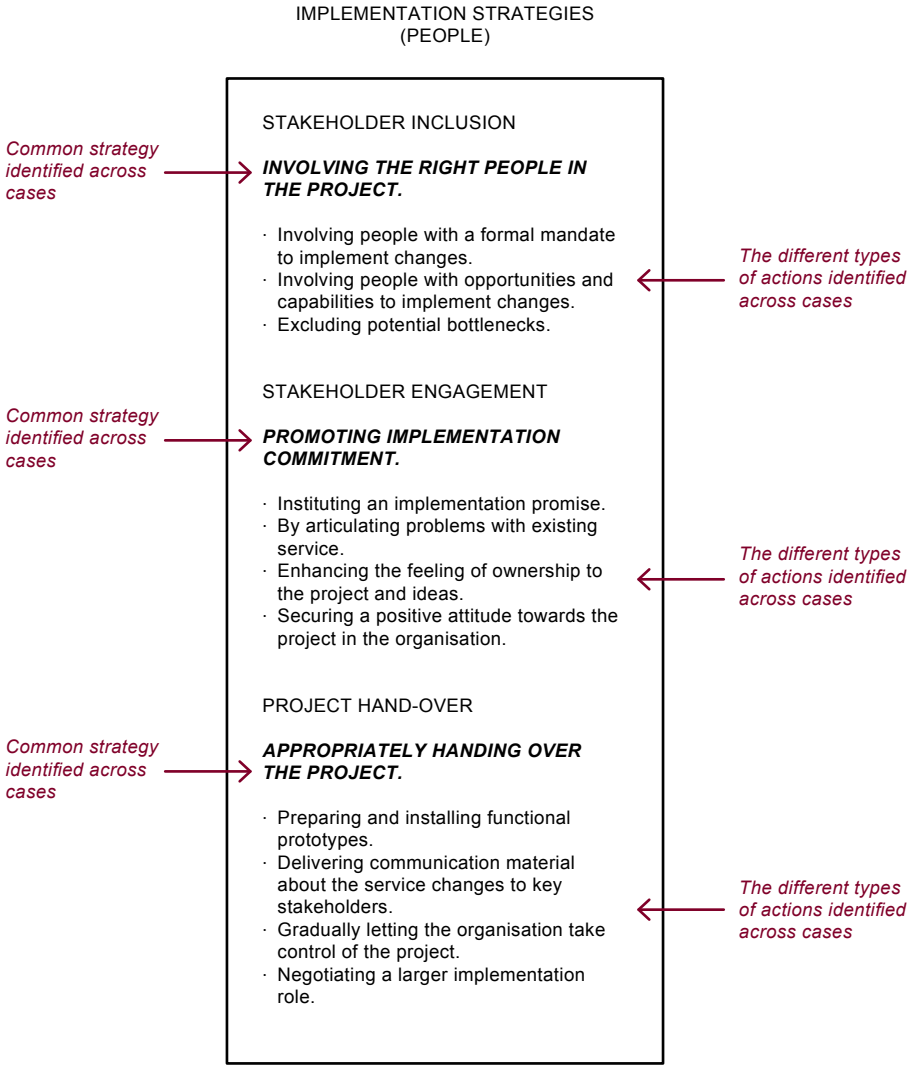


Figure 6.9. The designers followed similar people-related implementation strategies across cases, but conducted different types of implementation actions in respect to the strategies both within and across cases.

6.4. EPILOGUE

This chapter has presented a cross-case analysis of the four cases. The analysis has resulted in a number of empirical findings related to:

- The implementation conditions across the cases;
- The implementation strategies related to content across the cases;
- The implementation strategies related to people across the cases.

Together, these findings indicate some general characteristics of how the designers (across cases) addressed implementation and the conditions they faced in doing so.

In the following chapter, the empirical findings will be discussed in relation to existing theory.

CHAPTER 7
DISCUSSION

7.0. PROLOGUE

This chapter relates the empirical findings presented in the previous chapter to existing theory. Thus the chapter reiterates the theoretical knowledge presented in Chapter 3 and relates it to the results obtained by comparing the four cases. Again, the chapter takes its point of departure in the conceptual model, which means that the chapter will discuss:

- The empirical findings regarding implementation conditions.
- The empirical findings regarding implementation strategies related to content.
- The empirical findings regarding implementation strategies related to people.

The chapter will moreover discuss the implementation actions conducted by the designers, meaning the concrete actions the designers took to address implementation.

The discussion will present arguments that qualify and elaborates the empirical findings. These arguments will be summarised at the end of the chapter.

7.1. DISCUSSING IMPLEMENTATION CONDITIONS

The cross-case analysis of the implementation conditions found that the investigated service design projects had both enabling and challenging implementation conditions related to project positioning within the organisation, project ownership, project group capabilities and project scope. Furthermore, the analysis indicated that most of the challenging implementation conditions did not necessarily represent a hindrance to successful implementation, as long as the project had a decision-capable project group that was able to address the challenges during the project.

As described in Chapter 3, innovation within public organisations, including service innovation in hospitals, is often said to succeed in spite of rather than because of the dominant structures and systems in public organisations (Mulgan 2007, p. 4). Hospitals represent a rather complex and extreme context for innovation (Lansisalmi 2006), with significant barriers to the success of implementation efforts (Jensen et al. 2010). Therefore, it was expected that in some, if not all, of the cases, the hospital as a context would pose challenges. This assumption was indeed correct. All of the cases had some challenging implementation conditions, and two cases in particular were severely challenged by the context within which they were operating: Case B (The Complex Ward) and Case C (The Patient Hotel).

To a great extent, it was the scope of these two projects (focused on making service changes across departments) that caused their implementation conditions to be particularly challenging. The projects were challenged by what Jensen et al. (2010) would refer to as ‘silo thinking’ and ‘system inertia’: the projects were challenged by working across departments (silos) and the slow decision-making processes of the organisations (system inertia).

In this way, the research study supports the general understanding that hospitals can be a particular challenging context for innovation and the implementation of service changes. This is particularly the case if the scope of the project spans departments and if the people involved in the project do not have the motivation and capability to make decisions and implement changes. But this study also shows that, in spite of the particularly challenging conditions within hospitals as a context for service design projects, implementation can be successful if the designers and the project group are able to address these challenging conditions during the design process.

7.2. DISCUSSING IMPLEMENTATION STRATEGIES (CONTENT)

The cross-case analysis of the content-related implementation strategies found that the designers addressed implementation by following strategies relating to project framing, content characteristics and content evaluation.

As outlined in Chapter 3, much of the service design literature presents theory, tools and examples for how to create new or improve existing services (see e.g. Polaine et al. 2013; Stickdorn & Schneider 2011; Miettinen & Koivisto 2009), and this emphasise that creating the *content* of change is essential to service design and may even be considered its core. Furthermore, the actions of designers are intended to ensure that the content of change (the service concept/the proposed service changes) is not only desirable and financially viable, but also feasible to implement in an organisational context within a given time frame (IDEO 2009, p. 6; Meroni & Sangiorgi 2011, p. 261). Hence, it was expected that the cases would show that the designers addressed implementation by conducting service change initiatives related *content* by adressing that 'what' they designed (the proposed service changes/the service concept) could feasibly be implemented in the organisation.

7.2.1. DISCUSSING THE INDIVIDUAL STRATEGIES

The cross-case analysis found that the designers followed similar content-related strategies, including:

- Identifying a space for realistic service change.
- Proposing concrete changes to the present situation.
- Having stakeholders within the organisation evaluate the feasibility of the suggested ideas and concepts.

Identifying a space for realistic service change

The first strategy, *identifying a space for realistic service change*, concerns exploring, challenging and defining what can be changed in relation to the existing service. This includes identifying the kinds of changes that can realistically be proposed. As clarified in Chapter 3, service design (or, more precisely, design for services) does not have a simply defined design object. In addition, as services are different and can be approached in different ways, service design can have different roles, objectives and outcomes (Meroni & Sangiorgi 2011). This can be explained as a consequence of the way designers approach their work: as an inquiry rather than as a problem-solving approach (Rittel 1972; Buchanan 1992), where the end result (i.e. the proposed service changes) cannot be determined in advance. In this context, following the strategy of *identifying a space for realistic service change* can be understood as a way to cope

with the facts that service design does not have a simply defined design object and that service design can lead to very different outcomes. One can say that to *identify a space for realistic service change* is a strategy for taming the wickedness of the design task and placing some boundaries on the design object, for example by focusing solely on analogue service changes, as in Case B (The Complex Ward).

Proposing concrete changes to the present situation

The second strategy, *proposing concrete changes to the present situation*, was manifested by the fact that the designers did not pursue abstract or radical changes for the future, but rather aimed to propose concrete and rather incremental changes that could be implemented under the present circumstances in the organisations. This strategy was followed even in cases with very abstract and visionary project scopes. As previously described, the actions of designers are intended to ensure that 'what they design' (in this case, proposed service changes) is desirable, financially viable and feasible to implement (IDEO 2009, p. 6; Meroni & Sangiorgi 2011, p. 261). As a human-centred design process (see e.g. Meroni & Sangiorgi 2011), service design takes its point of departure in what is desirable for people; this was true in the investigated cases. However, following the strategy of proposing concrete changes to the present situation emphasized how great a role feasibility played in the investigated projects. In several situations, the designers sacrificed what was most desirable or viable in favour of what could feasibly be implemented within a short time frame. They proposed changes such as wall stickers with flowers instead of windows and installed homemade pin-up boards instead of buying good quality items that would last longer than a year. These examples emphasise how significant a role feasibility played in how the designers developed and selected ideas.

Having stakeholders within the organisation evaluate the feasibility of the suggested ideas and concepts

The third strategy, *having stakeholders within the organisation evaluate the feasibility of the suggested ideas and concepts*, involved the designers utilising the hospital representatives and their knowledge and experience to evaluate whether ideas were implementable or not. As emphasised in Chapter 3, the role of the designer is often depicted as one of facilitator, or 'an actor able to listen to users and facilitate the discussion about what to do' (Manzini et al. 2011, pp. 3–4), in other words as an enabler, facilitator and connector rather than a director (Junginger & Sangiorgi, 2009). This means that designers working with services in organisations are dependent on the participation of people from the organisation in the design process. This study indicates that this is particularly significant when it comes to evaluating whether ideas or concepts can be feasibly implemented. As argued in Chapter 3, changing a service (even just an element of it) entails changes to the organisation as a system. In many situations, the designers do not know the organisation well enough to evaluate whether a proposed change is feasible or not, because they do not know all the details of the system and

thus cannot predict what a change might require. Hence, the strategy of *having stakeholders within the organisation evaluate the feasibility of the suggested ideas and concepts* acknowledges the designer's dependency on the people in the organisation in addressing implementation.

7.3. DISCUSSING IMPLEMENTATION STRATEGIES (PEOPLE)

The cross-case analysis of the people-related implementation strategies found that the designers addressed implementation by following strategies relating to stakeholder inclusion, stakeholder engagement and project handover.

In contrast to content-related aspects, the service design literature does not equally deal with people-aspects (this means, those that address whether the right people within the organisation are committed to and capable of implementing the proposed service changes). Addressing people-aspects (in form of the human dynamics taking place when a service proposition is being implemented) is often perceived as something that belongs to the discipline of change management (Stickdorn & Schneider 2011; Anderson & Anderson 2010). The cases, however, indicate that even though people-aspects in theory may not be the primary concern for designers in service design projects, designers do deliberately address these aspects. The cases show that some designers do take into consideration *who* should make the changes happen, thus ensuring that the right people within the organisation are committed to and capable of implementing the proposed service changes. The cases thus indicate that designers combine their rather design-oriented perspective, focused on strategies related to the creation of a service concept, with a change-oriented perspective focused on initiatives related to engaging people within the organisation to make the changes happen. This can also be viewed as combining a systemic view of addressing the implementation of service changes (how to design feasible changes to a system) with a more human-oriented view of addressing implementation (how to change patterns of human interaction).

7.3.1. DISCUSSING THE INDIVIDUAL STRATEGIES

The cross-case analysis found that the designers followed similar people-related strategies, including strategies of:

- Involving the right people in the project.
- Promoting implementation commitment.
- Appropriately handing over the project to the organisation.

Involving the right people in the project

The first strategy, *involving the right people in the project*, concerned the designers orienting themselves within the organisation and actively considering which people from the organisation were relevant to involve in the project. As described in the cross-case analysis (Chapter 6), the designers involved the right people by including both people with the formal power to implement changes related to the existing service (such as top managers and department managers, as well as people with specific

responsibilities) and people with opportunities and capabilities to implement the changes (such as staff and/or people with certain competences).

As discussed in Chapter 3, organisations can be thought of as patterns of human interaction (Stacey et al. 2000; Shaw 2002; Stacey & Mowles 2016). From this perspective, changes happen on the basis of many local interactions between individuals over time, and as Shaw (2002) argues, effecting change is about changing conversations within organisations. This includes changing patterns of meaning (what people are saying and thinking) and patterns of relating (how people are interacting) (Suchman 2011, p. 44). From this perspective, the strategy of *involving the right people in the project* can be seen as a strategy for choosing those individuals who will need to change patterns of meaning and patterns of relating within the organisation in order for service changes to happen. By involving these selected individuals in the design process, the designers (and the project groups in general) join and affect the on-going conversations among these people, and have the opportunity to change patterns of human interaction, and hereby, change the services organisations provide.

Promoting implementation commitment

The second strategy, *promoting implementation commitment*, concerns the fact that the designers tried to ensure that the involved stakeholders had a sense of ownership of the project and were supportive, motivated and dedicated to making the proposed changes happen. One type of action taken by the designers with regards to this strategy was to articulate the problems with the existing service by, for example, showing video sequences of previous patients talking about their (bad) experiences with it. Given that effecting change requires changing conversations within organisations (Shaw 2002), this type of action can be understood as a means of changing the patterns of meaning (what people are saying and thinking). In the specific example of the videos, the action can be understood as a means to change people's thinking from 'We at the Duty Doctor provide excellent service' to 'The service we provide at the Duty Doctor is insufficient and needs to be changed'.

Furthermore, the designers in the investigated cases conducted several initiatives, such as co-design workshops, with the intention of enhancing the feeling of ownership of the project among stakeholders within the hospital. Again, these types of actions can be understood as a means for affecting the patterns of human interaction. For example, co-design workshops enable people (such as managers and staff) to interact in new ways and talk about new things (in this case the redesign of a particular service and concrete ideas for how to achieve it). This changes their conversations and thus the patterns of meaning (what they are saying and thinking) and patterns of relating (how they are interacting) within the organisation. From this perspective, initiatives such as co-design workshops have a dual purpose of producing ideas (a suggested change content) and changing the conversations within the organisation, which forms a basis for implementation.

Appropriately handing over the project to the organisation

The third strategy, *appropriately handing over the project to the organisation,* concerned the designers attempting to hand over the project and its results to the organisation in a manner that responded to local premises for further developing and implementing the proposed service changes. As described in Chapter 3, service design is often assumed to effect change through a specific design contribution; that is, it is assumed that a contribution, such as descriptions and visualizations of a service concept, can inform change (Sangiorgi et al. 2015, p. 62). This assumption resembles the commonly accepted view that designers deliver drawings, specifications, blueprints and so on to the manufacturer, who then produces the outcome (e.g. a product) as the designer intended. However, as argued in Chapter 3, this view of how service design effects change is problematized by experiences from practice (e.g. Lin et al. 2011).

By *appropriately handing over the project to the organisation*, the designers accounted for the fact that a well-described concept was not necessarily enough to make the changes happen. Therefore they tried to, for example, negotiate a larger role in implementation or install functioning prototypes in an effort to ensure that implementation would happen in a suitable manner. One can argue that they took the view that the service concept was only an invitation for change rather than a plan to be executed. This perception is in line with the assumption that changes happen on the basis of the on-going interactions within organisations (Stacey & Mowles 2016), in which people (such as designers) can invite change to happen, but cannot control whether it actually does.

7.4. DISCUSSING IMPLEMENTATION ACTIONS

Implementation actions as responses to local conditions

The cross-case analysis found that, in spite of following similar implementation strategies (in relation to both content and people), the specific actions taken by the designers were not always similar. As noted in Chapter 3, participatory design researchers (Buur & Larsen 2010; Larsen & Bogers 2014) argue that embracing spontaneity and engaging in uncertain situations, and thus responding to changing situations in interactions with others, are significant for innovation and change in organisations – and thus significant for innovating and changing how organisations deliver services.

With regards to the four cases, such characteristics are somewhat similar to the actions of the designers, in the sense that the designers did not follow a predefined set of actions for addressing implementation, but instead interacted with people, gained knowledge and acted on the basis of this knowledge. For example, the designers chose to develop and propose IT-based service changes in Case A, but not in Case B or Case D, because the situations in the organisations were different. Furthermore, the designers in Case B chose to work under the radar of the general hospital management and outside the formal procedures for introducing changes, not because it was a common thing to do (actually, quite the contrary), but because the situation in the organisation called for it. Hence, the specific implementation actions taken by the designers were context-dependent, or, in other words, responsive to the local conditions.

Concrete information as a prerequisite for concrete implementation actions

The understanding that concrete actions are taken by designers as responses to local conditions converges with the understanding that service design projects are mutual learning processes (Eriksen 2014) in which designers and organisations learn from each other and concurrently learn about the problem and its potential solutions.

In none of the projects were the designers familiar with the local context prior to beginning their work; thus they were not familiar with the local conditions for introducing changes to existing services. However, the designers demonstrated willingness and eagerness to learn from and about the organisations for which they were working. They gathered information by interacting and closely collaborating with the hospital representatives in meetings, interviews, workshops and so on.

In three of the cases (Cases A, B and D), the designers were able to gather deep and concrete information; something that service design literature (Polaine, Løvlie, & Reason 2013) also describes as a prerequisite for understanding problems and generating relevant solutions. However, the designers in Case C (The Patient Hotel), who were unsuccessful in implementation, were not able to obtain deep and concrete information (e.g. regarding which departments to involve in the new ward). It can

be argued that the designers and the organisation in Case C (The Patient Hotel) did not have a well-functioning mutual learning process. At the very least, the designers were not provided with adequate, concrete information, and this prevented them from taking concrete implementation actions that responded to the local conditions; simply because they knew too little about these conditions. Hence, a well-functioning mutual learning process between designers and the organisation, and the sharing of concrete information about the local conditions as part of this process, can be understood as a prerequisite for concrete (and successful) implementation actions.

Entangled implementation actions

In the cross-case analysis and the conceptual model, the distinction between content-related and people-related implementation strategies is clear. However, looking closely at the implementation actions, it appears that the content-related and people-related implementation actions are often entangled. Co-design activities, such as workshops or other participatory design activities, bridge content-related and people-related actions. One example of this is the initiative wherein the designers in Case D (The Duty Doctor) dedicated a wall in a central staff hallway to displaying project materials; this served as an interface between the project group and the rest of the staff in the department. This specific action had the purpose of addressing the content of change (by gaining additional ideas and feedback), but it also served the purpose of addressing the people who were to make the changes happen (by involving stakeholders from the organisation who were not part of the project group in the design process). As such, the action addressed both content-aspects and people-aspects.

As described in Chapter 3, design research (Binder 2010) state that a design process is not just about designing a certain outcome, but also letting stakeholders (e.g. within organisations) rehearse what this outcome entails, e.g. through prototyping. This bridges the gap between plan and implementation. On the same note, this study argues that co-design activities bridge the gap between plan and implementation, because these activities not only produce a good 'plan' (a proposed content of change), but also influence the conversations within the organisation and thus impel people to make the plan happen.

Implementation actions from project start to project end

This thesis investigates the kind of service design practice in which the act of designing is perceived as a form of inquiry (Rittel & Webber 1973; Buchanan 1992; Kimbell 2011) and where the end result cannot be determined in advance. The four cases investigated in this study can all be characterised by this approach to the act of designing, implying that the designers did not know the characteristics of the changes to the existing service they would eventually suggest.

Not knowing the content of change (not even the characteristics) can be perceived as

a significant challenge for addressing implementation. As argued in the introductory chapter, it seems contradictory to suggest that designers can address implementation when they do not know what should be implemented. However, looking closely at the implementation actions, it appears that designers do in fact address implementation during the entire design process, even when they do not know the content of what should be implemented. They address implementation when they show small video sequences at a project kick-off meeting; they address implementation when they facilitate an idea generation workshop in the middle of the project; and they address implementation when they install full-scale prototypes at the end of the project. Hence, implementation actions take place from project start to project end, which means that implementation is also addressed from project start to project end.

7.5. EPILOGUE

This chapter has discussed the empirical findings presented in the previous chapter in relation to existing theoretical knowledge. This has resulted in a number of arguments (summarised in fig. 7.1) that qualify and elaborate the empirical findings presented in the previous chapter. Together, the findings presented in this and the previous chapter indicate some of the general characteristics of the way the designers addressed implementation in the four investigated cases.

IMPLEMENTATION CONDITIONS

· Hospitals as a context for service design projects can be expected to include significantly challenging implementation conditions; however, these are not necessarily a hindrance to successful implementation.

IMPLEMENTATION STRATEGIES (CONTENT)

· The strategy of *identifying a space for realistic service change* can be perceived as a way of taming the wickedness of the design task and placing some boundaries on the complex design object within service design.

· The strategy of *proposing concrete changes to the present situation* can be seen as a consequence of prioritizing feasibility highly and making it a central design parameter.

· The strategy of *having stakeholders within the organisation evaluate the feasibility of the suggested ideas* underlines the role of the designer as a facilitator and emphasises the designer's dependency on the people within the organisation to evaluate whether proposed service changes are implementable or not.

IMPLEMENTATION STRATEGIES (PEOPLE)

· The strategy of *involving the right people in the project* can be perceived as a way to choose which people from the organisation will need to change their on-going conversations within the organisation in order for change to happen.

· The strategy of *promoting implementation commitment* can be perceived as a way to change the conversations within the organisation by changing what people are saying and thinking about the service design project, the existing service, the redesigned service and the implementation of the proposed service changes.

· The strategy of *appropriately handing over the project to the organisation* aligns with the perception that designers cannot deliver a service concept (e.g. a blueprint of the proposed service changes) and expect it to be implemented, because a service concept is only an invitation to change, rather than a plan to be executed.

IMPLEMENTATION ACTIONS

· Implementation actions are often context-dependent and can be perceived as responses to local conditions.

· Content-related and people-related implementation actions are often entangled.

· Implementation actions take place from project start to project end, which means that implementation is addressed from project start to project end.

Figure 7.1. Key arguments derived from the discussion.

CHAPTER 8
CONCLUSIONS AND PERSPECTIVES

8.0. PROLOGUE

This final chapter will present the conclusions of the research project along with some reflections. Firstly, the results of the research project (the conceptual model and the empirical findings) will be related to the research questions. On this basis, some focal points for addressing implementation will be suggested. Hereafter, the knowledge produced will be positioned in relation to present knowledge, and the limitations of the research results will be discussed. Finally, this last chapter provides a set of future perspectives for the research study and its results.

8.1. CONCLUSIONS

This section will present the conclusions of this research project by answering the research questions. The research questions have to some extent already been answered throughout Chapters 5, 6 and 7. In this section, the answers will be related directly to the questions originally asked.

To recapitulate, the research efforts have been led by the general research question:

How do designers address implementation of proposed service changes during service design projects for hospitals?

This question was further clarified in two operational research questions;

RQ1: Which theoretical starting point is appropriate for investigating the way designers address the implementation of proposed service changes in service design projects for hospitals?

RQ2: What characterizes the way designers address the implementation of proposed service changes in service design projects for hospitals?

8.1.1 ANSWERING RESEARCH QUESTION 1

The study argues that the conceptual model (presented in Chapter 4) is an appropriate theoretical starting point for investigating how designers address the implementation of proposed service changes in service design projects for hospitals.

The conceptual model includes two key concepts, *implementation conditions* and *implementation strategies,* which are useful for investigating why and how designers address implementation. Furthermore, the conceptual model presents two types of implementation strategies. First, *content-related implementation strategies* focus on the content of a change, this means strategies that address that the proposed service changes (the service concept) are feasible to implement in the organisation. Second, *people-related implementation strategies* focus on the human dynamics of change, this means strategies that address how to ensure people within the organisation are committed to and capable of implementing the changes.

By dividing implementation strategies into content-related strategies and people-related strategies, the conceptual model suggests investigating how designers address implementation from two different perspectives: a design-oriented perspective (content-related strategies) and a change-oriented perspective (people-related strategies). The design-oriented perspective focuses on initiatives related to the creation of proposed changes to an existing service (also known as the service concept or the service proposition), thus addressing *what* should be designed and thus implemented. The

change-oriented perspective focuses on strategies related to engaging people within the organisation to implement the concept, thus addressing *who* should make the changes happen.

8.1.2 ANSWERING RESEARCH QUESTION 2

The study has shown how designers within and across the four service design projects for hospitals addressed the implementation of proposed service changes. In this process, the study has identified the specific characteristics for each case (Chapter 5) and those characteristics that appear across the four projects (Chapter 6 and Chapter 7). On this basis, the study indicates that;

- Designers address implementation during the entire project period (from project start to project end). This means that they address implementation even though they do not know the end result, and thus do not know what should be implemented.

- Designers address implementation by considering both that the proposed services changes (the service concept and thus the 'content of change') are feasible to implement and that the right people within the organisation are committed to and capable of implementing the proposed service changes.

- In regards to addressing that the proposed services changes are feasible to implement in the organisation, designers follow similar *content-related implementation strategies*, including;

    - *Identifying a space for realistic service change*, whereby they explore, challenge and define what can be changed in relation to the existing service, thus identifying the kinds of changes that are realistic to propose. This strategy can be perceived as way of taming the wickedness of the design task and placing some boundaries on the complex design object within service design.

    - *Proposing concrete changes to the present situation*, whereby they propose concrete and rather incremental changes that can be implemented under the present circumstances in the organisations, rather than abstract or radical changes for the future. This strategy can be seen as a consequence of prioritizing feasibility highly and making it a central design parameter.

    - *Having stakeholders within the organisation evaluate feasibility in suggested ideas,* whereby they utilise the hospital representatives and their knowledge and experience to evaluate whether ideas are implementable or not. This strategy underlines the role of the designer as a facilitator and emphasises the designers' dependency on the people within the organisation to evaluate whether proposed service changes are implementable or not.

- In regards to addressing that the right people within the organisation are committed to and capable of implementing the proposed service changes, designers follow similar *people-related implementation strategies*, including;

    - *Involving the right people in the project,* whereby they orient themselves within the organisation and actively consider which people from the organisation are relevant to the project. This strategy can be perceived as a way of choosing which people from the organisation will need to change their ongoing conversations within the organisation in order for change to happen.

    - *Promoting implementation commitment,* whereby they try to ensure that the involved stakeholders have a sense of ownership of the project and are supportive, motivated and dedicated to making the proposed changes happen. This strategy can be perceived as a way of changing the conversations within the organisation by changing what people are saying and thinking in relation to the project, the existing service, the redesigned service, and the implementation of the proposed service changes.

    - *Appropriately handing over the project to the organisation,* whereby designers attempt to hand over the project and its results to the organisation in a manner that respond to local premises for further developing and implementing the proposed service changes. This strategy aligns with the perception that designers cannot deliver a service concept (e.g. including a blueprint of the proposed service changes) and expect it to be implemented, because a service concept is only an invitation to change rather than a plan to be executed.

- In spite of following similar content-related and people-related implementation strategies, designers do not always take similar *implementation actions*, as these are often context-dependent and can be perceived as responses to the local conditions. Furthermore, content-related and people-related implementation actions are often entangled.

8.2. TOWARDS SUCCESSFUL IMPLEMENTATION

This research study was initiated on the basis of the challenge of implementation experienced by designers in the service design practice community. The knowledge produced in this research study offers the opportunity to provide some focal points for designers and other people who conduct service design projects in hospitals and who wish to address implementation. In the illustration (fig. 8.1), the knowledge produced in this study is formulated into a number of focal points related to both implementation conditions and implementation strategies.

In this regard, it must be noted that service design projects can have both enabling and challenging *implementation conditions* and that challenging conditions are not necessarily a hindrance for successful implementation as long as the project has a decision-capable project group that is able to address them during the project.

Figure 8.1. The model contains focal points for designers and other people who conduct service design projects in hospitals.

IMPLEMENTATION CONDITIONS

...can enable or challenge implementation of service changes.

PROJECT POSITIONING
It enables implementation if the project is supported among the people who have the formal power as well as the opportunity and capabilities to implement the service changes.

PROJECT OWNERSHIP
It enables implementation if there is a sense of ownership to the project among the people who have the formal power as well as the opportunity and capabilities to implement the service changes.

PROJECT GROUP CAPABILITIES
It enables implementation if the project group has capabilities to make decisions as well as the competences and resources to implement the service changes.

PROJECT SCOPE
It enables implementation if the project scope is narrow, concrete and related to few people within a single department.

IMPLEMENTATION STRATEGIES

...take place from project start to project end and address that...

... the proposed service changes are feasible to implement in the organisation.

(CONTENT)

PROJECT FRAMING
It enables implementation if a space for realistic service change is identified. This means, that designers explore, challenge and define what can be changed in relation to the existing service and, herein, identify the kind of changes that are realistic to propose.

IDEA/CONCEPT CHARACTERISTICS
It enables implementation if concrete changes to the present situation are proposed. This means, that designers propose concrete and rather incremental changes that can be implemented under the present circumstances in the organisations rather than abstract or radical changes for the future.

IDEA/CONCEPT EVALUATION
It enables implementation if stakeholders from within the organisation evaluate feasibility in suggested ideas. This means, that designers utilise the hospital representatives and their knowledge and experience for evaluating whether ideas are 'implementable' or not.

... people are committed to and capable of implementing the changes.

(PEOPLE)

STAKEHOLDER INCLUSION
It enables implementation if the right people are involved in the project. This means, that designers orient themselves in the organisation and actively consider which people from the organisation is relevant to involve in the project.

STAKEHOLDER ENGAGEMENT
It enables implementation if commitment to implementation is promoted. This means, that designers try to secure that the involved stakeholders have a sense of ownership to the project and are supportive, motivated and dedicated to making the proposed changes happen.

PROJECT HANDOVER
It enables implementation if the project is appropiately handed over to the organisation. This means, that designers attempt handover the project and the project results to the organisation in a manner which responds to local premises for further developing and implementing the proposed service changes.

8.3. POSITIONING AND LIMITING THE RESEARCH FINDINGS

The research efforts undertaken in this study have provided new knowledge in relation to the challenge of implementation and how designers address it. It is now relevant to discuss the position and limitations of the findings in relation to present and future research.

8.3.1. POSITIONING THE RESEARCH FINDINGS

In Chapter 3, the theoretical foundation for the study was illustrated. The same illustration is here used to show how the research findings are positioned in relation to the present research and how they contribute to it (fig. 8.2).

Firstly, the findings are positioned within service design research and have their primary application within this area. The research findings contribute to the existing service design literature by initiating an investigation and articulation of what it means to address implementation when redesigning services within healthcare organisations. The research findings thus address a critical area in existing service design research, an area of great importance for service design practice and one that has not been thoroughly investigated in the existing literature (cf. Chapter 3).

Secondly, the research findings contribute to the idea of 'design for service' (Meroni & Sangiorgi 2011). As previously clarified (Chapter 3 and Chapter 4), the present research argues that services are co-created by the service users/beneficiaries (Vargo & Lusch 2004), which means that designers cannot design services, but can only design the prerequisites for services to happen (Meroni & Sangiorgi 2011) by designing service propositions (see e.g. Polaine et al. 2013). This study further argues that designers cannot control whether service propositions are actually delivered by organisations; that is, designers can only invite organisations to implement a service concept. In this context, the implementation strategies suggested in this study constitute ways to design for implementation, and thus also ways to design for services to happen.

Thirdly, the research findings contribute to the present descriptions of service design practice. Currently, the way designers address (or should address) implementation and change in their practice is only superficially described (Kronquist et al. 2014) or suggested (Stickdorn & Schneider 2011, pp. 134–135). By presenting characteristics of how designers address implementation in their practice, the study also contributes to the description of service design practice.

Fourthly, the research findings contribute to the argument that the service design process can be a driver for change in organisations. As described in Chapter 3, current research assumes that the service design process can drive change (Sangiorgi et al., 2015). However, how the service design process drives change, including what designers do to ensure change actually happens on the basis of their work, is not very

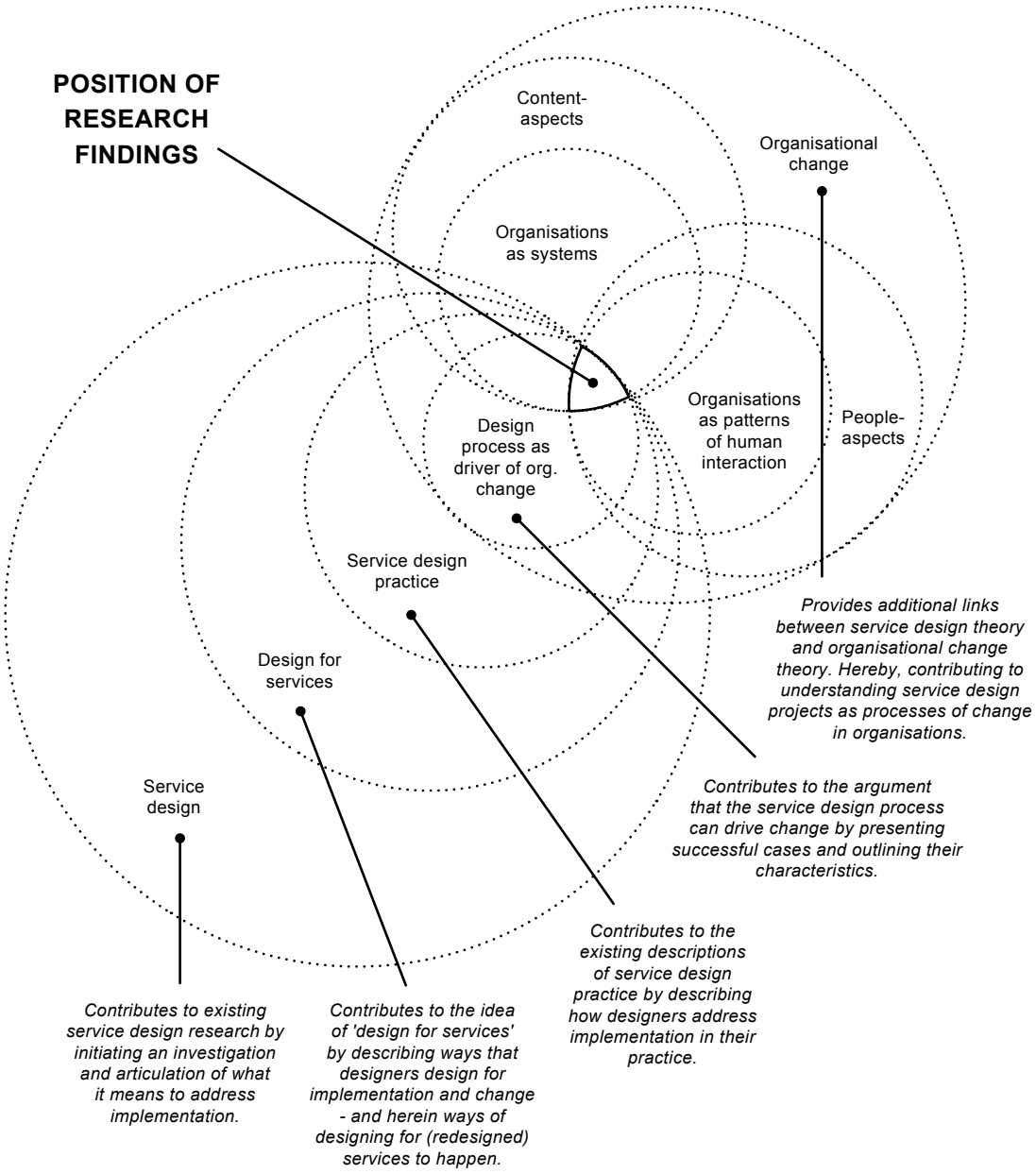


Figure 8.2. The position and contributions of the research findings in relation to the present knowledge.

explicitly addressed (cf. Chapter 3). By presenting successful cases (Chapter 5) and by describing their characteristics (Chapter 6 and Chapter 7), this thesis supports the argument that the service design process can be a driver for change in organisations and elaborates how designers work to ensure that the design process will in fact result in service changes.

Finally, the study provides new links between the theory of service design and the theory of organisational changes; in particular by relating theory on 'design for service' (Meroni & Sangiorgi 2011) to theory on 'complex responsive processes' (Stacey, Griffin, & Shaw 2000; Shaw 2002; Stacey & Mowles 2016). It contributes to the understanding of service design projects as processes of change within organisations, focused on creating a content of change and inviting people to make the changes happen. This supplements existing research efforts in the intersection between service design and organisational change (including the work by Junginger 2008; Junginger & Sangiorgi 2009; Lin et al. 2011).

8.3.2. LIMITING THE RESEARCH FINDINGS

Having outlined how the research findings are positioned in relation to the existing literature and how they contribute to the present research, it is now relevant to discuss the limitations of the research findings.

Indications rather than proof

This research study adheres to pragmatism (Bacon 2012) as a philosophical position and meta-theoretical standpoint. Therefore, the study recognises that there are multiple potential understandings of how designers address implementation in service design projects and that there is thus no ‘universal truth’ in this regard. Therefore, this study has not aimed to ‘prove’ something; instead, it has aimed to produce plausible explanations (or indications) that can serve as a means for coping with issues related to the implementation of service changes in service design projects for hospitals, in academia as well as in practice. The results of this thesis should therefore also be treated as plausible explanations and indications.

Informed by a specific choice of theories

This research study has its point of departure in design research and, therefore, design theory and service design theory has provided the main theoretical foundation for the study. Moreover, organisational change theory has been included in the theoretical foundation in order to support the study and strengthen the analysis. In spite of the effort of combining two different theoretical perspectives (service design theory and organisational change theory), it must be recognised that other theoretical lenses could have led to different results, and that the results of this thesis should always be seen in the light of its theoretical starting point.

Informed by a specific choice of cases

This research is based on a multiple-case study (Yin 2014, pp. 56–65). Four service design projects undertaken between 2009 and 2012 in four public Scandinavian hospitals comprise the empirical material from which the results have been produced. This means that the results of this thesis are informed by the particular characteristics embedded in these cases, such as the common characteristic of having public Scandinavian hospitals as a context. If the cases had been from a different context, it is likely that the identified implementation strategies would also have been different. For example, it is surprising that no implementation strategy concerns the creation of a business model or focuses primarily on financial issues. This is probably a consequence of the choice of cases. It may be that cases from private companies would have revealed a greater focus on business and financial issues in relation to addressing implementation. Therefore, it is necessary to bear in mind that the characteristics of the empirical material have influenced the results.

Based on researcher engagement

Many efforts have been made to strengthen the quality of the research results. As previously emphasised (Chapter 2), the researcher actively engaged in one of the cases and also actively used her experience in the research process. While this has been seen as an asset, it has also led to considerations regarding subjectivity in relation to the knowledge produced. Bent Flyvbjerg argues that 'the question of subjectivism and bias towards verification [the human tendency to suppose a greater degree of order than reality finds] applies to all methods, not just to the case study and other qualitative methods' (Flyvbjerg 2006, p. 235). This means that subjectivism plays a role in all methods – not just within case studies or within research through design.

In this research project, however, the researcher has made a virtue of reflecting upon her own engagement as both a designer and a researcher, for example, by video recording her own activities when engaging in practice and subsequently studying the recorded activities from a researcher's perspective. Moreover, assumptions derived from the case in which the researcher actively participated have continuously been discussed with literature and via the empirical material from the remaining three cases. The multiple cases have thus offered the opportunity to falsify or verify assumptions (Flyvbjerg 2006, p. 235). In general, the researcher (although experienced in service design and actively involved in one of the cases) has been committed to representing participants, observations, interviews and so on accurately and respectfully.

Usefulness as primary quality criterion

From a pragmatic perspective, 'no theory is always wrong or always right – they will be more or less relevant and helpful in different situations' (Alvesson & Kärreman 2011, p. 72). This statement emphasises the pragmatic focus on usefulness as the primary

quality criterion for knowledge, which has also been the primary criterion for evaluating the results of this study. Through an abductive process of inquiry (described in Chapter 2), the conceptual model has been repeatedly evaluated with regards to how well it describes the way designers address the implementation of service changes in the four specific cases. This means that the conceptual model has been repeatedly evaluated with regards to its 'usefulness' and should be understood as applicable, plausible and reliable at this point in time (July 2017), based on the specific context from which it was produced. As with the cases in this study, it is expected that the conceptual model will be useful for investigating similar cases. However, whether it is 'useful' in other contexts or domains must be evaluated by researchers and practitioners working within them. This being said, the next section will present some reflections regarding the 'usefulness' of the knowledge produced in this thesis, with regards to both research and practice.

8.4. PERSPECTIVES

So far, the research study has focused on describing how designers address implementation with respect to the research questions. In this process, the study has produced several outcomes;

- A conceptual model that provides an analytical tool for investigating how designers address implementation during service design projects for hospitals.
- Four individual case descriptions that provide four practical examples of how different designers addressed implementation during their service design projects.
- A description of the common characteristics identified across the four projects.
- A number of focal points for designers and other people who conduct service design projects in hospitals and who wish to address implementation.

These outcomes provide concepts, examples and characteristics that initiate an articulation of what it may mean to design for implementation of service changes or, in short, *design for service change*. The outcomes, furthermore, provide a platform for new discussions and leave new perspectives for both research and practice.

8.4.1. PERSPECTIVES FOR FUTURE RESEARCH

New research within the field of service design, implementation and organisational change can use the outcomes produced in this study as a point of reference for future research. More specifically, researchers are encouraged to use the conceptual model as an analytical lens for additional projects and to challenge and further develop the model and the findings derived from working with it.

The cases investigated in this study are not recent. Within service design, which continues to evolve and mature, designers and organisations are learning and developing new ways of improving practice within the field, including approaches to implementation. New research could therefore benefit from further investigations of different and more recent cases, which could bring further knowledge derived from practice. For example, it is relevant to look into different organisational contexts. This research study has focused on hospitals, which constitute a rather common but also extreme context for service design practice. Research in other organisational contexts will potentially reveal different findings, including different implementation conditions, strategies and actions.

Just as future research could benefit from a wide investigation of new cases and contexts, future research could also benefit from a deep investigation into the already identified implementation conditions, strategies and actions. As stated in Chapter 2,

this study has had an expansive purpose (Krogh et al 2015), which means that the identified implementation conditions, strategies and actions have been outlined more than they have been investigated in detail. Exploring each of these, is a relevant topic for future research.

8.4.2. PERSPECTIVES FOR FUTURE PRACTICE

The results of this research project have potential implications not only for future research, but also for future service design practice.

This research study has had a descriptive purpose. With the intention of describing what designers already do in relation to addressing implementation, it has initiated an articulation of a part of service design practice that is not well described in the current service design literature and is not well articulated in service design practice.

An objective and potential implication of this research project is an increased consciousness and widened perception among designers of how to perceive and address implementation. Hopefully, the different outcomes produced in this research project can inspire and inform practice – making implementation a more well-articulated and consciously addressed part of future service design projects. The specific outcomes produced in this research project can hopefully serve service design practice in different ways. The conceptual model can provide a theoretical starting point for addressing implementation; the individual case descriptions can serve as concrete reference points and inspiration; and the focal points can function as guidelines or as a checklist.

The results of this research project call for new experiments in practice where implementation is addressed on the basis of the knowledge produced.

8.5. FINAL REMARKS

This chapter marks the end of the thesis. It has presented the conclusions of the research project by directly relating the research findings to the research questions. It has provided a set of focal points for addressing implementation. Furthermore, the research findings have been positioned in relation to the current literature, and limitations of the research efforts have been discussed, while potential future perspectives for both research and practice have been presented.

This research project has focused on how designers address the implementation of proposed service changes during service design projects for hospitals, an area of interest in both service design research and practice. It is intended that the work presented in this thesis can benefit the emergent and fast-moving field of service design and the people working within it.

CHAPTER 10
BIBLIOGRAPHY & FIGURES

9.1. BIBLIOGRAPHY

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9.2. FIGURES

All illustrations are made by the author. The following three illustrations were adapted from other sources:

- Figure 3.1 were adapted from Kimbell (2011).
- Figure 5.16 were adapted and translated from the project report for Case B (available for the defence committee in appendix A2).
- Figure 5.18 were adapted and translated from the project report for Case B (available for the defence committee in appendix A2).

SUMMARY

Service design is an emergent and fast-moving field in both practice and research across the world. Private companies and public institutions hire designers to create new and improve existing services for the benefit of customers, citizens and organisations. Yet sometimes the potential of service design is left unexploited. It often happens that good ideas and concepts produced during service design projects end up on the 'concept shelf' and never result in actual changes to the services organisations provide.

Motivated by a wish to overcome this 'challenge of implementation', this thesis investigates how professional designers successfully address implementation during service design projects for hospitals. One of the results is a number of focal for designers as well as other people who apply service design within hospitals. The focal points describe conditions and strategies that enable implementation and, hereby, what is relevant to consider when aiming for implementation and actual service change.

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