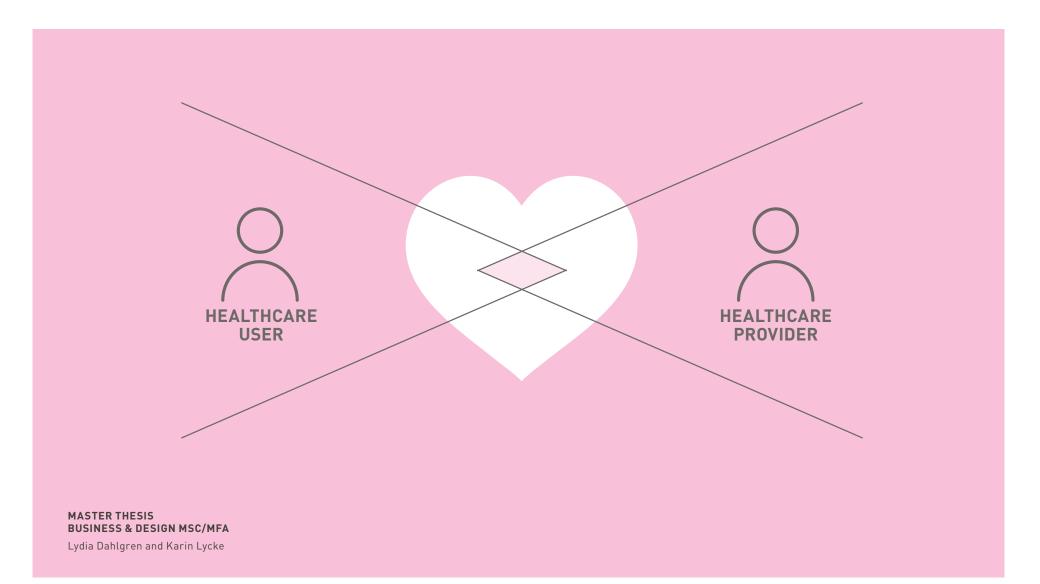
Service Design in user-centered healthcare

- The case of child obesity



# Abstract

The Swedish health and medical care system is said to be undergoing a paradigm shift. The emerging paradigm involves a new generation of business models that have their foundation in user needs. The organizational idea in this view is the perception that a greater value will be created when combining efforts that otherwise would not be systematically linked. Projects aimed at developing user-centered systems, however, face the risk of the so-called 'project death', as they often only exists during a limited period and rarely reach the full maturation and establishment of an ordinary organisational activity.

We have during the course of four months actively explored how Service Design practices might enhance user-centered healthcare projects, through conducting a practical study for improving the overall support for parents with overweight and obese children. It has been a collaborative project between the two pediatric obesity centres in Sweden, at Sahlgrenska Academy in Gothenburg and Karolinska Institute in Stockholm, and the Service Design agency Transformator Design, a company with 15 years of experience within the practice.

By applying Service Design tools, methods, and mindset, we have been able to understand the care support from a user-centered perspective and represent the user's voice in our collaboration with the client. We have used qualitative research methods, e.g. interviews and workshops, in order to reach a deeper understanding of the user experience. Following Service Design practice as a co-creative process, the study has been based on a participatory mindset in the interactions and relationship with the stakeholders.

From the practical study we could observe that the practices of Service Design contribute outcomes on both a tangible and intangible levels. These levels are equally important in a user-centered healthcare project as they address not only issues of the service in relation to the user, but also to the management and organisational activities that create the service.

#### MASTER THESIS, MASTER PROGRAM IN BUSINESS & DESIGN MSC/MFA

Lydia Dahlgren and Karin Lycke School of Design and Crafts, HDK / School of Business, Economics and Law University of Gothenburg

Supervisor: Andrew Whitcomb

June 5, 2015

# **Outline of the thesis**

The thesis builds up around a practical case. We start by giving an introduction to the subject and then continue on by presenting the scope and the client which we have been working with during the thesis project.

In the theoretical framework we present important sources and theories for our research question and project. It gives a background of how the design research field has been developing and it offers an understanding to the practices and theories of Service Design and how it relates to healthcare.

We then move further to the methodology chapter. Here we give an introduction and present the research approach. The research methods that have been applied throughout the study are then explained and described. We finish the chapter with defining how the trustworthiness and generalizability have been expressed and reached in the research.

The study which has been conducted is mapped out and explained in the fourth chapter. Due to our research approach this part does entail both the data collection that we have been doing and also the analysis that we have been made throughout the study, and the insights that have followed. A compilation of all the insights and the developed material are found in the following chapter.

In the final parts of the thesis – the discussion and conclusion – we put the study in relation to the theoretical framework and give answer to the research question.

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Erik Widmark, our Service Design mentor, for the sharp eye, support and concrete input.

We would also like to thank the people who have taken their time to be part in workshops with us, Gerd Almquist-Tangen and John Chaplin.

Last but not least a big thank you to everyone who has been engaged in our study in one way or another: parents, stakeholders, healthcare providers, design practitioners, our families, friends and colleagues.

# **Clarification of terms**

# Overweightness

The degree to which a person is overweight is generally described by body mass index (bmi), which is a value derived from the weight and height of an individual. Overweight is defined as a bmi between 25 and 30.

# Obesity

Obesity is defined by a bmi of 30 or more.

# The client

#### REGIONAL OBESITAS CENTRE GOTHENBURG

The pediatric obesity unit at Queen Silvia Children's Hospital in Gothenburg serves the West-cost of Sweden and Lappland for severe obesity from an age of 3–18 years. They lead the regional development of evidencebased medicine for child obesity by being a centre of excellence combining research and clinical skills.

#### Jovanna Dahlgren

Jovanna Dahlgren is a professor in pediatric endocrinology and her research topics are early growth, growth disorders, obesity and identification of early risk markers of obesity-related disease. She is responsible clinician for the Regional Obesity Centre at Queen Silvia Children's Hospital since a decade ago. She is also a board member of the national quality registry for obese children in Sweden.



#### NATIONAL CENTRE BANROBESITAS STOCKHOLM

The pediatric obesity unit at Karolinska Sjukhuset, Huddinge, in Stockholm serves all the Swedish nation with special focus on the Stockholm area for morbid obesity in children. For decades they have been a centre of excellence in child obesity. They have more than four hundred children registered as active ongoing patients.

#### Annika Janson

Annika Janson is senior pediatric endocrinologist and diabetologist at Karolinska Institute. She is former head of department of DEMO, and today head of National Pediatric Obesity Centre at Astrid Lindgrens Barnsjukhus. She is one of the most well-known researchers and clinicians in the field of child obesity. She has written several books in the topic of pediatric obesity.



# The mentor

#### SERVICE DESIGN AGENCY TRANSFORMATOR DESIGN

Transformator Design was founded more than 15 years ago and is today one of Sweden's leading agencies within customer-driven Service Design and customer-driven Business Development. Their mission is to create excellent customer experiences, whether it is for customers in the public sector or private companies.

#### Erik Widmark

Erik has a degree in industrial design from the university college of arts, Konstfack, in Sweden. Erik Widmark has been involved in developing Service Design in Sweden f or nearly two decades, through projects including the Swedish Social Insurance Agency, Employment Agency and the Healthcare Guide 1177. Erik has functioned as our creative mentor throughout the study.



# The researchers

#### MASTER PROGRAM BUSINESS & DESIGN

Business & Design is a master program at the University of Gothenburg. It is a merger between the School of Business, Economics and Law, and the School of Design and Crafts. At the Business & Design program, we look at how design can be used for strategic issues, decisionmaking and business benefits. The goal is to create more profitable businesses and organizations through the use of design in areas such as service and business development, marketing, communications and branding.



#### Karin Lycke

Karin has a previous background within communication, graphic design and art direction. She has an interest in the relationship between design and business, and the benefits that this combination may lead to. In the future, Karin wants to work within the field of Service Design, both as a practitioner and educator.



#### Lydia Dahlgren

Lydia has a multi-disciplinary educational background. She holds a bachelor in business administration, with specialization in textile and fashion management from the School of Textiles in Borås. Lydia has a wish to work human centred, using the design process in a combination of cross-disciplinary fields.



# -Introduction

# **CHAPTER 1: Introduction**

# 1.1 The challenges of child obesity in Sweden

Obesity affects 4 % of the child population and 20 % of the adult population in Sweden today (Marild et al., 2004). The numbers are even higher in most other western countries and they are increasing in developing countries as well (Odgen et al., 2002; Dietz, 2001). Obesity can lead to consequences for the individual such as an increased risk of diabetes, heart failure and vascular damage. Pregnancy complications and increased risk of cancer are common consequences later in life (Reilly et al., 2003).

The distribution of resources for support and treatment of childhood obesity are at the moment unbalanced across Sweden (Sjöberg A et al., 2011). Not only are wealthy cities prioritized over rural remote parts of the nation, but reactive care receives more money than proactive care. As an example, a large amount of money is nowadays spent on surgery for adolescents with severe obesity (Neovius et al., 2012; Göthberg et al., 2014). There is also a gap between general and specialist care for children with obesity in both recourse and concerning the knowledge within the area.

The needs for this group of patients require support for behavioural changes and patient empowerment, for the child as well as the family. The behavioural changes involve the whole network around the child. Obesity might be thought of as only a matter of character for those on the grandstand, but the condition is a chronic state that requires years of professional coaching and often medical aid for side effects. Obesity is also deeply connected with shame and is often seen as a taboo, which hampers the struggle of obesity. It is therefore a complex state and a diagnosis that often requires individualized or personalized support. This makes obesity not only resource intensive but also a factor that lowers a child's quality of life (Schwimmer et al., 2003). It is thus important to address these issues and support parents with overweight children, before the child develops obesity (Danielsson et al., 2012).

# 1.2 The paradigm shift in health and medicalcare

It is said that the Swedish health and medicalcare is undergoing a paradigm shift. Until the late 90's, the system was controlled by the state and organized as it had been for half a century. The shift has developed as a consequence of several different forces and social changes, and has been slowly progressing in the society. It has raised concerns regarding how healthcare and other social services will be conducted in the future. Yet, the emerging paradigm involves a new generation of business models which have their foundation in user needs (Norén, 2015). The idea is that health, nursing and care efforts will be more co-organized and carried out based on overall user needs (Riksrevisionen, 2013).

In Norén's research (2015) about the progressing paradigm there are a few broader trends that are being highlighted to indicate that the paradigm is progressing. Following are two of them:

#### The resource and quality challenges

The costs for healthcare have been rising in Sweden and are expected to continue doing so as in many other OECD countries. Main causes for this are usually explained to be the aging population and citizens' rising expectations for health and social care services.

To meet the expected increasing costs, while at the same time maintaining standards of the healthcare system, Socialdepartementet advocates for more efficient activity. A proposal for efficiency has been to make patients and their families more involved and adapt activities to their needs. There is a clear correlation between different aspects of user-centered care and an increased efficiency in healthcare which supports this idea. This has contributed to the development towards self-care and co-production, where patients, users and families work together with the healthcare providers. Some of the effects have been: better adherence to prescriptions, reduced medication, fewer return visits after discharge, generally decreased healthcare utilization, reduced sick leave, fewer psychosomatic symptoms and longer life expectancy (Riksrevisionen, 2013).

## The citizen revolution and patient concept

In our society today we are experiencing rising levels of education, better access to information and less acceptance of institutional hierarchies among citizens. As a consequence social services are changing. The users of public services see themselves rather as customers, and that has led to a higher demand on those services. This trend favours service concepts which are based on the user's overall needs, leading to more holistic approaches and cross-border teams (Norén, 2015).

## The service concept for a more user-centered care

The user-centered way of organizing health and social care is referred to by Norén (2015) as the *service concept*. The service concept aims to meet a larger and coherent group with the same need and problem and has often proved to be a natural way of working for the various professions involved. Furthermore, service concepts can be described as a packaged service developed based on a patient need, and containing different actions that occur frequently but usually at separate phases. There is an organizational idea in this view where it is perceived that a greater value will be created when combining different efforts that would otherwise not be systematically linked.

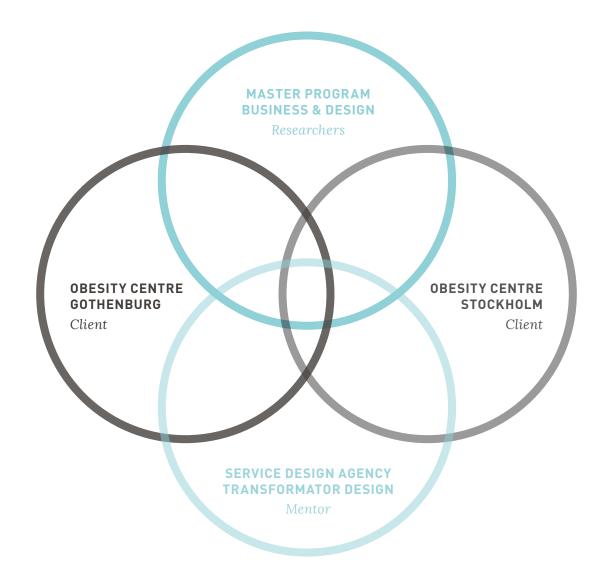
# 1.3 Defining the scope

In Sweden today there are two so-called obesity centres that accept and treat children and adolescents with extreme obesity: one in Gothenburg and one in Stockholm. At both centres there are university centres with extensive knowledge and highly specialized care, but overweightness and obesity are handled at different levels of the care system in many county councils around the country. Additionally, there is no national care program for the prevention and treatment of childhood obesity, thus there has been a growing demand to develop a national plan of action concerning this area. There are plans to create a digital platform to optimize the accessibility of up-to-date information and the availability of prevention and treatment measures against obesity in healthcare.

## How it all started

In October 2014, we were contacted by the *Regional Obesity Centre* (ROC) in Gothenburg with the request to make a web design for the digital platform mentioned above. At the time Karin Lycke, one

# The scope: A collaborative Service Design study



of the co-authors of this paper, held an internship at the service design agency *Transformator Design*. After receiving the request, questions such as: To whom? How, and Why quickly began emerging. On what basis was the decision made to create a digital platform? Further conversation led to the realization that the patient perspective on the support for overweight and obesity care was missing. Therefore we decided that it was a good idea to start from scratch and analyze families affected by obesity, as well as the needs of families in the risk zone, for support and information. Moreover, there was a desire to carry out a detailed mapping of all stakeholders and their cooperation to meet those needs.

#### A joint cooperation

As described in the previous chapter, the relationship between healthcare and patient has changed dramatically in the past few decades since the public healthcare is rapidly trying to have adapt their approach to the modern well-informed customer. This has complicated what should be a big win for everyone: patient participation and responsibility in the care process, in decision-making, and the eventual experience of empowerment.

As the client was fully aware of this and wanted to work a more user-centered way, the "how" was the only thing missing. Since *Transformator Design* had conducted several successful service design projects in public healthcare before, a partnership among the both obesity centres, *Transformator Design* and our two-person team was formed. So it was that a selected reference group of experts in overweight and obesity-care became the client, and *Transformator Design*, with their senior service designer Erik Widmark, became our mentor for this study.

#### A Service Design study

Together it was decided that we, within the framework of our master's thesis, would map the support for children with overweightness and obesity from a parent perspective and thus create a foundation of understanding through qualitative analysis of the user's needs. We chose to address this challenge through Service Design, a human-centered design approach based upon the capacity and methods to investigate, to understand and engage with people's experiences, interactions, and practices, as well as their needs and dreams.

# 1.3.1 Objective of the thesis

The study has not aimed to directly decrease the child obesity in the society or to change organisational and systemic matters. The objective is to understand the care support from a user perspective and convey the user's voice to the client.

# "WE WANT TO WORK USER-CENTERED, WE ARE JUST MISSING THE HOW."

Client about one of the reasons for initiating the study.

# 1.3.2 Scope limitations

The study concerns families with children from ages one to ten years old, at varying levels of overweightness and obesity. Experience-wise, families who are just in the beginning of the process of handling the problem, as well as those who have longer experience of it have been covered.

All interactions have been conducted with parents, since they are legal guardians of their children and therefore their natural spokespersons. Moreover, we have taken account of the sensitive nature of the topic, and constantly strived to avoid mistakes as researchers that could affect the children. For that reason, we refer to the parents of overweight and obese children as the users in this study.

The selection of the interactions were based entirely on voluntary participation, which naturally led to us engaging primarily with engaged parents who have acknowledged the problem. We did, however, through our own network manage to come in contact with parents who did not consider their child's situation as a problem or see the width of the problematics. As all announcements were done in Swedish, all respondents were also Swedish-speaking.

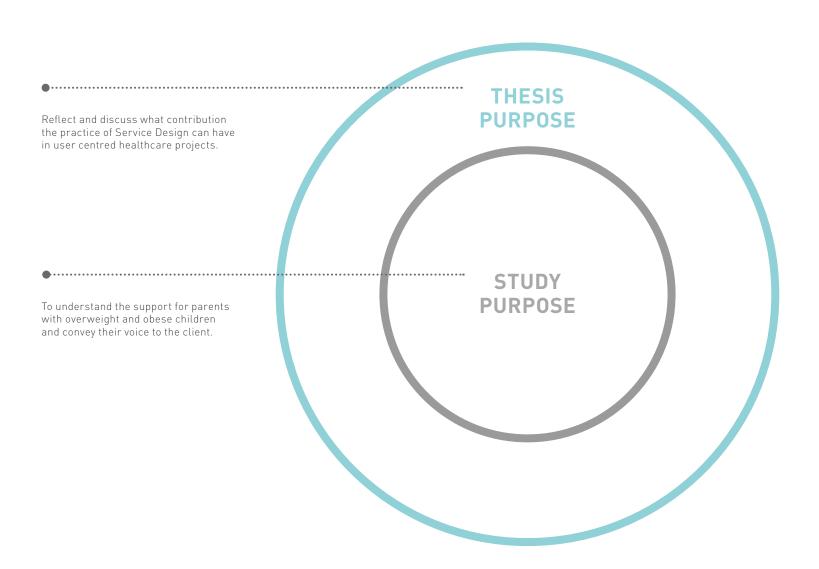
# 1.4 Purpose

The objective of the thesis is what guides the practical study, however the purpose with this master thesis is not merely to investigate the support for parents with obese and overweight children. It is also to reflect and discuss what contribution Service Design practices can have in user-centered healthcare projects as a way to gain insight for future Service Design projects in healthcare. By conducting Service Design research through a real and practical project, we aim to address both purposes. Our master thesis can thus be seen as having two different purposes (see next page), which however work together in order to create practical and theoretical knowledge.

# 1.5 Research question

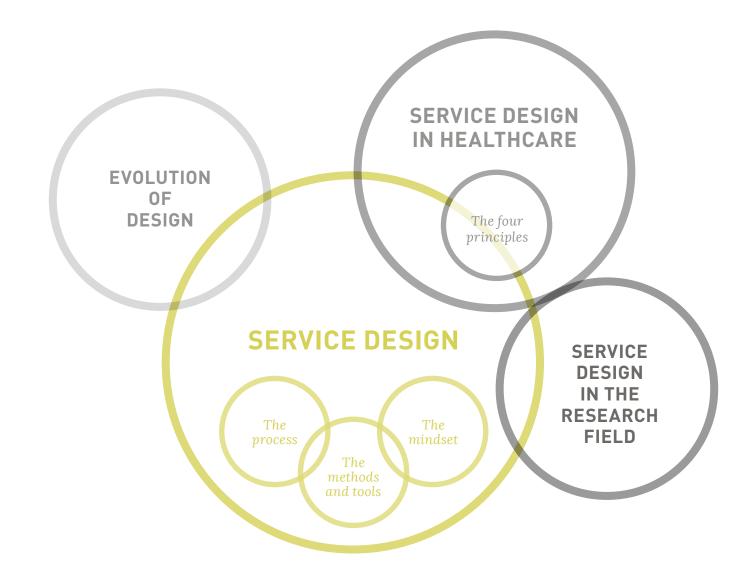
By conducting the practical case of improving the support for parents with obese and overweight children we wish to actively explore the research topic and answer the research question. As we in our thesis aim to look into the contribution of Service Design practices in user-centered healthcare projects, we wish to answer the following research question: How might Service Design practices enhance user-centered healthcare projects?

# **Purpose: The two different levels**





# The structure: From design to Service Design in research



# **CHAPTER 2: Theoretical Framework**

# 2.1 Introduction

Due to the ongoing paradigm shift in Sweden towards a usercentered healthcare, our client knew they wanted to work in a user-centered way, but not how to do it. Because the practice of Service Design, defines the how and the what of user-centeredness and helps mediate between user needs and organizational intent (Norén, 2015), it felt logical that in this study we were to address the childhood obesity problem through Service Design in close collaboration with the client. Since the problematic addressed in this study is related to public healthcare and its activities, we have also looked at Service Design in relation to that context. In addition we have added a section about Service Design in the research field which has enabled us to reflect on our actions throughout the study.

On the following pages we will take a deeper look at Service Design and its different aspects based on existing literature. To understand where Service Design originates from, we provide a background on design and its evolution up to today. Furthermore, we give a theoretical overview of Service Design within Swedish healthcare.

# 2.2 Evolution of design

Throughout the 20th century design has been seen as a later stage add-on and synonymous to an aesthetic value in relation to artefacts. However, during the later half of the twentieth century the general perception of design has changed (Hargadon, 2005). The basis for the new definition was put forward around 40 years ago by the leading social scientist and Nobel laureate Herbert Simon, known for his contribution in various fields, including psychology, mathematics, statistics and operations research (Encyclopaedia britannica, 2015). Simon describes design as a research process for problem-solving (Simon, 1969). He believed that design was a powerful tool for change, not only a tool for styling products. Likewise, the Design Professor Richard Buchanan, describes design as a liberal art capable of dealing with what Rittel and Webber (1973) call "wicked problems" for which there is no single solution and in which stakeholders have a role of defining the nature of the problems. This has extend the scope of design to go beyond artifacts to include the design of activities and organized services, and the design of complex systems or environments (Buchanan, 1992).

In the fast changing marketplace – where the only certain thing seems to be uncertainty – managers have been looking for new concepts to tackle their 'wicked problems,' and design as a human-centered, problem solving process became a fashionable strategic tool in the beginning of the 21th century (Kimbell, 2011). The changes in the business marketplace and the increased interest in design and its processes have accordingly impacted the disciplines of design. From traditional design disciplines such as industrial design and graphic design, new disciplines of design for experience, design for innovation and design for service have emerged that work across the traditional areas of design (Sanders and Stappers, 2014).

# 2.3 Introduction to Service Design

The emergence of the new design domains, where focus has shifted from the objects of design to the purpose of designing (e.g. design for the purpose of serving), together with the shift in economies away from a resource-based industrial society to a service-based knowledge society, has led to the formation of a subset known as Service Design. But how can Service Design be defined and what are the aspects of it?

One of the first to write about Service Design was Stefan Moritz, whose master thesis often is referred to as a good foundational description of Service Design. Moritz describes Service Design as "the design of the overall experience of a service as well as the design of the process and strategy to provide that service" (Moritz, 2005, p.42). However there is no single explanation of what Service Design is. It might be due to the current state of Service Design as an evolving discipline, born out of multiple disciplines, that it can be seen as multifaceted: as a phase of research and development in the same process, as a methodology in which different types of tools are used and as a mindset rooted in creative and artistic traditions (Holmlid, 2005).

Because of the practical nature of our study, where the aim was to undergo a full Service Design process, using Service Design methods and tools and adopting a Service Design mindset – it is in particular these three aspects of the discipline that are covered in this theoretical framework.

# 2.3.1 The process of Service Design

Designing services can be looked at from a process perspective, however Service Design is a complex, iterative and ongoing process (Stickdorn; Schneider, 2011; Moritz, 2005). As such it is difficult to define in one single framework, as it seldom works the same from time to time. Yet, in order to develop an understanding of what Service Design encompasses, it is important to comprehend the general process.

There are numbers of different frameworks proposed in literature and practice. We have selected one process to represent the plethora of existing Service Design frameworks. The *Double Diamond* process model is one of the most well-known and used models out there today (Tschimmel, 2012). This is also the process framework that we have used in our study.

In 2005 the British Design Council developed a process model based on case studies gathered from various design departments called the *Double Diamond* (figure 1). They have structured the process in four stages across two diamonds. The identified stages are:

- **Discover:** Identify, research and understand the initial problem.
- **Define**: Limit and define a clear problem to be solved.
- Develop: Focus on and develop a solution.
- **Deliver:** Test and evaluate, ready the concept for production and launch.

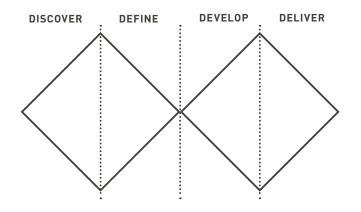


Figure 1: The Double Diamond process model (British Design Council, 2005).

Stickdorn and Schneider (2011) argue that even if the Service Design process can be illustrated in various stages it is never linear. Since each Service Design project is unique the process varies depending on the situation, circumstances and context. Jumping back and forth between different phases of the process is a rule rather than an exception. Stickdorn and Schneider therefore suggest that the first thing you should do when beginning a Service Design project is to design the actual process itself. Overall, the Service Design process is based upon the aim to understand both the bigger picture and the details; the process involves a constant zoom-in-and-out approach between these two positions (ibid).

## 2.3.2 The methods and tools in Service Design

A variety of methods and tools are used in Service Design and many of them have their origin in other disciplines such as arts, engineering, anthropology, and psychology. The way they should be used and assembled depends on each project's specific anatomy. As such, different tools are appropriate for different types of services. As mentioned before, design has until recently been concerned with the development of objects such as products, buildings and clothes through methods like sketching, drawing and model-prototyping. In Service Design, however, there is a need to use other techniques for conceptualizing and exploration.

As a result of her graduate thesis, Roberta Tarsi at University of Politecnico di Milano, published the website Service Design Tools (Service Design Tools, 2015) which is a well-known and open-access platform for the Service Design community. She divides Service Design tools into four different phases: Co-Designing, Envisioning, Testing & Prototyping, and Implementing. Each of these phases contains several tools which can be used throughout the Service Design process. Just as Tarsi, the Design Council (2015) distributes design methods and tools along the four stages of the *Double Diamond* process. In the Discovery Phase specific methods and tools are used for gathering insights and inspiration from stakeholders, identifying user needs, and developing initial ideas. In the Define Phase methods and tools are used to translate insights from the Discover Phase in order to make sense of all possibilities. In the third phase, Develop, methods and tools that support prototyping, testing, and iterating are used. This process of trial-and-error helps to improve and refine ideas. In last phase, the Delivery Phase – where the resulting service is finalised and launched – various feedback and evaluation methods and tools are used.

Different design methods and tools can be used in almost any combination, at any stage of the Service Design process (Stickdorn and Schneider (2013). In general, design methods and tools are seen to assist in the overall service delivery and the development of Service Design know-how through practice (Design Council, 2015). Throughout our study we have used several Service Design methods and tools, which are further described in the empirical part of the thesis (The Study, p. 34).

# 2.3.3 The mindset of Service Design

Marc Stickdorn and Jakob Schneider, authors of the book This is Service Design Thinking (2011), state that rather than finding one definition of Service Design, it can instead be outlined as a dynamic, interdisciplinary approach and a way of thinking, i.e. a mindset. Stickdorn and Schneider summarize the approach in five core principles:

- **1. User-centered**: Services should be experienced through the customer's eyes.
- **2. Co-creative:** All stakeholders should be included in the service design process.
- **3. Sequencing:** The service should be visualised as a sequence of interrelated actions.
- **4. Evidencing:** Intangible services should be visualised in terms of physical artefacts.
- **5. Holistic:** The entire environment of a service should be considered.

Both practitioners and researchers have acknowledged that it is the combination of the iterative process, the designer's methods and tools and Design Thinking for services that forms Service Design (e.g., Holmlid & Evenson 2008; Segelström 2010).

The concept of Design Thinking refers to an approach to problem solving that distinguishes design from others disciplines (Liedtka & Ogilvie 2011) and is characterized by a human-centered perspective, the use of visualization throughout the design process and the involvement of potential users and other stakeholders (Kimbell 2011). Liedtka and Ogilvie (2011) propose empathy, invention, and iteration as the differentiators between working with a design mindset in contrast to a business mindset. In the book Change by Design (2009), Tim Brown CEO of the global design consultancy IDEO, describes the design thinking mindset as an emotional and experience-based way of solving problems. While design thinking is more a question of the mindset, designer's methods and tools are used to put Design Thinking into practice.

## Designing with, not only for: user-centeredness and co-creation in Service Design

As observed in Stickdorn and Schneider's five principles of Service Design, the aspect of user-centeredness is regarded as core for the practice of Service Design. Other scholars within the field, such as Mager (2004) and Holmlid (2009), argue the same and describe Service Design as an inherently human and user-centered approach. However, the user-centered approach is not only obtained for Service Design.

User-centered design is a term that covers a wide spectrum of approaches, which is divided by the different methods and tools that are used when interacting with the users (Hanington, 2003). Common among user-centered design approaches is the main aim of understanding and interpreting the user's needs, dreams and expectations. (e.g., Norman, 1998; Rosted, 2005). This is done through a variety of methods, with the direct or indirect involvement of users, such as direct observations, videos, tests with prototypes and other existing products or services (Pals et al. 2008).

The user-centered approach supports an empathic and close relation between user and designer. However, as Katarina Wetter-Edman brings up in her Licentiate thesis (2011), it is a relation that has a certain distance. Even though the design object is created in the relation between the user and the designer, it is still the designer that does it for the user. Based on the designer's own interpretations and through her or his design expertise the final result is developed. Wetter-Edman has described this relation in her Licentiate thesis and with her figure (figure 2) she visualizes how the designer moves into the context of the user in order to interpret and understand the user's needs and behaviours, and then how the design object is created in the relation between the user and the designer.

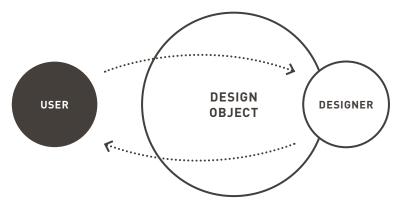


Figure 2: User-designer relation in UCD practice (Wetter-Edman 2011).

Wetter-Edman and others suggest that in Service Design this model does not fully fit the practice. Service Design is indeed for the users and it takes on a user-centered approach, but the design is also done with the users. Løvlie, Downs and Reason (2008) lifts the importance of the user's involvement as co-creator in Service Design by referencing the fact that the users are essential parts of the service ecology. Their argument takes us back to the second factor in Stickdorn and Schneider's (2011) five core principles of Service Design, where they argue for all stakeholders to be included in the Service Design process. Wetter-Edman has also in her Licentiate thesis described this more co-creational relation between user and designer, by visualizing the joint production. The figure (figure 3) shows how the design object shifts place from a user-centered approach and is co-created between the user and the designer.

This shifted focus also affects the designer's role and way of working; designers go from doing direct design work to becoming a facilitator for the process of designing. The aim of design facilitation is to empower the users, seeing every stakeholder as the expert of their experiences, and draw-

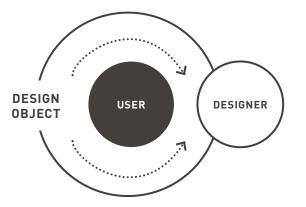


Figure 3: User-designer relation in co-creation practices (Wetter-Edman 2011).

ing upon their competences throughout the entire process (Sanders and Stappers, 2008). The designer's role in this is less about controlling the outcome and more about leading and facilitating design activities and producing material artefacts to support those interactions (Han, 2010).

In projects with a strong emphasis on co-creation, such as in participatory design where people are involved in the co-design of tools, products, environments, businesses, and social interactions (Robertson and Simonsen, 2012), the role of the designer could also be said to be more like one of an educator (DiSalvo et al., 2012). The designer develops design processes, tools, and techniques that enable mutual learning, design reflection, and evaluation. In participatory design one of the key aspects is the mutual learning among the stakeholders. Bødker et al. (2004) define participation in the context of participatory design as the mutual learning process between designer and users. The outcome of a Service Design project that includes a co-creative or participatory mindset could thus be considered to be the process itself, in which value is co-created between the customer and service organisation (Holmlid, 2007).

It is argued that the co-creative approach is critical to success in many Service Design projects. The researchers Steen, Manschot and De Koning (2011) have identified some of the benefits related to Service Design project, such as improving the creative process, developing better service definitions, organizing the project more efficiently, and improving customers' or users' loyalty. Following from this, co-creative approaches benefit the service's customers because the service better match their needs. Steen, Manschot and De Koning has also identified advantages for the organisation – taking part of organizing or participating in co-design could help foster creativity or improve the innovation capabilities of an organisation, which could be beneficial in existing projects as well as future ones.

# 2.4 Service Design in healthcare

The involvement of patients in service developments has been growing, and has played a key part in the redesign of healthcare processes over the past years (Bates and Robert, 2006). In Sweden, several studies and programs have been initiated in order to understand the patient and construct services based on a user perspective. GPCC (Centrum för Personcentrerad vård) is an initiative at the University of Gothenburg where the researchers, often through narrative methods, aim to capture the experiences of the patients (GPCC, Centrum för personcentrerad vård, 2015). ExperioLab is another successful initiative taking place with Landstinget in Värmland, which aims to capture the experiences of the patient through co-creative methods (ExperioLab, 2015).

Despite the increasing number of initiatives in practice, academic literature about Service Design in healthcare is scarce. In 2013, however, SVID initiated a study with the purpose of compiling the current state of knowledge for design of services within healthcare (Capire/HCM, 2013). The study aimed to assess the various effects that Service Design could have on healthcare. Some of the examples of the effects and benefits are shown in figure 4, which is a compilation of the direct and indirect gains that have been achieved in patient and user-centered design projects in Sweden and abroad. For example, the study suggests that Service Design offers gains for the patient such as better health and increased empowerment. Some of the gains for the healthcare providers are better processes and results; these, in turn, give positive effects for the healthcare organisation, such as lower costs, care at the right level, and less doctor appointments. The positive effects on societal level are for example an increased participation in work and decreased alienation.

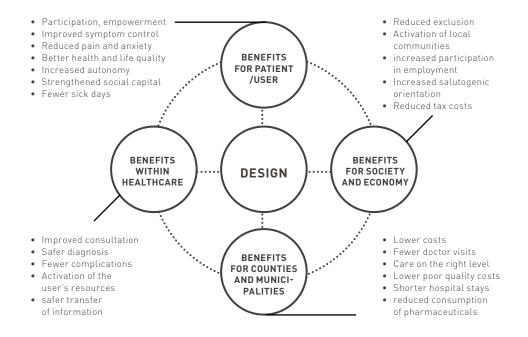


Figure 4: Effects and benefits of Service Design in healthcare (Capire/HCM, 2013).

Implementing Service Design within healthcare does, however, involve several challenges. Public healthcare organisations are fundamentally different from other service organisations in one main aspect; that it has a value chain which is producer-oriented rather than customer-oriented.

In the public healthcare sector, services tend to start from a foundation of different research and development areas, where the financial control is based on different levels of care. This makes it harder to develop coherent and flexible services based on the patient's needs. This type of value chain is of a producer-oriented kind. The different competences steer the service development, for example, through healthcare programs or medical researchbased guidelines. Services from a producer-oriented value chain are often: delivered through a diverse set of producers, such as separate hospital clinics; based on knowledge of different medical specialists; and planned as a final step in the process. This way of organizing activities differ from customer-oriented service companies, where activities are developed based on the understanding of the customer's behaviors and needs.

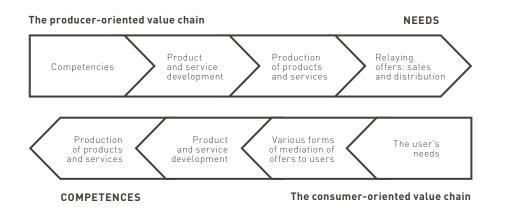


Figure 5: The producer and consumer value chain (Capire/HCM, 2013).

The two different orientations are illustrated in figure 5: the producer-oriented value chain where the competences defines the user needs, and the customer-oriented value chain where the user needs defines the competences

# 2.4.1 The four principles of Service Design in healthcare

In the initiated study by SVID (Capire/HCM, 2013) it has been observed that there are four principal focuses of Service Design in healthcare today: 1) design with a focus on the patient and the patient's context; 2) design with a focus on interaction; 3) design with a focus on new service models, and; 4) design with a focus on the ideal target scenarios and conditions. SVID explains that this mix of principal focuses results from the varied background of Service Design. The research and knowledge from Service Design come from two different fields: the classical design field, which focuses on the user and interaction, and from business. From business, the knowledge comes mainly from organization, management, and marketing research, which focuses on the organisation and the customer.

The different principal focuses have varying acceptance rates within healthcare. The first principal focus – design with a focus on the patient and the patient's context – is also the one that is applied most within healthcare and where there are many initiatives taken. According to SVID's report, one reason for the popularity of this focus could be that the study of the patient's needs and experiences is closely connected to the research and development activities that focus on improving methods of treatment. Thus it is a natural focus for many healthcare professionals and offers an initial step for the healthcare field to try design knowledge. The second principal focus, however, is also increasing within healthcare and is gaining more recognition. It is now more common to include the patient in the development of new services, where they together with the caregivers become co-creators of the service. The other two principal focuses have not been as well practiced within healthcare as the R&D efforts have been less.

# 2.5 Placing Service Design in the research field

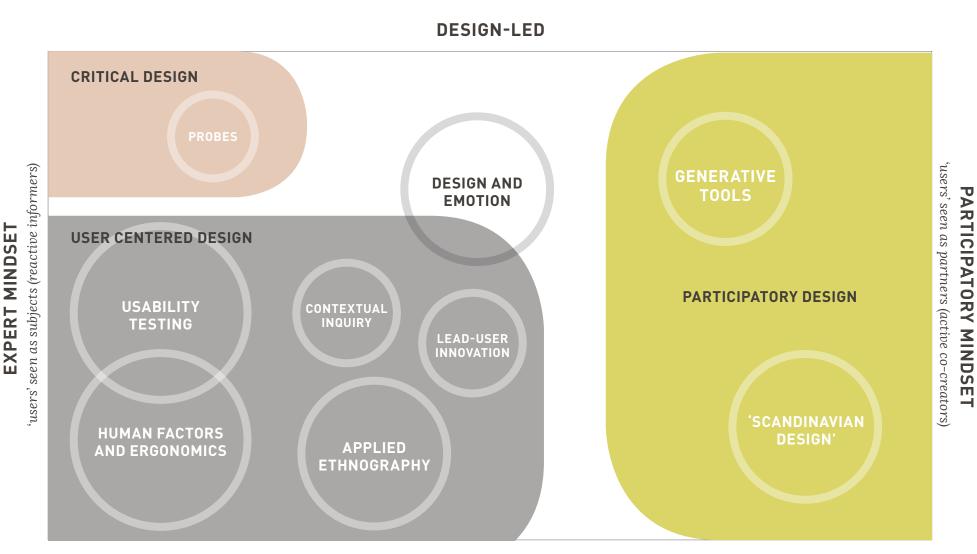
It is quite unclear where Service Design is placed in the design research field. In 2006, Elizabeth B.-N. Sanders – associate Professor in Design at The Ohio State University, focusing on facilitating transdisciplinary learning experiences and co-creation practices – mapped out the state of design research, in order see how a visual representation could help navigate this complex landscape (see next page, figure 6). We have used this map in our study to keep a reflective approach of our actions in order to understand what we are doing and make conscious choices in our research. It has been a tool to find out where our study could fit in.

The map has two dimensions that defines the landscape. The vertical dimension is connected to design research approaches – whether they are Design-Led or Research-Led. The Design-Led approach includes design research methods and tools that have been introduced into practice from a design perspective, while the Research-Led have been introduced from a research perspective.

The horizontal dimension relates to the mindset of the ones that practice and teach design research: the left extreme indicates an expert mindset and the right indicates a participatory mindset. This means that on the lower left side the researcher is the expert. In approaches positioned here, expert researchers observe people, ask them questions, or test them with different stimuli. It is, for example, here that Sanders has placed user-centered design. At the top of the left side the designer is the expert. They create things to probe or provoke response from the target audience. The right side of the map consists mainly of research practices that take on a participatory mindset. In this part the designer as well as the researcher invites the audience and users to join as co-creators. The designer and researcher also invites the stakeholders as they wish them to contribute with their expertise in the process, making it about designing with people (Sanders, 2006).

As Service Design is both about designing for as well as with the project's stakeholders it can be placed somewhere in the middle of this map. Sanders and Stappers write in their book the Convivial Toolbox, generative research for the front end of design (2014) that time will tell as to whether service designers are practicing with a participatory mindset or whether they are using the tools and methods with an expert mindset.

# The Landscape of design research: Where can Service Design be placed?



**RESEARCH-LED** 



# **CHAPTER 3: Methodology**

# 3.1 Our research approach

At the *Business and Design* programme we are engaged in practical doing and reflection to deepen our learning and and generate implications for theory as well as practice. In a simplified form, we describe this as a "learning by doing" approach. This mindset is rooted in the constructivist view on knowledge making. Central is the belief that ideas and actions are interdependent, and essential aspects of the learning process (Osterman, 1998).

A constructivist view of knowledge creation has also been our point of departure when approaching the problematization of the study, leading us to apply the iterative and reflective research methodology of action research. It is a methodology where the researchers, in participation with others, cycle between theory and practice, action and reflection, in order to work towards practical outcomes (Reason and Bradbury, 2001) and produce practical knowledge that is useful for people in everyday life (Zuber-Skerritt and Perry, 2002). In the following section we will explain the concept of action research and how we have applied action research in our study.

## 3.1.1 An introduction to action research

The origins of action research are often traced back to the social experiments made in the 1940s by Kurt Lewin, an applied researcher and practical theorist, known for being one of the modern pioneers of social, organizational and applied psychology. In their research, Lewin and his colleagues engaged in socio-technical experiments for social democracy and organizational change. It is nevertheless difficult to give one coherent background to the approach as it has many differ-

ent links and is informed by a variety of intellectual traditions, such as pragmatic philosophy, critical thinking, the practice of democracy, liberationist thought, humanistic psychology and constructivist theory. However, traditions aside, action research is regarded as having emerged as a consequence from the contemporary critique of positivist science and scientism, in a movement to seek new epistemologies of practice (Reason and Bradbury, 2001).

Action research belongs to the social sciences, where human beings, groups of people, organisations and societies are studied in order to understand characteristics, ideas, strategies and behaviours. These are all complex aspects that often demand qualitative research methods, which can give a deeper and more detailed understanding of the study subject. Quantitative research methods can although also be used, depending on the focus of the study (Zuber-Skerritt, 2001).

Due to its diverse range of approaches and practices, many of which are grounded in different traditions, action research is more to be regarded as a whole family of approaches to inquiry. As a whole, action research can be described as participative, grounded in experience, and action-oriented (Reason and Bradbury, 2001).There are three main tenets guiding the action research process: 1) it is rigorously empirical and reflective (or interpretive); 2) it engages people who have traditionally been called subjects as active participants, and; 3) it will result in some practical outcome related to the lives or work of the participants (ibid). We will further go into detail and explain these three core concepts, in order to later explain how the methodology is expressed in our research.

## Action research core concept 1: Rigorously empirical and reflective

Action research is a spiral of cycles based on an iterative process between action and reflection. From action in the form of activities, experiences, practical trials, explorations, or applications the researcher is able to create, gain knowledge, and understand through reflection, inquiry and critical evaluation (Zuber-Skerritt, 2001). Action research shares, as such, a common ground with theories of reflection-in-action: the theory and practice of reflective professional learning developed by the influential American philosopher Donald Schön in the twentieth century (Swann, 2002). Through reflection the researcher can conceptualise and generalise what happened in the action phase in order to then investigate new situations or see if the conceptions were right, trying to find confirming or disconfirming evidence (Zuber-Skerritt, 2001). The cyclical activities of action and reflection are always the same in an action research project. However, there are different formulations and description of these activities or moments (Reason and Bradbury, 2001). Carr and Kemmis (1986) has defined these steps as plan, act, observe and reflect. This cycle of the action research methodology is shown in figure 7.

The plan includes problem analysis and construction of a strategic plan, which then is implemented in the action phase. Observations are made in order to evaluate the action through appropriate methods and techniques. Reflection is then done on the result of the evaluation and the whole action and research process. Based on that reflection the researcher might commence a new cycle of planning, acting, observing and reflecting (Swann, 2002), which also is shown in the figure 7. The reflective nature of action research does also mean that it agrees with the postmodern perspective that objective knowledge is impossible. Interpretation and reflection is made by the researcher, based on his or her own experience and knowledge, making it impossible to be fully objective in the research (Reason and Bradbury, 2001).

# Action research core concept 2: Engage people who have traditionally been called subjects

Action research is a collaborative process which is done with, for and by persons and communities. Ideally involves all stakeholders of the research project in acting, questioning, and sensemaking of what informs the research (Reason and Bradbury, 2001). For example, in action research within the field of design the users should be seen as more of collaborators than research objects. The idea is that there should not be any "outsiders" in the action research process (Swann, 2002). The unconventional idea of involving all stakeholders in the research does also alter the role of the researcher. The researcher becomes less of an expert and more of a resource person, who is sometimes referred to as a facilitator (Stringer, 1999). The role of a facilitator includes providing leadership and direction to the participants of the research process. It could include assisting the stakeholders in defining the problem that they are experiencing and supporting them as they work toward a solution (Reason and Bradbury, 2001).

## Action research core concept 3: Result in practical outcome

Apart from contributing with an academic outcome that may provide the basis for theorizing and knowledge production, action research's primarily purpose is to be a practical tool for problem solving. Problems which are experienced by people in their professional, community or private lives. The aim

# Our research approach: Action research

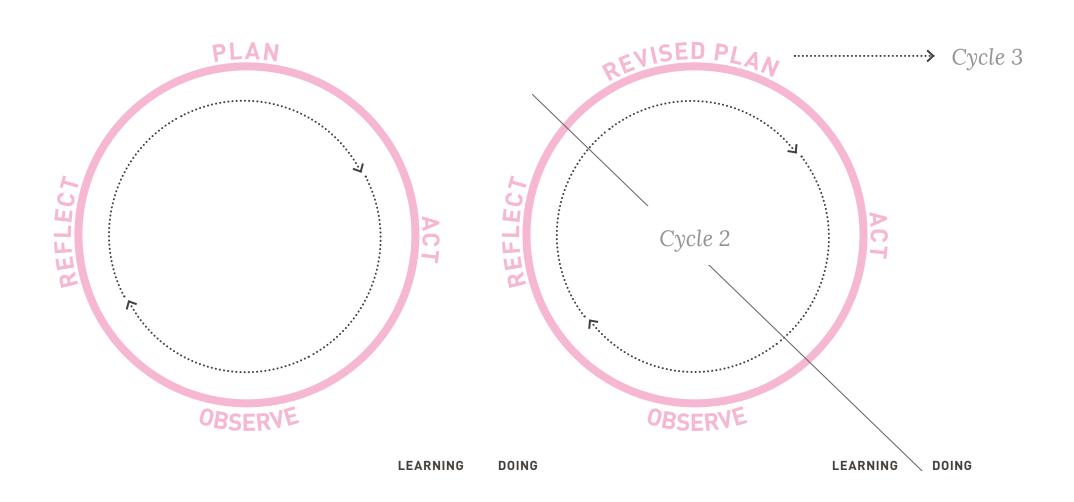


Figure 7: The cycle of the action research methodology (Carr and Kemmis, 1986) modified with the learning and doing sections.

with the action research is to make a difference in a specific way, if that objective is not obtained the research is seen as a failure (Reason and Bradbury, 2001). The viewpoint is that theory without action is meaningless and that whatever has been conceptualised and learnt must lead to action, improvement, development, or change (Zuber-Skerritt, 2001).

## 3.1.2 Action research in our study

For our study, we chose an action research methodology due to the scope of the project, which has a strong practical and outcome-driven focus. Action research is also commonly used in many Service Design projects (Stickdorn and Schneider, 2011; *Transformator Design*, 2015), where research is done in iterative loops or cycles, moving between action and reflection, and promotes similar values of participation and collaboration with users as well as stakeholders.

Our research has been conducted in a similar fashion with two larger cycles, following Carr and Kemmis (1986) phases of action research. We started with problem analysis and construction of a strategic plan together with the client, which afterwards was implemented in the action phase. We later evaluated input from the action phase through analysis and reflection. Based on our reflections we have been able to refocus and change the form of inquiry or methods and start a new cycle.

Apart from the two larger cycles we have also made several smaller loops throughout the whole research project. Every interaction with users and actors can be viewed as an individual loop, from which the next interaction is built upon.

The foundation for action research is learning by doing and doing from learning. We have chosen to illustrate this relationship (figure 7) based on our experiences of the research. The phases of planning and acting are to be considered part of doing, while observing and reflecting contribute to the learning. This shows the symbiosis of learning and doing, how they work alternately to drive the cycle forward.

The participatory emphasis of action research has also been an important aspect when doing the study, leading us to take on the role of facilitators of the research process. In a joint collaboration with the client we have worked together, reformulating and problematizing the inquiry and ideating for further advancement in the research, in order to make the study relevant and useful. In interactions with the users we have opted for co-creation. The research methods in these interactions have been exclusively qualitative. We will in the following chapter give a more detailed description of the methods used.

# 3.2 Research methods

As Service Design is said to be defined by the systematic application of design methods to the design of a service (Holmlid and Evenson, 2007), we used several methods to collect and analyse data throughout the process. Consistent with our action research approach, the methods were not predetermined but chosen as the process progressed, depending on the outcome of the previous method, project phase and purpose. Methods in Service Design stem from several different disciplines (Sanders and Stappers, 2014), however, in this study qualitative data collection methods grounded in ethnographic traditions, such as interviews and workshops have mainly been performed. Analysis and collection of the qualitative data have occurred simultaneously to maximize the potential for data collection to be constantly relevant and valuable (Merriam, 2009).

The methods are categorized under the headings: data collection methods, idea generation methods and analysis methods. The following section describes these methods, why and in what way they were implemented in the study.

# 3.2.1 Data collection methods



#### **Co-creation workshops**

In this study co-creation workshops were used as a method throughout the whole process. Four workshops – planned, facilitated, carried out, and evaluated by us – were held with various stakeholders that are involved in the support of overweight and obese children in Swedish public healthcare. From here on out we refer to these as client interactions.

Co-creation is a core concept of service design which can be used in all stages of the design process (Stickdorn and Schneider, 2011). Co-creation workshops are an opportunity to bring together and collaborate with a number of people involved with, or affected by, the service that is being developed or refined. They might include the people you are trying to reach, the partners you are working with, experts brought in from similar fields, or any combination of these. Co-creation workshops are a good way to produce materials for opening up a discussion, collecting and sharing different experiences, as well as co-creating potential solutions. Co-creation workshops are a way of involving stakeholders to create a feeling of shared ownership of the generated concepts which often helps later on in the process during the implementation phase (DIY Toolkit, 2015). However the structure of sessions that include diverse people from several different backgrounds requires careful planning (Stickdorn and Schneider, 2011).

Due to the varying natures and aims of co-creation workshops there are several ways in which they can be carried out. Mindtools (2011) provides one set of guidelines for a successful workshop, which have been used as a framework for the execution of the co-creation workshops in this study:

- **1. Define the goals:** A workshop must have a goal, without it there is no point in organising it.
- 2. Decide who will attend: This relates directly to the objective; make a list of people, try to be as specific as possible, leave room for last minute changes.
- **3.** Choose the right location: Think about the size of the group, do not use too large or small venue. Think about the logistics and practical details, e.g. "Will everyone see the visual aids?" Technology: "Will the location support your technical standards?" "Are break-out rooms needed; is it reachable?" Catering possibilities.
- 4. Create an agenda: Create an outline of how you'll achieve the workshop goal, the more detailed your plan, the more you'll ensure that your workshop will run to schedule and be successful.
- **5. Develop a follow-up plan:** Effective follow-up will tell whether the workshop was success or not. Create e.g. feedback form, give participants opportunities to share their opinions on how well event went, it is important to know so you can develop for the next time. It is also important to plan to communicate the decisions that were reached during the workshop. People need to know that the work resulted in a decision or action and you need to keep them informed about what's happening after the workshop has ended.

The overall purpose of the client interactions was to access the stakeholders' knowledge and experience. Besides this, the co-creation workshops were a chance to engage and create a shared ownership of the process and outcome, and thus enabled us to find ambassadors for both the project, and Service Design in general as a way of working in healthcare. During the interactions several Service Design tools were used to support the aim and goal of each specific workshop.

#### Interviews

According to Design Firm IDEO (2015), individual interviews are critical to most design research, since they enable a deep and rich view into the behaviors, reasoning, and lives of people. However, it is important to distinguish an interview from a casual conversation and to be aware of the approach that the interviewer needs to follow. An interview should always have a clear purpose and a mutual agreement on why the interview is executed. Interviewing is an art that balances the dual needs of getting relevant information from the user and engaging with them as a curious and empathetic friend (IDEO, 2015).



#### Semi-structured interviews

The main data in this study were collected through semistructured interviews. All interviews were scheduled in advanced, conducted individually over the phone or in person. They were recorded as well as documented with notes. A total of 32 interactions were made with an overall conversation time of 36 hours.

Denzin and Lincoln (2005) argue that the semi-structured interview is a key method of enabling dialogue and deep engagement with participants while retaining focus on a particular topic. Although the interviewer has a prepared list of questions, the so-called 'interview guide', the interview process is flexible and the interviewee can respond freely in his/her words (Bryman, 2004). Open-ended questions in the in-depth interview allow room for respondents to explain their point of view and their experiences without being limited by preconceived categories. The interviewer also has the opportunity to clarify any ambiguity about the instructions or questions and probe into questions, encouraging the respondent to enlarge on, clarify, or explain answers (Berg, 2009) that allow the researcher to understand any complexity of a situation.

Since the semi-structured interview approach is commonly used in Service Design projects – as it supports gaining a deeper understanding of needs, behaviors and experiences through dialogue (Denzin and Lincoln, 2005) – it was a natural choice of method for our study. To get as comprehensive overview as possible, and to understand multiple aspects of the current support for overweight and obese prevention, we held interviews with users and healthcare providers, as well as with external actors involved in the support.

## Semi-structured interviews with the user

The vast majority of the semi-structured interviews were held with the users of overweight and obesity support in public healthcare. Since the scope of the study was limited to children aged one to ten with various degrees of overweightness and obesity problems, the users were defined as parents of the children as they are responsible guardians during these ages. The user interviews were held in two main rounds, or so called loops, which together generated a number of 21 interviews and an estimated conversation time of 24 hours.

#### User interviews Loop 1 - the selection

An initial announcement for parents with overweight or obese children in the age range from one to ten was made by putting up posters (see appendix 1) in four child health clinics: one located in Stockholm, two in Gothenburg, and one in Lindköping. After a week with no response the poster text was modified – from asking for meetings with parents to proposing telephone interviews. Due to the sensitive nature of the subject we predicted the challenge of finding users, however the challenge grew bigger than anticipated. After two full weeks without any answers, the search for respondents was extended.

Besides, once again, asking our client who operate at Sahlgrenska and Karolinska obesity centres to recruit users, this is a list of what was done:

- Put up posters at the City Library in Gothenburg.
- Put up posters in an additional child health clinic located in Angered, Gothenburg.
- Advertised on two parent forums; familjeliv.se and alltforforaldrar.se
- Advertised on Sundare barn's facebook page, a forum for parents with overweight and obese children.
- Advertised on our Facebook and Instagram accounts.
- Spread the word in our network of contacts.

The announcement on the parent forum Sundare barn's Facebook page was the approach that finally paid off, as the majority of respondents came from there. The geographical distribution was hence random. In Loop 1, a total of ten interviews were made.

#### User interviews Loop 2 - the selection

Since it was challenging to find respondents for the interviews in Loop 1, a request to previous attendees was send out. At the same time a new announcement on Sundare barn's Facebook page was posted. In parallel recruitment from both the obesity centres as well as from our own networks continued. Out of a total of eleven respondents in Loop 2, seven were new and four were interviewees that we had spoken to before. As with the interviews in Loop 1, the geographical distribution was random due to the limited selection of parents who were willing to be interviewed.

#### Semi-structured interviews with healthcare providers & actors

A network of different actors surrounds any child with overweight and obesity problems. In addition to providers in public healthcare there are, for example, preschools and schools which have a great influence in a child's everyday life. Around a third of all the semi-structured interviews, eleven in total, were made with healthcare providers and actors. All the interviews were held in person and and lasted on average 1,5 hours.

#### Healthcare provider & actor interviews - the selection

As it took time to find users of the overweight and obesity support, it was decided that interviews would also be conducted with caregivers and actors surrounding the child. After a mapping of stakeholders, representatives were looked for through our own network as well as the client's. In identifying interviewees we placed emphasis on the distribution and not on the location, which resulted in interviews with healthcare providers and actors located in the urban regions of Gothenburg and Stockholm.

## 3.2.2 Idea generation methods

#### Prototype

There are variations of how prototypes are used and for what purpose, however, prototyping is a vital part of almost all iterative design processes (Buxton, 2010). Buxton argues that prototypes are shown to users for evaluation, to manifest design decisions, and to clarify further development. Prototyping approaches can vary a lot depending on the project, and the execution usually depends on the complexity of the product or service. Even though the level of detail and function can shift, it is the conversations or the interaction that the prototype triggers that are relevant.



#### Paper prototype

In Loop 2 of the user interviews, paper prototypes – also known as trigger material – were utilized. At telephone interviews, the trigger material was sent out in advance by email. If the interview was conducted in person, the material was printed to be used throughout the interaction.

Paper prototypes, low-fidelity prototyping or trigger material, are most often used as a support in the design process to enable rapid and cheap prototyping. Typically low-fidelity prototypes are made up of sketches, basically simple drawn objects on paper, which communicate a rough idea of a design solution or a design concept. This is a way to quickly find out if an idea or a concept is desirable or not, and why. Even unwanted ideas or concepts provide valuable insights for the design process.

A primary purpose of trigger material is to support failing early in the process in order not to fail later. Even though the user often finds that the prototypes look and feel far from developed objects, trigger material helps us, as researchers, discuss and explore new ideas together with the user. Therefore we made the choice to use paper prototypes in our research.

# 3.2.3 Analysis methods

## **Top of Mind**

Because the amount of data collected through interviews can be incredibly large it is important to find a way to structure and document the analysis. This analysis can be done in many different ways, however, it needs to be done with great awareness (Merriam, 2009). To find a suitable form of analysis for this study we came up with a new method that we named Top of Mind. For the method, one writes down on Post-its the gist of what was heard and noted, such as quotes and statements, right after a finished interview. The Post-its are then placed on a blank sheet of paper to be saved for the final analysis. The Top of Mind method was used as an initial analysis method for all the data collected through the semi-structured interviews.

As Merriam (2009) points out, qualitative data analysis and collection occur simultaneously. According to her "enlightened" approach, data is reflected on right after a certain data collection session. Continued data collection is then built on previous reflection and understanding. This implies that a close symbiosis between the synthesis and analysis maximize the potential for the data collection to be constantly relevant and valuable.

The Top of Mind method was used to highlight the most relevant insights in our research. It was a good way to quickly summarize data from an interview so it could be built on in the next interview. In addition, this method made sure that no important information got lost on the way.

## Affinity Diagram

Affinity Diagrams were used for the continuously analysis of the interviews. Affinity Diagrams is based on mind-mapping except it uses clusters instead of tree-structured diagrams. Here all Post-it notes written during the Top of Mind method came into use.

This data interpretation method was developed by the Japanese anthropologist Kawakita Jiro in the 1960s and is also known as the K-J Method or the Affinity Chart (Mindtools,

# Analysis methods: Top of Mind, Affinity Diagram and Customer Journey Map



2015). Post-its or cards with quotes, short facts or statements are clustered and tagged with a statement that expresses what the information on the Post-its mean. Kawakita (1986) argues that when problems and meanings of different clusters are summarized, new ideas and solutions often arise. In general, good analysis is said to uncovers better understanding of a phenomenon or process (Miles and Huberman, 1994), therefore we prefer to use the term understanding of data instead of analysis of data in our study.

The objective of using this method as researchers was to organize, connect and make sense of data in order to identify and get a holistic view of the challenges regarding the support for parents with overweight and obese children today.

#### **Customer Journey Map**

The user's journey is an important part of Service Design as it describes the journey of a user by representing the different touchpoints that characterize the individual's interaction with the service. In this research, the *Customer Journey Map* was used as data analysis method throughout the research.

In Service Design the processes and patterns of the service users are outlined. By identifying the steps of the service and the touchpoints that users interact with along the way, a *Customer Journey Map* can be created (Stickdorn and Schneider, 2011). This mapping process brings to light all of the processes, phases, and action points a user has throughout a service.

The Customer Journey Map offers the researcher and the organization a clear picture of the user's experience while int-

eracting with healthcare providers. Developing a *Customer Journey Map*, involves studying the users in depth. The necessary information to create a journey map is typically gathered from ethnographic research, which assists the researcher in discovering opportunity areas, as well as identifying pain points within a service (Ibid).

Although the overall research generated valuable input, it needed to be put in a context. The visualization of the customer journey functioned as an orientation graph and valuable tool to support us in keeping track and systematize all our insights, both during and after a data collection occasion. Since the user in this study is not considered a customer in typical sense of a *Customer Journey Map* that happens with a business, we have named the method User Journey Map.

# 3.3 Trustworthiness

The study is based on interpretative inquiry conducted through qualitative methods. The aim has been to reach an understanding of the issue rather than finding a constant truth or an objective reality. This makes it difficult to motivate an evaluation of reliability and validity of the research and the findings in the same way as studies conducted through quantitative methods (Stringer, 1999). We have instead departed from the criteria of trustworthiness developed by Lincoln and Guba (1985), which are used to establish the rigour in interpretive inquiry and minimizing the possibility that the investigation was superficial, biased, or insubstantial (Stringer, 1999). The criteria for establishing trustworthiness are credibility, transferability, dependability and confirmability, and will be evaluated in the following section.

## 3.3.1 Credibility

Credibility deals with the question "How congruent are the findings with reality?" (Merriam, 2009). It is established through prolonged engagement with participants, triangulation of information from diverse sources, member checks to verify the accuracy of the obtained information and conclusion, and peer debriefing to explore aspects of the inquiry, which could otherwise remain only implicit within the inquirer's mind (Stringer, 1999).

In our research we have tried to establish credibility in the following forms:

- Through long and in-depth interviews with the participants, sometimes multiple times, we have been able to have a prolonged engagement.
- Interactions have been done with both users as well as actors around a child's network, which has given us information from diverse sources. This has greatly helped us in understanding the situation for parents with obese and overweight children.
- As part of our iterative methodology we have in following loops tested some of the interpretations and conclusions that were made in previous ones. An example of this is the development of the User Journey Map, where, first through interviews, we were able to interpret different phases that the user go through. These were then tried on users in the next cycle, to see if we had interpreted it correctly and refine it based on the new input. It was also tested with experts from the field, who provided input that altered and/ or confirmed our interpretation.

• By having a mentor at Transformator Design, with 15 years of experience within action research and Service Design, we have also had the possibility to do peer briefing throughout the study. According to Hail, Hurst and Camp (2011) the peer should not be someone who is an immediate stakeholder in the outcome of a project, but who is a knowledgeable source on the topic. In our case the peer briefing has mainly been focused on how to analyze obtained information and how to proceed in our inquiry. The mentor has been able to come in as an external partner contributing in analytical sessions, seeing patterns that have not been clear to us, and questioning our findings and tools. Having peer briefing has helped us to step out of the research and talk through the interpretations that we have been making. The mentor has in these interactions assisted us in affirming, confirming and challenging our findings.

### 3.3.2 Transferability

The transferability concerns the extent to which the findings of the research can be applied to other situations. In a positivist work it could mean showing that the result could be applied to a wider population. However, in the case of a qualitative project this does not apply as the findings and conclusions are not applicable to other situations and populations (Shenton, 2004). Transferability is more about describing the means for applying the findings to other contexts, which is done through thickly detailed descriptions that enable audiences to identify similarities of the research setting with other contexts (Stringer, 1999). By thoroughly describing the scope and methodology, together with an extensive empirical part we hope to have captured all the important experiences and patterns that we have studied.

### 3.3.3 Dependability

By showing that the findings are consistent and could be repeated the dependability is addressed (Lincoln and Guba, 1985). To ensure this we have tried to describe the research with as much detail as possible so that a future researcher could repeat the work and also get a similar result to ours.

## 3.3.4 Confirmability

Confirmability is about not letting the study be shaped by the researcher's bias, motivation or interest. The findings should be a result of the experiences and ideas of the informants (Shenton, 2004). The triangulation in the study, among users, actors and client have helped us reduce the effect of our own bias. The insights that we gained have been under reflective scrutiny by and together with the different stakeholders.

## 3.4 Generalizability

The study's generalizability has had an important role throughout the research and for the final outcome. It is quite controversial to state that one could do generalization in qualitative research as it is more recognized to be a quality standard in quantitative studies. In order to sort out the issue we have chosen to look at Firestone's (1993) framework for considering generalizations in quantitative and qualitative studies. First of all there is the statistical generalization, which is used in quantitative research, where the sample size must be representative for the population in order to be valid. Then there is the analytical generalization which is more often used in qualitative studies and also the type of generalization that we are addressing in our research. Through the in-depth scrutiny of interviews conducted we have abstracted the information to make conceptualizations of behaviour and need. It is in the process of analysis where we as researchers have needed to distinguish between information that is relevant to the majority of the study participants and experiences that are unique to particular participants (Ayres et al., 2003).

Analytic generalization has guided our sample selection, which has been made through saturation. To enhance the likelihood that analytic generalization can occur the researcher looks at the saturation of important themes and categories and then decides if the sample size is sufficient. In order to do so there must be sufficient and redundant insights that cover all aspects of a phenomenon (Polit and Beck, 2010). We started our study without having a predefined number of desirable respondents, but rather we were guided by the need for information. When we saw recurring themes and concepts in the interviews we were able to end the search for respondents.

In conclusion we are not able to state that we can make a statistical generalization of our study as our sample is not representative for its population – most of our respondents are engaged parents, coming from a Swedish middle class socioeconomic background. However, we do argue that our research and findings are to be considered analytically generalizable.

## 3.5 Ethical aspects

To ensure the ethical aspects of our study, we have consistently considered the six guidelines from The Research Ethics Guidebook (Economic and Social Research Council, 2015). Below it is described in what way we have related to these guidelines.

#### We ensured quality and integrity of our research

Transparency have permeated both the implementation as well as the reporting of the data collection and analysis process in our study. We have constantly discussed and reflected upon our work with each other. In addition, we have regularly reconciled the work with our mentor in Service Design, our supervisor, classmates and client. We argue that these aspects together serve as guarantees of the quality of our work.

#### We seeked informed consent from all the participants

The purpose of all our interactions was communicated in advance as well as in the beginning of the interaction. Our interview approach balances the dual needs of collecting relevant data and engaging with the user as a curious and empathetic friend. In all our user interactions we have finished by summarizing what has been said and thereby sought to agreement.

# We respected the confidentiality and anonymity of our research respondents

All of our user interactions have started with the question whether it is okay to record the conversation and take notes. We have also made it clear that the recording is for study purposes only and should not be spread. No names have been communicated in any of our materials.

# We made sure that our participants participated in our study voluntarily

All participation has been entirely based on the respondent's own willingness to engage. We have not approached the respondents ourselves, but the initial contact has been made by the participants.

#### We avoided harm to our participants

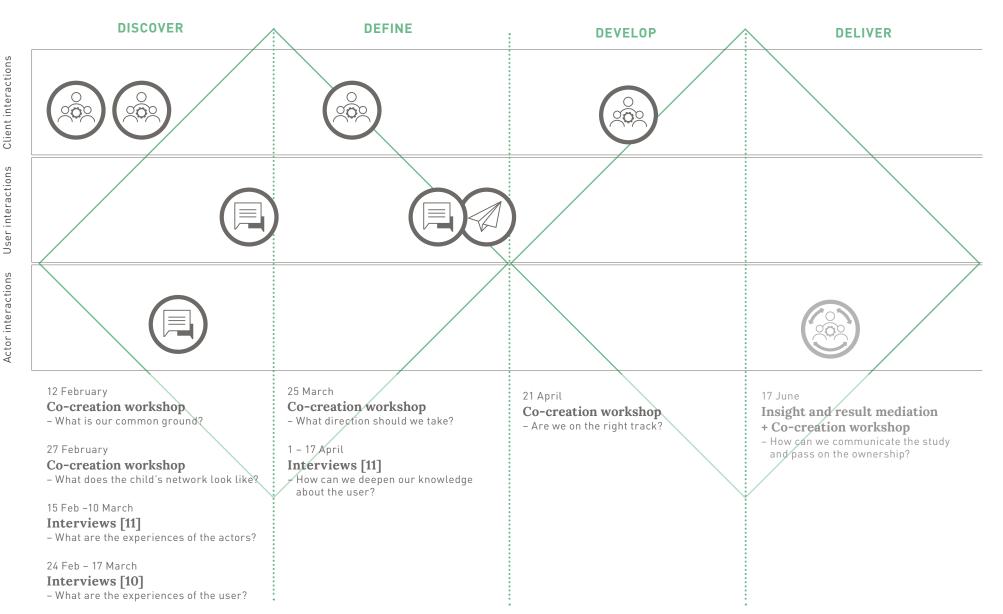
By allowing the participants to guide the conversation we have avoided topics sensitive to the respondent.

#### Our research was independent and impartial

The study was initiated, planned and carried out by us alone, which allows the study to be considered as independent. It has been neutral in the sense that we have not taken into account any specific opinions or been influenced by private interests of any kind.



## Our process explained through: The Double Diamond framework



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# **CHAPTER 4: The study**

## 4.1 Study structure

We explain our study through the *Double Diamond* framework and its phases: Discover, Define, Develop and Deliver. We have chosen to relate our study to this process as it is a general framework which gives a lot of freedom and flexibility. We have furthermore had two major data collection phases which relates to the two process stages of the *Double Diamond*.

In this study, we have investigated the support, i.e. the service, for families with overweight or obese children aged between one to ten years old, from a user perspective. The user is defined as a parent which may be seen as the representative for the family. Interactions with the client, actors in the child's network, and users have been made in order to collect data. In the *Double Diamond* framework (see next page) these interactions are placed out in chronological order and categorized by the phase in which they took place. The following section describes the purpose, preparation, execution, insights and take aways from each phase and interaction. They are presented in the same order as they appear in the figure on the previous page.

Since we have had an action research approach, we have in parallel collected and analysed data. Therefore, both the findings and analysis are presented in this part.

## 4.2 Discover

The discovery phase consisted of two parts:

- 1. Understanding the context and the actors involved in the support.
- 2. Understanding the user.

To create a holistic overview of the context, we began to set up meetings with experts within design and healthcare. We met with two people closely connected to the topic; Jonas Gumbel from SVID (Swedish Industrial Design Foundation) who deals with these issues at a national level, and Haris Kadic from ExperioLab, an organization pioneering user-centered healthcare with the help of design. We also booked appointments with practitioners in design and Service Design in order to broaden our knowledge of the field prior to our own design of this study. Ultimately, we met with nine people for about ten hours in total, we mainly discussed the topic of co-design in Service Design and healthcare, its pros and cons, methods, tools and the role of the designer. We understood that co-design in healthcare is perceived as essential for a user-centered care by practitioners, where the best healthcare is always achieved through a collaboration between the providers and users. However, the nature of co-design may vary a lot depending on purpose, resources, time and context. Regardless, the designer is perceived as the one who should guide and mediate between the parties. Furthermore, we talked about Service Design and its foundation. In summary, we found that Service Design is a vast field that contains many aspects. Nevertheless, the majority of those we met viewed Service Design as a composite of tools and methods, process and mindset. This insight, together with inspiration of arrangements, approaches and tools for co-creation workshops, were what we mainly brought with us from those meetings.

In parallel with these meetings, we scanned the literature in the field of design, Service Design, participatory design, co-design and co-creation. Moreover, we read about other design initiatives in healthcare, both in Sweden and abroad, to form an opinion of what had succeeded before. Altogether, this gave us a foundation to build on and a deeper understanding of Service Design in general and design in healthcare in particular. The knowledge generated have followed us throughout the entire study and have hence been subtly present.

To understand the involved actors and the user of the support, several interactions were carried out in the Discover phase. The first interaction was a co-creation workshop held with the client in Stockholm in the beginning of February. Two weeks later, it was followed by another co-creation workshop with the client in Gothenburg. During this phase, eleven interactions with actors around the child were completed together with ten user interactions. The following section focuses on outlining these particular interactions.

## "SERVICE DESIGN WITHOUT CO-DESIGN IS NOT SERVICE DESIGN, BECAUSE IT IS THE CORE OF THE PRACTICE."

Jonas Gumbel, Program Manager Design & Health, SVID

## **Client interaction 01**

- What is our common ground?

Date: 12 February, 2015 Method: Co-creation workshop Tools: Pin-point, Challenge Orientation Matrix, Expectations and Concerns

#### **Time:** 3 h

Location: Transformator Design, Götgatan 19, Stockholm Participants: Jovanna Dahlgren, professor and head of Child Obesity Centre, Drottning Silvias Barnsjukhus; Annika Janson, PhD pediatrician and head of National Pediatric Obesity Centre, Astrid Lindgrens Barnsjukhus; John Chaplin, psychologist, expert QoL and EU project family/child perspective in clinical trials.

#### The purpose

The first client interaction was primarily held to create a stable common ground and to provide an overview of all the actors involved in the support and their roles. Moreover, the purpose was to:

- Present the Business and Design programme and ourselves as researchers.
- Present the partner *Transformator Design* and the mentor Erik Widmark.
- Introduce Service Design.
- Calibrate variables such as; the scope, expectations, degree of innovation and factors of a successful study.
- Conduct a knowledge transfer between the client and us.

## Client interactions 01 / Co-creation workshop: What is our common ground?



12 February, 2015: Co-creation workshop including the Pin-Point, Challenge Orientation Matrix and Expectations and Concerns tools.

#### The preparations

First of all we decided on the aims, which guided all forthcoming decisions. Based on the aims we conceived the content and produced all the tools. An invitation to participants, selected by the client, was sent out 1,5 weeks in advance with an agenda, purpose, short introduction to Service Design and a presentation of us and our mentor.

#### The execution

The interaction began with an introduction of all in attendance and continued on with a digital presentation held by us, which contained information about our approach, the master's program *Business and Design*, *Transformator Design*, the study and the expected deliverables (see appendix 2). After the presentation we made use of three tools, which are described in more detail below.

#### The Challenge Orientation Matrix tool

As the study focus and scope were still a bit unclear to us and we did not know if the participants had the same view of the focus, aim and objectives of the study, we generated a tool called *Challenge Orientation Matrix* (figure 8), with the purpose to reach consensus of one clear study challenge formulation. In addition, we wanted to communicate what we felt was reasonable to focus on in the context of this study.

When using the tool, the participants were encouraged to share their view on the aims of the study, write them down on Post-its, and place them out on the *Challenge Orientation Matrix* canvas. The result was an overview of everyone's expectations in relation to the matrix parameters – time and level of detail – which served as a basis for a group discussion of the study's possibilities and limitations. We experienced that the *Challenge Orientation Matrix* helped us to guide the client to a common challenge formulation, even though they

#### **Challenge Orientation**

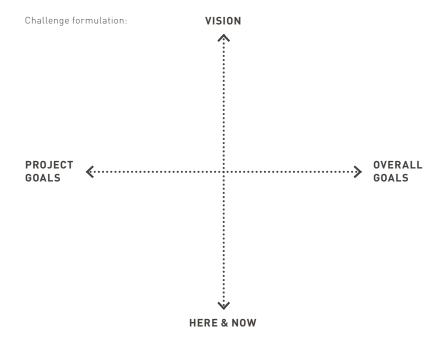


Figure 8: The Challenge Orientation tool.

wanted to add a second formulation. The agreed challenge formulation was: "How can we reach more families earlier in our efforts to prevent obesity for children?", and the second: "How can we, earlier, prevent more overweight children to develop obesity?"

#### The Pin-point-tool

At this early stage of the project we did not have extended knowledge of the overweight and obesity context and topic. Therefore we chose to use the *Pin-point* tool, which can be seen as a foundation for a *User Journey Map*, since we knew from previous experience that it is an effective way to invite participants to share their perspective and relevant knowledge in a structured way. The main aim was to generate a visual reflection of the participants' knowledge about the user's journey through the support today, and from that distinguish focus areas that could to be used for upcoming user interactions. Together with the client and Service Design experts at *Transformator Design* we had beforehand decided that the User Journey Map was going to be a general time-based journey for children between one to ten years old, with overweightness and obesity (see collage, p. 44).

The participants got to map out events, actors, channels, challenges, ideas, dreams and needs connected to the child throughout the journey with Post-its and interpret the result by identifying specific focus areas. The focus areas were then prioritized and written down on the side of the *Pin-point* canvas (figure 9).



Figure 9: The seven focus areas to focus on in the user interactions.

The completed *Pin-point* canvas revealed that a lot of emphasis was put on current challenges. The challenge Post-it notes were twice as many as the ones with ideas and dreams. Another thing that became clear was the high number of actors involved. Moreover, a clear predominance of Post-it notes were placed in the beginning of the journey, between the age one to five years old, before the child starts school.

#### The Expectations and Concerns tool

Since everyone have hopes and fears throughout a study, we knew based on our experience that it is easier to talk about and relate to them if they are brought to the surface. Additionally, as we believe transparency supports communication between the researcher and the client, we decided to use the *Expectations and Concerns* tool. This tool is a way to meta communicate and gain an understanding of what kind of outcome everyone in the group expects in order to perceive the study as successful in the end. The purpose was foremost to identify expectations and concerns, so that they could be taken into consideration in the further design of the study.

The tool was used during unstructured interactions over a cup of coffee, were we asked the participants what would need to happen for them to feel that the study was successful in the end. One of the participants wanted the result to be a published article in a medical journal, which led us to discuss our deliverables. One particular fear brought up by the participants was that we would not find anything new within this study. We could thus talk about expectations and what we believed we could help with, versus what would help the client in the best way. Furthermore, we had the opportunity to highlight our concern about the limited time the client had to engage in the study. The use of the Expectations and Concerns tool was particularly important because we were able to manage the client's expectations and form common and realistic expectations together. We agreed that a User Journey Map, with pain-points, gain-points, and user needs was a realistic delivery to anticipate.

#### The insights

Because the interaction was planned, facilitated, carried out, and evaluated by us, we believe that we gained a broader comprehension of the overweight and obesity context and its current actors, opportunities and restraints. However, the most important result was probably our experience that the client had gained confidence in us and a continued curiosity in the study.

#### The takeaways

What we primarily took with us from this interaction was the three individual take aways from the use of the tools: 1) the challenge formulations to guide as overall benchmarks throughout the study; 2) the seven focus areas to form the foundation of the user and actor interview questions, and; 3) the decided main deliverable to focus on going forward.

### **Client interaction 02**

- What does the child's network look like?

Date: 27 February, 2015 Method: Co-creation workshop Tools: Actors Map, Idea Prioritization Time: 2,5 h

**Location:** Growth Unit, Drottning Silvias Barnsjukhus **Participants:** Jovanna Dahlgren, professor and head of Child Obesity Centre, Drottning Silvias Barnsjukhus; Gerd Almquist-Tangen, senior researcher and child health coordinator at Region Halland.

#### The purpose

After the previous client interaction where we co-created the foundation for the User Journey Map through the Pin-Point tool, we found it hard to relate some actors to a specific age, since the

families do not connect to these actors by age but by health condi tion. From interviews, we also came to realize that there are many actors that influence and affect the families in the efforts to prevent and treat overweightness and obesity. The purpose with this interaction was thus to:

- Map out all actors that surround a child with overweight and obesity in the age between one to ten years old.
- Understand when and how the user get in contact with actors.
- Understand what happens in the interaction between the user and the actor: what information is given, what resources are available, how do follow-ups work, etc?
- Define the connections among the actors.
- Deepen our knowledge of the actor's specific challenges and benefits.
- Gather ideas from the client on how to solve today's challenges. Furthermore one internal aim was to inspire through the experience of co-creation. We hoped that they would get new insights and understandings from this way of working.

#### The preparations

We wanted to create a very visual map of all involved actors that could quickly be interpreted without reading. Therefore, we decided to cut out paper symbols in different colors to write on: pink hearts for advantages, grey thunderclouds for challenges and yellow light bulbs for ideas. We also cut out an icon of a child in blue to place in the middle. We decided to make use of storytelling and tell a story about a child with changing conditions from the first year until the child becomes ten. The storytelling was meant to encourage the client to 'put on the patient's glasses' and see different scenarios from the child's perspective. The day before we rehearsed the story together to assure that we would cover the main issues we wanted to investigate. While we practiced,

## Client interactions 02 / Co-creation workshop: What does the child's network look like?



27 February, 2015: Co-creation workshop including the Actors Map and Idea Prioritization tools.

we did sketches that led to a mockup of a possible outcome. This prototype felt convenient to have as a support during the actual interaction. In addition, we produced the *Idea Prioritization* tool.

#### The execution

In order to reach our purposes we decided to use the two tools Actors Map and Idea Prioritization. We will further explain how we used these tools.

#### Actors Map

The first appearance of the Actors Map tool was presented in the design paper Design Inquiries at the Nordes 07 Conference in 2007 (Morelli and Tollestrup, 2007). The tool is a graph representing a system of actors and their mutual relations. It provides a systemic view of the service and its context. By the use of the Actors Map we could involve and engage the client in mapping out the network surrounding the child. It felt important to deepen our knowledge while the client would experience the co-creation as valuable from their perspective.

After a brief introduction we described the tool, why we chose it, its purpose, and our desired outcome. We began to tell the story about the child and mapped out actors, advantages, challenges and ideas alternately. The participants' narration very much steered the flow. We did, however, help by asking a lot of questions. When the Actors Map canvas was fully covered (see collage, p. 48) we asked the client to interpret the result and formulate it into insights. The final six insights were:

- All information to patients is based on writing in Swedish.
- Advice is based on individual experiences and knowledge.
- An understanding of the child's perspective is missing.
- There is no organized coordination among actors.
- Several parallel systems no coherent medical record.
- Low level of knowledge among many of the actors.

#### **Idea Prioritization**

We knew from the last interaction that the client had a lot of ideas, and because the participant Gerd Almquist-Tangen has done research in the field for several years, we wanted to take the opportunity to collect her ideas. The *Idea Prioritization* tool was utilized as a continuation of the generation of ideas that occurred in the use of the Actors Map tool. We got inspiration for the tool from the interview with Niklas Holm, a service designer at *Transformator Design*.

As we had understood that resources are a major challenge in public healthcare, we decided to evaluate the ideas based on the amount of resources they required. For the second parameter, we decided to prioritize the benefit for the user. Because our work derives from a user perspective, it felt important to include this parameter. As it stands today, many ideas are implemented based on what is feasible from an organizational perspective, and we wanted with this parameter to trigger a reverse perspective.

Because we used this tool right after completing the Actors *Map*, the participants were already in full swing and they themselves took the initiative to place out all the previously generated idea-bulbs on the *Idea Prioritization* matrix. The result was a visual overview of all the generated ideas prioritized in relation to each other. One could easily see that a lot of ideas could be implemented with relatively few resources and with great benefit for the user (figure 10).

#### **Idea Prioritazion**

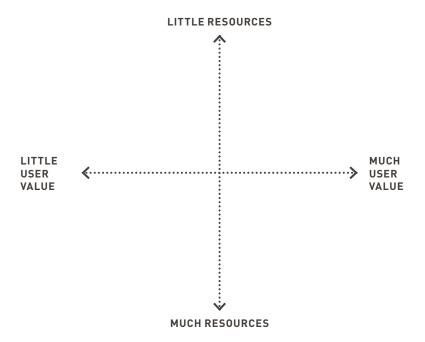


Figure 10: The Idea Prioritization tool.

#### Insights

We believe that we deepened our knowledge and got a better understanding of the the various actors involved in the support and treatment of overweight and obesity among children. We were able to engage the client in a good way since the interaction was supposed to run for one hour but lasted for more than two. However, we do not know if we really provided them with new perspectives or new insights. Other insights gained:

- Starting by telling a story is a good way to engage participants.
- Using symbols with different colors generates a clear visual image.
- The Idea Prioritization tool gave input to which ideas to focus on.

#### Take aways

From this interaction we got an idea of what the client thought was valuable to the user, which felt interesting to investigate if it was consistent with the user's perception. We brought with us inspiration for focus areas and trigger material for the upcoming interactions with the user. Both the six insights as well as the generated ideas we planned to explore further in these interactions.

#### Actor interactions

- What are the experiences of the actors?

Date: 15 February – 10 March, 2015
Methods: Semi-structured interviews and conversations
Tool: Interview guide with focus areas
Time: Approximately 1,5 h for each interview, around 16,5 h in total
Location: In person, in social settings and at workplaces
Participants: Eleven actors with experience of overweight and obese children from their work

#### The purpose

From what we could conclude from the interactions with the client, a child with overweightness and obesity problems is surrounded by a network of different actors. Apart from healthcare providers there are, for example, preschools and schools that have a great influence on a child's everyday life. Therefore, while waiting for users to respond to our interview invitations, we decided to talk with the actors surrounding the child. The purpose for the interactions were the following:

- Understand the actors' different roles and how they relate to the patient.
- Understand the actors' benefits and challenges.
- Understand the actors' connections to each other.
- Trigger different solutions.
- Deepen our understanding of the actors' needs for services and information.
- Take advantage of the knowledge and experience of people working with this type of problematic on a regular basis.

#### The preparations

We had both informal and formal meetings with the actors. The informal meetings included the professionals we met throughout our work process, such as in workshops and client interactions. In these interactions the interviews were open-ended while in the formal interviews we had a semi-structured question guide (see appendix 3). Disregard if the interviews were formal or informal we used the previous focus areas that emerged during the first Client Interaction to help us not to lose track.

#### The execution

#### Interviews

Based on earlier co-creation workshops with the client we knew who the actors were that surrounded the child. Therefore, we began to reach out to representatives of each actor through the client as well as our own network of contacts. Everyone that we approached were positive to meet with us and they gladly shared their experiences. Some of the interactions took place in social settings, such as over a cup of coffee. Two of the interactions did, however, take place at the respondents' workplaces – an elementary school in Hisingen (Gothenburg), where we met with a school nurse, respectively a kindergarten in Majorna (Gothenburg), where we met with a preschool teacher. Interviews were also held during workshops together with the client. At the interviews we made sure that one of us took notes and the other kept track and asked questions.

#### Analysis

Right after the interactions we – Karin and Lydia – made instant analyses, the so called Top of Mind. By retelling what we had heard and the gist of the meeting, we wrote down (and sometimes made sketches) of our insights, short facts, metaphors and statements on Post-its. We aimed to keep the analysis on a conceptual level in order to get a sense of the different but also common behaviours and needs, challenges, and possibilities. This was a way for us to make sure that we did not lose important information on the way. We placed all Post-its on paper sheets to get a good overview of all insights. The quotes, short facts, metaphors and statements were clustered to reach a deeper understanding and underlying meaning, in the analytical method called Affinity Diagram.

#### The take aways

Overall we were glad that we chose to do the interactions with actors in the child's network. We got a further and much deeper understanding of the whole context that we would not have experienced without these meetings. The expertise, knowledge and experience of the actors made us understand the phenomena in more detail and we got more of an organisational perspective on the problematic. Later in the study, after interacting with the users we could observe that the issues and challenges experienced by the actors were what generated the challenges that the user perceived.

## User interactions 01 / Interviews: What are the experiences of the user?



4 February - 17 March, 2015: Semi-structured interviews using an interview guide with focus areas.

### **User interactions 01**

- What are the experiences of the user?

Date: 24 February – 17 March, 2015 Method: Semi-structured interviews

Tool: Interview guide with focus areas

**Time:** Approximately 1 h for each interview, around 11,5 h in total **Location:** Interviews were conducted face-to-face or over telephone **Participants:** Ten parents to children, 1–10 years old, from different places across Sweden

#### The purpose

The commencing interviews were mainly done in order to get a deeper understanding of the users related to a variety of concerns. The interviews had the following purposes:

- Understand the user's journey on both a detailed as well as emotional level, in order to get a better insight into their pain points (challenges) and gain points (opportunities).
- Deeper understand the user needs in order to have a basis for different user need groups.
- Understand their experience from the support.
- Understand the child's context and network, and the importance of those.
- Understand success and motivational factors.
- Understand the cause of the problem.
- Start to trigger different solution proposals.

#### The preparations

We prepared the interviews with an interview guide, containing semi-structured questions (see appendix 4). We used the previous focus areas that emerged during the first client interaction in the creation of the interview guide. The focus areas were made as a support to the semi-structured format of the questions and helped us not to lose track while doing the interviews.

#### The execution

#### Interviews

The interviews were mainly done through telephone as the users were spread out across Sweden and we were not able to meet them all. However, we managed during this phase to meet in person with two of the users that lived in Stockholm.

We started all of the interviews by asking how the situation of the user looked today. Then, the respondent, more or less freely – we just made sure they were keeping to the focus areas – talked about their experiences, feelings, and thoughts. We made sure that one of us always took notes while the other kept the interview going. The interviews did not have a specific ending time but were ended when we and the respondent felt that they had said everything they needed and covered the different focus areas and questions. Before ending we did also summarize the things we had understood in order to let the user think and reflect on the things they had been sharing, and we asked if they wanted to add anything. This led to, in almost all of the interviews, a point when the respondent came to some sort of realization, which made them want to share additional and important input.

#### Instant analysis

Right after a finished interview we made the same type of instant analysis as after the actors interviews – the Top of Mind analysis. Together, we wrote down on Post-its the gist of what we heard and noted. We did this through quotes, short facts, metaphors and statements. It was an initial analysis of the experiences and information from the users that we aimed to keep on a conceptual level in order to get a sense of the different, but also common, behaviours and needs, challenges and possibilities. It also ensured that we did not lose important information on the way. The Post-its were placed on blank sheets of paper to give a complete picture of all the insights and to be saved before the final analysis.

#### **Final analysis**

Over the course of three days we did the final analysis to get a fuller understanding of the interviews. We used the analysis method called *Affinity Diagram*, which was also used when analysing the actor interviews. The analysis was based on the Post-its from the *Top of Mind* method, containing the quotes, short facts and statements. The Post-its were clustered and defined with meaning, which led to eleven main insights based on the user's behaviours, experiences and needs. The analysis of clustering and understanding the underlying meaning in quotes and facts were made with great rigour. As the data was so extensive, with approximately twelve hours of conversation time, it was a complex and time consuming act, which demanded three days of intense analyzing. We started also to do a *User Journey Map* in order to analyse the steps and phases of the users' experiences of the support.

#### The insights

The response regarding the study was overall positive. All users were glad that we were addressing these issues by taking on their perspective, asking of their experiences of the support and listening to their challenges and comments. The interviews became in most cases much longer than we had planned and expected. This indicates that we conducted the interviews in an open and empathic way, where we encouraged the users to tell their story from their own perspective.

We understood quite quickly that the obesity problematic is more than a food and exercise issue, and heard repeatedly statements like "I know what you should eat, but not how we can begin to change our lifestyle." As mentioned earlier we were able to distinguish eleven main insights from the *Affinity Diagram* analysis method. These were matched to the User Journey Map we were starting to construct. We developed the User Journey Map based on phases and not on the child's age. We did this as we were able to conclude from the interviews that the journey involves many different actors, at various occasions, which most of the time but not always, is based on the child's age. Despite the various connections with different actors we were able to distinguish a pattern in how the user went through the same emotional phases – from the time their child begins to gain weight until they actively start to manage the problematic. In detail the journey included the phases of:

- Awareness: The parent gets an awareness of their child's obesity issues, either from care providers or on their own.
- **Reception:** How the concern of the parent is met and how the caregivers respond to the concerns and problematics.
- **Understanding:** When the parent gets an understanding for the problem and causes.
- **Execution:** The family has to take action and fulfill an execution plan to deal with the problematics.

The insights that we then matched to the different phases were the following:

#### Awareness

• How one is notified is crucial for the continuing journey.

#### Reception

- Overweight among children is often experienced as being neglected or overlooked.
- Great responsibility is placed on the parents.
- The support for obesity is fragmented.

#### Understanding

- The advice is arbitrary.
- The advice and material is general.
- The support is dehumanized.

#### Execution

- Parents often know what to do, but not how to do it.
- The support is based on what is available, not on what you need.
- The availability of support varies depending on where you live.
- The information for overweightness and obesity are divided.

#### The take aways

The empathic and open structure of the questions, along with the focus areas, worked very well with our purpose to get a deep understanding of the experiences and situation of the user.

The analysis method Top of Mind turned out well. Using the method we were able to synthesize as time went along, which meant that we were not only able to grasp all the important information, but also grow our knowledge as time passed by. Thus we could build on our insights at following interviews.

We brought with us the insights and User Journey Map into the next phase to be further defined and redefined.

## 4.3 Define

The define phase is the point in the overall process where ideas begin to take shape. After we had collected the data during the previous phase, we began to process and analyze it in order to narrow down the insights and establish the study's main challenges, the ideation, confirmation, and initial refinement.

First thing, the information we collected and analyzed in the discovery phase in order to identify problem areas, needs and new service ideas, was communicated, co-created, and refined in a third client interaction. The outcome from the co-creation session formed the foundation for the following interactions with the users. The aim for these interactions was to trigger ideas, test hypotheses and deepen our knowledge of the user's behavior, experience and needs. The coming section describes both the interaction with the client as well as with the users.

## **Client interaction 03**

- What direction should we take?

Date: 25 March, 2015

Method: Co-creation workshop

**Tools:** Summarized and packaged insights, *Study Direction* **Time:** 2,5 h

Location: Transformator Design, Götgatan 19, Stockholm Participants: Jovanna Dahlgren, professor and head of Child Obesity Centre, Drottning Silvias Barnsjukhus; Annika Janson, PhD pediatrician and head of National Pediatric Obesity Centre, Astrid Lindgrens Barnsjukhus; Gerd Almquist-Tangen, senior researcher and child health coordinator at Region Halland; Erik Widmark, senior service designer at Transformator Design.

#### The purpose

Study halftime. After the first period of interactions with actors and users were done, yet another interaction was held with the client in the end of March. In addition to our internal goals to maintain the client's interest in the study, and to convey an understanding of the type of delivery to expect, the purpose was to:

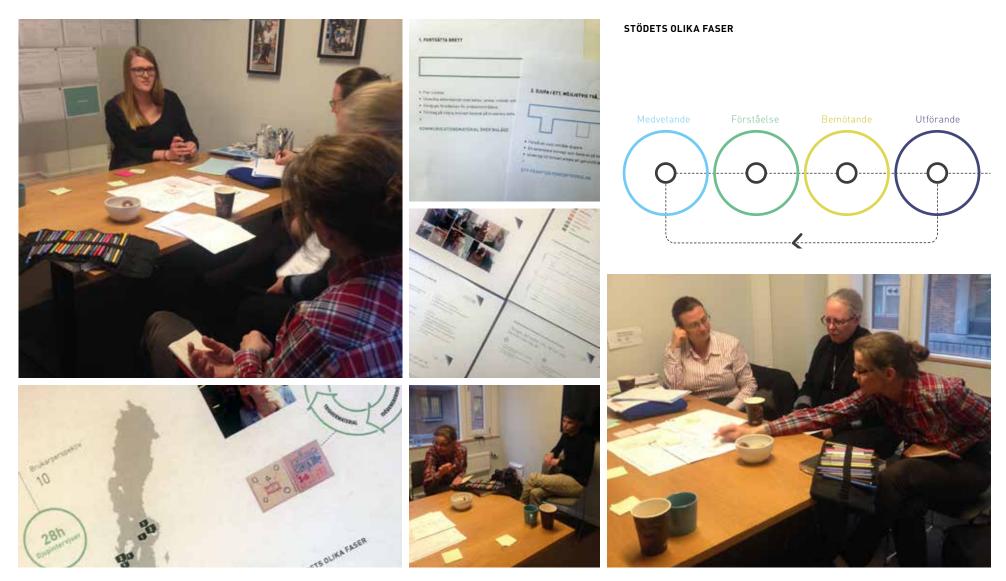
- Present the main insights.
- Invite the client into the process by letting them interact with the material.
- Calibrate the focus of the study.

#### The preparations

Five invitations were sent out two weeks in advance with assistance from Jovanna Dahlgren. In the end three people from the reference group were able to attend: Jovanna Dahlgren, Gerd Almquist-Tangen and Annika Janson. In addition to us, our mentor Erik Widmark from *Transformator Design* also took part.

We prepared a presentation (see appendix 5) and material in line with the purposes that we had decided on.

## Client interactions 03 / Co-creation workshop: What direction should we take?



25 March, 2015: Co-creation workshop including printout of our summarized and packaged insights and study direction-figures.

#### The execution

Since we wanted the client to feel part of the process and dare to interact, comment, and co-create the material, we decided not to run a digital presentation but to print all the presentation slides and put them up on the wall. In this way everyone got a good overview of the material and it became more accessible to write comments and put Post-its on. The distance to the material presented, we believe, is reduced in this way – an effect that is also consistent with our approach to be open and transparent all the way through the process. The interaction was divided into two separate parts: 1) the presentation part, and 2) the co-creation part, where we made use of the Study Direction tool.

#### The presentation

We repeated the study challenge formulations and visualized the action research approach that we have adopted together with pictures from the study. We continued to explain what we had done since the last time we met, our challenges, and our way to overcome them. Further we explained how we went about analysing the collected data to come up with the main insights. The digitized actor's map was introduced. We explaned the challenges with creating a User Journey Map connected to time in this particular case because obesity does not occur at a specific time in a child's life, but can occur at any time throughout life. Thus we proposed, a User Journey Map divided into phases, and presented a prototype with suggestions of phases. The client got to interact with the prototype and the names of the phases were discussed and adjusted. The insights were presented using quotations and bullets to summarize the problems on one side and the user's needs on the other, then followed with a group discussion concerning all insights.

#### The Study Direction-tool

In the second and final part of the meeting two models were presented that illustrated two different directions the study could take: a broad and holistic or a narrower with more delving into one, or two, solution concepts (see collage, p. 56). After a discussion of what the different directions meant and what they could result in, it was decided that Model 1 was the one that seemed most relevant to the study. From our previous experience and the collective experience of the employees at *Transformator Design*, specific solutions are often tied to time and context as opposed to general needs and deeper understanding of the problem areas, which tend to remain stable over longer periods.

#### The insights

Two things came up during the interaction that we needed to take into account. The first was responsibility: "At what level and on whom lies the responsibility to prevent obesity?" The second was: "How can the client continue to work in a user-centered way?" We then asked ourselves if the latter was something that we should included in the delivery.

Our main insights that we presented were a bit messy and several were repeated, we wondered if it had made a difference if we would have had time to work through the material more. However, there was continued interest from the client, and a new appointment was booked.

#### The takeaways

We took with us a clear study direction, together with an agreement to meet again on the 21st of April. Until then, we were to make (preferably) ten interactions with users, review insights, and develop the Actor's Map. Even though more interactions could have been done with actors, we found that most valuable for the study was to focus on the user perspective because it is this perspective that is missing.

Moreover, it was decided that the final outcome would be communication material, which could be used to forward the results of the study in a self-propelled way. The main target group was defined as decision-makers in healthcare and politics.

#### **User interactions 02**

- How can we deepen our knowledge about the user?

Date: 1-17 April, 2015

Method: Semi-structured interviews

Tools: Interview guide with focus areas and trigger material Time: Approximately 1 h for each interview, 12,5 h in total Location: Interviews were conducted face-to-face or over telephone Participants: Eleven parents to children, 1-10 years old, from different places across Sweden

#### The purpose

The overall purpose with the user interviews in Loop 2 was to dig deeper into the things we found in the earlier phases. The interviews had the following purposes:

• Deepen the understanding of the user's journey, mainly on an emotional level to get better insight into today's pain points and gain points.

- Trigger solution propositions.
- Deepen the understanding of the user needs in order to be able to develop user need groups.

#### The preparations

For the interviews we prepared an interview guide containing semi-structured questions (see appendix 6). We also specified important areas that we wanted to focus on. They were the following:

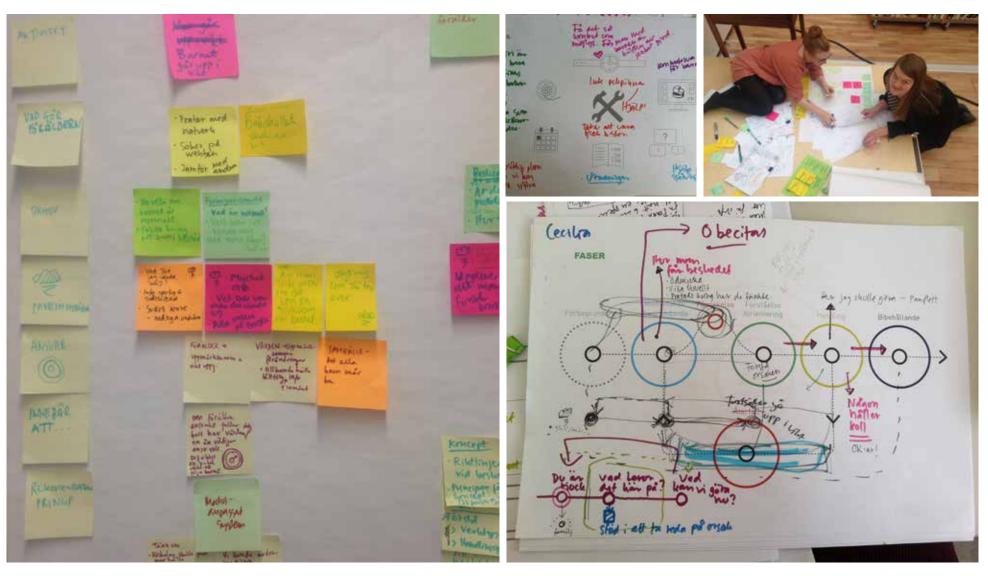
- The process of support the family has experienced so far and the current state.
- Experiences in the various phases (challenges/good moments).
- Expectations in the various phases (support/help, treatment).
- Needs in the various phases (responsibility; family, healthcare, society).
- Actors involved in the various phases experiences (challenges/ good moments).
- Possible Solutions/Concepts/What if... in the various phases.

In the interviews we also included trigger material (or paper prototypes). These were also prepared in advance and were based on the previous interviews that we had conducted in Loop 1. The triggers aimed at communicating a rough idea of the possible solutions and future scenarios to stimulate discussion and trigger the development of new ideas together. They also helped us to quickly find out if the ideas and concepts were desirable or not, and why.

#### The execution

The interviews could be seen as an iterative process where we went between talking with the users and developing the User Journey Map, user need groups, and concepts simultaneously.

## User interactions 02 / Interviews: How can we deepen our knowledge about the user?



1-17 April, 2015: Semi-structured interviews using an interview guide with focus areas and trigger material. Parallel analysis building the User Journey Map.

#### Interviews

As we both talked to users that we had interviewed before and users that were new to the study, we initiated the interviews a bit differently than in the past. In the interviews with the same respondents as before, we presented what we had concluded from the Loop 1. In the interviews with the new respondents we started by asking an open question, such as, "how does your situation look like at the moment?" This was done in order to set a foundation for further conversation.

After this initial phase of the interview, we started to use the triggers for the rest of the conversation. In some cases the triggers guided our questions to the user, but in others they were brought up naturally in the conversation. The triggers included the phases and different concepts. When doing the interviews in person, the respondent could add and make their own drawings on top of the trigger material, which were in paper format. With the interviews that were done through telephone, the triggers were displayed on the respondent's computer or smartphone, and while they were looking and commenting we made drawings and took notes on the trigger material (see collage, p. 59).

Each interviews lasted until we felt that we had covered all important aspects and focus areas and when the respondent felt that they had said everything they wanted. Most interviews were about an hour, but it varied based on whether it was a user we had talked to before or not. Interviews with the new respondent were at times almost two hours long, while with the previous interviewed users it would last for about 30–40 minutes.

#### User journey analysis

From the interviews we started to build the User Journey Map. This was a process that lasted throughout the whole period while we were conducting interviews, and also a week after the last interview was done. In the beginning we only had the four different phases of the user's journey, but as time went by we could extend and deepen our knowledge in these phases by putting out important activities, pain points and gain points. From the first few interviews we collected the input and then started to create an analog version of the journey on the wall of our studio, where we added the insights after each interview. The information was divided in seven categories that matched to the different phases. The categories were: activity, what does the user do, needs, challenges (painpoints), responsibility, means, and recommendations. This gave us a good overview of the User Journey Map and the different types of insights that had come out from the interviews. The analog format of the journey allowed us to be agile and iterate through interviews, analysis and reflection. In the same way as before we were able to build on our insights from one interview to the next, in order to refine the User Journey Map and our insights and knowledge.

#### The insights

The analysis and the making of the User Journey Map was a long process that took a lot of time and needed great reflection and consideration. We concluded the interviews with five main insights:

- The overall perspective of the user's journey is lost.
- Obesity is not taken fully seriously.
- The support is based on what is available, not what the user need.
- The information on overweightness and obesity is fragmented.
- There is a lack of collaboration among the actors around the child.

As mentioned earlier, in our User Journey Map analysis we also had different categories. One of these was recommendations, which derived from the different phases and the different challenges and opportunities that were found in those phases. From the recommendations together with the compilation of the main insights and the trigger material we were able to conclude five from-to scenarios or 'movements' as we also call them and five principles. They are the following:

#### Movements

- From lost to oriented.
- From remote support, first at obesity to distributed resources from the start.
- From generalized tools to personalized tools.
- From vague and scattered information to comprehensive and reliable. information.
- From isolated actors into a network.

#### Principles

- Guide the user through the whole journey.
- Meet up with resources earlier.
- Match tool with needs.
- Provide updated evidence-based information.
- Enable collaboration between all stakeholders.

We were also able to start defining different user need groups. These were based upon the level of support that the user needs in the action phase, which is where we observed the most variety in needs. We defined groups of: user that can make it on their own, user in need of a little help, and user in need of a lot of support. There are five levels that build on the user need groups, these are based on the main insights.

#### The takeaways

All the findings and insights were to be brought to the next meeting with the client. We were then to continue refining the user need groups. The movements and principles were to be put together in order to illustrate future scenarios.

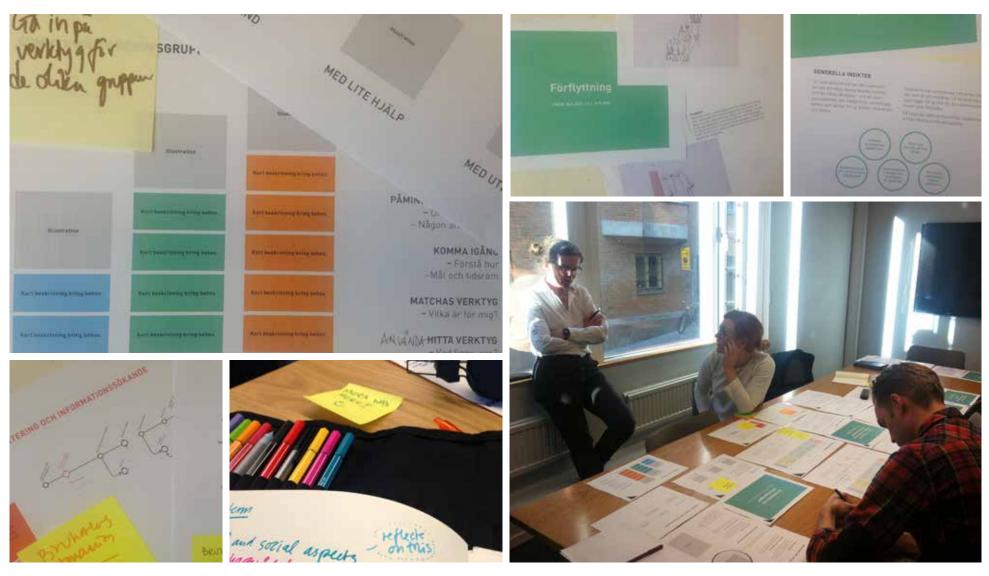
The User Journey Map that we developed will be one of the cornerstones in our final outcome. It was an interesting process of how we reached to the final journey – the iterative way that we went about it, back and forth between interviews – and the use of phases was something that we brought with us.

## 4.4 Develop

In the development phase it is time to open up again and explore further. This is where you design and test potential solutions, which deepens the knowledge and understanding of the user. The iterative trial-and-error process helps to improve and refine ideas.

After we conducted the second loop of interactions with the user, and analysed the collected data, we held a fourth client interaction where a User Journey Map, with identified challenges and user needs, was communicated together with overall insights, User Need Groups and five proposed movements to meet the needs of users in the future. The following section depicts this client interaction: its purpose, preparation, execution and outcome.

## Client interactions 04 / Co-creation workshop: Are we on the right track?



21 April, 2015: Co-creation workshop including printout of our summarized and packaged result.

### **Client interaction 04**

- Are we on the right track?

Date: 21 April, 2015 Method: Co-creation workshop Tools: Printout of our summarized and packaged result Time: 2 h

Location: Transformator Design, Götgatan 19, Stockholm Participants: Jovanna Dahlgren, professor and head of Child Obesity Centre, Drottning Silvias Barnsjukhus; Annika Janson, PhD pediatrician and head of National Pediatric Obesity Centre, Astrid Lindgrens Barnsjukhus; Gerd Almquist-Tangen, senior researcher and child health coordinator at Region Halland; Erik Widmark, senior service designer at Transformator Design.

#### The purpose

The study had started to come to an end, therefore the overall purpose of this interaction was to convey our results and let the client interact and calibrate the material to make the most relevant and useful delivery possible. We had also started to package the outcome, the communication material, and therefore we wanted to have feedback on the layout: "Was it understandable and essential? Was something missing?" Moreover we wanted to plan the continuation of the study.

#### The preparations

As the meeting had been booked at the last interaction we already knew that at least three people would attend. However, five more invitations were sent out. We packaged our result (see appendix 7), printed it out, and placed it all on the conference table for a comprehensive overview.

#### The execution

We went through all the pages of the material from beginning to end, starting with the main insights, the User Journey Map with pain points and user needs, future concepts, the requisite groups and the proposed five movements. The User Journey Map and its various steps was the most discussed because it is a central part of the final result, and therefore needs to be logical and easy to understand. Much time was also devoted to the requisite groups and the way that they should be understood and interpreted. During the discussions, Post-it notes were written continuously and placed on the printed pages to facilitate the subsequent adjustment of the material.

The client wanted to exclude the proposed concepts from the the delivery and instead add a future scenario series to illustrate the essence of the study's result and a vision based on user needs.

## "BY UNDERSTANDING THE PATIENT BASED ON THEIR MOTIVATIONAL FACTORS I'VE BEEN ABLE TO BETTER UNDERSTAND THE PATIENTS WHICH I'VE HAD DIFFICULTIES HELPING BEFORE."

Client about the the phases of the User Journey Map.

#### The insights

As we had understood earlier, the analog material facilitated the client to interact. We also realized that a material that does not feel too "complete" encourages the client to dare to adjust and comment.

We did also understand from the interaction and the client's reaction that some of the insights that we communicated were new to them, in the sense that it gave them a new perspective of the user and their experiences.

#### The take aways

What we mainly took with us were all the pages with Post-it comments, gathered from both the client as well as from our mentor. We experienced a continued interest in the study and we jointly decided to hold a presentation for decision-makers within healthcare and politics, on the 17th of June, at the office at *Transformator Design* in Stockholm.

## 4.5 Deliver

The delivery phase is yet to come, since it is going to take place outside the time frame of this thesis, and be implemented later in June. However, we thought that it was important to describe what we are going to do in order to communicate a full understanding of the study, and highlight that all the phases are equally important. The delivery phase is especially important in order for the findings of the study to be communicated to involved actors and stakeholders, and implemented in the organisations that takes part. In the following section we will describe an interaction including various stakeholders that will take place after the completion of the thesis and will conclude the study.

### Actor interaction 02

- How can we communicate the study and pass on the ownership?

#### Date: 17 April, 2015

**Method:** Insight mediation and co-creation workshop **Tools:** Digital presentation, ideation canvas, communication material booklet

#### **Time:** 2 h

**Location:** Studio at *Transformator Design*, Götgatan 19, Stockholm **Participants:** Jovanna Dahlgren, professor and head of Child Obesity Centre, Drottning Silvias Barnsjukhus; Annika Janson, PhD pediatrician and head of National Pediatric Obesity Centre, Astrid Lindgrens Barnsjukhus; Erik Widmark, senior service designer at *Transformator Design* and decision makers within healthcare and politicians with mandate to make decisions within the field.

#### The purpose

Studies like ours are at the risk of facing the so called 'project death.' Most of the development effort through user-centered systems exists during a period known as a project that rarely reaches the full maturation and establishment of an ordinary activity (Norén, 2015). One of the reasons for this, according to Norén, is that these development efforts do not obtain full autonomy in relation to the established healthcare systems and that they focus on individual efforts instead of complete results.

It has been important for us not to fall into this trap of the project death. Not only has it been important how we have handled the process in collaborating with our clients and users, but it is also important how we choose to finish the study and shape the delivery phase. Apart from compiling all the information in a comprehensive and visual way and giving over all the ownership to the client, we will also put effort in what we call a stakeholder interaction. The stakeholder interaction will take place on the 17th of June at the office of *Transformator Design*. We will bring together stakeholders that have power of decision-making and an interest in the healthcare support for overweight and obese children between one to ten years old. It is important that our client has ownership of the study and therefore of the result, but also that it is communicated and shared with other stakeholders. We believe that if we are able to reach this goal, it is more likely that our study and its findings will have an effect on future political decisions and management within healthcare.

#### The preparations

We will invite people that we and our client think are important for the afterlife of the study: decision-makers in obese pediatric healthcare, and other stakeholders that could contribute to a national holistic approach of the support based on user-centered systems.

#### The execution

The interaction will include a talk and a workshop. In the talk we and our client will describe the study, its purpose, execution and outcome. Also, with our mentor at *Transformator Design*, Erik Widmark, we will explain the practice and theory of Service Design.

We want in the workshop to let the participants ideate on the pain-points identified in the User Journey Map and come up with concrete solutions on how the proposed shift can take place. In addition we want to raise a discussion of how the stakeholders can start, or continue, to work in a user-centered way in their day-to-day activities, and how that can direct their activities, what actions they can take and who is responsible of what.

A brochure that summarizes our study will be available for everyone to take with them. The workshop will also be summarized and communicated to all participants, together with the action plan they create. There are also plans for a smaller presentation tour around Sweden where we get the opportunity to spread the outcome of the study.



# **CHAPTER 5: The outcome**

## 5.1 Two levels of outcome

During our four-month study, our client has been involved from the start. We have had a close cooperation with regular meetings where we have transferred insights, from both actors and users, co-created material and calibrated the study together. We thus see that the outcome has been built up continuously and that the study has delivered parts of the result throughout the whole process that has led to the final outcome. We have divided the final outcome into two different levels: the tangible and the intangible.

The tangible outcome consists of the concrete deliverables, several of which were included in the planning from the beginning, such as the main insights and the User Journey Map. The tangible outcome may be referred to as objects, independent of physical persons, which can be copied and shared. In contrast to the tangible outcome, the intangible outcome is embodied in relations and people, and therefore it is less specific and harder to capture.

This chapter aims to summarize and categorize the findings and insights that were gained in the study (chapter 4) by putting it in the context of the two levels of outcome. We will in the following section further describe these outcomes.

### 5.1.1. Tangible outcome

The tangible result mainly consists of the communication material that we decided, together with the client, to deliver in the end. Besides it includes a presentation with associated workshop and a future scenario. The different parts are described in more detail below.

### **Communication material**

The communication material is an aggregated conclusion of the study's findings intended for all who somehow come in contact with overweight and obese children through their work, but mainly to policy makers in healthcare and politicians with the power to make decisions that may affect the support for families with overweight or obese children in the long-term. The communication material consists of several parts; main insights, a User Journey Map, User Need Groups and a proposed movement with succeeding design principles.

#### Main insights

The five main insights are those that emerged after the final analysis of all user interactions. They have also been reviewed and slightly adjusted together with the client to be as clear and communicative as possible. The main insights are presented as statements that summarize the users' cumulative perceptions, in order to facilitate the understanding of the user perspective (see next page). To emphasize and make the statements credible, they are presented together with carefully selected quotations and bullet lists of the user's challenges and needs connected to the insight.

THE OVERALL PERSPECTIVE IS MISSING.	OBESITY IS NOT TAKEN SERIOUSLY.	THE SUPPORT IS BASED ON WHAT IS AVAILABLE, NOT ON WHAT IS NEEDED.
THE INFORMATION IN OVERWEIGHT AND OBESITY IS FRAGMENTED.	THE SUPPORT LACKS COLLABORATION BETWEEN ACTORS.	

#### User Journey Map

The User Journey Map is one of the components that was included from the beginning as part of the delivery. It was built up through the process as we deepened our knowledge and understanding of the user. The different phases of the journey and its activity-points evolved both from the user interactions as well as through interactions with the client. The User Journey Map gives a comprehensive view of the user's challenges and needs, from when a parent is notified of their child's overweightness or obesity until the actions start to be performed (see next page). The graphical representation of the journey can not only aid in understanding a user's entire process from beginning to end, but also where the user encounters challenges and why.

#### **User Need Groups**

The User Need Groups are closely linked to the User Journey Map. They were also included as part of the proposed delivery from the start. In parallel with the user interactions, we created various mockups of the User Need Groups that we used as hypotheses, which we constantly tried to prove. In the end, three User Need Groupswere defined (see p. 71), which differ depending on how much external support and assistance they need throughout the action phase related to the User Journey Map. The user needs groups is a tool that facilitates the understanding of various needs, and what is required to meet these during a user's journey through a service, or as in this case a support system.

#### Proposed movements and design principles

Based on the main insights and the knowledge and understanding that the User Journey Map generated, we have proposed five movements that could improve the support for families with overweight or obese children. The movements are followed by design principles, which together serve as a guide towards an understanding of what needs to be done in order to enhance the user experience (see p. 72–73). Moreover, a text of what the design principle means and what it takes for the movement to become reality is presented in the communication material.

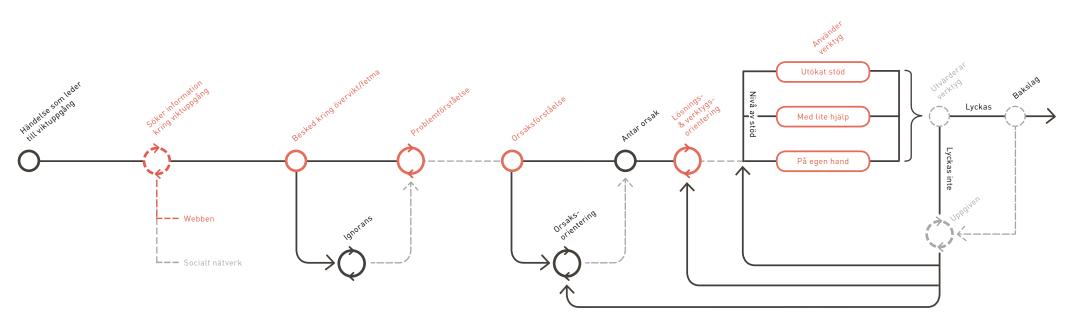
### Presentation and action plan workshop

A presentation with an overview of the study and its findings, together with a workshop, are part of the delivery. We want to communicate our study, and the insights we have acquired, to as many people as possible in order to increase opportunities for continuation. We believe that printed communication material is enhanced by verbal communication that takes place when people actually meet in person and conversations can occur, and questions can be asked.

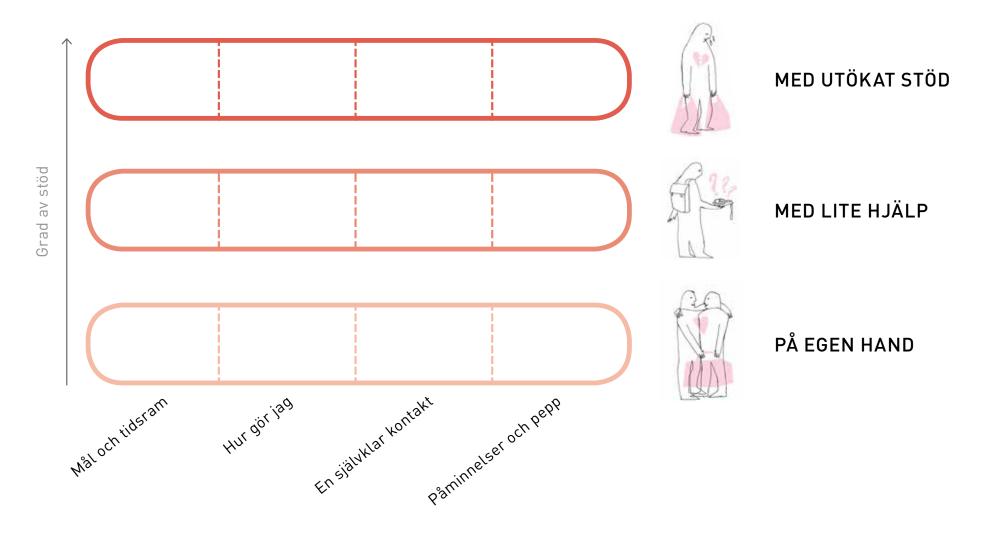
The presentation is followed by a workshop that aims to engage participants in generating ideas on how the proposed movement can be done, prioritizing these ideas, and defining how, when and by whom they will happen. The outcome of the workshop will be an action plan that will be shared with everyone who were involved. It is hoped that this may serve as a starting point for further work to improve the support for families with overweight and obese children.

## The User Journey Map: A graphical visualisation

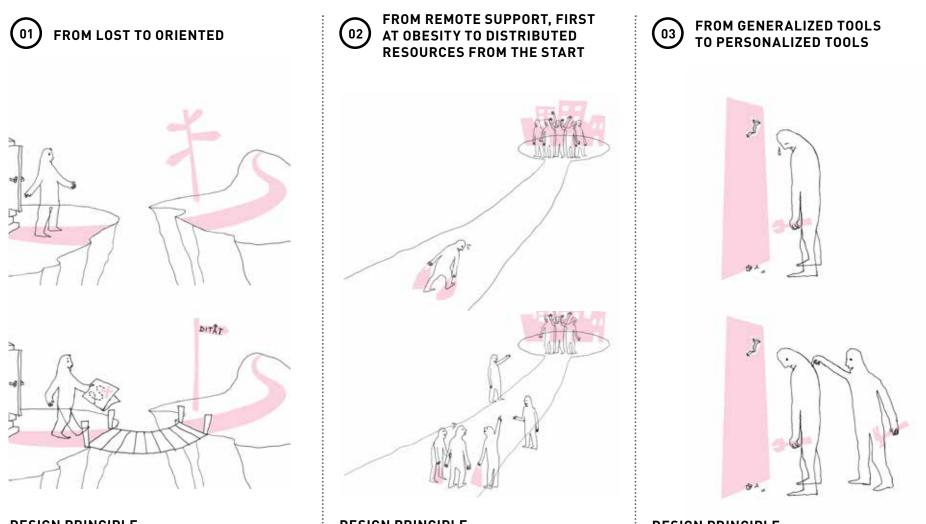




## The user need groups: On their own, with little help and in need of a lot of support



## **Proposed movement: With following design principles**



**DESIGN PRINCIPLE** Guide through the whole process

**DESIGN PRINCIPLE** Provide resources earlier

**DESIGN PRINCIPLE** Match the support with the needs

## Proposed movement: With following design principles



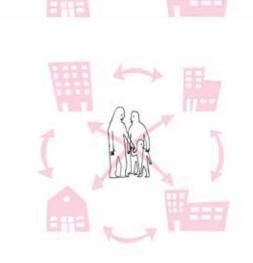
### FROM VAGUE AND SCATTERED INFORMATION TO COMPREHENSIVE AND RELIABLE INFORMATION





**DESIGN PRINCIPLE** Share existing knowledge

# 05 FROM ISOLATED ACTORS INTO A NETWORK



**DESIGN PRINCIPLE** Enable collaboration between actors

### **Future scenario**

A future scenario in the form of an illustrated action sequence intends to clarify our findings from the study and serve as inspiration. The future scenario is based on insights from both the actor interactions as well as the user interactions. Our hope is that the sequence will be printed and distributed to politicians, decision-makers in healthcare, healthcare units, and other actors who come into contact with overweight and obese children. There is no image of the scenario included here, because at the date when this thesis was submitted, it was not yet produced.

### 5.1.2. Intangible outcome

The study did not only produce a tangible result, but also an intangible outcome that was built up throughout the process. The intangible outcome is divided into mindset, cooperation and user knowledge. The following text describes the different parts more in detail.

### Mindset

As described earlier, the client wanted to operate in a more user-centered way, but did not know how. By involving the client throughout the entire process they have been provided with a new and changed mindset – and the how. This change in mindset, together with the practical experience of participating in the project, enhances the possibilities for the client to continue working with a user-centered approach. It also creates the opportunity for spreading this way of thinking further within as well as outside the organization.

### User knowledge

The client has extensive knowledge and experience of overweightness and obesity in pediatric patients due to several years of practical work and research. The study has, however, provided a deeper understanding of the user through regular insight mediation, where we have operated as a link between the user and the client. The client's deeper understanding of the user, as conveyed during the latter two client interactions, has led to new perspectives and new ways of viewing the user's situation, which in turn increases the chances that user's needs will be fulfilled.

### Cooperation

In addition to the above mentioned intangible outcomes, the study has resulted in an enhanced cooperation among the actors in general, and between the two obesity centres, in particular. As various actors from a variety of units and levels have had an interest in the study, relations have become tighter through more frequent communication and meetings. The upcoming presentation, to which many stakeholders are invited, might serve as a platform for future collaborations.

## "SERVICE DESIGN HAS GIVEN ME ACCESS TO USER-GLASSES. I THINK MORE 'HUMAN' THAN 'MEDICINE' NOW."

Client about being involved in the study.



## **CHAPTER 6: Discussion**

## 6.1 Placing our study in design research and practice – the outcome in relation to theory

We wish in this section to discuss the outcome related to the theory. As we see the outcome having two different sorts of contributions we would like to examine these two aspects in detail and furthermore reflect on Service Design's placement in the landscape of design research.

When Sanders and Stappers (2014) developed the map made by Sanders (2006) over the landscape of design research and practice, they were not able to place Service Design. They were also unsure whether it is to be considered being practiced with a participatory mindset or an expert mindset. They argued that we need to bide our time in order to wait and see which direction the research and practice will take. But what if it is both? What if Service Design brings together an expert mindset with a participatory mindset and integrate them both on a design-led and a research-led level?

The ambiguity of the research and practice of Service Design is something that we have been able to see in our study. We have defined the outcome on two different levels – an intangible and a tangible. The tangible outcome mainly relates to the user and is to serve as a tool for the client and other stakeholders in their work towards more user-centered solutions. The tangible outcome in our case is user-focused due to the fact that it is primarily based on interactions with the user. Relating back to the map of Sanders (2006) we can furthermore see that these interactions have been done by an expert mindset, through interviews and trigger material, where the user has been more of a research object then participant. We consider, however, the interactions to be both of a research-led as well as design-led kind due to the mix of methods in execution and analysis. Even though we have had a certain distance to the user we have still been able to create empathic and close relations in the interactions, as described earlier in the user interaction sections in chapter 4, which has made us able to understand and interpret the user needs, challenges and expectations.

The intangible outcome on the other hand derives from the interactions with the client. These interactions have had, in contrary to the user interactions, a strong emphasis on methods and tools based on a participatory mindset. The interactions have had more of a design-led approach and have been designed for collaboration, mutual understanding, and knowledge sharing. Apart from shaping methods and activities based on these principles we have also considered it important to involve the client throughout the whole process. By doing so we have, as concluded in the outcome, been able to create a shared ownership of the study, where the client have been able to feel involved and part of the study. This mindset, however, put us less in a role of researcher and more in the role of facilitator, where our activities were less about controlling the outcome and more about leading and facilitating activities and producing material artefacts for the interactions. Our experience follows the idea discussed by Sanders and Stappers (2008), that the stakeholder is seen as the expert of their field and that their competence ought to be used throughout the process. The aim of this idea is to empower the stakeholders. Apart from the pursuit of a shared ownership of the study, we have also aimed at sharing our knowledge about user-centered practice with the client. Bødker et al. (2004) suggest that a key aspect of participatory design is the mutual learning between stakeholders. We see this as one of our most important outcomes in the study. By involving the client throughout the process they have been able to get a deeper understanding and knowledge about user-centered practices. As they have gained this knowledge the client can be ambassadors for involving users in practice, in other words, for a user-centered healthcare. Through this, it has become clear to us that we also have had the role as educator, which DiSalvo et al. (2012) also proclaim to be the role and contribution of the designer in participatory focused projects.

The reason why we ended up taking on both the participatory and the expert mindset, described by Sanders and Stappers, are difficult to distinguish. The fact that our client has been very positive and wanting to work in a more user-centered way has most likely contributed to the strong participatory mindset in the client interactions. One reason for the distance to the user might be the sensitive nature of overweightness and obesity. It is a subject not many people feel comfortable discussing with others, and we have experienced there is a lot of guilt and shame surrounding it. Furthermore, we did not have easy access to the users.

Reasons aside, we want to yet again go back to the issue of placing Service Design in the landscape of design research and practice. As we have been discussing, our study has taken on some parts of an expert mindset and some parts of a participatory mindset. It might be the case that Service Design is inevitably not placable on the map, and it might just not be relevant trying to position it. We would like to argue, that there is no need for, nor relevance in, trying to give the practice of Service Design a certain classification or categorization. As we have experienced throughout our study, methods, tools and mindset all depend on the project and its unique conditions: context, parameters, aspects, partners and clients, purpose, aim and users. What is more important is to be agile in the process and adjust to the circumstances accordingly.

## 6.2 The interdependence between the outcomes

As mentioned in the study, projects like ours that focus on development through user-centered systems, are at the risk of dving the so called project death. Norén explained this as mainly depending on the limited period in which a project takes place and that it rarely reaches full maturation or establishment to become an ordinary activity (Norén, 2015). However, we think that by involving the client throughout the whole process, and by having the intangible outcome we are at less of a risk to end up with a project that will fall into oblivion and disappear when it is finished. We have seen how the client stakeholders have learned, connected with each other, and felt engaged in the study, and we think this is crucial for the development and use of the tangible outcome. With this statement we do not wish to devalue or depreciate the importance of the tangible outcome, but to lift that there is an interdependency between the intangible and tangible outcome. The tangible outcome has been made through rigorous research, and has been redefined through substantial analysis. We have been able to come up with insightful design principles and results. By the tools and methods of Service Design we have been able to give another view of the users to the client.

However, this will be worthless if it is not used or acted upon, and this is where the intangible qualities become of great importance. We therefore see that the two must work together for the contribution to have a value. If the outcomes were to be independent of each other they would fall flat. If we connect back to Stickdorn and Schneider's Five Principles of Service Design, we can see that we have adopted to their way of describing Service Design as a dynamic language and a way of thinking (2011). We have had a user-centered mindset, included stakeholders in the process, visualised the support through a sequence of actions, and last but not least, considered the entire environment of the service. We can therefore see that we have covered the full spectra of Service Design in our study.

We believe that by applying Service Design, not only as a tool or a method, but also as a mindset we have been able to overlap the two types of outcomes. We have delivered on both levels, which together provide a basis for understanding the user needs and an increased opportunity for the client to develop in a direction so that the user needs are met. In this way we have not only defined the changes that need to be done in order to meet the needs of the user, but also increased the possibility for these changes to take place. We also consider that by having applied Service Design in the study we have been able to keep a holistic approach. In Service Design it is important to get an overall view of a situation and what needs to be done to improve a service on a long term. The idea of the User Journey is to realize, not assume, user needs in every single step of a service, from beginning to end. We experienced the User Journey Map to be an effective method to organize data and provide a comprehensive overview. Additionally, the client communicated that this specific visualization was of great benefit. It showed connections and contexts that made the client understand the user in a better way.

By doing thorough Service Design work we can furthermore understand and point out the user's general needs. The general needs will always be more or less the same even though the context around the individual is changing. Through our research and then the final creation of User Need Groups and the User Journey Map we have been able to bring up and articulate the general needs of the user. It could be argued that the needs which we have found in our study only fit a similar group of individuals. However by using qualitative methods we have not aimed at determin average behaviour in the population. Our result is thus not to be considered statistically significant. The analytical generalization which we have applied looks at the saturation of important themes and categories where sufficient and redundant insights cover all aspects of a phenomenon. IDEO, the international design and consulting firm which has been part of developing the design research field through their practice of design thinking, states that qualitative research methods can be powerful for analyzing and mapping the relational dynamics between people, places, objects, and institutions. It is said to be possible as the phenomena in the social world tend to be internally related. Through in depth examination of a set of phenomenas, the relationships are able to be illuminated (IDEO, 2015).

We hope our findings about the user's needs behavior and driving forces will help the client in their further work towards a more user-centered form of support, which can be adopted in different scenarios and circumstances where the perspective of the user will be the starting point for future development.

## 6.3 Critical reflection of the study and the paradigm shift - the organisational aspect

We are slowly moving towards a paradigm shift within public healthcare. However, even if a project like ours is implemented or manages to reach its objectives, it is only one project within the whole area of public healthcare. We have observed that there is no lack of will to work in a user-centered way as the knowledge begins to spread about how to do it. The problematic is rather the lack of a holistic perspective. To tackle this, Sweden requires a national overall commitment to user-centeredness as a natural way of working within public healthcare. When it comes to the specific problem of overweightness and obesity in children, it is clear that a holistic approach is needed just by looking at the numbers of stakeholders and partners that are involved in the support. The responsibility for change does not only lie on the public healthcare system, but also on the society and, therefore, the policy makers. We hope that our project can create ripples in the water and not only become a drop in the sea.

Service Design is one way of working in a user-centered way, which works at a holistic view as well as at a detailed level with more specific concept designs. We do not merely see Service Design as something one does in a project, but rather as an overall design mindset that must permeate an organization. This means that the work cannot end. Instead Service Design is a continuous improvement process that demands rigorous ways to include the user and consider them as partners, not only caretakers.

## 6.4 Relating back to the research question

The question that we wanted to answer within this master thesis was: How might Service Design practices enhance user-centered healthcare projects? We have been able to see that there are contributions on both a tangible and an intangible level. We have also concluded that these are interdependent of each other and would fall flat if not both are achieved.

From our outcomes we have been able to see that the practices of Service Design can enhance a user-centered healthcare project by contributing with both an expert mindset and a participatory mindset. The ambiguity of the Service Design practices, of taking on both a participatory and expert mindset, is in itself a contribution as it in our case has led to the tangible and intangible qualities of the outcome. By taking on the role as facilitators with a participatory mindset we have been able to involve the client in the process. By doing so we have been able to empower and create a shared ownership with the client. In the collaborative process we have also been able to achieve mutual learning, which has been needed for us to understand more about the research scope and for the client to understand more about user-centered theory and practice. With an increased knowledge about user-centered processes and strategies, the client will hopefully act upon the insights and design principles from the study and use it to guide their continuing work. By practicing a Service Design mindset we have been able to have a holistic approach, as we have mapped out and understood the overall situation and what is needed to be done in a longer perspective to improve the support. We do also see that using Service Design methods and tools have enhanced the project and the understanding of the user. The User Journey Map is a good example of this where the visualisation gave the client new perspective of the user. This relates back to the idea of understanding the user through the qualitative approach, by the relational dynamics between people, places, objects, and institutions, and phenomenons in the social world. This is also to be considered as a practice from Service Design that might enhance user-centered healthcare projects. We did also observe that, by using trigger material we were able to get a deeper understanding of the user's needs and wants. This helped us to gain insights and develop the User Need Groups and the User Journey Map. As such the Design-Led practice along with the Research-Led practice of Service Design were to consider beneficial in our study.



## **CHAPTER 7: Conclusion**

## 7.1 Concluding the research

We have actively explored how Service Design practices might enhance user-centered healthcare projects through conducting a practical study for improving the overall support to parents with overweight and obese children. Through the use of Service Design practices, including tools, methods and mindset we have been able to understand the support from a user-centered perspective. It has been a process with various interactions that have incorporated both research-led and design-led qualitative research methods. Through deep interviews with trigger material and rigorous analysis we developed main insights, a User Journey Map, user need groups, and five proposed movements to meet the needs of parents with overweight or obese children in the future. By having a participatory mindset and a collaborative relationships with the client, we have represented the user's voice and thereby given the client the opportunity to engage with it.

From our practical study we were able to see how Service Design practices might enhance user-centered healthcare projects. The contribution lies in both a tangible outcome and an intangible outcome. These two levels are equally important in a user-centered healthcare project as it deals with not only issues of the service in relation to the user, but also to the management and organisation that offers the service. The organisational structures within public healthcare are hierarchic and often driven by a producer-oriented value chain. In order to implement user-centered insights and principles, and not let projects die the so called project death, it is important to create autonomy for the client. Therefore we have sought to empower the members of the client team to take over and keep the project going after the project's official ending. The inevitable co-creative practice of Service Design has been of great enhancement to the project, as it has led to the client becoming deeply involved in the process and in the understanding of the user.

## 7.2 Contribution to the Business and Design field

As Service Design is part of the Business and Design spectra we see that our research contribution also informs the educational area of Business and Design. We hope that through this thesis we have been able to generate knowledge of how one might practice Business and Design on a concrete level, which we believe is something that is needed to further advance the theoretical understanding of Business and Design. Our wishes are furthermore that with this particular study we will inform and inspire future user-centered healthcare projects.

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# Appendix

## **1. Poster** USER INTERVIEWS, LOOP 1 - THE SELECTION

## Övervikt hos barn? Påverka genom att dela med dig av dina erfarenheter.

Vi jobbar just nu med ett projekt för att förstå hur vi kan nå fler familjer tidigare i arbetet att förebygga övervikt hos barn. För att göra detta vill vi titta på behov av bemötande, tjänster och information hos familjer med barn i åldrarna 1–10 år. Nu vill vi komma i kontakt med föräldrar som kan tänka sig att prata med oss om detta över telefon. Samtalet tar cirka 30 minuter. Full anonymitet. Ersättning utgår. Dina tankar och idéer är viktiga! Hoppas att vi hörs.

#### Studien genomförs av:

Masterstudenter från Göteborgs Universitet på uppdrag av Regior Obesitacentrum i Västra Götalan i samarbete med företrädare för Rikscentrum Barnobesitas på Karolinska Sjukhuset.

#### Intresserad? Hör av dig till: Vi skickar en:

Telefon: 0730-47 16 17

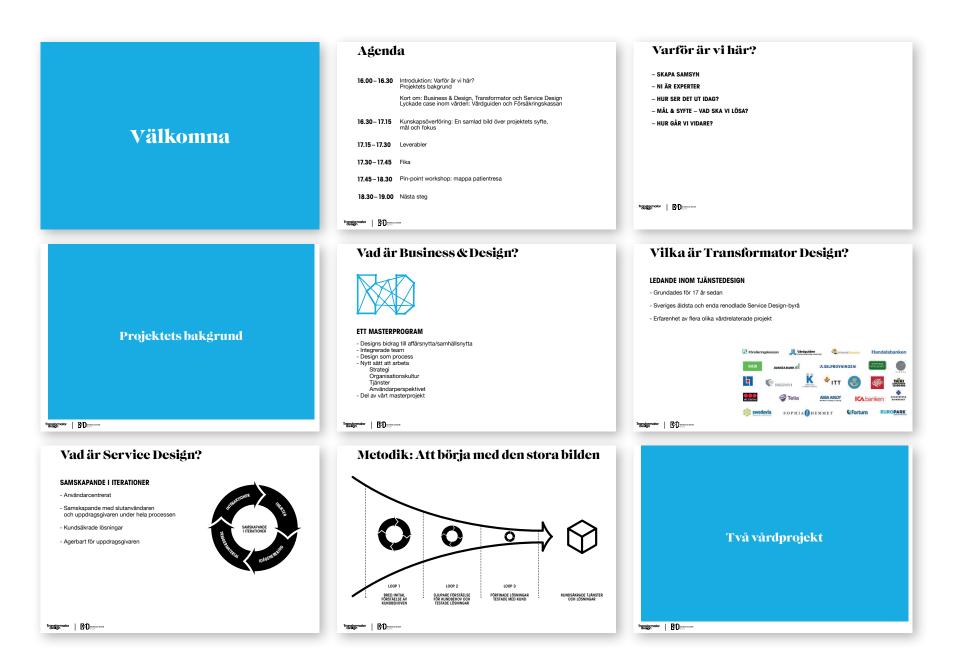
Telefon: 0727-12 44 99 Mejl: gusdahlly@student.gu.se

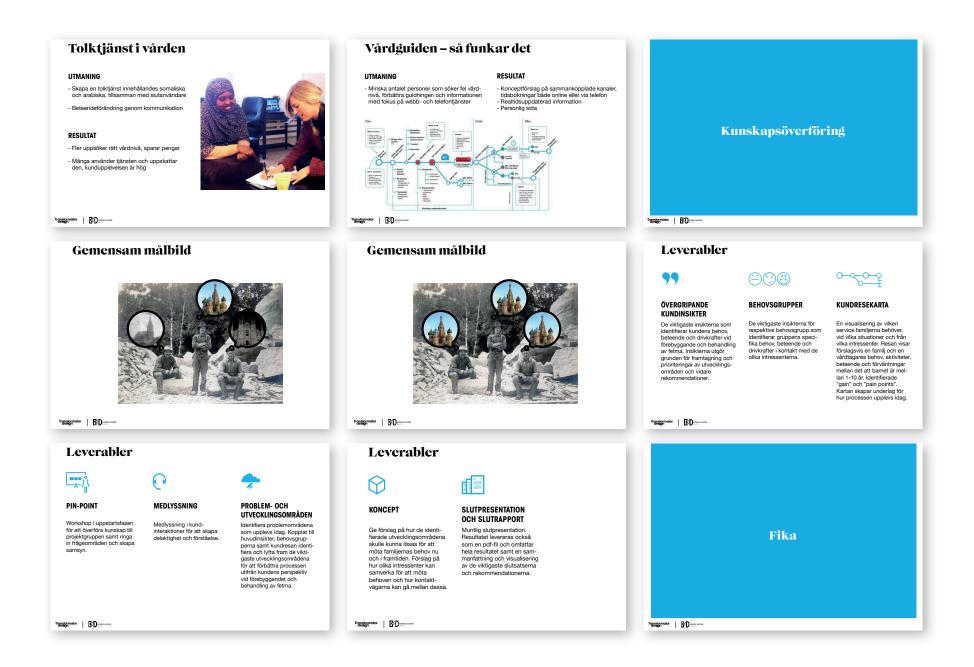


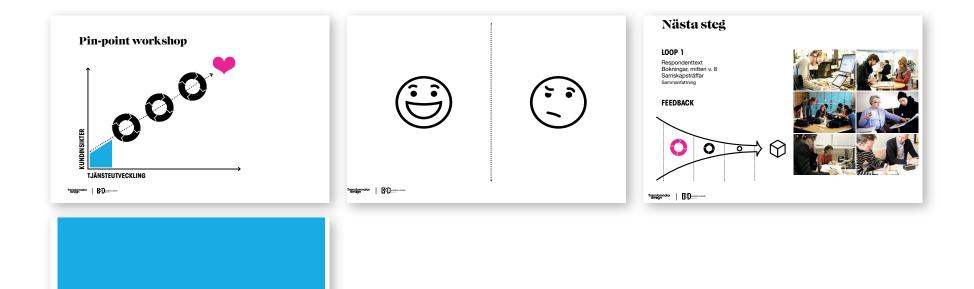
GÖTEBORGS UNIVERSITET

VÄSTRA GÖTALANDSREGIONEN

## 2. Presentation material CLIENT INTERACTION 01, THE EXECUTION







Tack!

Transformator | BD

## **3. Semi-structured question guide, actor interviews** ACTOR INTERACTIONS, THE PREPERATIONS

#### Question Guide – Loop 1 Health professionals

#### Purpose

- To get a professional view on the problematization and get deeper understanding of the topic.
- To understand the challenges and problems but also the success factors.
- Discuss possible solutions and future scenarios that could support both the patients and caregivers.
- Förstå vårdkedjan, vart går man beroende på graden av övervikt.

#### To bring

Skriva ut 1 vårdens insatsfokus Vitt papper och penna

#### Qs

Berätta lite om var du jobbar och vad din roll är där! Hur kommer du i kontakt med övervikt hos barn i ditt jobb? Kommer de på remiss till er? Hur komuniceras beslutsstöd och handlingsplan? Hur många skulle du såga kontaktar er kontra hur många som ni uppmärksammar när de kommer hit?

Berätta om hur du bemöter denna problematiken? Hur börjar man interaktionen med barnet? Hur kommunicerar ni det? Upplever du att det finns svårigheter i att kommunicera detta (ett högt BMI)? Vad gör ni sedan? Vilken information, rådgivning osv ger ni? Har ni något material som ni ger ut? Vad baserar ni rådgivningen på? Är det efter samtal med barn och föräldrar? Hur har du fått redan på den informationen? Är det olika beroende på BMI nivån? Hur följer ni upp det överviktiga barnet?

Rita lite: Barnets väg genom vården, beroende på situation → hur remitterar ni vidare, vilka kontakter möter de och hur skiftar det beroende på graden av övervikt?

Bild: Vårdens insatsfokus? Vart befinner ni er? Vart vill ni vara?

Vad tror du ligger till grund för övervikt hos barn, baserat på din erfarenhet? Vad tror du är de viktigaste faktorerna för att vända detta?

Om du skulle kunna få stöd i ditt jobb - vad skulle det kunna vara för stöd och från vem/kanal/hur? Om du skulle kunna ha verktyg för att hjälpa föräldrarna - vad hade det varit för verktyg? Nätverksmöten - hur tror du det hade kunnat fungera? Hade du kunnat tänka dig initiera eller skall det vara någon annan?

När känner du att du har gjort ett riktigt bra jobb? När känner du dig hjälplös? 1177 - hur hade det funkat? Hade du använt det för hänvisning? Digitalplattform - där man kan göra olika saker för att stödja barnet, hur hade det varit och tagits emot?

## **4. Semi-structured question guide, user interviews** USER INTERACTIONS 01, THE PREPERATIONS

#### Question Guide – Loop 1 Patients

#### Fokusområden

- · The process so far and the current state experiences?
- · What is expected from the health care/society support/help, treatment?
- Attitude towards support and help by who, what, when and how?
- · Context what is the child's situation like?
- What is causing the problem problem picture mapping?
- The child's network what does it look like?
- Motivation and success factors

#### Syfte

- Djupare förståelse för patientens resa bl a på ett känsloplan för att få bättre insikt i dagens pain-points och gain-points
- Betydelsen av barnets kontext och nätverk
- Förstå framgångs- och motivationsfaktorer
- Förstå orsaken till problematiken
- Redan nu trigga ett lösningsförslag
- Djupa i behov och börja få en grund till olika typer av behovsgrupper

#### Inledning

Den här studien är del av vårt examensarbete där vi driver ett projekt ihop med Sahlgrenska sjukhuset och Karolinska institutet för att undersöka hur man kan nå fler familjer tidigare när det kommer till övervikt hos barn. Vi är intresserade av patientperspektivet – hur upplever föräldrar och barn, och i viss mån även vårdpersonal, att det fungerar idag och vad finns det för behov av tjänster och information. Man kan säga att studien är en kartläggning av patientbehoven inför utformningen av framtida lösningar, som man vill designa ihop med användaren.

Den här studien är helt anonym så era namn kommer inte att finnas med någonstanns. Det finns inga rätt eller fel här, utan vi är intresserade av era erfarenheter helt utifrån ert perspektiv. Samtalet kommer att ta cirka 40 minuter, går det bra? Har ni några andra frågor så här långt?

Går det bra att spela in? (Är det ok att ta en bild?)

Berätta kort om er situation idag. Hur upplever ni situationen? Hur påverkar situation ert liv i stort?

Hur började allt? Vad har hänt sedan dess? Placera ut på patientresa? Vilken typ av kontakt har ni haft med vården? Med vilka? När? Varför? Hur? Placera ut på patientresa? Hur har du upplevt kontakten (bemötandet)? Välja olika ansikten (foton eller ikoner) från väldigt ledsen till väldigt glad? Varför var det bra/dåligt? Om dåligt – hur hade du velat att det hade varit? Varför?

Har ni fått någon rådgivning? Vad? Hur upplevde du den? Välja olika ansikten (foton eller ikoner) från väldigt ledsen till väldigt glad? Varför var den bra/dåligt? Varför bra? Om dåligt – vad hade du velat ha? Varför?

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Har ni haft andra typer av kontakter relaterat till detta (föräldrar i samma situation, organisationer, föreningar, digitala kontakter som t.ex. Familjeliv)? Placera ut på patientresa? Vilka? Hur ser de ut? Vad har de inneburit för er? Vad har varit bra/dålig!?

Hur ser nätverket runt er ut i övrigt? Vad finns för stöd/hjälp? Från vem? Skriva på lapper och placera runt barnet/familjen. Be föräldern (och barnet om det vill/har möjlighet att delta) att placera dessa personer/myndigheter/instanser/organisationer/föreningar i de olika ringarna kring barnet: nära, längre bort, pereferin.

Finns det tillfällen där ni känner att situation är lättare? När? Varför? När känner ni att ni mår riktigt bra? I vilken situation? Varför? Hur skulle dessa tillfällen kunna bli fler/komma oftare? Vad skulle ni behöva/vilja ha då?

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Om det hade funnits andra kontaktytor eller övrigt stöd/hjälp – vad skulle det vara då? Vad skulle deras funktion vara? Vad skulle det här innebära för er? Bilder på t ex. möten, app, dator, mentor, kalender med inbokade möten med värden, blanka lappar där de själva kan skriva eller rita, matlagningsträffar, aktiviteter etc.

Om du hade fått det här individuella modul-kitet, hur hade det varit? Vem hade du fått det ifrån? När? På vilket sätt?

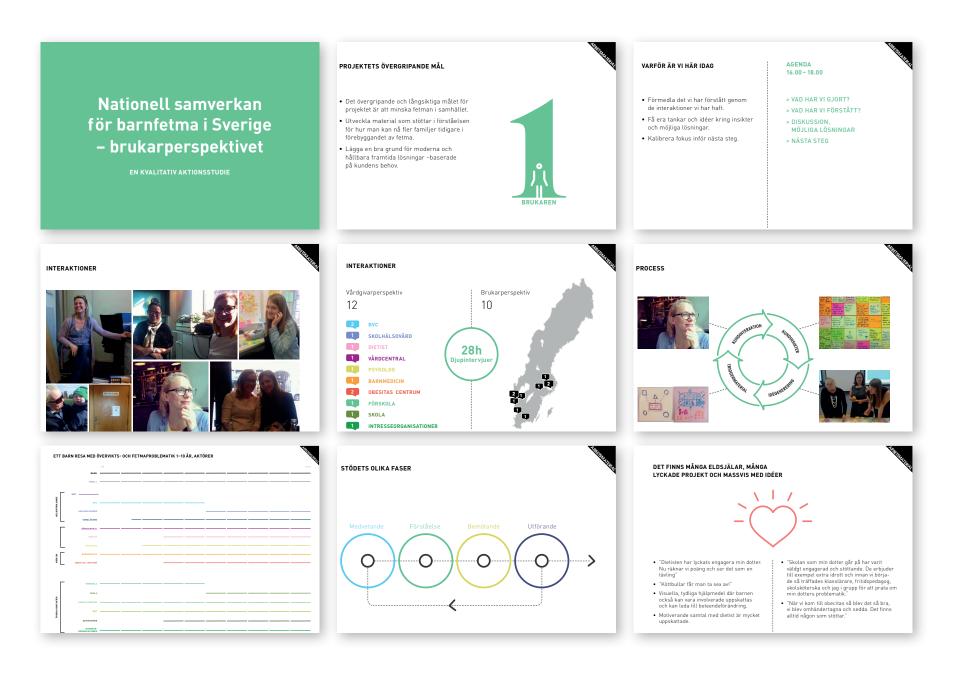
। KIGGERS År det hår ett problem? Markera på en skala Hur stort problem upplever du att andra i er närhet tycker att det är? Markera

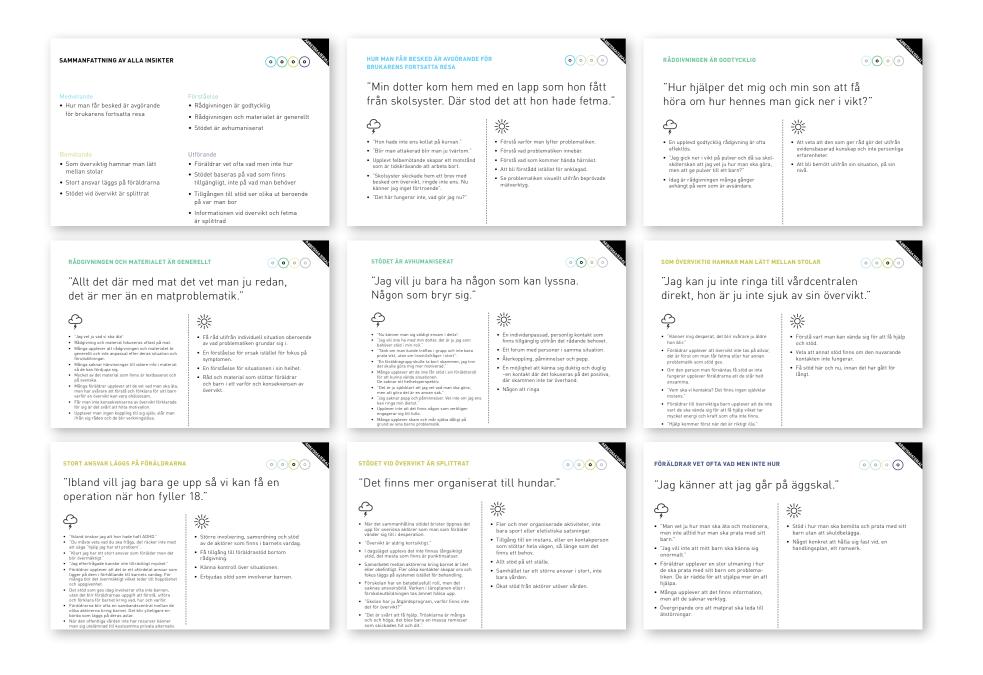
#### Hur stort problem upplever du att vården tycker att det är? Markera

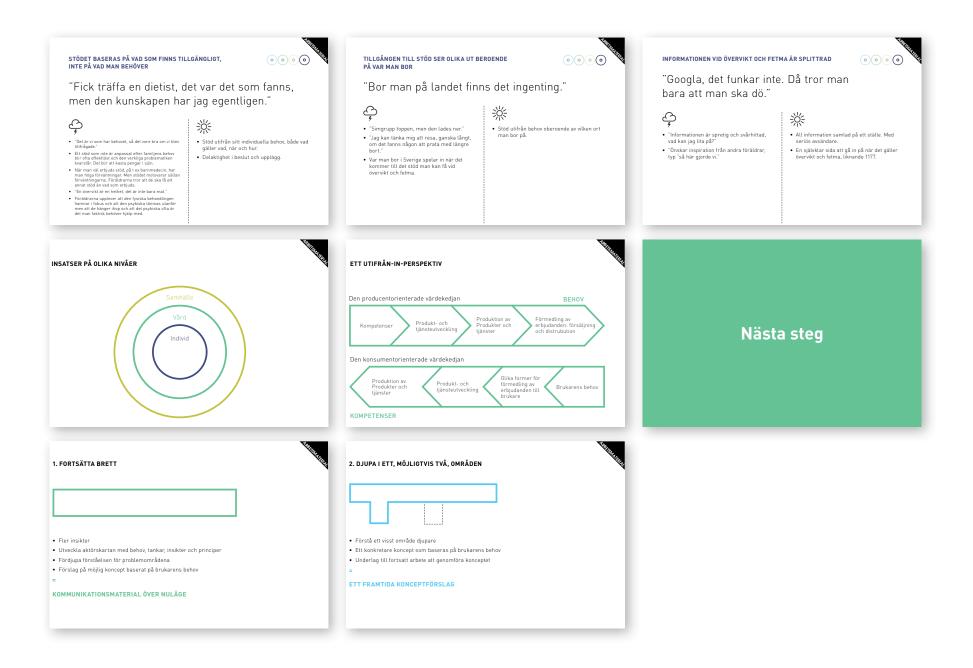
#### Varför tror du att det är så här?

- Upplever ni själva att det här är ett problem? Vad tror ni i så fall ligger bakom problematiken? > Bygga sin egna problembild från ord som (eller bilder?): genetik, bakomliggande sjukdom, stillasittande (stol), mat, etc.
  - > Drömlbild: Så om den här problembilden skulle försvinna. Om vi kunde riva sönder den: vad har hänt då? Om du fick drömma – hur skulle det se ut i en perfekt värld?

## **5. Presentation material** CLIENT INTERACTION 03, THE PREPERATIONS







## 6. Semi-structured question guide, user interviews USER INTERACTIONS 02, THE PREPERATIONS

#### Question Guide – Loop 2 Patients

#### Fokusområden

· The process so far and the current state

- · Experiences in the various phases (challenges/good moments)
- Expectations in the various phases (support/help, treatment)
- · Needs in the various phases (responsibility; family, health care, society)
- · Actors involved in the various phases experiences (challenges/good moments)
- Possible Solutions/Concepts/What if... in the various phases

#### Syfte

- Djupare förståelse för patientens resa bl a på ett känsloplan för att få bättre insikt i dagens pain-points och gain-points
- Trigga lösningsförslag
- Djupa i behov

#### Inledning

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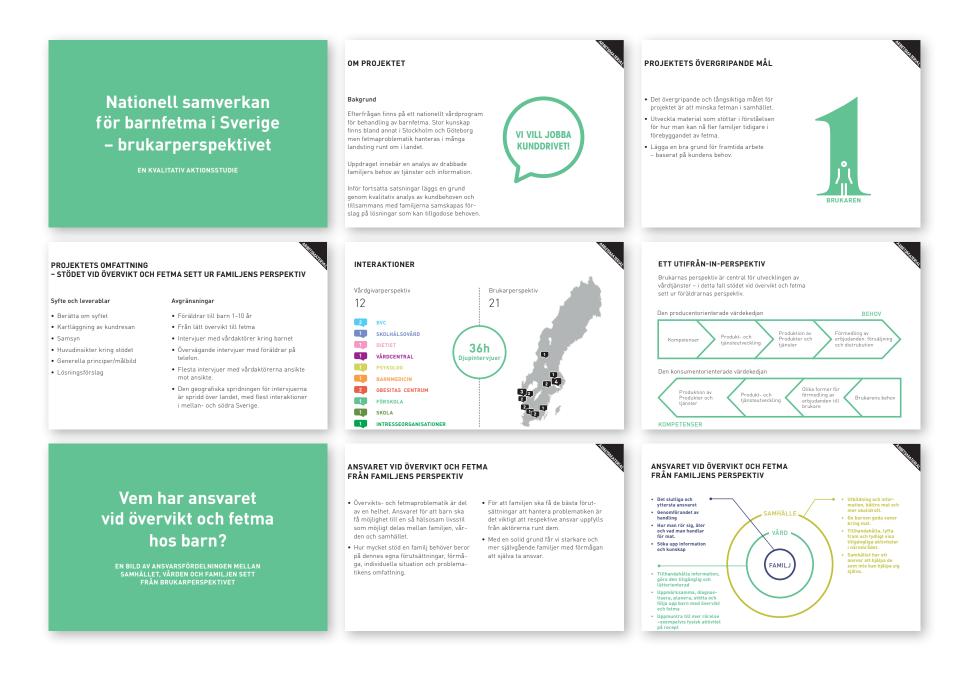
RIGGERS r det här ett problem? Markera på en skala ur stort problem upplever du att andra i er närhet tycker att det är? Markera ur stort problem upplever du att vården tycker att det är? Markera

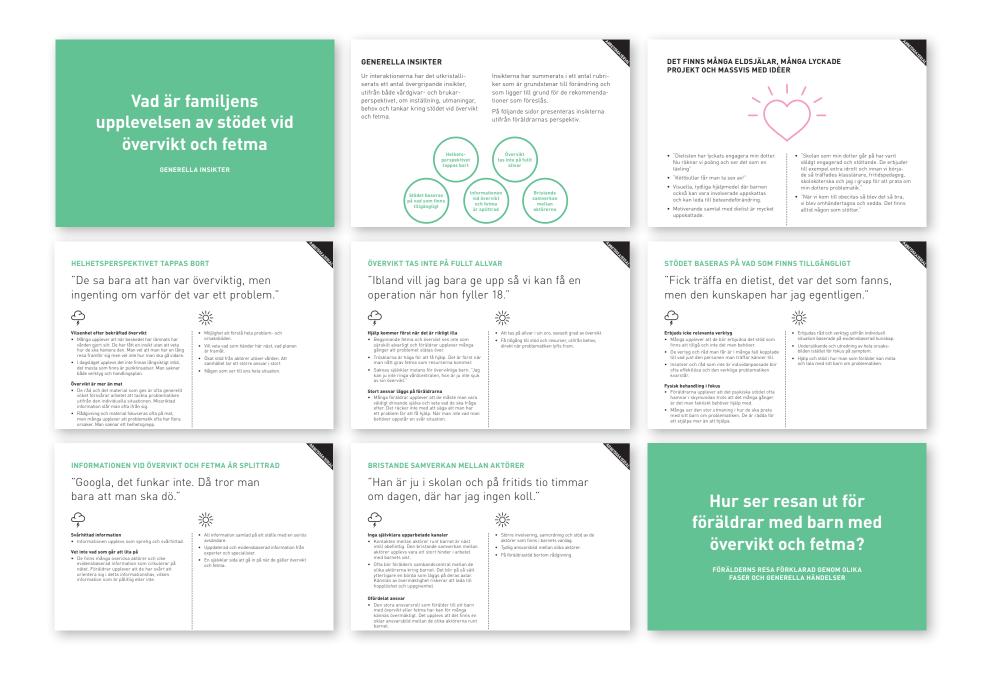
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## 7. Presentation material CLIENT INTERACTION 04, THE PREPERATIONS





#### FÖRÄLDERNS RESA FÖRKLARAD GENOM FASER

#### FÖRBERUNDANDE MEDVETANDE FÖRSTÅELSE/ORIENTERING HANDLING BIBEHÅLLA

#### Ur ett Service Design perspektiv

En kundresa används för att kartlägga flödet i en befintlig process av en tjänst, utifrån användarens kontext. Resan kartläggs inte bara under, utan även före och efter för att förstå processen eller tjänsten ur ett helhetsperspektiv.

I detta fall har resan definierats utifrån

fem olika faser; förbegrundande, med-

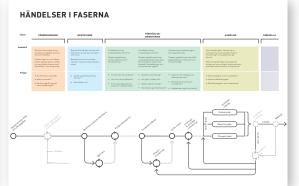
vetande, förståelse/orientering, hand-

I de olika faserna har generella händelser identifierats som en förälder går igenom vid olika tidpunkter i sin resa med arbetet att förebygga övervikt och fetma.

Resan är således inte en kundresa i traditionell bemärkelse med "touchpoints" kopplad en specifik tjänst utan en förälders aktivitet i hanterandet från den uppkomna problematiken till förståelse, aktivt handlande och förändring.

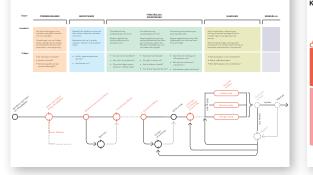






#### KRITISKA PUNKTER

lande och bibehållande.



#### KONCEPT | WEBBSIDA

Webbsida som hjälper i orienteringen. Till-handahåller information för bedömning samt vägledning.

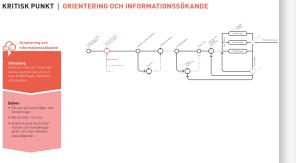
Att göra • Tillhandahålla information utifrån vilken föräldern kan få förståelse för sitt barns situation och välmående, samt veta hur man skall agera utefter det.

Göra det tydligt för föräldrar vart de kan vända sig vid oro, funderingar och utred-ning kring sitt barns vikt.

Öör detta genom En sjäkvikar plats/avsändare dit man kan vän-da sig son förävläfer för att 18 enkel, förstålig, lättilägnigig och samiad information kring bedömning av övervik och fetten för sitt barn. I ansturing till detta även tillhandahålla navi-galonserek tyg för förlådrar Så att de kan bli guldade vidare till ratt kontakt eller instans, beserar på derase behvor och tillsgnighet.

Ebit con nia de ex et fugit	LOGO	

Orientering och informationssökande



KONCEPT | RIKTLINJER VID BESKED

#### B Lämna besked om övervikt och fetma

tt göra rita vikten av beskedsgivandet. Möta för-dern på dess nivå och ge dem kontroll över utationen. Meddelande bör ges via personlig ntakt. Empatiskt och pedagogiskt beskriva oblematiken. Läga gup konkret handlings-an för vad som händer här näst.

ir detta genom t sätt att lyfta vikten av beskedsgivand-skulle kunna vara att fastställa riktlinjer/ nadradrer för besked och agerande vid kon-terande av övervikt/fetma. Pedagogiska äjomedel skulle även vara anvöndbart för att kådliggöra och förklara problematiken för rädera äldern.

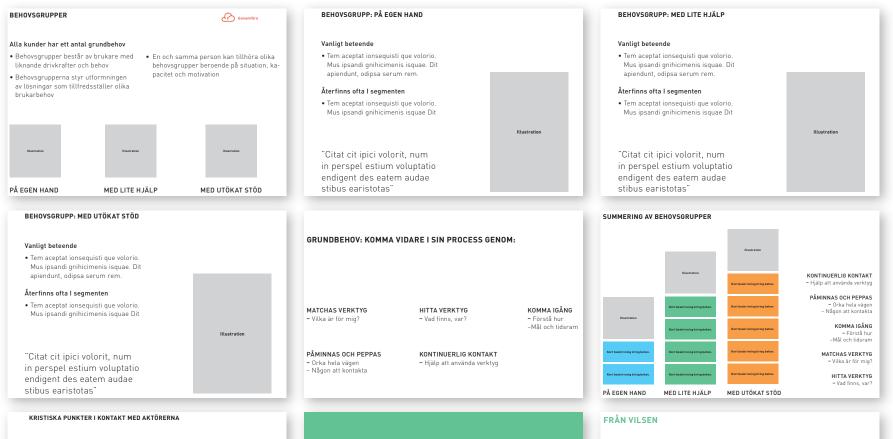
föräldern material som visar på konkret ndlingsplan (kortsiktig).

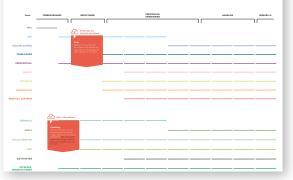


## **Grundbehov och** behovsgrupper

#### KRITISK PUNKT | GENOMFÖRA

Behovsgrupper







FRÅN NULÄGE TILL NYLÄG

FRÂN VILSEN



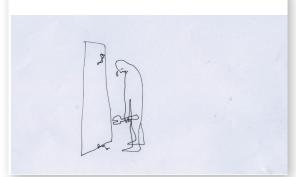
1. Ligg til vig-

FRÅN AVLÄGSET STÖD FÖRST VID FETMA

TILL INDIVIDANPASSDE VERKTYG

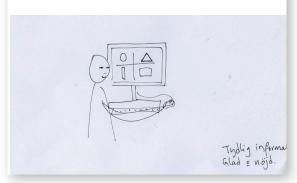


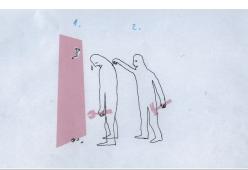
FRÅN OKLAR UTSPRIDD INFORMATION



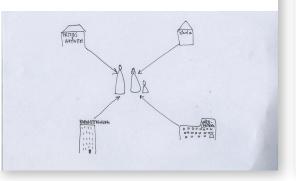
#### TILL SAMLAD PÅLITLIG INFORMATION

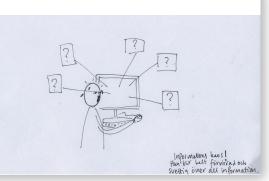
FRÅN GENERALISERANDE VERKTYG



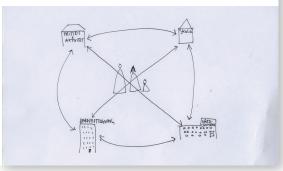


#### FRÅN ISOLERADE AKTÖRER





#### TILL ETT SAMMANKOPPLAT NÄTVERK



#### PRINCIPER

Tiusdanto officab orporio ritiae. Inimpos que volo do sae se pel in res rerorer eprerro maxim fugitem facessunt. Et odigendi distiatium que si culpa venempo rumendunt. volo explan

> Lotsa genon hela resan

que volo dolut unt re sint, ut enis dolores quae volut et apera pa praestiasse ium facescilis nonserum fugiatae restem sint, volo explam quis dolut dolum eiunt acea

> Möt upp ned resurs tidigare

Dela kunskaper



LOTSA GENOM HELA RESAN

sen som en helhet med utgångspunkt från individens specifika förutsättningar och förmåga.



#### DELA KUNSKAPEN

Arbeta integrerat mellan expertiser på olika nivåer för att skapa en samlad och gemensam plattform för uppdaterad, evidensbaserad information. Underlätta för brukare att enkelt hitta och ta del av kunskap, material och verktyg.



Principer

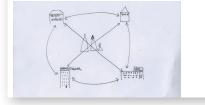
#### MÖT UPP MED RESURSER TIDIGARE

Möt föräldrarna med stöd och hjälp på deras nivå direkt vid problemuppkomst, även vid lätt övervikt. Öka möjligheten för föräldrarna att själva skapa förändring tidigt i processen.



#### MÖJLIGGÖR SAMVERKAN MELLAN AKTÖRER

Arbeta integrerat mellan expertiser på olika nivåer för att skapa en samlad och gemensam plattform för uppdaterad, evidensbaserad information. Underlätta för brukare att enkelt hitta och ta del av kunskap, material och verktyg.



ldentifiera hela orsaksbilden för att anpassa verktyg efter familjens individuella kapacitet och behov. Arbeta i så stor utsträckning i team som möjligt för att möta upp föräld-

MATCHA VERKTYG MOT BEHOV

Matcha verktyg mol behov

> rars skiftande behov och möjliggör för delat lärande och ansvar inom gruppen. Underlätta för föräldrar att själva hitta verktyg och förstå hur dessa kan användas.

Möjliggör samverkan

mellan aktöter

