

Interdisciplinary Master Thesis

Uncovering weight loss practices - to
design a service concept for female students

Learning and Innovative Change

Service Systems Design

Aalborg University, Copenhagen

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Abstract

Our problem statement was how, with a combination of methods from SSD and MALIC, we could design a service with the aim to improve weight loss practices among female students aged 25-30. Our sub-question concerned the weight loss practices of the female students aged 25-30 from AAU, CPH. We interviewed specialists; two nutrition therapists, a dietitian, a habit coach and a personal trainer; this data was used for background knowledge on weight loss. Additionally, four informants from the initial survey were interviewed. The thesis was based on a flat practice ontology, where we examined what was observed in the social media groups as well as the informants' weight loss practices in terms of "doings" and "sayings". This differs from the typical weight loss research, as we were interested in investigating weight loss practices in particular. Using a combination of methods from SSD and MALIC, the thesis investigates how to design a service that aims to improve weight loss practices for female students aged 25-30. To answer the problem statement, we used practice theory and a user-centered method to look holistically at weight loss practices. We used a qualitative method for the empirical data collection and a survey. The thesis was based on "the practice theory" by Schatzki for the analysis of weight loss practices, and a user-centered design method and service design approach for the development of the weight loss app. We uncovered practices and mapped interactions between user and services. The use of SSD and MALIC enabled us to empathize with the target group, and gain a deeper understanding of weight loss practices. The thesis concludes from the analysis of the empirical material that it is difficult to change a weight loss practice without changing other weight loss practices as well, and that overall there were very similar weight loss practices for the target group. We obtained several insights that influenced weight loss practices: (1) Social media was one of the factors that influenced the target audience's perceptions of their body. (2) The participants used either physical lists or digital devices like smartphones, to monitor their activities in training and food to see weekly results. (3) They searched for health information online, and used mostly evidence-based knowledge. Based on an understanding of how we in the group viewed the problem of weight loss practices in the selected target group, we were able to design an informative weight loss app for a service concept. The service concept held features that contained information on weight loss, chat, profile, forum, logbook, fact check and a reflective element. The concept included these elements to help understand and support the female students in their future weight loss practices. The app was tested by informants for concept validation.

Resumé

Vores problemformulering omhandlede, hvordan vi med en kombination af metoder fra SSD og LFP kunne designe en service, der forsøgte at forbedre væggtabspraksisser blandt kvindelige studerende mellem 25 og 30 år; en service, som kan hjælpe med at ændre praksisser af hvordan væggtab forstås, og støtte brugere i fremtidige væggtabspraksisser. Vores underspørgsmål var, hvilke væggtabspraksisser, kvindelige studerende mellem 25 og 30 år fra AAU (CPH), havde. Vores specialistgruppe bestod af to ernæringsterapeuter, en diætist, en vane-coach og en personlig træner. Vi anvendte denne gruppe til baggrundsviden om væggtab. De andre fire informanter blev fundet via vores indledende survey. Specialet tog afsæt i en flad praksis ontologi, hvor vi undersøgte de observerede og informanternes væggtabspraksisser ved "doings" og "sayings". Dette adskiller sig fra den forskning, der normalt ses vedrørende væggtab, da vi interesserede os for at undersøge netop væggtabspraksisser. Specialet undersøger, med en kombination af metoder fra SSD og LFP, hvordan vi kunne designe en sådan service. For at besvare problemformuleringen, har vi anvendt praksis og en brugercentreret metode for at se holistisk på væggtabspraksisser. Vi har benyttet en kvalitativ metode til empiriindsamling og en survey. Specialet tog afsæt i Schatzki's praksisteori til analyse af væggtabspraksisser, og der er brugt en brugercenteret design metode og en service design tilgang til udvikling af en informativ væggtabsapp. Vi afdækkede praksis, og kortlagde interaktionen mellem bruger og tjenester. Anvendelse af SSD og LFP muliggjorde, at vi kunne empatisere med målgruppen, og få mere dybdegående forståelse af væggtabspraksisser. Specialet konkluderer, ved analysen af det producerede empiriske materiale, at det er svært at ændre én væggtabspraksis uden at ændre andre væggtabspraksisser, og at der overordnet set var meget ens væggtabspraksisser for de observerede grupper og de interviewede informanter. I forbindelse med SSD konkluderer specialet, at vi fik flere indsigter, der påvirkede væggtabspraksis: (1) Sociale medier var en af de faktorer, der påvirkede målgruppens opfattelse af deres krop. (2) Informanterne brugte enten fysiske lister eller digitale enheder som smartphones til at overvåge deres aktiviteter i træning og mad for at se ugentlige resultater. (3) De søgte sundhedsoplysninger online, og brugte mest evidensbaseret viden. Med baggrund i en forståelse af hvordan vi i gruppen så problemet med væggtabspraksisser i den valgte population, designede vi en informativ væggtabsapp som service koncept med følgende egenskaber: Information om væggtab, chat, profil, forum, logbog, fakta-tjekker og et refleksivt element. Dette gjorde vi for at hjælpe med at forstå og støtte de kvindelige studerende i deres fremtidige væggtabspraksisser. Appen blev afprøvet af informanter ved en konceptvalidering.

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All of the persons above was a vital part in creating this interdisciplinary master thesis, which is why we are very thankful for their participation. Finally, a warm thanks to our co-students, for their critical and helpful perspectives. Thanks to our partners, families and friends for their understanding and giving us proper support. We look forward to seeing them again after all.

Thesis group

The thesis's writers are students from MA. in Learning and Innovative Change and MSc. Service Systems Design at Aalborg University, Copenhagen.

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Acronyms

AAU: Aalborg University

CPH: Copenhagen

CEFU: Center for ungdomsforskning (Danish Centre for Youth Research Denmark)

DD: Double Diamond

LFP: Læring og Forandringsprocesser

MALIC: Master of Arts in Learning and Innovative Change

PBL: Problem Based Learning

SD: Service Design

SSD: Service Systems Design

Learning objectives

In the following we elaborate on the learning objectives and the demands from the two curriculums. In our program of Master of Arts in Learning and Innovative Change and Master of Science in Service Systems Design at Aalborg University Copenhagen, we obtained several learning objectives, knowledge, skills, competencies and acquired great personal development. This was done by group work, internships, lectures, projects and now through this interdisciplinary thesis. The following section is about the learning objectives of Aalborg University Copenhagen and additionally our own personal competencies we developed. In regards to the curriculums of Master of Arts in Learning and Innovative Change (AAU studieordning LFP, 2017) and Master of Science in Service Systems Design (AAU curriculum SSD, 2012) the students that finishes the semesters will attain these competencies. The following elaborate on the learning objectives that exists from Master of Arts in Learning and Innovative change.

Learning objectives for Master of Arts in Learning and Innovative Change

Knowledge

The overall goals for the student's knowledge development are that the student, after completing a master's degree, has acquired knowledge of the following key subject, as well as, within science theory, method and communication.

- Problem-based learning
- Learning theory
- Pedagogy and didactics
- Organizational learning
- Evaluation and innovative change work
- Culture and multicultural contexts for learning and organizational change processes

Skills

The overall goals for the student's development of skills are that the student, after completing a master's degree, should be able to:

- Master the subject area's theories and scientific methods to teach and communicate the education's core subject areas and to advise on learning and change processes in education and profession
- Reflect on and understand the education's subject areas' knowledge on a scientific basis, as well as, identifying relevant issues that can be the subject of scientific work

- Make well-founded assessments and qualified choices among the subject areas' theories, methods and tools and design scientifically substantiated analysis and solution models
- Disseminate research-based knowledge and discuss professional and scientific issues with peers and other target groups

Competencies

The overall goals for the student's development of competencies are that the student, after completing a master's degree, should be able to.

- Manage work and development processes in situations that are complex, unpredictable and require analytical and practical approaches and also presuppose that one can implement analytical and practical approaches that are adapted and developed in relation to the given situation and process and at the same time adhere to current scientific principles.
- Initiate and implement professional and interdisciplinary collaboration and assume professional responsibility in an independent manner
- Take independent responsibility for own professional competence development and specialization

Personal competencies

- Obtain experience with interviewing nutritional therapists, nutritional specialist, dietitians and habit coaches
- Acquire knowledge and experience working interdisciplinary with a Service Systems Designer
- Learning to collaborate interdisciplinary and synthesize key insights to create a valuable prototype for possible users of a weight loss concept
- Learning to collaborate through online platforms only. In addition, acquiring skills in programs, such as, Zoom, Microsoft Teams, Google Forms and Miro

Now, we elaborate on the learning objectives that exists from Master of Science in Service Systems Design in the following.

Learning objectives for Master of Science in Service Systems Design

The learning objectives listed below derives from the curriculum for the master's program in service systems design, Aalborg University 2012 (AAU, Curriculum SSD, 2012).

Knowledge

- Has knowledge about the fundamental elements of programming, how and when those are relevant and should be used in the development of services

- Understands user-oriented methods and the way this knowledge can be used to approach, segment and profile users in order to define value and business proposition in a design project
- Understands issues related to interaction in relation to given products, context of use and characteristic of users
- Understands the characteristics of services and the way they are organized, developed and represented
- Can understand, reflect upon, and explain the properties of complex distributed systems and the concepts of modularization and product/service architectures
- Has knowledge about methodological approaches to the analysis and interpretation of users, as well as, about methods and tools to support users' participation
- Has knowledge about multimodal methods to represent non-functional and non-material characteristics of services in order to support users' involvement and participation in services
- Can understand and reflect upon the main theoretical issues related to the construction of a service organization
- Understands and is able to critically reflect upon theories on innovation and business models
- Has knowledge about relevant issues in research or practice of service design

Skills

- Can design users' interface to services, with focus on technological, human and context related aspects (synthesis)
- Is able to apply user and market research and segmentation methods to establish specifications and success criteria
- Is specialist in conceptualizing and sketching a product or service, emphasizing the values and including principles of aesthetics, experience, use, technology and organization (synthesis)
- Has high capability to analyze and address relevant conditions for the interaction between users and the service, taking into account technologies, users and context of use
- Excels in the application of design tools and representation techniques to the development of new services and the organization of the interactions in a service
- Masters user centered service development and can identify modular elements in service system (synthesis)
- Has high capabilities to engage with users and support their participation and involvement in service systems (synthesis)

- Understands and applies experience-related aspects of services that can support users' participation and co-creation of a service
- Masters and applies appropriate methods and tools to support innovation and change in organizations
- Must be able to interpret, understand and properly address (synthesis) the need and the opportunities for design driven change within organization

Competencies

- Understands the development and organization of aspects related to programming, interaction, design and user participation and co-creation in a service
- Understands and applies appropriate methods for organizing functional as well as experiential aspects of design
- Masters the organization of complex service architectures, defining roles, rules, organization and user-related aspects (synthesis)
- Understands strategic issues related to change and innovation in organizations, and is able to evaluate the opportunities offered by a design-driven approach
- Understands strategic, organization and business related aspects of service design and is able to evaluate (synthesis) their relevance in complex organizations
- Can manage work and development situations that are complex, unpredictable and require new solutions (synthesis)
- Can independently initiate and implement discipline specific and interdisciplinary cooperation and assume professional responsibility (synthesis)
- Can independently initiate and implement discipline specific and interdisciplinary cooperation and assume professional responsibility (synthesis)
- Can independently take responsibility for own professional development and specialization (synthesis)

Personal goals

- Show implementation of the service design process in an interdisciplinary collaboration
- Present an understanding of the user segment, which is essential for the design process to design a service concept based on the target group's needs, motivation and goal
- Combine knowledge and have good communication within the group

In the thesis we explored and utilized these objectives of learning. The thesis enabled us to broaden our horizon, as well as, qualified us into our future work field as MA. in Learning and Innovative Change and MSc. Service Systems Design. In the next section, we go in-depth with the structure for the interdisciplinary master thesis.

Structure of the interdisciplinary master thesis

Chapter 1 – Introduction

The introduction set the context for the thesis. Then followed the Framework for the interdisciplinary thesis by presenting the PBL model and SSD practices. Thereafter, the Problem area that set the tone for the thesis. After this followed a Problem statement, context and the chapter ended with the Scientific direction.

Chapter 2 - Research

This chapter started with presenting how two different study programs, approached data collection together. Then an explanation of methodology from MALIC with aim of elaborating what considerations MALIC processed with collected data material, and then an explanation of design research from SSD on how research from their perspective were conducted. The methods that we applied to gather data together was explained in the Research phase. The research outputs was to reflect on the data and uncovered important elements that included in the Design of a service concept. After that a Limitation followed that disclosed what we focused on in the thesis.

Chapter 3 - Literature Review and theory

In this chapter we did a Literature review and elaborated on the theory we used. We applied a literature review from SSD that entailed user-oriented methods and the Service design approach in the thesis. For MALIC we applied Theodore Schatzki's as the main theory of practices and his model "the mechanisms of the social order" and Elizabeth Shove on "materials".

Chapter 4 – Analysis

In this chapter we analyzed the gathered empirical data collection to assess and understand the practices in weight loss for female students between 25-30 at AAU, CPH. We summarized main key findings and synthesized the research output. The chapter provided a synthesis process of the survey of the female age group of 21-30, and an in-depth analysis of the female students between 25-30 based on Schatzki's theory of practices and the model "the mechanisms of the social order" and Elizabeth Shove on "materials". Lastly, a we made a description of a research-based "persona" using "empathy maps" and presented the three "personas".

Chapter 5 – Design of a service concept

In this chapter the SSD came in display, where brainstorm sessions were facilitated between us and the "co-creation" that generated more knowledge of the user practices and preferences with a weight loss service. We made a pretotype of the service concept and gained feedback to iterate on the concept. The chapter presented several "future-state journey maps" that showed how the "personas" interacted with the service concept.

Chapter 6 - Discussion

In this chapter we discussed the thesis process, the collaboration in the interdisciplinary thesis and if the learning goals was reached for the two different educations SSD and MALIC.

Chapter 7 – Conclusion

In this chapter we gathered all the material and empirical findings and the summary from the analysis' and the design of a service concept and concluded on the problem statement. The service concept was shown through a product report that presented the elements and considerations that made the service experience better.

1. Introduction

Chapter 1 – Introduction

The following includes an introduction to the thesis, and the general motivation for the interdisciplinary master thesis. The thesis was written by two students from Learning and Change Processes and Service Systems Design, both experienced with weight loss and familiar with weight loss practices. One student holds a Bachelor's degree in Nutrition and Health - Food and Management from University College Copenhagen, and the other has experience in designing and optimizing services, in the form of a Bachelor's degree in Jewelry, Technology and Business from Copenhagen School of Design and Technology (KEA) and from the current education Service Systems Design. For the thesis, it was important to draw knowledge from common interest and personal weight loss experience and practices on the subject. Moreover, the motivation for the thesis was also based on our ongoing educations from MALIC and SSD from Aalborg University Copenhagen. For the above reasons, it was relevant motivation for us to lead with a starting point on the problem area that dealt with the issues surrounding weight loss. The motive for the thesis was also based on a concern about weight loss practices for our own age target group, more specifically, female students between 25 and 30 years of age at AAU, CPH. In general, how the problems surrounding , the obesity-promoting society has unfolded into the diet culture, and how digital media contributes to a comparison culture. For the thesis group, it was such a society we grew up in in the Western world, being influenced by digital media, the obesity-promoting society and the diet culture. It was also a motivating factor for us to find and investigate the background of weight loss practices for female students. We did this with knowledge, method and analysis tools to explore findings about weight loss practices from Learning and Innovative Change, and additionally, to explore the possibilities of contributing and developing services in the shape of a service concept. This we did with knowledge and learning objectives from Service Systems Design.

Now, we set the tone for what our interdisciplinary thesis entailed. Initially, we wanted to address that the following thesis was written in English. We agreed to write the interdisciplinary master thesis in English, due to the education Master of Science in Service Systems Design was in English and projects was written in English. Therefore, we mutually decided on the English language throughout the thesis. Though it should be mentioned that the empirical data was collected in Danish. This included the summary, survey, observations, interviews and the article that was a part of the curriculum for the Master of Arts in Learning and Innovative Change. Thus this leads us to the next section where we go in depth with the project milestones of the thesis.

1.1 Project milestones

In the start of the process with the thesis we determined mutual goals and what we had in mind for the process. This was described more under the section learning objectives for both educations. To clarify visually how we reached these learning objectives, we created a visual presentation in the program Miro of the *Project milestones* (Appendix P, 87). It was a visual presentation of our interdisciplinary collaboration, as well as, what we worked on in the different steps in the thesis process. Figure 1 below was a representation of our *Project milestones*.

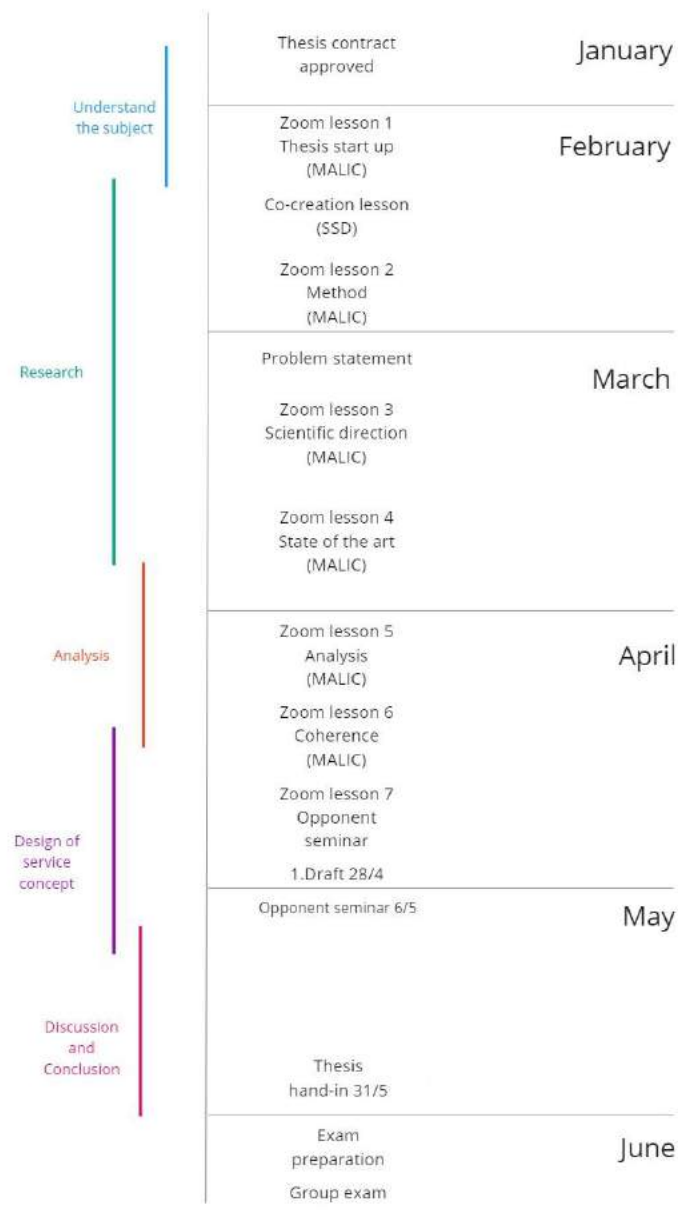


Figure 1. Illustrates Project milestones for the thesis. By N. Saabye & M. Nielsen, 2021.

1.2 Framework for the process of the interdisciplinary thesis

In this section, we describe the framework for the process of our interdisciplinary thesis. The interdisciplinary thesis addresses issues within the scope of weight loss for female students aged 25-30 from AAU, CPH. Conducting a thesis within this problem area and collaborating with another profession required coordination and practical preparation between the two profiles. To have two different profiles working efficiently together, a framework had to be established. The framework for the thesis consisted of the following overall chapters: *Introduction, Research, Literature review, Analysis, Design of a service concept, Discussion and Conclusion*.

We considered that the Master of Arts in Learning and Innovative Change (MALIC) work with a project model called Problem Based Learning (PBL). This model is an essential part of Aalborg University's teaching methods and group work. The model is based on authentic problems (Askehave, 2015, 4). It is applied, for example, when students are working on projects during the semesters, and thus have to develop a problem statement. Aalborg University's handbook on PBL, 2015, states that "*problems are the focal point of students' learning*" (Askehave, 2015, 5). In addition, there are several values that make the foundation of PBL; "*students have their own responsibility for learning, project organization is the framework for problem-based learning, courses contribute to project work, collaboration supports problem-based work on projects and groups' problem-based projects must be exemplary*" (ibid. 5). For this reason, PBL is an essential and important part of Aalborg University's learning approaches, and contributes to relating to the world around us and to work life. The problem areas the assignments are based on may be both theoretical and practical. According to AAU's PBL model, assignments must be authentic and scientifically based. "Authentic" signifies real-life problems that are situated outside the academic setting, and "scientifically based" means it is comprehensible and can be analyzed and solved (Askehave, 2015, 4). From a broad frame, the focus of the thesis determined the problem statement that we defined in collaboration. During the course of the project, we met the requirements for the PBL model, which required understanding the context of the problem and the scope of the conclusion attained by us (Askehave, 2015, 5). In addition, we applied the methods, theories and tools provided by our respective study programs, to examine the problem during the course of the thesis.

To connect MALIC's PBL model with the approaches from SSD practices, we did the following. Problem based learning was concerned with starting a project with a problem, and the approach from SSD was concerned with "finding the right problem" to solve. We connected the two, by first working out a problem statement, then utilizing the iterative process and reassessing our problem statement. We applied the SSD approach in the thesis, due to the divergent and convergent thinking. This was about taking a simple problem and diverge/search opportunities into different raw outputs from research. Then converge/make decisions into a focused service solution (Stickdorn et. al., 2018, 85). This

resembles the method applied at MALIC, where the students have an ongoing assessment of the problem statement and project work, hence the problem statement can be constantly changed as the process and work is refined. Therefore, MALIC and SSD complement each other as they both assess and evaluate the findings that disclose the problem statement. From the SSD practices, we applied prototyping (explained in the section Adobe XD prototype) to test a service concept and to visualize intangible concepts as ideas in a wireframe, a visual tool for creating templates (*This is service design doing*, nd.). Furthermore, there were small differences in the task approaches during the thesis. For instance, MALIC extract key insights on a deeper level by using analysis models, and SSD summarize key findings in a concise and actionable format for communication between within the thesis group. Evidently, the collaboration resulted in a more meticulous execution of the subject, as MALIC and SSD understood things differently, and therefore covered different aspects on a topic. During data collection and analyzing research outputs, MALIC applied theories to analyze practices, and SSD analyzed statistical data for exploration in order to extract insights. Now, we have described the framework for the process. In the following, we explain how Learning and Innovative Change and Service Systems Design work together in the thesis.

1.3 Learning and Innovative Change and Service Systems Design in the interdisciplinary thesis

With our interdisciplinary thesis we researched by applying analytic tools as practice theory from Schatzki from MALIC to uncover the female students at 25-30 from Aalborg University, Copenhagen practices in a weight loss. Within SSD, our thesis supplemented with mapping practices, needs and touchpoints that helped develop a service in the form of an informative weight loss app for the target group between 25-30 years. Therefore, it was our ambition that we with the interdisciplinary thesis combined our different educational background knowledge, to work together collaboratively to enhance our critical thinking skills. Additionally, to consolidate learning by synthesizing ideas from a variety of perspectives and considered an alternative way of acquiring knowledge. This we believed was key to contributing and bringing more knowledge to the weight loss area and to Aalborg University, Copenhagen. In the next section, we elaborate on how we applied SSD and MALIC in the interdisciplinary thesis.

To utilize a Service design approach, in a project beyond organizational setting and applying the human-centered, iterative and holistic approach on a societal level, it was important to disclose that service design focuses on the relation, interaction and systems in a service experience, that people engage in, or are a part of. Service design is a practice that focuses on creating offerings by examining the elements involved in the service experience, which involve multiple channels, contexts and products. Also considering that users engage and interact with the service through a complex chain of interaction (Interaction Design Foundation, 2020). In SSD practice it is important to

address the various actors involved in the service; Users of the service and service providers that are part of the experience as it is important to solve the right problem by framing it the right way (Stickdorn et al., 2018, 15). MALIC also address relevant specialists and informants in their data collection to make substantiated analysis and make well-founded assessments in the weight loss practices. We used qualitative research methods which was also applied from MALIC. We did this by including and in cooperating the informants from the survey, the informants from the in-depth interviews and co-creation workshop to receive feedback. Moreover, it was important for the Service Designer to formulate and visualize the service experience, as the interactions are intangible and orchestrated, as a sequence of interrelated actions (Stickdorn et al., 2018, 27). Additionally, service design is also characterized as a visualizing and prototyping practice. We also found it was relevant for our thesis to work together with knowledge generating from both educations. We started by generating knowledge in the research phase where we had to find as much information as possible about weight loss, in a mind map session, in the visual program Miro. In the *Design of a service concept* phase, we also utilized knowledge generation. This we did by brainstorming for a *Design of a service concept* with multiple ideas in Miro, where we had a board of sticky notes to gather ideas in rounds of five to seven minutes frame (see section on *Design of a service concept*). We had a timer set to control the time frame. We found Miro useful, as a way of gathering a lot of ideas for the knowledge development fast.

1.4 Problem area

We start by explaining where we sought knowledge and inspiration for our problem area. To gain a better understanding of the subject weight loss, we had to do a broad research in the beginning of the thesis' research phase. After the research phase we narrowed down the problem area by assessing which problem areas our weight loss entailed. Therefore, we did a systematic research process. First step of our research phase was to uncover the search already made on weight loss. We started by researching knowledge on weight loss through watching videos from the BBC. We found that one focus in these videos was that people adjusted weight loss through calorie intake. Then we decided we needed more knowledge on the subject. Therefore, we read more articles about weight loss and scientific publications on body images connected to young females. We found that body image currently takes a lot of space in the minds of young females. We acquired this knowledge by researching information from the Center for Youth Research (CEFU) at Aalborg University, Copenhagen. This will be elaborated in the section *Normal-weight young people feel overweight*. Next we sought which public recommendations there are on weight loss, by visiting the Danish Health and Medicines Authority's website, Sundhedsstyrelsen.dk, where we found the report "Small steps for weight loss", which was an informative report on how to start and maintain a weight loss by making permanent lifestyle changes (Sundhedsstyrelsen, 2019, 3). Then we found reports where K. Hall and M. Elsäe elaborated upon "the obesity promoting society" and its consequences.

Now, we have briefly set the tone for the initial work. In the next section, we uncovered the problem areas around weight loss practices more meticulously, and focuses specifically on social reasons, psychological and digital aspects that cultivate weight loss and other empirical material discussing the subject. In this first paragraph, we elaborate on some of the social reasons for why people lose weight.

1.5 Social reasons for weight loss

People are motivated to lose weight for various reasons. To broadly outline this, it is either for health motives or self-image motives. In this thesis, the focus is on females who are standard-weight and aspired to reach the “ideal body image”. According to Better Health, people can be driven to lose weight if they have a poor view body image, which affects their mental and physical health. Weight loss that is driven by self-image motives is connected to body image and dissatisfaction that derives from comparing one's body to that of others, which is caused by what society display visually and verbalizes through media, and thereby dictates the ideal body image. This was the aspect we wanted to investigate further.

Idealizing the body shape, image and size has been happening throughout human history. The cultural construct of the “ideal” or “body image” has especially been centralized around young females in society. The obsession of body image has led to the societal pressure of females to obtain a certain body type (Howard, 2018). Although the “ideal” body image changes continuously, it has harmful effects on females regarding physical and mental health. Up until the 20th century, curvaceous and fat body images were painted and sculptured by artists. Then they transitioned to slim and skinny body images promoted by several industries, such as the fashion industry, through the mass media (Howard, 2018), such as the opportunities of more exposure of content through the media with obesity being presented as unhealthy, and thinness celebrated. This has resulted in a cultivation of social norms of assessing one's body, in comparison to body images perceived societal acceptable (Howard, 2018). Now, during the 21st century, there has been a shift in body image where diverse body types are celebrated, where you see slim fit bodies with curvy bottoms, and thin and curvy females displayed through different media channels. The movement appears to relate to the use of online social media. The rise of the different online social platforms has also made it possible for women to celebrate natural and diverse body types and promote body-positivity. However, the flipside of the coin is that social media has also resulted in women having negative body images, as they can see that fit bodies are praised with “likes” and many followers (Howard, 2018). This cultural construct of the “ideal” body begins with children entering adolescence and slowly developing their own identity and trying to figure out which body image is socially acceptable. Children absorb a lot of information and are therefore more easily influenced by the images that are reinforced in culture via social

media and other media channels (Howard, 2018). In the next section, we elaborate on the psychological reasons why people want to lose weight.

1.6 Normal-weight young people feel overweight

In this section, we uncover the underlying psychological reasons for why many normal-weight females want to lose weight.

According to Niels Ulrik Sørensen from CEFU, during recent years researchers have blamed the culture of perfection, where pictures on social media as Instagram show a certain kind of image about the perfect body, the blame for the dissatisfaction young females have with their bodies (Center for ungdomsforskning, 2020). Research shows that a body that has no stretch marks or cellulite and with an associated low fat percentage, resulting in a slim and well-trained body, is considered preferable. Sørensen, adds that it is really about whether we have a societal perception and we ourselves have a responsibility to create and shape our lives. *"When we make the right choices, we can get to where we want to be"* (Center for ungdomsforskning, 2020). *"This also applies to our perception of the body, which is considered something we can shape as we want, if we do enough for it,"* says Sørensen. When you are young one encounters many new things, especially in relation to the body, you become unsure of your choices. Preferably one should be discovering ones personality on their own. Therefore this conception of perfection is not constructive for young people. *"When the insecurity of youth life is linked to a perception that one must have control and be responsible for shaping the good life, it can help to create even greater insecurity and in some cases also dissatisfaction among young people"* says Sørensen (Center for ungdomsforskning, 2020).

In the following, we explain how and why selfies affect young people to acquire a twisted body image.

1.7 Selfies influence young people to a twisted body image

Our social culture has been transformed by the so-called selfie culture. Females between 16 and 25 spend an average of nearly five hours a week taking selfies (The Guardian, 2013). So what is a selfie, and why is it such a huge cultural phenomenon?

A selfie is a photograph that is taken by yourself, preferably with a smartphone, then afterwards posted on social media such as Instagram etc. (The Guardian, 2013). People take these selfies as a sort of representation to communicate and express themselves. With self-representation you can influence and control the perception of yourself by others. That is done through clothing, brands and hairstyles, to express yourself in a certain context. It is specifically the millennial females that use selfies to control their reputation. They utilize selfies as a management of impression, to potentially influence and perhaps control perceptions about themselves. Millennial females thereby utilize selfies to create a specific image to reflect themselves, even if it is not always genuine

(Emerald Publishing, 2016). Certain social medias motivate users to portray their ideal body image, even if it is not the accurate display of themselves, because it gives a better impression of their body. In a study by East Carolina University, USA, they found that women post both false and authentic images to control their own portrayal of being both attractive physically and happy. This is depicted on the social media platform Instagram, which is home to many selfies and hashtags with young people in tiny training outfits; pictures of biceps, six packs and poses (Center for Ungdomsforskning, 2016). “*Under the hashtag #fitfamdk is a world of extreme fitness,*” says former winner of the DM in fitness and exercise addict, Mille Køpke. Niels Ulrik Sørensen told the newspaper Politiken that we largely consider the body as our own creation; as a project we must develop to shape our identity (Center for Ungdomsforskning, 2020). So when influencers use selfies to manage their self-representation and people see those selfies as genuine, the same people may strive for a body image that is nothing but a manipulated photograph. As Niels Ulrik Sørensen mentioned, the conception of perfection is a problem. Young people are already fragile and insecure, because they are still discovering themselves, therefore the selfie culture does not contribute to a healthy conception of ourselves.

This section described problem areas for the psychological reasons for weight loss, and how selfies affect young people to acquire a twisted body image. Next, we explain how digital media is part of today’s society, and why it may be a problem in connection with weight loss and contribute to developing a negative body image.

1.8 Digital media

Digital media, such as email, video and social media, e.g. Facebook, has become a big part of everyday life (Landsforeningen for spiseforstyrrelser og selvskade, 2021). Digital communication influence how people interact and communicate with each other via online platforms. We live in a world where communication has become more accessible and we speak in both text and images (Hjarvard, n.d.). Today's technology gives the media a massive presence in our everyday life, making knowledge more accessible and managing personal relationships. In connection with weight loss, body images are closely linked to social media, such as Instagram and Facebook. It is present in our everyday life and is the main reason why a lot of young women have a negative body image and self-esteem, due to the medias’ portrayal of the “ideal body image” shown on various digital channels (Landsforeningen for spiseforstyrrelser og selvskade, 2021). On internet sites we see both blogs, magazines and social media, such as Facebook and Instagram. According to studies, it is not how much time young people spend on social media, but what kind of activities happens on social media they are part of (Landsforeningen for spiseforstyrrelser og selvskade, 2021). In particular, the activities that entails the “ideal body image” that are shared on the social platforms. This type of activity promotes a culture of comparison among young people. When young people share photos on Facebook or Instagram and notice people with many “likes” and followers, it has a negative impact on their own

appearance. It influences some young people to strive for an unrealistic body image and leads to unnecessary worries about weight and how they eat (Landsforeningen for spiseforstyrelser og selvskaade, 2021).

In the following, we uncover the problem area about “the obesity promoting society” and “the diet culture”.

1.9 The obesity promoting society and the diet culture

In relation to research in the field, we provide a systematic identification of who else has worked with research on weight loss. During our research phase, we interviewed specialists on nutrition, dietitians, nutritional therapist and a personal trainer, to gain insights about problem areas within weight loss. We did a specialist interview with a habit coach, Morten Elsåe, who is Cand. scient. in Molecular Nutrition and Food Technology. With his Master's degree, he works as a health debater and dispels myths about weight loss with evidence-based knowledge. In the thesis, we spent a lot of time reading articles and listening to podcasts by Morten Elsåe. Among other things, we were interested in two issues that Elsåe mentioned in his articles: the obesity-promoting society and the diet culture, which, according to Elsåe, exist at the present time in society. We will begin by defining the obesity-promoting society and the diet culture.

Terminology

Definitions

The diet culture (in Danish: Diætkultur): Is the term we used for the culture that has developed from a obesity-promoting society. The slimming industry made a large part of the population interested in slimming down. The culture that promotes change and the slimming industries want people with a desire to change to pay money to for those changes.

Obesity-promoting society (in Danish: Det fedmefremmende samfund): Is the term we used for the natural consequences of the amount of calories available in society as well as economy, which is the basis for overconsumption and growth.

1.10 The obesity-promoting society

We live in a society that tempts and pushes us to overeat, which results in obesity (Swinburn & Gortmaker, 2011). We think that the obesity epidemic is a big mystery, but in reality it is the natural consequences of the amount of calories available in society, as well as, our economy, which is the basis for overconsumption and growth (Swinburn & Gortmaker, 2011). Elsåe emphasizes that “*Solutions that do not match the problem are not solutions; they are just a waste of time*” (Morten Elsoe.com, 2021). This is likely to be what takes up the most time in our society. According to Elsåe, the unregulated myths in the weight loss industry are created by people who are not

specialists, and who are only interested in making money. This is backed up by a social media universe, more focused on receiving “likes” than on spreading evidence-based knowledge, Elsøe argues. An obesity researcher, Dr. Kevin Hall, explains the problem in the article "Did the food environment cause the obesity epidemic?" from 2018 (Hall, 2018, 12). He explains that the increased availability of calories come from food and beverages in the United States from 1970 to present day can help explain the obesity epidemic. Today, there are two to three times more food and drink available to the individual than what is needed, which explains the obesity seen today (Hall, 2018, 12).

Another aspect that Hall highlights is that the most common misconception is that being or becoming overweight is self-inflicted, which it not the case, he argues. According to Hall, it is a societal nuisance that is a consequence of the environment that we live in has changed. Now, we live in an environment with more accessibility, which means that it is easy for us to find snacks and food, and fast calories can help explain the obesity epidemic (Hall, 2018, 11) (Population Health Metrics, 2013, 11). Hall then emphasizes that the otherwise typical explanations we give ourselves as, lack of willpower, discipline and lack of backbone do not hold, as it is society that affects us. However, obesity is unfortunately a result of the environment and social heritage, and it becomes more frequent, as our society becomes more obesity-promoting. This can be seen in our culture (Population Health Metrics, 2013, 1) (Hall, 2018, 11). We show empathy and care through eating. We comfort our children with food and sweets, and it comes from several beliefs that create our food culture, where over-intake is a major component. It is often about what we eat but also about the quantities consumed (Hall, 2018, 12-13). Another problem we face in today's society is the sizes of bags, bottles and portions that are offered in stores at a low price. Mostly, it is not us as individuals who benefit from this, but the retail trade and shops that make money on additional sales. This is often followed by a sort of pressure from the stores, suggesting the promotion is a very good offer. If you says "no", it is often followed by a negative reaction, argued Elsøe (Morten Elsoe.com, 2021). In addition, we have a workplace culture where it is accustomed to bring cake for special occasions, which is often widely agreed upon.

In addition, a meta-analysis from 2014 concluded that people eat 35% more on average when portion sizes are doubled (Dubelaar, 2014) (Hall, 2018, 11). Therefore, the size of portions we actually consume is paramount. Moreover, an article from 2017 describes the reasons why we eat more. These are the following mechanisms: “The appropriateness mechanism”, “the unit bias mechanism” and “the bite size mechanism” (Kerameas, 2015). “Appropriateness” is about what is a reasonable quantity of food. It explains why people are affected by what they consume. In this mechanism one eats what is available, if there is a lot available one consumes more and vice versa (Dubelaar, 2014). “The unit bias mechanism” is about the individual serving. It can be a muffin or a plate of food. It is then reasonable to eat the whole serving, no matter the size (Almiron-Roig, 2013). It may also

be about people tending to eat more when there are several smaller portions rather than one big one (Kerameas, 2015).

“The bite size mechanism” is about quantities of food and bigger chunks. It is common that when you buy larger quantities, people use more, because we tend to underestimate how much we consume. People’s ability to assess what is reasonable to consume estimate quantities is not particularly good (Almiron-Roig, 2013). Humans need to relate to something and put things in perspective. This may explain how the size of the plate may affect how much we consume. The larger the plate the bigger the amount of food and vice versa (Dubelaar, 2014). In addition, Elsøe and Hall emphasize that the way to stop the obesity-promoting society is through regulations. By changing our food environment and supermarkets so that all quantities become smaller and there were fewer temptations (Population Health Metrics, 2013, 10-11) (Hall, 2018, 12). In the next section, we explain the research we found on the topic “the diet culture”.

1.11 The diet culture

Elsøe argues that in the case of the diet culture, the problem is widespread (Morten Elsoe.com, 2021). It is caused by our environment’s changes, as we mentioned in the section above about the obesity-promoting society. Subsequently, the problem of the diet culture has flourished. The slimming industry has made a large part of the population interested in slimming down. Elsøe mentioned that when people are dissatisfied with themselves, it creates a foundation for them to change, and the industry earn money on that foundation where people will pay to change themselves (M. Elsøe & M. Svane, “Slut med forbudt”, 7.50, 2021). Elsøe and Svane argue that in our culture, it is normal to be on a diet, to an extend that we talk with others about being on a slimming diet and it is being normalized. For example, when dieting it is normal to apologize for what is eaten if you choose to eat something delicious, such as a dessert. However being on a diet or focusing on food may lead to developing compensatory thoughts, such as “cleansing” oneself after eating “forbidden food”, says Elsøe (Morten Elsoe.com, 2021). Svane adds that people tend to make the following compensatory thought: *“I should go for a run to make room for the brunch I am attending later with my friends”* (Elsøe & Svane, “Slut med forbudt”, 11.36, 2021) (Morten Elsoe.com, 2021). Elsøe argues that the diet culture is about the moralizing eating practices and that people have given food a certain value. In this culture, we committed ourselves to being healthy (Elsøe & Svane, “Slut med forbudt”, 16.05, 2021) (Morten Elsoe.com, 2021). Due to people have given food a certain value and we have a diet culture society, the moral imperative has shaped peoples understanding of their bodies, as people made health to be that one has a high social status. This means that we have a negative view of people who do not take care of themselves. The argument is that we evaluate people based on their health, so that those a with high salary and many social relationships are considered healthier than others (Elsøe & Svane, “Slut med forbudt”, 17.21, 2021) (Morten Elsoe.com, 2021). The essence of the diet culture is that it has become normal for people to judge other people on their

appearance, by measuring weight and status, rather than seeing people as nuanced individuals. The diet culture helped sell the idea that "happiness is obtained through a certain body". We measure people by their size, and reduce our assessment of people to the shape of their body. According to Elsøe, it is entirely impossible to know anything about other individuals unless we actually spend time getting to know them (Elsøe, 2020) (Elsøe & Svane, "Slut med forbudt", 44.10, 2021).

In this section, we have clarified what terms "obesity-promoting society" and "diet culture" consist of. We uncovered problem areas around weight loss practices and focused on social reasons, psychological and digital aspects that cultivate weight loss and other empirical material discussing the subject. All of the above problem areas led the to the following problem statement.

1.12 Problem statement

How might a combination of methods from SSD and MALIC be used to design a service concept? The service concept should aim to improve the weight loss practice among female students, to help them understand and support their future weight loss practices.

Which weight loss practices did female students between 25-30 years from Aalborg University Copenhagen have?

1.13 Work questions

1. How could we use methods from MALIC and SSD methods to design a service?
2. How could we use key insights to help change practices for how weight loss was understood to support future weight loss practice for female students between 25-30 years?
3. Which kind of weight loss practices did female students between 25-30 years have?

We wanted to set the context for the thesis in terms of our problem statement and work questions. Therefore we wrote a section about the context for researching weight loss practices for female students between 25-30 at AAU, CPH to clearly frame the context of the interdisciplinary master thesis.

1.14 Context

The interdisciplinary master thesis examined weight loss practices among female students between 25-30 years at AAU, CPH. The university in Copenhagen is a part of Aalborg University. The department in Copenhagen, is located in Sydhavnen and consist of around 3300 students where it has 13 institutes and five faculties (AAU, Historien om AAU I København, 2021). We chose to set the context at AAU CPH, because we had most responses from the survey which attended "mellemlang videregående uddannelse" which is a middle to long education with a duration of 2-4.5 years and because 44.2% responded they were students (Appendix I, 47). In addition, the in-depth interviews were

found in continuation of our primary quantitative survey. The interviews were held with four female students who all were in the age group between 25-30 years old from AAU, CPH. The informants agreed to be contacted after the survey, as they had an interest in weight loss and weight loss practices. In the next we uncover the scientific direction in the thesis.

1.15 Scientific direction

In this section, we reflect on the theory of science and form the context of the theory in the thesis. We chose that the theoretical background should take place with practice theory, due to the fact that we investigated practices in weight loss for female students at AAU CPH between 25-30 years. With practice theory, we examined the practice that were among AAU's female students. The thesis examined questions that aimed to shed light on the informants' practices in weight loss. More precisely, through an interview guide, we asked questions designed with concepts from Theodore Schatzki's model "the mechanisms of the social order". Where we systematically uncovered the informants' "sayings" and "doings" in their weight loss practices. In order to understand the informants' "practical understandings" of what was morally and culturally appropriate to do in their weight loss practices. We did this with a practice-theoretical angle, because we saw the project take shape with an object view that was practice oriented. In this next section, we explained the significance of the flat ontological direction. Furthermore, in the thesis we applied Theodore Schatzki's theory of practices. We used Schatzki's theory as our theoretical tool in our analysis section. This theory supported our thesis in examining the female students between 25-30 years at AAU, CPH weight loss practices. Based on a flat ontology, we looked closer at the thoughts and perspectives the informants had about weight loss practices that helped to influence and shape their actions and use of materials in the material arrangements. From these mentioned studies, which was presented in the analysis part of the thesis, we researched how we with a combination of methods from SSD and MALIC could to design a service concept. The service concept should aim to improve the weight loss practice among female students, to help them understand and support their future weight loss practices. In the next section, we explained in what way we used practice theory as an ontological direction in our thesis.

1.16 Practice theory as an ontological direction

In recent years, the theory of practice has become widespread, however, the very curiosity to examine social practices is not new at all (Schatzki, 2012, 12). Based on a flat ontology, practice theory aims to see individuals as foundations that exist in the world, that recognizes and learn through activities and actions. This view comes from Schatzki and was the one we applied in the thesis (Halkier & Jensen, 2008, 49). Halkier and Jensen, who are sociologists, base their knowledge on Theodore Schatzki's theory of practices, and mentions that; *"Practice theory is an experiment to develop a common thinking about elements in sociological theories."* (ibid.). For this reason, practice theory

is not placed under a particular scientific example and is therefore considered a flat ontology (Ibid.). The practice theory also tries to break dualities, which means that no boundary exists between objects and subjects. In this context, the theory also tries to break down the division of the micro, meso and macro perspective, and make it possible to dissolve these perspectives, therefore it becomes a perspective that is theoretical in practice. Another reason for this is that one refers to the theory of practice as being related to other theories and thus bases its foundation on other ontological directions (Schatzki, 2012, 14). According to Schatzki, a practice is defined as follows: *"Important features of human life must be understood as forms of, or as rooted in human activity - not the activity of individuals but in practices, that is, in the organized activity of multiple people"* (Ibid, 13). From this we gathered that practices are grounded in a bridge building between the actions of several participants. In addition, practice theory has a background in examining the social world, in a view where phenomena such as identity, learning, communication and rationality are connected, and has their basis in practice as being phenomena that are social. In addition, knowledge is understood as processed by the relational and can be distributed through the practices that make it possible to examine the knowledge that is unconscious (ibid. 14). Halkier and Jensen consider the theory of practice from this point of view, as giving rise to a perspective that is analytical: *"Practice theory has the potential to alleviate a number of analytical challenges for empirical sociological research in fields involving the micro-processes of social life"* (Halkier & Jensen, 2008, 49-50). Halkier and Jensen argue that practice theory should be seen as bearing a specific analytical angle as: *"Be analytically adapted to specific empirical research fields, each with their own knowledge, concepts and discussions"* (Ibid. 49). In the thesis, we endorsed this understanding of the practice theory and provided an opportunity to examine the weight loss practices among the female students. Since we chose to endorse this perspective, we therefore did not make a division of micro, meso and macro, however, we saw the practice theory as a context. Thus this ends our Chapter 1 of the thesis. In Chapter 2, we explain the Research phase of the thesis.

2. Research

Chapter 2 - Research

The research topic "weight loss" derived from the our own weight loss practices and feelings about weight loss despite not being overweight, this led to wondering and asked questions as: Why do people want to lose weight? Why are women especially affected by the perceived societal norms of a body image? What kind of sources are people using and relying on, in order, to get in shape? What kind of services is involved in this weight loss industry? The questions gave us a common research aim of understanding female students weight loss practices, and finding the gaps in the existing health information. When planning the research, we had to think of research methods that gave in-depth knowledge of the weight loss practice and gain more detailed insights of people's practices and what other stakeholders involved in the weight loss practices. There are a huge variety of research methods that could be applied to collect data and insights. We chose to use quantitative and qualitative methods to achieve richer results. However, because we had a practice oriented focus our primary method was observations. We mostly used qualitative methods to gain new perspectives and answers to the "why" questions, and used quantitative methods like a survey to gain quick confirmation on few assumptions or created a general overview of the context. Due to COVID-19, the data was gathered online and all interviews were arranged to take place on the platform Zoom and Microsoft Teams. For MALIC, scientific-based research was essential, as it was important to understand weight loss practices applying Theodore Schatzki's theory about practices. For SSD it was important to understand people and services in the context, in order, to build a holistic picture of the research topic. MALIC and SSD understood things from a different perspective which lead to richer findings. Also, SSD excelled at visualizing data and MALIC excelled in understanding findings on a deeper methodological and analytical level. Together the two professions created clarity and presented research outcomes in the Research chapter. The Masters of Arts in Learning and Innovative Change (MALIC) and Service System Design (SSD) shared almost the same qualitative and quantitative research methods. To learn about the specific context and empathize with people, the research method that was applied in the research phase was: Desk research, online ethnography (field observation), in-depth interview and survey which was explained in the next chapters. In addition, the similarities and differences of each professional's approach was briefly highlighted to show how the differences could be utilized for our benefit. In the following we go in-depth with the methodology of the thesis.

2.1 Methodology

In the following section we clarified our choice of methods and empirical collection. The choices are based on our scientific theoretic direction. This included our practice oriented starting point that we utilized in our design of study. In addition to this, we chose to use mixed methods as a combination, which we found relevant, as to using survey to

processing the quantitative data and semi-structured interviews to our qualitative empirical collection.

2.2 Mixed Methods

In this project we used a mixture of quantitative and qualitative methods. For that reason, we used mixed methods to solve our problem statement and used several kinds of data and empirics. In the thesis, the quantitative data was collected with a questionnaire survey and the qualitative empirical data through interviews with informants and specialists. In some cases data and empirical data cannot be linked to each other, and thus we chose to use several types of methods. Therefore, we assessed in what way, as well as, at what times, that data supported each other. In an article on Integration of Mixed Methods research: Method or Design by Morten Frederiksen from 2013, he talked about the argument for why one should use mixed methods. He emphasized that several methods must be able to support each other and thus it can support and strengthen the quality of the study and it is according to Frederiksen an essential perspective to include (Frederiksen, 2013, 32-33). In addition, Frederiksen emphasized that the word integration must be a kind of bridge building, which is choices and methodological applications a researcher could use to create a connection between types of research, this makes it mixed methods research. When one chooses to make the integration to build a bridge, there is no question of new empirical evidence, on the contrary, there is a connection between several kinds of data (ibid. 21). There is six kinds of integration, Frederiksen argued, which can stand alone or interact. These consist of design, theory, data, method, analysis and interpretation (ibid.). In this thesis, we chose to apply theory, as well as, data to integrate our qualitative empirical data. In the integration of theory, types of data were integrated through a theory, in this case, practice theory by Theodore Schatzki, was our primary starting point for our interviews and questionnaire research (ibid., 21). In addition, it was the integration of data, through the fact that we selected our informants for the in-depth interviews via the questionnaire survey. Thus, we supported that our informants was a part of our questionnaire and had knowledge, as well as, had answered the questions we asked, initially. Therefore, they were included in the data which was quantitative (ibid.). In the thesis, however, our data and empirical data could not be seen as a total set, but through theory and data integration, we tried to create a bridge between empirics and data, which helped us to answer our problem statement. In the next section we continue to Design research in the thesis.

2.3 Design research

Design research is the practice of making a difference in the human experience in relation to a product or a service; it is about being attentive to what people say and observing their actions in order to comprehend their thoughts and feelings based on their experiences (Tung, 2020). It is explained as a broad term for the process of understanding the underlying and often hidden preferences, needs and challenges of the user, also referred

to as the target group. A designer aims is to explore the user's environment and the elements within certain experiences. Essentially, the main objective in design research is to comprehend and reframe the big picture of a problem (Tung, 2020). The difference between traditional forms of market research and design research is the approach and mindset of collecting data. The design approach is not about proving a hypothesis or seeking solutions in the research process, or to collect data to confirm whether a claim is true or not, at least not in the beginning of the process. Instead, it is about getting a clearer picture of the user by engaging with people to gain a deeper understanding of the user and to collect user stories, uncover unmet needs and understand the user's motivation in their actions. Basically, the mindset in a design research is to let go of prior bias and have absolute curiosity about how people experience the world. Surely, this does not imply that designers go into interviews completely unprepared. To gain a basic understanding of the subject matter, it is essential to do preliminary research (Tung, 2020). Moreover, to quickly outline the differences, market research lean more towards quantitative data collection and analyzing large datasets, whereas design research is more about using qualitative data to try to answer the "why" behind a user's behavior in their interaction with a product or service (Esposito, 2018).

Using design research enabled us to become acquainted with a different subject, to learn about the specific weight loss context, and to build an understanding of the people's practices and routines. Also to be inspired by other fields and to test and collect feedback on ideas and prototypes (Stickdorn et al., 2018, 100). In service design, qualitative methods are mostly used for particular methods based on ethnography. Quantitative methods are also used, e.g. surveys (Stickdorn et al., 2018, 105). Using both methods gave us detailed data, therefore, it was essential to use a mix of methods as each method carried its own potential bias such as "interviewer effect", where the interviewee can be affected by the interviewer's personality and style of communication. Thus it was important to use a mix of quantitative and qualitative methods to level out potential biases (Stickdorn et al., 2018, 107). In the next part, we elaborate on the desk research we found.

2.4 Desk research

We collected secondary data to check whether research regarding weight loss already existed by gathering academic papers, articles and specialist interviews on the research topic weight loss (Stickdorn et al., 2018, 119). Furthermore, to collect data on trends, current projects and services existing in the weight loss context. The purpose was to gain an overview of the weight loss industry and gain background knowledge. MALIC and SSD were similar when collecting empirical data, as it was essential to create a solid foundation of knowledge and move beyond assumptions. First, we elaborate on what weight loss is defined as below.

2.5 Weight loss defined

Weight loss is explained, as a balance between energy intake (calories in food) and the body burning the energy (Sundhed.dk, 2021). A decrease in weight result from either actively doing diets and exercise (voluntary) or due to illness (involuntary). Overall, the motivations for weight loss are either driven by physiological, health related or societal reasons, it can also be a mix of the three depending on the person.

There exists different purposes for initiating a weight loss practice. For some people it is due to being heavily overweight. For other people it may be to improve their athletic performance or to reduce depressive symptoms (Chrysanthou, n.d.) For the master thesis, the focus was to investigate people who were healthy and not overweight. Moreover, that they attempt to lose weight due to self-image motivational reasons. Losing weight, is about burning more calories than you consume, to see results and reach one's weight goal through dieting and physical activities. A weight loss has its advantages and disadvantages. Besides getting a slimmer body, there are other beneficial reasons to losing weight. To mention some of the benefits, it is reduced blood pressure, reduced diabetes risk and more self-esteem. However, the disadvantages that can potentially follow is that people can feel a pressure to maintain the weight when they achieve more attention than they usually do. Also, it can create anxiety around food and obsession with how much they eat. In addition to this we tried to uncover what methods there was for weight loss (Harvard Health, 2020).

2.6 Methods for weight loss

There are different approaches to lose weight, this section will present "diets" and "lifestyle change", as they are the most prominent methods occurring in empirical searches. When googling weight loss there exists several sources that discuss the subject diet versus lifestyle change. Per Brændgaard who is cand. Scient in human nutrition define "diet" and "lifestyle change" as followed: *"Diet is a regimen where you one day from another drastically decrease the calorie intake, and you typically follow a program. Lifestyle change is where you make changes at your own pace and meanwhile experience a slow weight loss."* says Per Brændgaard (Sundhedsstyrelsen, 2019). Then after uncovering the methods for weight loss, we researched about diets.

2.7 Diets

According to Sundhed.dk a diet makes it possible to lose a large amount of weight in a short period of time, because a person is following a set of dietary principles. A person doing a diet will see a big change in their current eating habits, because they must leave out certain foods and products and perhaps even implement new ones, which makes it difficult for a person to follow a diet (Sundhed.dk, 2021). It has been pointed out that diets are not feasible in the long run, as diets are perceived to be applied for a short period of time to reach the desired weight goal (Sundhedsstyrelsen, 2019). However, people going

into a weight loss journey or just attempting weight loss will gain all the weight back, because they return to their previous habits. Subsequently, it damages people's mindset and perception of reaching their weight goals (Sundhedsstyrelsen, 2019). Moreover, people become more demotivated when they attempt with different types of diets, and they often associate the word restrictions because diets have strict guidelines to follow. In the section below we researched on what lifestyle changes is.

2.8 Lifestyle change

A lifestyle change considers that everyone is different and is about making small moderate changes to one's current dietary habits (Sundhed.dk, 2021). It is all about finding a balance when implementing small changes to the current dietary habits and exercise so it can be continued to be developed and used for many years (Sundhed.dk, 2021). Applying lifestyle change to achieve weight loss requires both understanding and consideration if one is ready to change their current habits to healthier alternatives over time and continue to do it for the rest of their lives (Sundhedsstyrelsen, 2019). In other words, it requires a long-term effort to reach the desired result and maintain it. After discovering about lifestyle change, we wanted to know more about health information and what kind of knowledge there was about weight loss, diets and lifestyle change.

2.9 The jungle of health information

When people attempt to lose weight or try again for the second time, they do their research to get the best start. However, according to Kost og Ernæringsforbundet, people have become quite uncertain on how to navigate and find reliable health information sources for ex. credible dietary trends. Young people (18-43 years old) are seeking knowledge on social media platforms and blogs to gather information on ways to lose weight (Kost og Ernæringsforbundet, 2021). Many people such as healthcare professionals, alternative therapists, influencers and trendsetters have knowledge about food and health. Some are evidence-based knowledge and others are basing their knowledge on own practices. Which can be confusing for many people when gathering knowledge online (Kost og Ernæringsforbundet, 2021). In the next paragraph, we found different trends in the weight loss industry.

2.10 Different trends in the weight loss industry

According to DMS Insights, Millennials are influencing how people perceive diets and exercise. The near-constant use of technology makes it possible to communicate with people on different social media platforms and thereby creates a significant influence on diet and exercise trends (DMS insights, 2019). Millennials are the ones who are reaching audiences online and influencing their network to eat healthier and preferable organic and sustainable (DMS insights, 2019).

2.11 Trends in diets

Numerous sources have pointed out several food diets will become prominent in the diet culture. According to Grande cig, the consumer trends show in nutrition, as of 2020, that keto, the flexitarian diet and intuitive eating are becoming popular. The two other diets are less strict than the keto diet. Furthermore, whey protein will appeal to all dieters and anti-dieters, as it makes a person full and not overeating when feeling hungry (Grande Custom Ingredients Group, Mueller, 2020).

2.12 Trends in exercise activity

Technology is transforming the way people exercise, it has become an essential part in workouts as people use wearables and apps to track their progression and measure their activity (DMS insights, 2019). Moreover, technology has become even more integrated in exercise, due to Covid-19, where fitness companies offer classes and other innovations to enhance workouts and cultivate weight loss at home (DMS insights, 2019). According to Aktiv Træning, training methods in the gym are also changing. According to Aktiv Træning the following trends that we will flourish in 2021 is functional training, workout in smaller groups and tracking. It has been foreseen that fitness will make more space for bodyweight training and less space for workout machines. Personal training and bootcamps will be in small groups of 2-6 people and become more common for motivational training and tracking, health data is becoming more integrated into the fitness centers (Lyhne, Thalund, Gottlieb & Larsen, 2020). After discovering trends about weight loss, diets and exercise, the next step was to find out what projects existed in relation to weight loss.

2.13 Projects related to weight loss

Projects in Denmark

To further understand the context of weight loss, we researched what kind of initiatives were currently ongoing both in Denmark and abroad, to find how other stakeholders conduct research of habits and practices in weight loss. We found projects on weight loss were mostly conducted by the health sector such as Region Hovedstaden and universities related to nutrition who conducts scientific research projects. Steno Diabetes Center Copenhagen conducted a research project that investigated whether one can lose weight and reduce the risk of type 2 diabetes simply by eating in a set time interval of 10 hours daily. Region Hovedstaden was also part of a project called NoHow, which was an evidence-based project that conducts research in weight loss maintenance. The NoHow project helped participants monitor themselves and intervene if the weight was fluctuating. The project was based on big data on weight maintenance habits and cultures that was collected through participants taking part of the project. Secondly, we researched about the projects abroad.

Projects abroad

One of the current weight loss projects we came across in the Research phase was from a research group called, The UConn Weight Management project. The study investigated several aspects of weight loss for example LEAP (Lifestyle Eating and Activity Program), that was about implementing and examining a change in the participants physical and social home environment to help the weight loss outcome (UConn, 2020). When reviewing initiatives in Denmark and abroad, we believed there could be more contributed to the weight loss projects. In the section below, we explain about the specialist interviews we conducted, and the knowledge gained.

2.14 Specialist interviews

After an extensive desk research that gave us an understanding of the weight loss practices and services, the next step was to approach different professionals working within the field, in order to acquire knowledge on different aspects of the weight loss practice, and people using services to help their practices. The purpose was to gather insights in what professionals see in the field as they interact closely with their clients and also to learn from their experiences.

Who: We conducted five in-depth interviews with specialists: a personal trainer, a dietitian, two therapist nutritionist and a physiotherapist, who also was a habit coach. Their experience extended from one year to 22 years. Most of the informants had a deep background knowledge within the weight loss field.

Aim: The aim of the interviews was to gain an insight into the professionals' knowledge, and to understand their consultation service. Furthermore, to understand what a weight loss practice entailed from their perspective. The purpose was also to form a clear picture of the practices in relation to weight loss in connection with diets and exercise. Moreover, it was also the aim to uncover which segments they receive most inquiries from, what challenges a typical client have and what is their perspective on the methods, lifestyle change versus diets. Ultimately, the findings gave an insight into what to consider possible when improving or creating a service.

Findings: In general, their consulting practice was done by the following, be contacted by the client through email or telephone call requesting a meeting, then, a short meeting to establish and gain understanding of the client's needs, health and practices in their daily life, because everybody is unique and has specific needs and preferences. It was important to take that knowledge into consideration when planning to implement a new practice, in order to help the client, reach their goals. A follow-up meeting was important in the consulting practice, as the specialist needed to hear their client's experience, practices, and to talk with them in terms of resolving a personal challenge and about which new things could be implemented. The specialists expressed that people trying to lose weight felt it was difficult process, and clients experienced different things, e.g., some

only needed to lose a few kilos while others needed 10 kilos. Some people felt it was difficult and others felt it was easy. The mind could also affect a person's motivation, due to low food intake to lose weight. One specialist said that men and women experience weight loss differently, regarding the mental part, and that men do not think much about what they are doing and just follow instructions while women tend to eat with their feelings. The specialists disclosed that people turn to them for different reasons, but for weight loss, it was to have support and encouragement in their practice and journey. Moreover, a professional element was that they have facilitated the change practices many times before, and therefore could rely on their knowledge to achieve their weight loss goal faster, seeing that some clients had tried it many times before and failed. The specialists disclosed that it was difficult to say if there were a right or a wrong way to lose weight. In their experience, they knew that if a person does not maintain consistency in their actions, they would relapse to old practices and gain weight. Moreover, it depended on the individual, as it was different from person to person what worked and what did not. All the specialists believed lifestyle change methods were a sustainable approach to weight loss, yet one expressed you cannot mix the practices, as it depends on the client. For example, if they weighed 100 kilos, they could start to apply a strict diet approach and then a lifestyle change when the client had achieved a good part of the weight loss. In addition, one specialist mentioned that social relations could influence the client; In particular, if the client felt supported by their relatives it was easier to implement new practices that cultivated a weight loss. The specialists did recognize that it was difficult to implement changes, yet it is different from person to person and depending on the process. The different aspects mentioned were that it was easier to implement and maintain changes in the beginning of a weight loss than in the end. For some, it was natural to maintain the changes. However, it was noticed that the economic element kept the client motivated to adapt new changes when they invested money in the service. One of the specialists mentioned mental health, in terms of adapting a change to the practices. It was important to be mentally aware of the mind and be able to register how you felt. Furthermore, it varied how people adapted to implement changes in their weight loss practices; some had a positive attitude while others experienced stress and lack of sleep and resorted to eating sweets. The specialists informed that to achieve a change in a practice in relation to weight loss, the methods they applied for the transition were to find the most relevant and effective number of activities to activate them. Something which could be maintained in their everyday life. One specialist highlighted that it was about portion size in her practice of making a diet plan: It was important to have “room” calorie wise, for a client to enjoy themselves. Especially for the weekends, when a client was invited to social gatherings. Therefore, it catered to their needs, being part of an arrangement without feeling restrictions. Moreover, it was mentioned that it was important to be mentally ready, and to have the mindset for making food that seemed dull taste more delicious, as food was a big part of the weight loss practice. The specialists’ services

were about providing a structure for the client. It was about letting the practice be easy for the client.

2.15 Field research

In order, to empathize with people and get a better understanding of their needs, emotions, expectations and practices in their weight loss journey, we observed them in their environment. We chose to apply online ethnography on the social media platform Facebook, as it facilitated a great number of online communities (Rodriguez, 2020). Online ethnography is a method to investigate how users interact with each other in online communities (Stickdorn et al., 2018, 120). The purpose was to observe the social interactions and what kinds of content was posted in the online community. The online ethnography was done as a non-participant observation, which entailed observing people's practices without actively interacting with them (Stickdorn et al., 2018, 123). The reason we applied the non-participant observation was to level out the researcher biases and authentically see what people actually said and did. We set several criteria's for defining and choosing the online communities on Facebook:

1. *1. It had to be groups with 1000+ members*
2. *2. It had to be weight loss related*
3. *3. It could represent other health aspects that worked toward weight loss e.g. motivation and healthy recipes*

Group members from MALIC and SSD were both familiar with the observation method, yet the approaches were different. The SSD documented experience visually with screenshots or screencasts, and made simple field notes or transcripts, depending on the environment (Stickdorn et al., 2018, 120). Maria from MALIC wrote the observations in the form of an in-depth text, writing in three different formats. The descriptive, The focused and The selective observation.

2.16 Online ethnography, non-participant observation

We observed three Facebook groups (Appendix A, 2) "Vægttab 2021 (Kun piger)" with 18.500 thousand members, "Vægttab - med sund fornuft og god mad" with 34 thousand members and lastly "Vægttabsrejsen" with 6,6 thousand members. The observation took place from 22/02/21 to 25/02/21 and observed the interaction one month back as all three groups had people posting 10 posts per day. Which was the reason we decided to limit the observation 1 month back. **The descriptive observation.** The purpose of this observation was to focus on describing overall what was observed in the Facebook group. **The focused observation.** Focuses on how people in the online community said about food, described the food and how they ate. The main reason was a focus on intake, nutritional content in food. It was the food that was of great importance to the groups so that they could lose weight and this was where we observed a lot of activity among

members. **The selective observation.** The purpose was to examine practices in relation to weight loss, and therefore we focused on what practices were and the way the individuals in the groups did this. This with the intention of comparing practices and finding differences in specific “doings” and “sayings” (Kristiansen & Krogstrup, 2015, 143). We wanted to address that the reason we incorporated the online ethnography, non-participant observation in the thesis and not in the appendix, was due to a mutual agreement on a common approach in the interdisciplinary master thesis beforehand. Additionally, we wanted to address that for SSD it was normal to add the observed in the thesis itself and not in the appendix. Therefore, the following entailed the observed for the three weight loss groups.

2.17 Field: “Vægttab 2021 - Kun piger”

The descriptive observation

The group had 18,500 members for women who wanted to lose weight and to gain inspiration from people who had previously lost weight. Recipes, photos and messages were shared on the “group wall” to motivate others. Thoughts about weight loss and food photos were shared to prove to others what they ate. As well as, how much they exercised. Calories were a big debate. It was not specific foods they ate, but varied. It seemed the focus in the conversation was cutting carbs. Many advised others on food and people commented, as if they were dietitians. A few people wrote in a nice tone, others in a moralizing way. Posts was “before and after” to motivate and spread inspiration about how much they lost. People also praised others and asked about their practices and process.

The focused observation

Many calorie counted. Apps were used to count calorie intake, apps, such as, MyFitnessPal or Lifesum. Products from “Easis” were used and there was a variety of fruit and vegetables in the meals. Attention was drawn, to that one could buy a product called “The cheap diet plan”, which was made by a dietician for a cheap price, to have a varied plan. Coffee with milk, eggs with ham and yoghurt like “skyr” with topping was described as delicious. The group substituted “forbidden” food with low calorie food options.

The selective observation

Members who shared photos of their weight loss focused on sharing how many kilos they lost. It was written on the pictures how many kilos they weighed before and how much they weighed after. It was mostly written in their post with the “before and after” pictures. They cared a lot about how long the process took. Some focused on how many calories one needed to eat to lose weight. Members who inquired into other members' weight loss practice, focused a lot on interacting to gain knowledge about what methods were used

to achieve success. Many praised each other for the practice they went through and encouraged others to embark on a weight loss program. The focus was on the food and the quantities consumed.

2.18 Field: “Vægttab - med sund fornuft og god mad”

The descriptive observation

The group had 34,900 members, the majority women. The group started with someone who had heart problems, to inspire, motivate for a healthy and lasting lifestyle. Food photos was shared, especially breakfast and tips on how they made food taste interesting. Words like “protein fluff”, “banana waffles” and “mini pancake pieces” were used. Many commented and cheered on each other. Information was shared to help others start with weight loss. A good tone generally in the group, when interacting through the comment sections. Pictures was shared of “today’s total calorie intake”. The weight losses were different, as some had only just begun, others had been ongoing for a long time. Weight loss ranged between the 2-5 kilos to 20-50 kg. Many were proud of their process.

The focused observation

In this group, members posted pictures of food such as omelets with cauliflower and cocktail sausages and gnawing greens, “skyr” with fruit were some of the foods that were eaten. Overnight oatmeal, was one of the recurring meals, in addition to pancake pieces on “skyr”, as a substitute for muesli. Rice was being replaced with cauliflower, as rice contained a high amount of calories they said. In this group, pictures of low-calorie meals were shared often as, eggs, chicken and lean varieties. As well as, portion-oriented meals which was mostly pictured.

The selective observation

We observed that members cared about calculating their calories for their meals, after which it was shared among other members. This was done by pictures or text, as an inspiration for others. Then members commented on the post with compliments. The food was often portioned or nicely served, to look visually inviting. Focus was they created new dishes to motivate themselves. Advice was given on what to eat if one's weight stagnated. For example, some members wrote to other members that they should cut off carbohydrates and choose healthy protein sources, such as, chicken, fish. It was not often that people said something bad about other people's ways of losing weight. However, there were many self-proclaimed specialists.

2.19 Field: “Vægttabsrejsen”

The descriptive observation

There were 6,700 members who were women. The focus was to be inspired by others who lost weight. Before and after photos were shared in the group to show progress and motivate. In the comment sections there were a slightly teasing tone. Members shared pictures of what they ate with calorie content and taste. They also shared exercise and how many steps they did on the current day. There were dieticians in the group who advertised for own companies, with an invitation to participate if one wanted diet plans. We observed many myths about weight loss was shared; what worked and what did not work. One example was a mask to make the double chin disappear, or “drink chia seeds in lemon, as this would make you lose weight”.

The focused observation

In this group, it was a mixture of typical Danish food and Middle Eastern food. Pictures were posted of prawns fried in spices. Soups, yoghurt and spicy food adorned the group. There were also mixed thoughts towards what was right and wrong to eat. Concepts like health, and low calorie intake were much debated. Enjoying food was important, therefore inviting food images, snacks were shared, but often in a product that contained fewer calories, to ensure that less calories were consumed.

The selective observation

Diets were shared as the “toddler diet” which was an invented diet in the group. There was an underlying bit of seriousness behind the suggestion, due to members asked how they could join this diet. Training videos were shared with encouragement to follow others on social media platforms, to support each other. People used words like: “think”, “mean” and “believe”, which suggested that it was the members' subjective and not evidence-based knowledge they shared. Some encouraged other members to attend bootcamps and invest in diet plans. The conversations revolved mostly on the number of kilos that had been lost. People used “Lifesum” and “MyFitnessPal”.

After uncovering the observed the group created an online survey to gain more knowledge about weight loss practices among female students.

2.20 Survey

We chose to prepare a supplement to our thesis with a survey questionnaire to collect our empirical data. The intention of the survey was to find which weight loss practices participants have, and also to find and narrow down our target group to the students aged 25-30 from AAU, CPH. This enabled the thesis to methodically map different weight loss practices, trends and characteristics. With a questionnaire survey, we could better and to a greater extent support how widespread a phenomenon was (Hansen et al. 2017, 20). Moreover, using an online survey made it possible to reach out to more people to get answer than only conducting interviews. Therefore, our goal with the questionnaire survey was to provide an overview and insight into which weight loss practices the participants

had, where they search health information and their perception of social media in connection with body image. In the next section we describe how we designed the online survey.

2.21 Design of survey

The survey initiated a process for we to have a general overview of weight loss practices. It was essential to make the questions, as easy to handle for our participants. This was for them to be able to answer the questions (Hansen et al. 2017, 143). The first part of the survey was about demographical questions, as we were aware that posting a survey on a social platform as Facebook, was open to whomever was interested in participating. The demographical questions made it possible to distinguish and compare data. Thereafter, we had designed it in a way so that the questionnaire first examined the participants' weight loss practices. For example, in questions 8 and 9, we asked whether our participants had tried weight loss and how many times, with the opportunity to elaborate in question 11 on what was particularly challenging about a weight loss. Then the second half of the questionnaire was body image on social media and how this affected our respondents. In the next questions (Appendix I, 62) we wanted to know the participants' own thoughts about them. This was by letting them apply on a satisfaction scale about how satisfied they were with themselves. In the next part we describe what type of questions we created for the survey.

2.22 Type of questions

In a study, there are a number of questions one can ask, but the three typical ones are about how a target group acts on, what the target group thinks and lastly what the target group has of knowledge (Hansen et al. 2017, 144). In this thesis, our questionnaire survey had practiced-based questions with questions about actions. When asking questions about actions, Hansen et al. Stated that it was essential that the questions asked were as precise as they can be, because phenomena are subjective and can be interpreted differently (ibid., 148). Where in questions about what the target group had of sayings/thinks one would consider the participants' perspective and therefore personal and subjective thoughts were involved (ibid.). An example of this is, among other things, our question of satisfaction where we saw what our participants subjectively thought and felt about themselves. We also had a question about actions where we asked where the participants sought their health information and what knowledge they had about weight loss and they had to choose three places from a list of information (Appendix I, 61). In doing so, we had mixed different kinds of questions to achieve an alternation and nuance of answers. Below we elaborate on the term validity in our survey.

2.23 Validity

In the thesis, we chose to use the concept of validity to make an assessment of the quality of our survey. We used validity, as a concept to answer in what way and how our study

could be measured on what we wanted it to be measured on. Hansen et. Al describes that it was important not to make systematic mistakes in the survey that was conducted, as it can contribute to the survey not being valid and that incorrect conclusions can be made as a result of the survey (Hansen et al., 2017, 70-71). Validity is therefore very specific about asking the correct in the correct way (ibid.). Therefore, we tested our survey before we started to publish it on Facebook, by asking some test subjects who helped us. Those test persons were in the same age group and target group, as the target group we chose for the thesis, specifically to be able to identify these possible problems with validity. After the survey we decided to do qualitative interviews to strengthen our empirical collection. In the next section we elaborate on the qualitative interviews made.

2.24 Qualitative interviews

We chose to create an interview guide based on our answers from our questionnaire survey. This was, because all the interviewees had answered the questionnaire (See the section on chosen informants). It gave us the opportunity to go in depth with the participant's answers and then we examined their weight loss practices. Therefore, we chose to do qualitative in-depth interviews, in order, to elaborate on the answers we had from our quantitative questionnaire. Then in the following we describe our design of an interview guide for the in-depth interviews.

2.25 Interview guide

The interview guide was designed with a few initial informative questions. The guide was designed on the basis of Theodore Schatzki's "The mechanisms of the social order". In addition, the interview guide went into the following area elements; "Practical understandings", "teleoaffective structures", "general understandings", "material arrangements". In the first section we wanted to have a definite description of the persons' "practical understandings" of how the informants act during a weight loss. We wanted the informants to describe their actions and weight loss practices concretely in detail, to gain insight into the informants' "doings" and "sayings". The next section was about "general understandings" to shed light on common beliefs and concerns. In addition, there was the section on the "teleoaffective structures", where we tried to describe what the informants considered to be permissible or acceptable in a specific practice. As well as some follow up questions about the informants specific "doings" which contributed to determine an activity. Now, we established how we asked question with a description of an interview guide for the interviews. We will then describe the structure for the interviews below.

2.26 Semi-structured interviews

In the thesis, we used a semi-structured interview form, where we used the inclusion of the informants practices in our research work (Kvale & Brinkmann, 2015, 47). Therefore, the data collected was based on practices. We chose this to support the analysis of "the mechanisms of the social order". When we found our informants' weight loss practices we could better investigate and clarify the weight loss practices. We made a semi-

structured interview guide as mentioned above, where we prepared questions (Appendix H, 44). In a later stage in the analysis work we included the practice theoretical parts. We organized the questions of the interview guide based on Schatzki's model "the mechanisms of the social order". We formed the theory of practices by looking at how they acted, we considered this as "doings" under the term "the performative" (Section on "doings" and "sayings"). The reason why we used a semi-structured interview form, was because most questions were already formulated from the start as a framework. It also provided an opportunity to follow up with questions and gave the informants a chance to answer the questions (Kvale & Brinkmann, 2015, 46-47). We held the semi-structured interviews with five specialists and four selected informants based on the semi-structured guide. In the next we elaborate on the use of transcriptions in the thesis.

2.27 Transcriptions

As a processing of our collected empirical data in the thesis, for the qualitative interviews we transcribed the interviews we had. We used transcription as a tool to pass on knowledge that was found in the interviews with specialists and in-depth interviews. We found this tool useful for the reason that we analyzed our written material. It was essential to use transcription to analyze the qualitative interviews (Brinkmann & Kvale, 2015, 236-237). However, it should be noted that there may be some problems with transcribing. It can be tone of voice, body expression and tempo, which were in interplay. What one view of body language that happens face to face is available in an interview, one cannot view in a transcript. In addition, there may be a loss of tone of voice, breathing and intonations in the transcripts, which may contribute to a decontextualization of the repetitions of the interviews that take place in person (ibid., 238-239). In our thesis, we used audio and video recording to document the collected empirical material. It helped to provide space and freedom for the two of us as interviewers, to be able to focus on topic, questions and presence in the interviews. In addition, this meant that sound level, pauses and background sounds were included in the recording and this has made it possible to stop the interviews and pause them, so we could listen again to gain an accurate reproduction of the collected empirical data (ibid., 239). In the next section we clarify why we decided to use coding in the analysis of the thesis.

2.28 Coding

To analyze the collected empirical data, we chose to use coding in the form of color. We did this to clarify for ourselves and because color coding is a preparatory method to use. Therefore, we read through the transcribed and divided different passages according to a particular color, based on the themes we chose (Brinkmann & Kvale, 2015, 260-262). We had no white board at hand. Instead we were creative and utilized white paper, as a background board and then a black board marker to sketch the structure. We used colorful sticky notes with bright colors (see picture 1 below) to divide the different themes of the model. In our thesis, we chose to share the themes based on Theodore Schatzki's model "The mechanisms of social Order". Therefore, we had divided it as follows.

1. Practical understandings (green)
2. Rules (yellow)
3. Teleoffective structures (pink)
4. General understandings (blue)
5. Material arrangements (light pink)

Practical understandings	General understandings	Teleoffective structures	Rules	Material arrangements
<p>POSTE OPSLAG DELE MAD BUEDE POSTE "FOR-OFER" BUEDE</p> <p>SOMMENTER JAGER MAD MOTIVER HINDEN</p> <p>TALKER KAN DELE VAGT JAGE DELE VIDERE</p> <p>DOINGS: Poster Dele vil lade for/for mad/billeder dele Dele stabs video deling motivere andet</p> <p>SAYINGS: Giver mad kommentare</p>	<p>SKAL VARE I KALORIEUNDERGRUD FOLGE KOSTPLAN DET ER ENS BAST ADVAR AT TAGE SIG FA NOR SEVIN FA NOR VESKE LAVERE LUNGETS INDTAG</p> <p>SKAL BEVISE SIG AT APPS ER ET GODT VÆRSTED MAN KAN IKKE PUNKT TAGE SIG FORSKELLIGE MENINGER OM LIVSFORSANDING OM MAD</p> <p>DOINGS: Noh sam Noh vasker lavere indtag folger planer Bruger apps "leger" apper fortæller om sin på KAT vs. livsstil</p> <p>SAYINGS: - Skal være i underskud - eget ansvar - Skal bevise sig - Man kan ikke punterbrænde</p>	<p>ÅRSAG: FØLGE AF AT MAN SKAL VARE I KALORIEUNDERGRUD RE AT TAGE SIG HØRER BRUGER DE FACEBOOK? FOR AT IKKE FØLE SIG ALENE</p> <p>DOINGS: - Bruger fb for sammenhold - Er i kalorieunder - Skud</p> <p>SAYINGS: - siger måske skal være i underskud - skal i underskud</p>	<p>REGLER OG RAMMER FOR OPSLAG PÅ VESTRES GRUPPER SKALKE PENT TK ANDER FORH MAN ER I GRUPPEN FOR AT STØTTE ANDRE REGLER DITTE OPSLÆR Kunder</p> <p>DOINGS: Skriver pent til hinanden Skal brønde pent for at motivere andre</p> <p>SAYINGS: kommentare på andres opslag man ikke følger regler i kalorieunder skal ud af grupper vinder</p>	<p>apps: Lifsum myfitnesspal Lose app, map my run, endomondo, Jstare, reebotrek, yazio FB + messenger</p> <p>Ting: - rullestol - væksten vægt - vandvægt - træningsstøj + sko - Bæke vægt</p> <p>aflevering: - FB - apps - computer - fitnessvægt (arteries)</p> <p>Digitalt Praktisk</p>

Picture 1. Illustrates the analysis workshop for "The mechanisms of the social order", to establish weight loss practices for the target group, by N. Saabye & M. Nielsen, 2021.

However, it was important to keep in mind that this coding method was criticized by other researchers, as it may happen that the stories given from the interviews could be reduced and some of the perspectives covered with a few categories so answers were given before the analysis started (ibid. 260-261). However, we were aware of this and we did not consider these challenges to be critical of our findings on any level, because we based coding as a tool for creativity, flow, overview and with the purpose of creating themes in the transcripts. With that in mind, we had not abbreviated statements, nor been interpretive in our product. We simply gave titles and no limits. Therefore, more outlets may belong to more categories. In our thesis, we found this method very insightful and useful in the analysis, because color coding and the categories above contributed to our transcripts being more manageable to work with. We were able to distinguish the separate themes in a way so they were simple to find and use in our analysis. In the next section we elaborate the criteria's for the informants.

2.29 Informants

In the thesis we found informants in the form of specialist by having written to various dietitians, nutrition therapists and personal trainers. Of these we found two nutrition therapists, a dietitian, a habit coach and a personal trainer who answered us which we

chose to interview. The purpose of interviewing specialists was to gain background knowledge of their practices and routines in the weight loss industry and hear if they identified any tendencies, challenges or problems with people who attempted to lose weight. To empathize with people who desired to lose weight, the remaining four informants for the in-depth interviews were found in continuation of our primary quantitative survey. Therefore, our four remaining in-depth interviewees were for that reason interviewees who took part in the quantitative empirical collection (Frederiksen 2013, 20-23). The four interviewees expressed in the questionnaire that we later could approach them with follow-up questions for in-depth interviews. Subsequently, we chose selectively based on a desire that our target group was female students from AAU CPH between 25-30, to have a diversity in our responses. We tried to create diversity in age, as much as possible, and selected informants with an interest in weight loss practices. Next we explain the use of “empathy map” in our work.

2.30 Empathy Map

To truly understand a user's need, it is important to gain empathy with the user and their experience. It is a fundamental starting point of a design process (Interaction Design Foundation, n.d.) to create and design a service that engages and fulfills a user's need. Empathizing with the user is to gain an emotional connection and understand their personal experience with a service or product in a specific context. Overall, an “empathy map” is a tool that helps to synthesize the research output from the research phase and extract insights from the collected data. It is a tool that also helps visualize a user's perspective and behavior in relation to the service or product (Interaction Design Foundation, n.d.). The “empathy map” contains four quadrants, called “says”, “thinks”, “Does” and “Feels”, and the user in the middle of the quadrants, which captures the complexity of a person and creates an overview of the user and thereby provides us with a deeper understanding. Bear in mind, the “empathy map” captures one particular user or aggregation of multiple users, and it represents a user segment (Gibbons, 2018). We used the “empathy map” to create sense of the qualitative research outputs and to align the understanding of the user, aid in the decision making of what needs to be addressed and create a service that appeal and fulfill the user's needs. After creating an “empathy map”, it made it easy to create “personas”.

2.31 Persona

After empathizing with the users, the next step was to apply “personas” to obtain a representation of a real person that we focused on. Firstly, the concept of “empathy map” and “persona” were quite similar, however, an “empathy map” serves as a foundation for a “persona”, whereas a “persona” has more human characteristics like name, age, personality traits and so on (Adobe, Munro, 2020). Combining the two tools gave a more complete view of the user. A “persona” is a fictional character that represents a particular group of people who might use a service or product, and it is based on research.

“personas” were a useful reference throughout a design process as it helped us understand a typical user’s needs, behavior patterns and goals (Dam & Siang, 2020). We applied “personas” to gain a clear idea of who the service concept was designed for, and to fulfill a user’s needs and expectations of a service. It guided the ideation process and assured that we achieved the goal of creating a good service experience, and relieved pain points that a user encountered. A “user journey map” was also included; this is explained below.

2.32 User journey maps

It was important to understand the users’ needs, behaviors and motivations, as it provided us with an overview of how the user interacted with services and products to reach their weight loss goal. It was important to get enough data to gain actionable insights and thereby be able to communicate intangible and abstract practices in the weight loss. Therefore, we applied the “user journey map” as it helped the process of presenting information, and it conveyed more ability to identify real value by having a visual representation of the person’s practices and observed what made them do what they did in a certain situation. A “user journey map” is used to reveal a user’s typical experience over time and visualize the numerous dimensions and elements that take part in the experience (Interaction Design Foundation, n.d.). The map must be detailed; it shows the most important tasks and events that the user goes through and elements they encounter during their journey, and even how they felt along the timeline. This helped us identify where the service or product failed to meet the user’s needs over time, and improved the service across channels, so it exceeded the user’s expectation (Interaction Design Foundation, n.d.). We used the “user journey map” as a reference point to decide where the service concept could be implemented and, as a communication tool on how their journey was to identify new possibilities for improvements in the weight loss practices. In the following, we elaborate on how we used “cross-channel ecosystem map”.

2.33 Cross-channel ecosystem map

Lindenfolk and Resmini argue that to apply an approach that is based on a theoretical lens of systemic thinking, the theory must be about viewing a system from a broad perspective that involves the overall structures, patterns and cycles in a system, instead of only viewing a specific event in the system (McNamara, 2021). Lindenfolk and Resmini suggest that the systemic approach might be beneficial for the service design practice, as it suggests shifting focus from a single touchpoint to the global structure of the ecosystem, in other words, to consider multiple touch points simultaneously. The essence of the approach is to create a systemic view that ties together actors, activities and their goals into ecosystems, what Lindenfolk and Resmini refer to as a “cross-channel ecosystem map”. The “cross-channel ecosystem map” shows the result of an actor-driven choice of coupling channels that either belong to the same or to a different system within the context of the user’s tasks, goals, and desired future state that the actors intend to

achieve. The “cross-channel ecosystem map” is a construction that connects digital and physical spaces. It is referred to as a blended space, giving the designer the opportunity to see where they may intervene. We implemented the collected data to create a systemic view of the touch points and identified the blended space of opportunity with the purpose to obtain new insights and carefully examining the channels and touchpoints at the periphery of an ecosystem. Furthermore, aimed to conduct a cross-channel investigation of weight loss services, particularly people’s information search activity and movement across channels to gain information on how to lose weight. In the following section, we describe how we used the theory from the Double Diamond model in the thesis.

2.34 Double Diamond

In addition, we used the Double Diamond model. We applied the model to arrange the approaches in the collaboration. The process model was created by Design Council, a British organization, in 2005 (Design Council, nd.). The model consists of four phases: Discover, Define, Develop and Deliver. In addition, it includes divergent and convergent thinking. **Discover** is about gathering insights and exploring the field of the research topic and empathize with users for us. In **Define**, researched outputs from the Discover phase are analyzed and synthesized to narrow the focus that leads to developing a clear design brief that helps to frame the design challenge. **Develop** is a phase where we ideate on potential concepts that come in the form of prototyping (we define the definition of prototype later in the thesis under the section Adobe XD prototype) and testing the concept for potential users. It is an iterative process, where the concept become more concrete and brings value to users. In the **Deliver** phase, the service solution was finalized. It contains elements that deliver the most value for the users and organization (Design Council, nd.). In the next section, we elaborate on the ethical considerations in the thesis.

2.35 Ethical considerations

One of the arguments from Kvale and Brinkmann is that interview research is an ethical and moral matter in interaction with the desire to acquire knowledge (Kvale & Brinkmann, 2015, 110-122). Therefore we considered different aspects, to ensure that our thesis and especially our interviews were conducted in an ethically sound manner.

2.36 Scientific role

It was a very different year, as a result of Covid-19 and the associated closure of the community and repatriation. This aspect was a big part of the context in how we were able to act as researchers and conducted research. This was considered in the interviews we conducted. As a result of the Covid-19 repatriation, we kept all observations, interviews and the questionnaire online, which affected the way we as researchers acted. This meant that we had access to private weight loss groups on Facebook and interviews took place online, this was beneficial because the interviews we had were easy to set up

and there was less noise while recording interviews, due to people working home. However, it also meant that we were not able to be in physical space with the observers, which meant that many nuances, physical interaction and participation was lost. We considered that our informants in our survey in advance had specific messages about what weight loss was for them. One of the arguments Kvale and Brinkmann mentioned was that interviewers are the most important tool for gathering knowledge and that one as a researcher must always maintain one's integrity (Kvale & Brinkmann 2015, chapter 4). With this we argued that under Covid-19 we were researchers with care and empathy in the approach we chose. In this context, we were students and we had previously tried to lose weight. Then we also had a lot of knowledge about the subject in our previous attempts with weight loss and that one of us had a bachelor of profession in Nutrition and Health, which could also affect our research approach. This could affect us in a way that we become affected by our prior thoughts and knowledge of weight loss. That being said, we aimed for a position as researchers where we stayed objective and had distance to the matter. During the thesis we had always had a compassionate and ethical approach to the conditions, our interviews and questionnaire survey involved, as researchers in our own field. In addition, it must be mentioned that even though we considered and reflected there was a probability that our own feelings, practices and emotions affected the thesis especially during Covid-19, which made the situation even more complex as researchers. When we were students and at the same time interviewed many students and nutritionists, it was possible that we identified us with the informants in the study, which may have affected the interview style, analyzes and conclusions, we made in the thesis.

2.37 Data processing

In relation to our interviews, we obtained a statement of consent and data processing agreements prior to all interviews that ensured that the informants knew how we processed data, that they were anonymized and that they had an ability to pull their interview back if wanted. The thesis applied the programs. Microsoft Teams, Zoom, Office365 and Google Forms. A majority of these programs had data processing agreements with Aalborg University, and ensured that the thesis complied with the requirements of GDPR (AAU, Værktøjskassen, U.Å., 2021). In the next section we explain the limitation to our thesis.

2.38 Limitation

The topic of the thesis was about weight loss practices among female students between 25-30 years at AAU, CPH. The thesis was based on social, psychological and technological problem areas within weight loss. The thesis examined the problem statement as what weight loss practices female students between 25-30 years from AAU, CPH have. In addition, the thesis examined how a combination of methods from SSD and MALIC could be used to design a service concept. In particular that the service should aim to improve the weight loss practice among female students between 25-30, which

helped to change their practices of how weight loss was understood to support their future weight loss practices. Based on our data collection, a lot of segments in different age groups and backgrounds attempt to lose weight, however, to narrow our focus, the target group was found through our initial questionnaire survey and key insights that started as a target between 21-30 years. Then we chose to go in-depth with four selected informants who fit that target group and who are, or were students at AAU, CPH. Therefore we decided later in the process to select a target group between 25-30 years. To answer the problem statement, we chose to limit our thesis to a flat ontological direction, where we used practice theory. The theory for the analysis for MALIC was practice theory. We used Theodore Schatzki's model "The mechanisms of the social order". In addition, the choice to use theory from SSD that aimed to contribute with user-centered methods to uncover user needs, practices and challenges that the designed service concept could improve. We had a practice-theoretical point of view, as a starting point. We limited ourselves to focusing at what we called the "weight loss practices". Therefore, we had a special focus on the areas where we saw a special practice of weight loss. In the analysis chapter of the thesis, it was clarified how "The mechanisms of the social order" were considered for the female students from AAU, CPH in the weight loss practices. This was done by looking at "practical understandings", "rules", "teleoaffective structures", "general understandings" and "material arrangements". Moreover, for SSD key insights were extracted for the analysis of the thesis. We used key insights to shape a prototype into a service concept that was an informative weight loss application, which contributed to a user-friendly platform for finding evidence-based knowledge about weight loss. In addition, the analysis found which weight loss practices the female students between 25-30 at AAU, CPH have. The analysis stems from our empirical data collection. This was both online field observations, interviews with specialist, in-depth interviews and survey. We limited our interviews to five interviews with specialists and four in-depth interviews with informants. After clarifying the limits, we have now ended chapter 2. We now continue by elaborating the literature review in chapter 3 for both professions MALIC and SSD.

3.

Literature review and theory

Chapter 3 - Literature review and theory

This section presents the literature review and theory used for the thesis. For the framework for our analysis, we applied theory from SSD regarding a user's experience in weight loss, to form a service concept. We chose to apply theory from MALIC by using Theodore Schatzki's theory with his model "the mechanisms of the social order". This was to have an analytical frame for our interdisciplinary thesis. First, we will go through the literature review for SSD. After this, we will go through the theory review for MALIC.

3.1 Literature review for Service Design

Service design is an emerging field that derived from a collection of different aspects that is both from within and outside the design field (Edman, 2011, 62). According to Edman, from a design perspective, service design can be explained as a design of interaction in various interfaces, and it is experienced through touchpoints over time. Moreover, it is about applying methods and principles to be able to develop a service. Edman refers to Stickdorn, and argues it is not possible to clearly define service design, due to its interdisciplinary character (ibid., 66). To gain an overview of Service Design, Edman explains through a lens of asking three questions: *Who*, *How* and *What*. This is explained in a simple manner. She based her explanation on literature that is academic and practitioner oriented. First question Edman asks is *Who?*. One of Service Design's dominant descriptions is that it is interdisciplinary. So far it seems to have two main design practices involved in the process, product and interaction design, as it discloses the interaction on computer and software interfaces (ibid, 67). *How?* is the next question Edman asks. Service Design is characterized as a visualizing and prototyping practice, due to the intangible nature of interaction, which puts more focus on visualization in terms of clarifying the values in the service. Moreover, prototyping involves artifacts and people, and is more challenging than a physical product, due to intangibility and the time influence (ibid., 69). In addition, Service Design has a strong notion of participation and "co-creation", which we used in the chapter *Design of a service concept*. Service Design has strong empathic abilities, as the practice means to involve all stakeholders in the idea generating process; it is about designing with people instead of for people (ibid., 70). *What?* is the third question Edman asks. Service Design has a transformative character on an individual, organizational or societal level. Transformation is shown as an outcome in a development phase, shifting the focus from products and single interaction to view service, as value creation created in the context with users (ibid., 71). So when we analyzed the research outputs, we used the empathic abilities, and visualized the intangible interactions applying the following theory described below.

3.2 The influence of social media on weight loss

Social media is a popular communication platform that has become a mainstream channel for users, where they can interact by sharing and exchanging information through posts and videos (Dahl et al., 2016, 1). In regard to weight loss, people share their own weight loss, recipes, workout routine and motivational posts on social media. In other words, health information is a common topic that circulates on social media platforms. Digital media allows the user to access and share information through social media, where young adults use the internet to gather health information (Vaterlaus et al., 2014, 3). This indicates that social media has become another conventional delivery method for sharing health information that contributes to weight loss (Dahl et al., 2016, 1). According to the study conducted by Dahl et al, people use social media to seek knowledge, support, and accountability through their social networks. Thus, social media is another weight loss intervention that can help overcome barriers such as costs, time and information (ibid.). Social media facilitates social interaction, and it may influence young adults' behavior in relation to exercises and food preferences (Vaterlaus et al., 2014, 2). Based on the findings from Dahl et al., there are two factors that drive people to use social media for improving their health behavior in order to achieve weight loss: information seeking and empowerment. The information seeking factor discloses that users need to gather information in order to gain a sense of control of their weight loss, and empowerment comes from wanting social support from other users (Dahl et al., 2016, 1).

According to Dahl et al., studies have looked into the interaction in social media and its connection with health. To simply explain what social media contributes to the users, it provides content that inspires the users in that it generates ideas, where they can apply it in their meals and exercises. Dahl et al. also highlight findings from other researchers that social media acts both as a motivator and a barrier when users view social media to find inspiration. To briefly mention an example from the study paper of what motivator and barrier are, it refers to when a user posts a meal; it can either make the viewer hungry and eat, or make them eat less and even restrict themselves from certain food products (ibid., 2). People are influenced by social media due to the interaction through sharing and viewing posts. Users tend to evaluate and compare themselves to the person they view on social media. (ibid.). In relation to weight loss, for instance, a user sees a post from another user who has shared a workout photo of themselves and has gained a lot of "likes" and comments. The photo and the amount of recognition the post gets makes the viewer self-evaluate because they compare themselves to the post. The tendency to compare with others is due to young adults' perception of themselves. Posts and photos on social media that influence one's perception may eventually influence behavioral outcome (Vaterlaus et al., 2014, 3).

As social media is another kind of weight loss invention that provides health information, it was also mentioned earlier that empowerment is another factor that drives the user to use social media to improve their health behavior. The support and accountability that

lies in social networking comes through social support in online communities (Dahl. et al., 2016, 2). An additional weight loss intervention in the social media realm is the online communities, for instance, Facebook facilitates online communities in which it makes it possible for people to become part of a group in which it provides social support for the members. According to the study conducted by Dahl et al, in connection with weight loss, being part of an online community entails providing affirmation, inspire each other and share personal experience as well as establishing shared accountability (ibid., 3). In a practical sense, using social media as weight loss intervention has its benefits. However, there are negative aspects of social media being used in the weight loss information seeking. Dahl et al. bring forward other studies that highlights social media's negative influence, mentioning body image concerns, disordered eating and the tendency of constantly comparing oneself to other users. In addition, another negative aspect of social media is the accuracy of the health information that is posted on social media. As all people can post what they want on their own profile and depending on their background, they can share information on their health behaviors that can be accurate either or inaccurate, and even oversimplified or exaggerated (Vaterlaus et al., 2014, 3). Evidently, it is important to find a balanced approach so that social online platforms become more health promoting than health damaging (Dahl et al., 2016, 3).

3.3 Online information seeking and accuracy of health information

The internet can be accessed through smartphones and computers, where people use the search engines that direct them to websites and social platforms that provide health information. The challenge of having access to multiple health information sites is to find out if the source is reliable (Sumayyah et al., 2018, 1). The convenience of accessibility makes it possible for people to engage with information-providers through websites and other social platforms. The accessibility motivates people to create and share health related content on the internet (ibid., 2). Moreover, in connection with online information seeking, a consumer has a goal to find specific information; in other words, it is an act of fulfilling a need for information (Ibid, 2). The advancement of information and communication technology enables the consumer to manage their health by obtaining knowledge online before consulting with a specialist. In addition with online social media, it is another channel that has widen the range of gathering information. This gives the consumer more options for maintaining and improving their health (ibid., 5). Moreover, online social media such as Facebook has gradually become a popular health information source (Hirasawa et al., 2013, 7).

While there are benefits of being able to acquire multiple health information online, there are concerns of possible negative aspects of the health source's origin that may influence the users usage of the knowledge (Sumayyah et al., 2018, 1). According to the study conducted by Sumayyah et al., most health information posted online is not varified by

health specialists. Moreover, a consumer cannot be certain that the information is peer reviewed or professionally reviewed (ibid., 2), and thereby there is a higher probability of misperception spread and consumers' experience misleading information. More specifically, a misleading dietary or nutritional information can be harmful to a person's health (Hirasawa et al., 2013, 2), because the consumer cannot evaluate if the information on the website is appropriate for their need as some sources do not clearly specify their targeted users and objectives with the health information (Ibid., 7). Thus make it difficult for consumers to accurately identify high from low quality information (Sumayyah et al., 2018, 2). According to the study conducted by Hirasawa et al. it discloses that high quality information is influenced by the website's sources, for instance governmental, educational and nonprofit organizations, which are stated as credible and trustworthy health information providers. In other words, if a website particularly states the same health recommendation as the dietary guidelines, it is considered to be credible health sources (Hirasawa et al., 2013, 3).

We reviewed the study papers above to gain background knowledge on the influence of social media and health information seeking. The study papers by Dahl et al. and Hirasawa et al. concluded that seeking health information online and interacting on social medias influence young adults' health behaviors. However, to narrow the focus for the thesis, we investigated the practices in weight loss for female students. Now, we have elaborated on the literature review from SSD. In the next section follows the theory review for MALIC.

3.4 Theory review for MALIC

From MALIC, we chose to apply Schatzki's theory and the model "the mechanisms of the social order". We did this to form an analytical frame for our interdisciplinary thesis. First a terminology defines the different definitions for the theory, followed by the theory from Schatzki regarding practices.

Terminology

Definitions:

Activities: "Sayings" and "doings" of individuals.

Arrangement bundles: A combination of many practices.

Arrangements: Materials that are related.

Doings: To be manifesting, creating and making actions with the body.

General: This includes values, what is cultural appropriate and morally appropriate to do.

Practical understandings: This is the way to do things and be active during practices, and what is appropriate to do during a practice.

Practice: This is an open-ended temporal and spatial movement of "doings" and "sayings". The structure is categorized: "practical understandings", "rules", "teleoaffective structures", and "general understandings".

Rules: This is understood as markers and clear guidelines of how to do or be.

Sayings: This is understood as what was said and what was expressed.

Teleoaffective structure: A structure of emotions, feelings and goals.

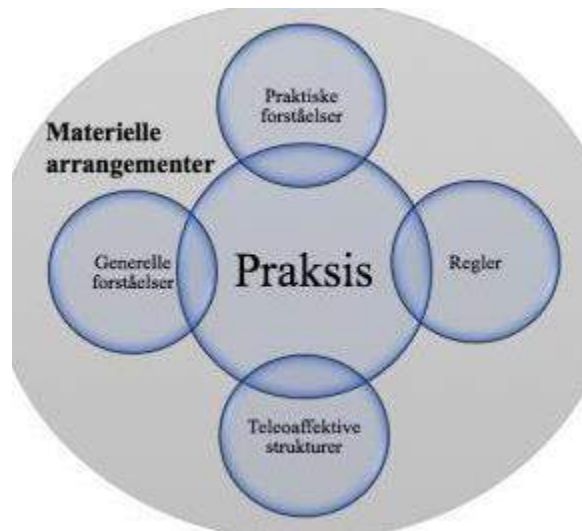
Weight loss practices: Is the term we used in the thesis to describe our informants' practices in connection with weight loss. This also included "doings" in form of their actions and "sayings". Here we had a special focus on the areas where we saw a special practice of weight loss.

3.5 Practice theory by Schatzki

Theodore Schatzki is a philosopher who has made a theory of practices, which is part of a quite new understanding of practices. Schatzki was inspired by philosophers Wittgenstein and Heidegger (Schatzki, 2012, 14). Schatzki tries to construct concepts that define what a practice is, and give an analytical view point on how it is described (Halkier & Jensen, 2008, 52). Moreover, he explains that there are two concepts, namely "sayings" and "doings". These are related to other concepts in his definition of the "arrangement bundles", closely linked to "material arrangements" (Schatzki, 2012, 14).

3.6 Doings and sayings

According to Schatzki: *"A practice is an open-ended, spatially temporally dispersed nexus of doings and sayings"* (Schatzki, 2012, 14). Schatzki argues that a practice is "open-ended", which means it is in continuance. However, a practice is also "spatially-temporally". This means it is concrete in an objective understanding in time and space (ibid., 14-15). In addition, a practice is created in a connection with more happenings, which we called "sayings" and "doings". This Schatzki describes as the "performative". It contains all that happens, "sayings" and "doings", which then form a practice (Halkier & Jensen, 2008, 57). According to Halkier and Jensen: *"All routine activities are bodily carried out, as activities are organized through simultaneous bodily/mental dynamics, which produce knowledge"* (ibid.). This should be understood as the focus on the "performative" are activities. The human body and the conscious mind are not separate parts, and it is not able to state something of this through a view point on the "performative" (ibid.). In our thesis, we endorse this definition of practice and also agree with the definition of the "performative". This we observed through the "doings" and "sayings" of the female student informants. We utilized the model "the mechanisms of social order", see picture 2 below, to fully understand what these activities were. The model is created by Schatzki with some aspects that tried to classify the practices. It was defined by Schatzki as an "material arrangement" and "event bundles" (Schatzki, 2012, 15).



Picture 2. Illustrates “The mechanisms of the social order” by Schatzki, by N. Saabye & M. Nielsen, 2021.

3.7 The mechanisms of the social order

Schatzki argued that a practice should be giving value to and be inseparable from the “arrangement bundle” (Schatzki, 2012, 16). The “arrangement bundle” is created from the “practical understandings”, “rules”, “teleoaffektive structures” and “general understandings” (ibid. 14-15). This is illustrated in the model above, “the mechanisms of the social order”. In Schatzki’s model, the “arrangement bundle” is always connected with “material arrangements”. By “practical understandings” is understood how to perform normal activities in a practice. It is a basic knowledge and know-how how to walk or to ride a bike (Halkier & Jensen, 2008, 54). In the term “rules” it is defined as specific statements which said something about how to be in a practice. These “rules” contain principals and definitions that guide people on how to act (Schatzki, 2012, 16). The term “teleoaffektive structures” was defined by Schatzki as: *“A range of hierarchically ordered end tasks, to varying degrees allied with narrativized emotions and even moods”* (Schatzki, 2002, 80). This was a very complex term based on teleological hierarchies that defines how some “doings” require additional activities, and continue in order (Schatzki, 2012, 15-16). The order of hierarchy activities may lead to a defining activity, this was defined by Schatzki as an “end”. The “teleoaffektive structures” determine which emotions are normalized and accepted and feelings happen in relation to a particular end cause (ibid. 16). The last term, “general understandings”, was understood as ethics, morals and values. These cannot be influenced by the “teleoaffektive structures” and causes of the goals. Schatzki viewed “materials” in relation to a dynamic connection to the social, this means it can be shape and be shaped. The humans are the force for practices, however, activities always depend on a materiality. Schatzki argued that the activities derived from the body in form of “sayings” and “doings”, and that even the body was a materiality (ibid.). This was also seen in the model “the mechanisms of the social order”, and the “material

arrangements” constituted as a framework for the “arrangement bundle”. In our thesis, we endorse this view point of the “material” in the practice. In addition to the practice-theoretical perspective of Schatzki, we uncover how we used the viewpoint from Elizabeth Shove to analyze the “materiel arrangements”. ateriel arrangements”.

3.8 Elizabeth Shove’s understanding of practices and materials

Elizabeth Shove is a sociologist who wrote about social practice theory. Her writings about social practice theory include “materiel arrangements” and “consumption”. According to Shove, “consumption” is understood as the result of a practice, meaning we consume resources, objects and services. This is not only for our individual needs, but as a result of a social practice (Shove et al, 2013, chapter 1, 1) In our analysis, “the mechanisms of the social order”, we join Elizabeth Shove’s understanding of how “materials” is understood in practice theory. One of the aspects Elizabeth Shove mentions is that Schatzki writes and defines how “arrangement bundles” and practices constructed a sense making and how the practices were shaped. These include how rules, norms and understandings are combined, and also how a practice merges and splits apart. This was a complex relation a change that is stable and transforming. Shove elaborates on the definition of what a social practice is in a materialistic sense and what people do. We have a Schatzki oriented focus on the practices, but with Shove as a theoretical viewpoint on the “material arrangements”. One of the aspects Elizabeth Shove explains is that the aim for dematerializing our day to day life have been there for a long time. She argues that it is a quite basic idea of creating technology and to do more in a more efficient way, but with a significantly smaller environmental footprint. She argues and suggests that social practices depend on integrating elements actively, which she argues includes competences “materials” (Shove et al, 2013, chapter 1, 5).

This ends chapter 3. In the next chapter, we analyze our research material in the analysis of the key findings for SSD and the observation of the online groups and in-depth interviews for MALIC.

4. Analysis

Chapter 4 – Analysis

Now, we established our literature review and theory for both educations and presented our three selected weight loss groups on Facebook, based on our online ethnography. We explained our theory of science in a practice-oriented approach. We accounted for our methodical approach to empirical collection for the thesis, as well as, accounted for our theoretical place with Theodore Schatzki's practice perspective and Elizabeth Shoves understanding of the “material” and user-oriented method. These, which are our framework-setting theories. The reason for why the structure in the analysis was SSD as the primary and MALIC as the secondary analysis was due to our process where we first had a survey and determined the initial target group between 21-30 year females students. Then we narrowed the target group to 25-30 years in the in-depth interviews with informants. Before we analyze, we established the analysis structure below for each educations.

4.1 Analysis structure

So far in the thesis, we created a framework for the analysis with a perspective that was practice-oriented. We used these concepts in a systematic order and included the empirical data we collected. This was from the initial questionnaire survey, online field observations of the three groups we had access to, specialist interviews and the in-depth interviews with the selected informants. In addition, we also reflected on how we chose to analyze our collected empirical data and we came to the conclusion that the demographically place for our target group was Aalborg University in Copenhagen. For that reason, we found our area of practice, as a whole. We did this, as we assessed that it could narrow our target group and made our thesis more concrete. Now, we elaborate on the analysis structure for SSD and MALIC. MALIC and SSD collaborated and utilized each other's skills in the following way. The synthesis process of the survey was worked on by SSD, and analysis of the field observation and in-depth interview was worked on by MALIC. Which resulted in rich insight on the female students between 25-30, at AAU CPH practices and challenges the target group meet in the weight loss context. With the analysis chapter, we reflected, interpreted and found key insights and synthesized data. Each research output and how was described and explained in each chapters. Moreover, we provided summaries continuously in the chapters for transparent structured analysis. These summaries lead to a final conclusion at the end of the analysis chapter which answered our overall problem statement.

4.2 SSD analysis structure

From SSD we clustered key insights from our empirical data and synthesize our knowledge. We empathized with the people and understood the context and we approached the analysis and applied methods to get information and summarized the findings. The goal was to gain a understanding of who we were designing for and how to

address the user's needs (Design Research Methods, Wright, 2015). For clarity, Marion Baylé from UX Collective, explains the synthesis process simply in three major steps. The first step in synthesizing was to extract the findings and visually place the knowledge on the a board for us to view as keeping the information in the laptop limit our ability to assess individual pieces of data (UX Collective, Baylé, 2018). We used online post-it notes, which is a typical tool for a designer to write insights. The notes contain interesting user stories, verify or falsify assumptions and highlight an underlying practices (UX Collective, Baylé, 2018). The second step in synthesizing was to “organize the chaos” as the aim was identifying patterns in data. Our common goal was to reach a consensus of which insights were relevant (UX Collective, Baylé, 2018). We started by grouping the information in an online program called Miro, where one can visually outline ideas. We grouped the insights into patterns and it resulted in multiple groupings which we filtered (UX Collective, Baylé, 2018). The third step was to interpret the groupings and the connection between the data and make it informative for us for clarity of the users practices and needs. The interpretation of the insights was important, to evaluate which direction to go with the service concept, what to address and question if it was relevant for the brief (UX Collective, Baylé, 2018). When we synthesized and rationalized all research which highlighted the underlying practices in the user’s situation, it was used to create an informative and actionable visual format for communication (Design Research Methods, Wright, 2015). We used these visual information and insights in the ideation phase to create the service to improve the users experience.

4.3 MALIC analysis structure

In MALIC when analyzing and synthesizing empirical findings, we used several methods and theories as base to categorize and group insights to disclose a practice. In the thesis, we applied Theodore Schatzki’s theory and model. It can occur as a linear process due to the systematic approach, reviewing and interpreting the findings with the lens of Theodore Schatzki's theory and “The mechanisms of the social order” for an analysis structure. We did this by applying his concepts from his model to our empirical data, after this we categorized them in a color coding system to understand what practices belonged to what category (see section about coding). After the color coding of practices we analyzed and interpreted what patterns of practices our target group had. From the analysis we found a conclusion on what created the weight loss practices for the female students between 25-30 years, at AAU CPH. Now, we elaborated on the analysis structure from each educations. In the following, we start the analysis with the key insights from the online survey.

4.4 Key findings from the online survey

In this section, we uncover the answers from participants from the initial survey questionnaire we did. Then follows a section that focuses on the age group 21-30.

4.5 Finding the target group

Synthesizing the survey allowed us to extract key insights that helped the development process of creating a persona, which we used as a reference to design a service that optimized the target group's practice of weight loss. Therefore, in the following sections, we elaborate on the key insights we found in the survey.

In the survey, we had 154 participants; 135 were female and 19 were male. The age group varied from 15 to 60 years old, however, the majority (98 people) were between 21 and 30 years old (Appendix I, 46). The target group was chosen based on the fact that the majority of the participants were between 25 and 30. The key findings also led revealed where the participants were residing. The majority, 149 individuals, resided in Denmark, and only five people abroad. Concerning the educational levels, we found that the most recently completed education was the following: 92 out of 154 recently completed an education that was a "Mellemlang videregående uddannelse" with a duration of 2-4.5 years. Then 22 out of 154 recently completed a "Lang videregående uddannelse", which meant five years plus. When we asked the participants about their employment status, we had the following answers about their current status: a majority of 68 people were studying, and only 53 people were full-time employees. This was another reason why we selected a target group with female students aged 25-30 (Appendix I, 47). In the next section, we explain the tools and methods we applied for weight loss.

4.6 Tools and methods applied for weight loss

In the following, we asked about the tools the participants used to assist them in their weight loss practice. We received 55 answers with "no use of service". When asked about the apps used for weight loss, the most common answers were Lifesum or MyFitnessPal (Appendix I, 57). Some responded that they used other digital platforms like Facebook or personal coaches. Additionally, there were people that responded they wrote their journey down in a book, and some used their scale for weigh-in sessions. When we asked about Wearables, one participant answered. *"I have a fit bit watch that helps me, but it only counts steps taken and my puls."* (Appendix I, 57). In the next section, it is shown where the informants sought health and weight loss information.

4.7 Searching for weight loss and health information

154 participants answered where they sought health information about weight loss. 98 people out of 154 people sought knowledge through specialists, and 75 people sought knowledge through scientific reports. 73 sought knowledge through Sundhedsstyrelsen, the public health ministry in Denmark. 55 people sought knowledge through social media. 45 people looked at Fødevarestyrelsen, the ministry for Danish Veterinary and Food Administration (Ministeriet for Fødevarer, Landbrug og Fiskeri, Fødevarestyrelsen). Then 36 people sought help and advice from family and friends, and only 13 people out of 154 people sought knowledge through magazines. These insights showed us that a majority

used specialist advice, however, many people listened to advice from family and friends. In the following, we uncover what body image the participants saw on social media and what their perspectives were on this.

4.8 Body images

When we asked about what body image the participants saw portrayed on social media, we reached 154 answers. The participants answered that they followed a variety of pages and saw a diversity of bodies portrayed on social media. Some answered: *“The pages I follow are happy bodies, thriving and bodies that are praised for how they look”* (Appendix I, 62). However, on a more negative note, some informed: *“The ideal is the slim, white body with shapes, but really toned and fit, I see it on several media sites and the diversity is not so much present, however it is now appearing little by little”* (Appendix I, 62). Some participants experienced organic diversity; they thought that more images of diversity and different shapes and sizes appeared on social media. This they expressed with the following words, *“curvy bodies”* and *“many diverse body images”*. We observed that the participants answered they saw *“trained”* and *“fit bodies”* in commercials and on television. Some mentioned they saw *“very well-trained bodies with a low body fat percentage”* some with *“botox lips”* (Appendix I, 65). In the next we explain how different body image affected the informants.

4.9 How body images on social media affected informants

When we asked whether the body image on social media, including Instagram and Facebook, affected the participants' own view of their bodies, we received 154 answers. We identified three clusters; people who answered “yes”, “both yes and no” and “no” answers.

4.10 “Yes” answers

The answers included 43 “yes”, where the most common answer was *“I think consciously and then unconsciously”*. Some answered they had worsened their view of themselves. Some answered it made them feel insecure, and it made them feel that they were not good enough. *“Yes a little bit, I see someone on social media and then I do not feel good about myself”*, answered an informant. Another person said, *“Yes, I tend to compare myself with others that has a nicer looking body than I, however I try to tell myself that I am good enough as I am. I just have to live with it. I think I will think differently as I get older”*. This showed us that many of the informants from the survey were affected by the content of others and body images on social media. Some of the informants tried not to be affected, but were still affected and doubted themselves. To summarize what the people that answered *“yes, however”*, we found they generally felt they tried to follow pages that gave them a positive feeling. They felt frustrated and affected and they could not completely avoid feeling insufficient when using social media and seeing a “perfect

body” with no fat or stretch marks. In the next section, we uncover the mixed “yes” and “no” answers in the survey.

4.11 Both “yes” and “no” answers

The people that answered both “yes” and “no” about whether they were affected by seeing body images on social media had the following answers: one informant wrote, *“It annoys me, I would like to see different bodies on social media, because all bodies are good bodies”*. This informant expressed a feeling of wanting more diversity and that there should be less stereotypes on social media (Appendix I, 69). Some had mixed thoughts about body images on social media. This was described in the statement below.

“To some extent, it depends on how big the exposure is. But in general, this image of the ideal slim/well-trained body lies so deep in the culture and is only reinforced by social media and the media in general. I am becoming more influenced by the social relationships I am surrounded by.” (Appendix I, 68)

To make a summary of the mixed answers, we found a clear tendency that people felt they should accept themselves as they are, however, many informed us that they were affected by seeing different body images being portrayed. In the following we elaborate on the “no” answers.

4.12 “No” answers

From the “no” answers to feeling affected by body images on social media, we obtained the following insights. There were 31 “no” answers in the survey. Some mentioned they learned to live with their appearance and others said they did not think about it. Generally, the “no” answers were a feeling that age made them not care about it, and some stated they felt they accepted themselves for their appearance. In the next section, we elaborate on the data exploration and synthesizing from the survey. Now, we uncovered the all the answers from participants. To narrow down our findings and get a deeper understanding of the target group, we uncovered the data exploration and synthesizing in the age group 21-30 in the following.

4.13 Data exploration and synthesizing in age group 21-30

In order to start the synthesize process, we initially made a table that gave an overview of each age group that answered the survey. In order to see how many in each age group had started a weight loss journey and people who had not started a weight loss journey. The purpose of specifying the number of people who had started a weight loss practice and people who had not was to establish if there were a majority of a certain group. In this context, we defined *“Yes- started to lose weight”* and *“No- not trying to lose weight”* groups. Moreover, the two groups were likely to hold different opinions regarding body image and weight loss, as we wanted to uncover if there was an underlying reason why they started practicing weight loss or why people had

not.

COUNTA of 2. Alder	
7. Er du i gang med et vægttab?	2. Alder
	21-3031-4041-5051-60Grand Total
Ja	27138553
Nej	711884101
Grand Total	9831169154

Table 1. Overview of each group by N. Saabye and M. Nielsen, 2021.

Table 1 above shows a significant difference in the amount of "Yes- started to lose weight" and "No- not trying to lose weight" groups. The majority of the age group between 21-30 had not started practicing weight loss. The data did not exclude how external factors in society affected the age groups view on their body and where they sought health information related to weight loss. Furthermore, the fact that participants were not trying to lose weight did not mean the participants did not seek information about how to eat or exercise to have a healthy body, which essentially can lead to weight loss. It can be viewed in this [link](#). Even if participants were not trying to lose weight, they still had thoughts and perspectives of their body shape. To get an overview of what the age group thought about their bodies in the "Yes- started to lose weight" and "No- not trying to lose weight" groups, we made a table, which can be seen below, called Table 2.

COUNTA of 2. Alder		2. Alder				
7. Er du i gang med et vægttab?	17. Hvordan har du det med din egen krop?	21-30	31-40	41-50	51-60	Grand Total
Ja	Jeg er ikke tilfreds med min krop	6	3	4	2	15
	Jeg er tilfreds med min egen krop	1				1
	Jeg er tilfreds med min krop, men jeg ønsker dog at stramme mig op/ændre noget	16	7	4	2	29
	Jeg har det dårligt med min krop	4	3		1	8
Ja Total		27	13	8	5	53
Nej	Jeg er ikke tilfreds med min krop	6	2	2		10
	Jeg er tilfreds med min egen krop	18	7	2	2	29
	Jeg er tilfreds med min krop, men jeg ønsker dog at stramme mig op/ændre noget	45	9	3	2	59
	Jeg har det dårligt med min krop	2		1		3
Nej Total		71	18	8	4	101
Grand Total		98	31	16	9	154

Table 2. Comparing age groups to view their perspective on their body by N. Saabye and M. Nielsen, 2021.

COUNTA of 2. Alder		2. Alder
7. Er du i gang med et vægttab?	17. Hvordan har du det med din egen krop?	19. Oplever du at kropsidealer på sociale medier (eks. Instagram og Facebook), påvirker dit syn på din egen krop?
		21-30
<input checked="" type="checkbox"/> Ja	<input checked="" type="checkbox"/> Jeg er ikke tilfreds med min krop	<p>Både og. Det handler i bund og grund i at lære at acceptere sig selv 😊</p> <p>Det kan det. Jo ældre jeg er blevet, jo mere bevidst er jeg blevet om at kroppe er forskellige. Jeg synes også der er sket et skift i billedet af kroppe gennem sociale medier og programmer såsom: date mig nøgen.</p> <p>hvis vi tager udgangspunkt i ovennævnte, så påvirker det mig i den grad at jeg kan ønske at jeg havde en anden krop, fordi jeg et eller andet sted misunder dem som har fx slanke lår og jeg bliver derfor meget ked af hvordan jeg selv ser ud</p> <p>Ja</p> <p>Ja da</p> <p>Ja helt klart, man ser på det hver dag så de går jo hen og bliver normale</p> <p>Ja, for man bliver irriteret over at man ikke ser sådan ud, fordi man faktisk synes det ser pænt ud. Jeg føler dog ikke at en bestemt krop bliver udskaftet.</p> <p>Ja, jeg føler mig forkert og ikke attraktiv!</p> <p>Ja. Det gir mig nedtur på over at være så fed når jeg ser dem</p> <p>lidt, men det er klart mit tøj og en BMI der er vigtig for mig, og for mit helbred.</p> <p>Nej</p> <p>Nejjeg er ikke dum</p> <p>Nej ikke direkte, de er også med til at vise hvad andre har opnået med vedholdenhed.</p> <p>Nej, fordi jeg ved det netop ikke er virkelighed og viser det reelle billede af menneskekroppen.</p> <p>Nej..</p>
	Jeg er ikke tilfreds med min krop Total	6

In order to go in depth with that question, we created another table from the data in Excel, see picture 5, to know what the "Yes- *started to lose weight*" and "No- *not trying to lose weight*" group answered in regards to how body image on social media affected their thoughts on their body. Specifically those who answered that they were content with their body shape, but wished to change something about it In the "Yes- *started to lose weight*" group, some of the following statement was:

- 67

- *"Yes a little, But I know it is not real"*

In the *"No- not trying to lose weight"* group, some of the following statements was:

- *"Yes - I wish to look like it"*
- *"Yes, they certainly do - but it's just as much a motivating factor for me as it makes me want to improve my body"*
- *"No not really. I can admire them for what they look like, but I'm happy myself"*

The statements above are only samples from each group. In the link beneath picture 5, there were a couple of answers in the *"Yes- started to lose weight"* group which simply said *"No"* to being affected by body images, and others which said that they may be affected unconsciously. In the *"No- not trying to lose weight"* group, there were varied answers. In the link a few participants said they felt affected in a negative way and some participants expressed it was unavoidable, and therefore, they were conscious about who they followed on social media. Overall, we found that the majority in the *"Yes- started to lose weight"* group were affected by the body image portrayed on social media, and the *"No- not trying to lose weight"* groups were not affected as much. However, they did not deny that they could be influenced unconsciously and. One said, *"Yes it creates some thoughts around one's own body and the feeling of having to look different"*.

To gain more insight into how the age group practiced weight loss, we looked specifically into the *"Yes- started to lose weight"* group. The purpose was to gain a clear view of how and what they did to prepare their weight loss practice, as people have different approaches to lose weight. The *"No- not trying to lose weight"* group had no answers in relation to preparation for losing weight, because they were not attempting to pursue the practice. Picture 6 below shows a piece of the table that showed how the participants of the survey described their preparation. To get the full view of the table, click on this [link](#).

Alder			2. Alder
7. Er du i gang med et vægttab?	17. Hvordan har du det med din egen krop?	10. Hvilke forberedelser har du gjort dig?	21-30
<input checked="" type="checkbox"/> Ja	<input checked="" type="checkbox"/> Jeg er ikke tilfreds med min krop	Før i tiden, før dette vægttabsforløb jeg er ved nu, så kunne jeg finde på at skrive fødevare som jeg ikke måtte spise, samt lave en træningsplan.	1
		Ikke forstået?	1
		Ingen	1
		Lave madplaner og finde sunde opskrifter. Lave træningsplaner, så træningen bliver prioriteret. Give plads til små syndelser i ny og næ	1
		Startede med at tælle kalorier og nu et års tid senere er jeg begyndt på Nupo af flere grunde	1
		Tidligere har jeg været restriktiv i forhold til enten kulhydrat, fedt eller sukker	1
		Nu forsøger jeg at træne mere og være i kalorieunderskud	1
	Jeg er ikke tilfreds med min krop Total		6
	<input checked="" type="checkbox"/> Jeg er tilfreds med min egen krop	Mental forberedelse på jeg godt kan og viljen med	1
	Jeg er tilfreds med min egen krop Total		1
	Jeg er tilfreds med min krop, men jeg ønsker dog at stramme mig op/ændre noget	(Sidste gang) Psykisk klar til at sige nej til alt slik.. endte med at give bagslag ...	1
		(Nuværende gang med god succes) fokus på balance og mærke efter lyst og sult og vane med at løbe 8 km 3 gange ugeligt	1
		Finder et specifikt vægtmål og dato og begynder at tælle de kalorier jeg indtager, samt forsøger at spise mættende men kaloriefattig kost	1
		Handler om livsstil og derfor er der ikke nogen "deadline" for vægttabet.	1
		Har set på mine vaner og overvejet hvad jeg ændre for at få mere bevægelse ind og begynde at ændre på de vaner der har ledt til vægtstigningen	1
		Ikke nogen, just right to it	1
		Jeg har er par apps og prøver at tælle kalorier	1
		Jeg over mig i at lytte til min krop (sulten vs. lækkerisulten, tilpas/alt for mæt osv.). Portions størrelser. Spise opmærksomt. Følge sst's anbefalinger for fysisk aktivitet vha. Borg-skalaen. Tillade mig selv noget jeg har lyst til i passende mængder.	1
		Jeg ser på vægten, jeg græmmes, jeg beslutter at nu er det nok. Jeg taber mig ved at sætte portionsmængden ned og kun spise når jeg er sulten. Jeg taber mig. Jeg bliver tilfreds. Vender tilbage til at spise normalt. Er forberedt på at når vægten igen er der oppe ad starter det forfra.	1
		Jeg spiser mindre end jeg forbrænder.	1
		Jeg sørger for at spise max 5600 KJ på en dag da det er det Team Danmark anbefaler hvis jeg skal tabe mig på en god og sund måde i forhold til det jeg vejer, i forhold til hvor mange kilo jeg ønsker at smide. Derudover motionere jeg ved at løbe og gå lange ture. Så har jeg 2 snyde dage hvor jeg godt må overskride de 5600 KJ	1
		Købt nyt træningstøj og redskaber hjem, inkluderet resten af familien	1
		læst	1
		læst, undersøgt, prøvet det	1
		Madplan	1

Picture 6. Snapshot of table, click on this [link](#) to see the whole table by N. Saabye and M. Nielsen, 2021.

As we viewed the table and reviewed the answers, it showed that there were mixed responses, but there were also general themes on how to prepare weight loss practice. (1) Making lists, making meals or exercising plans, finding healthy recipes and one even made a list of specific food products that they were not allowed to eat. (2) They prepared their practice by searching for reading material and investigated the subject; one said they read and followed Sundhedsstyrelsen's recommendations. (3) Concerning mental mindset, one had to mentally prepare for weight loss requirements to achieve it and it was important to focus on inner balance, and listen to the body to distinguish hunger from cravings. (4) Concerning exercise and calorie intake, people mentioned that it was important to stay physically active and be aware of what they ate and the portion size, which they did by counting calories. Moreover, one had to be in a calorie deficit in order to lose weight. Another kind of preparation the participants shared was that they used apps. Some even researched knowledge on social media like YouTube and one followed

recommendations from an organization called “Team Danmark”. Based on the respondents statements, we interpreted that these preparations were based on an understanding that they either gathered knowledge from a person, either a specialist, a friend, or an organization that published health information. In other words, their preparation was based on knowledge that derived from an informative source that enabled them to carry out their weight loss practices. To gain a complete picture of the where people found their sources, we asked “*Where did people seek weight loss information?*”. We wanted to know if it was with evidence-based or experience-based knowledge. We elaborate on this in the next section.

4.14 Evidence or experience-based knowledge

We has categorized the information source into experience-based and evidence-based knowledge. Earlier in the paper, it was mentioned that digital media made knowledge more accessible, and in relation to weight loss, Ernæringsforbundet stated that some knowledge is used on people's own practices. This creates doubt in the reader, and makes them question the source's credibility when searching health information online. This case of people who share knowledge based on their own practice such as influencers with no academic background we chose to call “experience-based knowledge”. Evidence-based knowledge is understood as knowledge that derives from healthcare professionals or researchers with a long academic background related to nutrition, and who have worked many years within the field. We grouped each source that was listed in the survey into what was evidence-based and experience-based knowledge. It is listed in the table below.

Experience-based knowledge	Evidence-based knowledge
Social media Magazines Family/friends	Specialists Scientific reports Sundhedsstyrelsen Fødevarestyrelsen

To gain a better sense of where the “*Yes- started to lose weight*” and “*No- not trying to lose weight*” groups searched to gain health knowledge related to weight loss, we made another table in Excel. This can be seen in this [link](#). Moreover, we wanted to gain insights into whether there was a difference in number in the groups’ preference in information sources, and was there an information source more preferred among females in the age group 21-30.

Summarization of participant's information search sources	
"Yes - attempt to lose weight" group	"No - Not trying to lose weight" group
Evidence-based knowledge Specialists 11 Scientific reports 12 Sundhedsstyrelsen 8 Fødevarestyrelsen 5 Experience-based knowledge Social media 7 Magazines 2 Family/friends 3	Evidence-based knowledge Specialists 28 Scientific reports 20 Sundhedsstyrelsen 18 Fødevarestyrelsen 12 Experience-based knowledge Social media 18 Magazines 5 Family/friends 15

Based on this overview, we found that there was no prominent difference between the groups preferences of information sources. To be clear, it was an estimation because the table in the link showed people answered the same types of sources. In the section *"I am contend with my body, yet I wish to change something about my body or become fit"* it showed that two people answered the *"Sundhedsstyrelsen"* and *"Scientific reports regarding weight loss"* twice. However, it showed that the females in the age group 21-30 mostly searched for evidence-based knowledge. After uncovering findings of where participants searched their health information, we reflected critically on the information sources listed, because it was found that the option "Specialist" had ambiguity, because a specialist could have their own website or share their knowledge on a social media profile. In addition, we were aware that an specialist could appear in a magazine. Therefore, the answer option "Specialist" and "Magazines" was not precise.

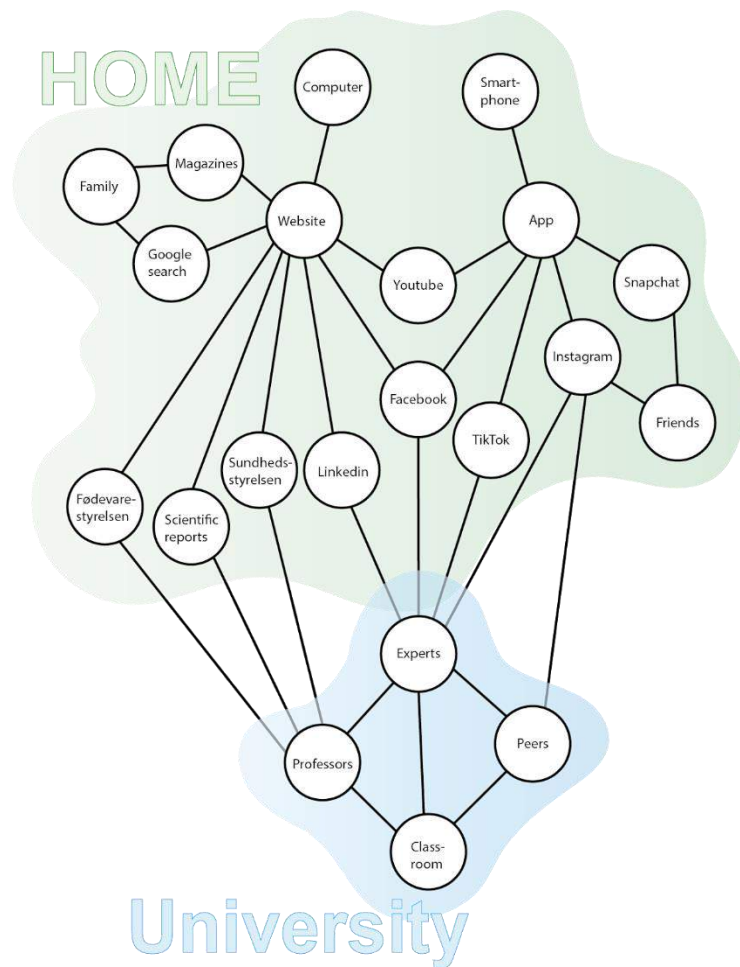
4.15 Summary of key findings and data exploration and synthesizing

In the following, we mapped multiple touch points in a "cross-channel ecosystem map". We decided to do this to gather females 21-30 age group's "information search activity".

4.16 Cross-channel ecosystem map

Apart from the ambiguity of the source, we needed to make more sense of the females 21-30 age group's "information search activity". Here the cross-channel system map was used to map the multiple touchpoints. As mentioned earlier, people now have more access to information than earlier, and therefore, engage with a service across a variety of channels thanks to digitization. To create a systemic view that connected the actors,

the goals and activities were divided into ecosystems as can be seen below in Pic. 7.



Picture 7. Cross-channel ecosystem map - gain knowledge activity by N. Saabye and M. Nielsen, 2021.

In Picture 7, we see a cross-channel system that shows the participants' health knowledge gaining activity related to weight loss. We identified two systems: the University and Home. Based on the participants' answers in the survey, we quickly identified two different systems where the user moved freely between digital and physical spaces. The map presented the digital and physical touchpoints in the systems, and in addition actors, such as professors and specialists due to the fact that the majority of the participants were students. Therefore, many of them read scientific reports of which they could have been made aware due to their activities and interaction with the actors within the system. In other words, an information exchange between students and professors took place within the university system. The system also showed the location "home"; for example an apartment or house. In university, it could be a classroom. In digital spaces it could be websites and apps that the user moved freely between. This provided us with the opportunity to know where we could access the new service. Now, we mapped the

touch points in a “cross-channel ecosystem map”. This leads to the summary of total key insights and synthesizing of survey data below.

4.17 Summary of all key insights and synthesizing of survey data

The synthesis of our survey gave clarity of how females between 21-30 perceive weight loss practices. As we used the Pivot table to categorize parameters and compare results, we were able to extract key insights from the survey that uncovered the participants’ practices in relation to a weight loss. This included which tool types they used, how they prepared for a weight loss practice and what health information sources they read to gain knowledge and apply to their practice. Moreover, the specific preparation for a weight loss depended on the individual; some made lists, in a physical journal or digitally in an app, read health information, did mindset work and exercised. Additionally, based on survey answers, one typical practice was counting calories combined with exercise. According to the synthesis of participants’ health information seeking, they mostly read evidence based knowledge. The participants gathered health information by engaging with services across various channels and devices (smartphones or computers), digital spaces (websites and apps) and people that the participants engaged with physically such as friends, family and professors. This was disclosed in the “cross-channel ecosystem map”. There were emotional response from the participants about social media in terms of how they perceived their own body and how they perceived the influence of body images on social media. 61 out of 98 respondents in the age group 21-30 answered that they were content with their body. However, they still wished to change something or become fit (both in *"Yes- started to lose weight"* and *"No- not trying to lose weight"* group). Based on the data, we found that the majority of the *"Yes- started to lose weight"* group were affected by the body image portrayed on social media, and the *"No- not trying to lose weight"* groups were not affected as much. However, the participants did not deny that they might be influenced unconsciously to a degree. Overall it awoke emotional response, and they felt pleased to see diversity in body image on social media, although they felt slim and thin body images were more prominent on social media.

This summarizes the all key insights we acquired from the survey and synthesizing of data exploration. In the following, we analyze the three weight loss groups and in depth interviews by using the analysis model “the mechanism of the social order” by Schatzki, to determine weight loss practices for the target group.

4.18 Analysis of the three weight loss groups and in-depth interviews

Now, the analysis form the framework for answering our problem statement, in terms of understanding and finding which practices was in the online weight groups and in depths interviews with informants between 25-30 years.

4.19 The mechanisms of the social order

This section deal with the analysis of “the mechanisms of social order” and applied Schatzki’s concepts of practice in a structured order, where we, in the “material arrangements”, endorsed Elizabeth Shoves understanding of “materials”. In the analysis, we continuously make summaries to round off each section. Finally in the analysis we made a summary of “the mechanisms of the social” order to find out which weight loss practices the observed and the informants have.

4.20 Practical understandings

In the following, we apply Schatzki’s definition of “doings” and “practical understandings” to find which “practical understandings” the observed groups and the informants have. Of our online field ethnography through the three Facebook groups, we observed very similar practices of what we chose to define as the “practical understandings”. This we understood in the way members of the various weight loss groups interacted, the “doings” and “sayings” they had. This is described more in detail in our observations in our Appendix A (Appendix A, 6). What we observed was a tendency in private groups on Facebook, about some “practical understandings” of how to “be” on social media. Pictures were shared, and people made comments and added “likes” to other members’ photos or comments. This was not new knowledge for us. On the other hand, we found it more relevant for the thesis’ problem statement to examine the way in which the observed groups interacted, how they commented and what knowledge they shared. In our observations online, we found these “doings” in which weight loss was approached.

This consisted of the following (Appendix A, 8).

- Shared weight loss information
- Shared comments with a moral approach on other members posts
- Shared weight loss pictures with their food intake for acknowledgement in weight loss
- Counted calories and low calorie foods they consumed were also shared

From this we observed the following “doings” in the three weight loss groups: Sharing information on weight loss and sharing comments in on other members posts in a moralizing way. We argue that the reason for these “doings” was a practice in the weight loss groups, sharing weight loss information with what we interpreted as a moralizing approach about others’ weight loss. This we argue stems from a “practical understanding” that it is normal to comment on weight loss. Based on knowledge from the research about “the diet culture”, Elsøe argued that we have a culture where it is normal to be on a diet. It is so normalized that we in communities with others comment on others practices and slimming diet, and share information on weight loss in a moralizing way. For other

members, it was a practice of sharing weight loss pictures with their food intake for acknowledgement for their weight loss. We saw this “doing” as based on a “practical understanding” of being accepted by the other group members and society in general. An example of this was in picture 3 below, Appendix A, from Facebook group 2.



Picture 3. Illustrated how members from the observed groups on Facebook shared food intake pictures. By N. Saabye & M. Nielsen, 2021. (Appendix A, 9).

We argued that the reason for this “practical understanding” stems from the slimming industry that has made a part of the population interested in slimming down. Elsøe argued that when people are dissatisfied with themselves, it creates a background for them to change, and it requires an industry where people will pay money to change something about themselves. This is backed up by Sørensen from CEFU that argued that during

recent years researchers have blamed the culture of perfection for the dissatisfaction young people have about their bodies. This is because pictures on social media as Instagram show a certain kind of image about how the perfect body should lookk, preferably with a low fat percentage that show a slim body. Sørensen added that it is very much about whether we have a societal perception that we ourselves have a responsibility to create and shape our lives. He stated, *"When we make the right choices, we can get to where we want to be"* (Center for ungdomsforskning, 2020). We endorsed these explanations from Elsøe and Sørensen, which was why we interpreted the reasons for the "practical understandings" in the observed groups derived from the slimming industry that made the population want to change something about themselves, and also that we have in society a perfection culture. Now, we continue by uncovering the knowledge from the interviews with the informants. From the interviews we conducted, a female student from AAU, CPH, described how she did her weight loss practice where she counted calories.

"K: I was counting calories. I researched it, and aimed at making healthy low calorie meals. It was a mortal sin to eat junk food and I exercised a lot and ran. Ignored the hunger" (Appendix D, 32).

This female student continuously monitored her food intake which we interpreted as a certain controlling practice in form of the "doings" about counting calories and a "Doing" about exercise. This helped point out that in her weight loss practice, she was trying to manage her intake by doing a restrictive practice and compensating with exercise to achieve weight loss. Another informant emphasized the same point:

L: Yes, really hard, and I got really bad. I had to weigh everything, count calories and eat some bad things. I had at one point been boiling beets in water in the morning, so that was the way I thought I could lose weight. It was extreme. It was completely sickening, and I was also down to weighing 46 kilos, when my mother intervened, and said I was sad all the time so I almost broke down. So, she took some toast, and toasted it, and put a lot of butter on. Then she said "eat this, now you stop this weight loss". So it was bad. " (Appendix D, 34)

In this interview, the female student described a practice in weight loss that was out of control in many aspects. She ate very low-caloric foods with no fat. Based on her statement, we interpreted that her reason for this "doing" about boiling food in water was because she was extremely calorie-scared, which was also why she would try to avoid oil and boiling beets to consume less calories. The informant's practice was controlling and extremely restrictive to maintain her weight. Based on the above, we argue that the informant, due to her "practical understanding" of counting calories and eating low calorie

foods, eventually lost control of herself in the weight loss, as her mother had to intervene her restrictive weight loss practice.

4.21 Summary of practical understandings

Overall, there were very similar “practical understandings” in the observed online groups. The “practical understandings” involved a number of categories about interacting with others in the weight loss groups. The “doings” were in form of shared weight loss information, shared comments with what we interpreted with a moralizing approach on other members posts, shared pictures with food intake for acknowledgement in weight loss and counting calories. We argued that the reason for the “doings” about sharing information about weight loss and commenting in what we interpreted with a moralizing approach were based on a “practical understanding” that commenting on others weight loss practice is normalized in The diet culture. For other members, the shared pictures of food intake for acknowledgement was a “doing” based on a “practical understanding” of being accepted by the other group members and society in general, because of the slimming industry and culture of perfection that also affects people’s perception of wanting to change themselves. In the In-depth interviews we conducted with female students, we found a common “doing” of counting calories and eating low-calorie foods to contribute to a weight loss. In order for us to examine in more detail what creates these “doings”, we examined the “rules” in more detail below.

4.22 Rules

In this section, we found the “rules” for the weight loss practices that we observed in the online ethnography and in-depth interviews. Our observations were made in the private Facebook groups that we were allowed to join, to do our research work. We formed an overview of what “rules” were present. We observed some “rules” when we applied to be members of the groups. Before entering a group, in the description, there were “rules” that had to be accepted before our membership was approved. What we noticed was a clear understanding that there was a written “rule” that members who wanted to be part of the groups could only be part of the groups if they agreed with the “rules”. The “rules” were expressed in our participant observation, where the description could be read on their page, stating that members’ postings must only relate to topics on weight loss (Appendix B, 16). In addition, when members commented on other group members’ photos, it had to be in a positive tone. The “rules” dictated the members’ practice, so if members exhibited inappropriate behavior, for example, writing derogatory comments, the consequence would be eviction from the group. In addition, the group descriptions had “sayings” that only women were allowed. This applied to all of the weight loss groups we observed (Appendix B, 16). Through our focused observations in all three Facebook

groups, we observed another “rule”. We observed the way the members commented on before and after pictures, they frequently commented positively and wrote compliments to other members of the group's weight loss to motivate and support each other. In addition, if members experienced frustrations in relation to their weight loss and asked questions, there was a positive and supportive tone in the other members’ advice. This can be seen in picture 4 (Appendix A, 15).



Picture 4. Extracted from Appendix A, 15, by M. Nielsen & N. Saabye, 2021.

Based on our informants’ statements in the in-depth interviews, we were able to establish that there were “rules” that were part of their everyday lives. Regarding food and beverages, the informants expressed that they should not be allowed to eat junk food, but only healthy foods, such as, vegetables. Of beverages, they had also established a “rule” that alcohol should be avoided, to save calories for cake or dessert (Appendix D, 35). However, we found, in the answers from a few of our informants, that a similar “rule” was

made. This concerned their exercise and how much food was allowed in their own practices:

“L: Then I run 4-5 times a week, so that I can eat more, and balance what I eat.”
(Appendix D, 35)

Another informant had a similar "rule", which she mentions in the quote below.

“Now I have reached a certain point - I eat what I want to eat, but then I must eat less of it.” (Appendix D, 36).

From these quotes, we deduced that the informants were trying to create “rules” in their weight loss practice of compensating. They argued in the quotes that if they ate food they perceived and categorized as “unhealthy”, they compensated elsewhere in their daily routines and practices to make “room” for other things. The informants had created “rules” to not overeat or exceed calories. Therefore, they had a weight loss practice of compensating by exercising and eating so that they did not become overweight. In addition, the informants expressed that in their practice of weight loss, exercise was part of the practice and it was important for them to create “rules” with some fixed routines. For other informants, it was also weigh-in on their bathroom scales again and again, to monitor and observe their status and keep up with any weight loss progress. This was shown in the interview with informant Rebekka below, (Appendix D).

“R: I have weighed myself along the way, but I have not really used the scale much, to me it is something negative. But I think for some the scale can also be nice enough to use” (Appendix D, 41).).

Others used their clothes; they established “rules” measuring with their clothes whether it fitted, was tighter or looser. This “rule” was established to use a different measuring tool than the bathroom scale. The informants Margrethe and Rebekka learned that the bathroom scale had a negative effect on their practice. When they noticed that the weight went up, they lost their motivation to continue their weight loss (Appendix C, 53).

4.23 Summary of rules

We have now analyzed what “rules” were constructed in the online observations and in the in-depth interviews. We observed in the online ethnography and in the three Facebook groups that there were "rules" for applying for membership of the weight loss groups: the applicant had to agree with the group’s set of “rules” to be accepted as a member. Another "rule" was that postings should only relate to topics about weight loss. In addition, there

was a "rule" in the groups that only women were allowed as members of the groups. Furthermore, there was a "rule" that there should be a proper tone, and that the consequence of not following that "rule" was that the person in question would be thrown out. We saw in the in-depth interviews with the informants that they had some established "rules" that were part of their everyday lives. This meant avoiding junk food and exercising more. In addition, to avoid alcohol to make "room" to eat cake or dessert, and "rules" about using clothes as a measuring tool rather than a bathroom scale to monitor their weight loss. One of the reasons why we found these observations of practice relevant to the problem statement was that "rules" were framework-setting and helping set boundaries. In the next section, we elaborate on the "teleoaffective structures" we came across during the observation and interviews.

4.24 Teleoaffective structures

We tried to establish why members of the three Facebook groups and the informants in the in-depth interviews performed a "doing" of unity. In addition, we analyzed why the informants chose to compensate and had restrictive practices in the form of counting calories and weighing food. We did this by examining which "teleoaffective structures" were present. Here we examined what emotional reasons were for this "doing". First, we analyzed the observed online ethnography we created of the three Facebook groups, where we observed a "teleoaffective structure" about having unity. In order for us to form an understanding of why members did this "doing", using Facebook for unity and sought advice, we looked at the "teleoaffective structures". By looking at the structures we found a reason behind this "doing". The members used Facebook for "sticking together", and supported each other to stay in calorie deficit. In the following we observed an example of this. *"Heidi Belinda Gesna if her equilibrium intake is 2000, then she is doing the right thing by subtracting 500" says Umm Zakariya*" (Appendix A, 15). Another post says:

"Decrease the calorie intake, if you eat approx. 870 kcal a day you are 1000 kcal in deficit per day and will lose 1 kg per week." Pia Mikkelsen (Appendix A, 15)

Here we found a "teleoaffective structure", where the members in the comment posted to inform other members about why there was no change in their weight loss. The group members had encountered the same challenges, and showed unity by commenting on each other's posts, and gave advice to the person who was frustrated. In the following, we analyzed which "teleoaffective structures" we found in the in-depth interviews. In an interview with a female informant from AAU CPH, there was a reason why she chose to compensate:

“R: My breakfast is also always something like whole meal bread - there are always two slices of whole meal bread, one slice is always lean cold cuts/cheese or cold cuts and the other is always Nutella - because I have to have that. Otherwise it is also skyr with fruit and muesli- I think it is also delicious. Then I also allow myself room for cake in the evening or afternoon if you are hungry for a snack, then it's okay and you give in a little bit. Then I might make up for it or try to compensate for it at another time - either through exercise or by excluding something later. Let's say I eat cake in the afternoon - well but then I'm probably a little less hungry for dinner and eat a little less. Then I can cut down on the carbs for dinner and eat more vegetables instead. ” (Appendix D, 41)

We found a “teleoaffective structure” in that the informant, with a structured line of activities, had an “end” to compensate for having “room” for all the food she wanted in a day. We considered this a purpose of adhering to calories to maintain weight loss. In this structural practice, which was “teleoaffective”, the feeling was understood as the informant wanted to lose weight. In a similar interview, we found the same “teleoaffective structure” and “end”.

“M: I just try to move a little, and on the days where I sit down for a long time, I get up to do a little bouncing or something, so I don't just sit all day. So instead of half a plate of chocolate, I try to pick up one piece of chocolate in the kitchen and bring that instead of the whole chocolate bar. Then take one portion of lasagna and just see how I really feel, and then I consider whether I really need another piece.” (Appendix D, 37)

In this quote, the informant Margrethe explained that she moved around a bit to have “room” to eat. We interpreted that the informant had an intention and an “end” to save calories, and that the “teleoaffective structure” was that physical movement had to be done to make “room” for food. We deducted that this was an “end” about compensating to save calories. The emotional purpose for Margrethe to lose weight was in order to maintain her weight loss practice.

4.25 Summary of teleoaffective structures

For the analysis of the “teleoaffective structures”, we observed the Facebook groups and the in-depth interviews with our informants. In relation to the observed weight loss groups on Facebook, we found a “teleoaffective structure”, where the members commented to inform other members and gave advice, expressing a kind of unity. The interviewed informants “teleoaffective structures” involved a series of the same structured activities that lead to an “end” about compensation to have “room” for all sorts of food they wanted

to consume. For several of the informants, we found the same tendency of “teleoaffective structures”. We believed this was due to the informants’ “end” of adjusting calories in order to remain in their weight loss practice. In the next section, we review the “general understandings” that were in the three weight loss groups and in the in-depth interviews.

4.26 General understandings

Schatzki defines “general understandings” as values, or that which is culturally and morally appropriate to do. In our analysis of “the mechanisms of the social order”, we endorsed Schatzki’s definition. This meant that we in the same way as Schatzki, sought to find out what could be observed and what the informants valued and found culturally and morally appropriate. This was done by looking at the “doings” and “sayings” from the observed online Facebook groups and the in-depth interviews with the informants.

We established a dominant “doing” where members of the observed groups on Facebook and the interviewed informants shared information about weight loss and where they could have a, what we interpreted as moralizing, approach about commenting on other members posts. We also established a “doing” about counting calories to achieve weight loss. We were interested in investigating the established “doings”. We wanted to know why they shared information about weight loss, why they were commenting in a moralizing way to other members and why they counted calories. We wanted to find out which “general understanding” lied behind performing these practices. The first things we wanted to know was the “general understandings” for 1) why the observed groups shared information about weight loss and 2) why did they commented moralizing on other members post on Facebook. The “practical understandings” in form of “doings” that we uncovered in the above sections derived from some “general understandings” the observed groups and informants had.

We interpreted the “doings” about sharing weight loss information by commenting moralizing on other members post was due to the diet culture in society. We interpreted that the “general understanding” for why it was normal for the observed groups to comment moralizing is an effect of Elsøe’s argument that the diet culture is concerned with moralizing eating practices, and that people have given food a specific value. In the diet culture, people have committed to being healthy. Elsøe argues that we have a diet culture, where the moral imperative has shaped people’s understanding of body image, as people made health to be that one has a high social status. This means that people have a negative view of people who are overweight.

We also interpreted that the reason for sharing information on weight loss with others and thinking it was accepted to comment moralizingly was due to the diet culture. It has become normal for people to judge other people by their appearance, weight and social status, rather than by their personality. The diet culture has helped sell the idea that "happiness is obtained through a certain body". We measure people by their size and have thus reduced our assessment of people to the shape of their body. This we interpreted with Schatzki's definitions as what was morally and culturally appropriate to do in the observed Facebook groups.

Secondly we wanted to find out which "general understanding" was behind performing these practices and the established "doings" about counting calories, why did the observed and the informants have these "doings". A female informant mentioned why she counted calories in her weight loss practice. The informant, Lea, had the following statement. "*L: I had to weigh everything, count calories and eat horrible things*" (Appendix D, 35). The informant continued with this statement about her reason for weighing food and counting calories for weight loss. "*L: It could be some vanity that I would not feel or look attractive. I'm short, 154 cm, so when you're short, you'll also look wider.*" (Appendix D, 35). Based on Lea's statement, she had a "general understanding", which showed in her "Saying" that she would not look attractive. We understood she felt the need to use weight loss to moderate her appearance, to be accepted and attractive. In addition, Lea stated the following which could explain her reason of her "general understanding".

"L: Maybe also that we in society are told through advertisements and media that you as a woman must be slim, for example in movies, women must be slim and petite." (Appendix D, 35).

Lea said that her "general understandings" derived from an influence from the media, such as television and film, where a certain body image has arisen for females about looking a certain way to be appreciated. Now, we established a "general understanding" that you should count calories and eat low calorie food to lose weight, and that the informants perform a weight loss practice, because they wanted to stay attractive, to be accepted by society. Our informants had mixed "sayings", but they fall into an overall category of "compensate and have practices about counting calories". (Appendix D, 41)

R: Then I might make up for it or try to compensate for it at another time - either through exercise or by excluding something later in the meal. Let's say I eat cake in the afternoon- well but then I'm probably a little less hungry for dinner and eat a little less. Then I can cut down on the carbs for dinner and eat more vegetables

instead. I try to make room for it all, but still cut down on the empty calories. ”
(Appendix D, 41)

This informant's definition told us that there was a “general understanding” that you must be restrictive and make compensations, either by eating less or exercising more, to stay within a certain calorie intake/burn. In the above, the informant expressed that she had a “general understanding” that the calorie intake must be adjusted, in order to lose weight and not gain weight. The informant had a “general understanding” that the weight loss practice needed to be controlled and that she needed to compensate, due to this “general understanding”. This helped to explain what informants did to be successful in their weight loss practices. The tendency was shown by the practices carried out by the informant. They became restrictive and had awareness of counting calorie intake at all times.

4.27 Summary of general understandings

In relation to the observed Facebook groups, we found that the “general understandings” about sharing weight loss information and commenting in what we interpreted as a moralizing way on other members post was due to the diet culture in society about moralizing eating practices and people have given food a certain value. We have committed ourselves in society's culture to being healthy. The “general understanding” about counting calories we identified as deriving from an understanding that there must be a restrictive practice such as counting calories or the weighing of food, to stay within an equilibrium intake to succeed with a weight loss. In addition, several informants had a “general understanding” that they wanted to achieve weight loss in order to feel attractive. This was because they generally felt that they must look a certain way, because society, in the form of media and films, showed a thin female body images. In the next section, we review the “material arrangements” that were in the three weight loss groups and in-depth interviews.

4.28 Material arrangements

Through our online ethnography, we observed that in the three Facebook groups, there were “material arrangements” present in the members' knowledge search about weight loss and in their weight loss practices. In this analysis, we endorsed how the “materials” were understood by Elizabeth Shove. This meant we understood the “materials” as something that could be consumed. In the practices we observed, the “materials” were limited to computers and smartphones, which were the “materials” that allowed members to interact in their respective Facebook groups. This was done by members of the groups using, their computer or smartphones. The computer was a “material” itself, which was composed of many other “materials”, such as keyboard and touch pad. Some computers have a full touch screen. The computer has access to the Internet, which the members connect to, where they log in to access social media like Facebook. They entered the name of the weight loss group and accessed their weight loss page, and interacted with

other members and shared other “materials”, such as pictures and documents. The same applied to the “materials” in the form of smartphones. As described above, it also consists of a number of other “materials”; battery, sim card, charger, display and apps. With smart phones, it was even easier to access the weight loss groups quickly. Today, it is anticipated that most people own a smart phone or device with an internet connection that can easily access the web, or social media apps. In addition, in the Facebook groups, members expressed through the comments described what other “materials” they used in their weight loss practices. They used apps that tracked their exercise and calorie intake. The apps that most mentioned were these below.

- Lifesum
- Myfitnesspal
- Mapmyrun
- Endomondo
- Strave
- Fatsecret
- Yazio

In addition, based on the online observation, we found out how the weight loss practice took place, and members expressed in the comments that they used these following “materials” in their weight loss practice:

- Roller blades
- Kitchen scale
- Dumbbells
- Training clothes + shoes
- Bathroom scale
- Fitness watch (wearables)

In addition, based on our online observation, we limited “material arrangements” in this practice to “digital platforms”. This was because the members of the weight loss groups sought knowledge and answers to their questions in their Facebook groups. Utilizing the term about consuming “materials” from Shove we, in this case, comprised computers and smartphones as the “materials” and services the groups consumed. Though, we considered these “materials” were composed of other “materials”, such as hardware, screen and touch pad. For the object of smart phones, it consisted of other “materials” like buttons, screen and apps – the main object used by the groups were the apps. In the following section, we reviewed the “Material arrangements” consumed, we came across, in our interviews with our selected informants. In the informants' daily lives, we found other ways the “materials” were consumed by our informants to gather knowledge or inspiration for their weight loss practices. Digital platforms mentioned most frequently were (Appendix I, 57).

- Facebook
- Snapchat
- Instagram
- TikTok
- Youtube
- Podcast
- App
- Tracking - fitness exercises

In addition, the informants mentioned that they consumed the following "materials" and objects:

- Mobile (tracked food and activity)
- Lists (kept track and structure in their practice)
- Sticky notes (for structure and memory)
- Letterbox (app for saving training videos)
- Fitbit (a digital watch to measure activity)

4.29 Summary of material arrangements

Now we have analyzed what the "material arrangements" entailed in the three observed Facebook groups and in the in-depth interviews. In the three weight loss groups on Facebook, we observed the "material arrangements" in this weight loss practice involved "materials", such as computers and smartphones, which were the "materials" that enabled members to interact within their respective Facebook groups. The computer and smartphones were also "materials" that consisted of several composite "materials", such as keyboard, touch pad, battery, display, internet and SIM card. In addition, there were "materials" in form of apps that kept members motivated. These were Lifesum, MyFitnessPal and Yazio to count calories. Other "materials" were roller skates, dumbbells and bathroom scales. In the in-depth interviews with the selected informants, they used "materials" to gather knowledge or inspiration in for weight loss practice. This was most often mobile phones and apps like Instagram, Snapchat and Facebook. In addition, sticky notes and watch that measured activity level, in form of wearables.

4.30 Summary of the mechanisms of the social order

We analysis was done by using "the mechanisms of the social order", and using Theodore Schatzki's theory of practices in a structured order. We made a comprehensive presentation of the findings we made in the analysis. We found that it was very difficult to change a single weight loss practice without changing other weight loss practices. Moreover, we concluded that there were overall similar weight loss practices in the observed online groups and in-depth interviews. There was a "practical understanding" about interacting with others in the weight loss groups. We found this in the form of weight

loss information shared and commenting in what we interpreted as a moralizing way. In addition, we found a common “doing” of counting calories and eating low-calorie foods. We observed that the Facebook groups had “rules” for applying for membership for the weight loss groups and another “rule” that posts could only relate to weight loss. In addition, there was a “rule” in the groups that only women could be members. In the informant interviews, the “rules” were to avoid junk food, alcohol and in general compensating for intake by exercising. We observed the “teleoaffective structures”, expressed in a form of unity. For several of the interviewed informants, a “teleoaffective structure” was a series of structured activities, which led to an “end” about compensating. “general understandings” derived from the diet and perfection culture about commenting in a moralizing way on other members weight loss practices. From the interviews, there was a “general understanding” that informants wanted to lose weight to feel attractive. They generally felt that they had to look a certain way, because society, in the form of media and films, showed thin female body images. The “general understanding” about counting calories derived from an understanding that there must be a restrictive practice like counting calories to obtain a weight loss. The “materials” consumed were computers and smartphones in the weight loss groups, which were the two most common “materials” that enabled the members of the three Facebook groups to interact in their practices. For the informants, the “materials” were a mixture of mostly digital platforms. Now, we analyzed what the weight loss practices were for the three online Facebook weight loss groups, and the informants from the interviews, which were our selected target group. In the section below we go in-depth with the “empathy map” we created.

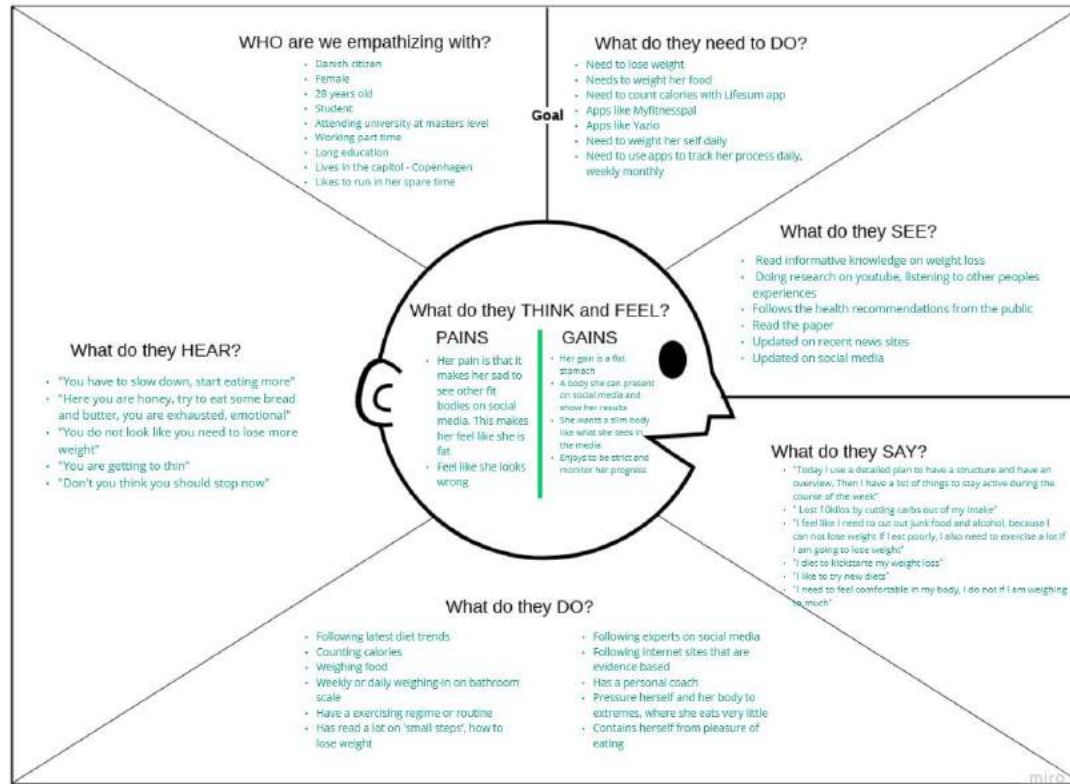
4.31 Empathy map

We gained much insight from the online survey and in-depth interviews. To categorize and make sense of the collected qualitative research, and to clearly articulate our knowledge of a particular user, it was beneficial to apply the “empathy map”. Due to its visual format, it presented the insights in a digestible way (Gibbons, 2018). We applied the “empathy map” from SSD to visualize the user's underlying reasons for the weight loss practices. The purpose for using the “empathy map” was also to align our understanding of the target group; female students in the age group 25-30. Through the synthesis phase of the online survey, we were able to identify that in the practice of weight loss of female students of the age group 25-30 from AAU, CPH, there were two opposite practices. One group had a “restrictive” weight loss practice, and the other group had a “casual” practice. To understand the users in their weight loss practice, we applied the method Extreme users. The method derives from the J.P. Djajadinngrat and his co-authors, who proposed the technique to use extreme characters (Informit, 2004). Extreme users are on either end of a spectrum of users of a service or product (Phillimore, 2019). We ended up with three “empathy maps” that represented three different users. There were two extreme users and one user that was in the middle. It made it possible for us to

address the diversity in the user group. In Picture 8, we see an example of the “empathy map” on a user who had a very restrictive practice about weight loss.

Tasja

Going through weight loss - Very restrictive approach

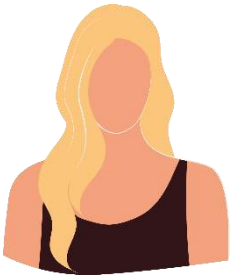


Picture 8. “Empathy map” on a “persona” with a very restrictive practice for weight loss. By N. Saabye & M. Nielsen, 2021.

The three “empathy maps” are shown in the appendix (Appendix J, 72). All three users were made into three “personas”. This is elaborated in the next section.

4.32 Persona

After creating the “empathy maps”, we were able to create “personas” that represented a clear profile of the user in the weight loss practice. The purpose of creating a “persona” was to create an easily accessible overview that communicated clearly the important insights instead of writing long extensive paragraphs. We used “persona” to help us in the brainstorm session of a service and empathize more with the female students in the age group 25-30 from AAU, CPH. Thereby, we created a service concept that was more in line with the target groups needs in their weight loss practice. In the pictures 9, 10 and 11 below one can view the “personas” we created.



TASJA	
Age	29
Occupation	Student
Education	Master's degree
Status	Relationship

Description

Tasja lives in a two-room apartment with her boyfriend, who she has been together with for 5 years. They live in the suburbs, and she works part time in customer service. She has been practicing weight loss for 6 months and has a meticulous approach. Tasja follows diet trends and weighs and counts her calories daily. She runs every second day and does a weekly weigh-in on her bathroom scale.

Wants/needs

Tasja wants to lose weight and is eager to reach her goal fast. In order to fulfill her need of seeing progress she has to use apps to track her process daily

Thoughts & feelings

She often feels resistance from her boyfriend and family, because she often hears that she is getting too thin and needs to eat more. She doesn't think much of their comments, because she is not satisfied with her weight yet.

Behavior

She follows influencers who are fit and find inspiration through their posts to see their diets and exercise activities. When she exercises, she tends to pressure herself and her body to extremes and eat small portions of food in order to control the amount and cut back heavily on sweets, junk food and alcohol.

Knowledge gathering

To seek inspiration and update new knowledge, Tasja follows experts on social media and reads articles that are evidence-based. She sometimes also watches YouTube and listens to other people's experiences.

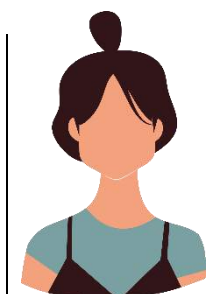
Frustration

When she sees influencers and her friends on social media, she adores their outfits and food posts. In appearance she doesn't seem overweight, yet she feels fat when seeing other slim and fit people. It makes her often feel that her body is wrong and fat.

Goals

Her goal is to get a flat stomach and a slim body that she often sees on different social media, such as Instagram. Moreover, she also aims to feel comfortable in her own body in the process.

Picture 9. Tasja with a very restrictive practice about weight loss. By N. Saabye & M. Nielsen, 2021.



LÆRKE	
Age	25
Occupation	Student
Education	Bachelor
Status	Single

Description

Lærke lives in a study apartment in Copenhagen and has a study job beside her bachelor. She is well trained and has a fit body because of her exercise activities. She likes to run in her spare time and enjoy the weekends with her friends. However, Lærke got a leg injury around a month ago and she can feel she is gaining weight. Therefore, she wants to begin to maintain her current weight.

Wants/needs

As she has an injury, she wants to exercise more again to maintain her weight and has a need to feel physically healthy. She does not focus on weight as she enjoys food and beverages.

Thoughts & feelings

She feels it is nice that her friends tell her she looks fit and ask for health advice. Yet, it is more important for her to feel comfortable with her body and be mindful of her mental health. Yet, lowkey she feels weird to gain a little weight as she is used to having a fit body.

Behavior

When maintaining her weight, she doesn't make a lot of preparation for her meals. She intuitively knows which foods have a low-calorie content due to prior research. She still enjoys cake when she feels like it. She focuses more on the portion and serving size.

Knowledge gathering

When searching for information on health, she relies primarily on evidence-based material and reads articles from experts. When looking for inspiration and motivation for exercise, she looks at Instagram.

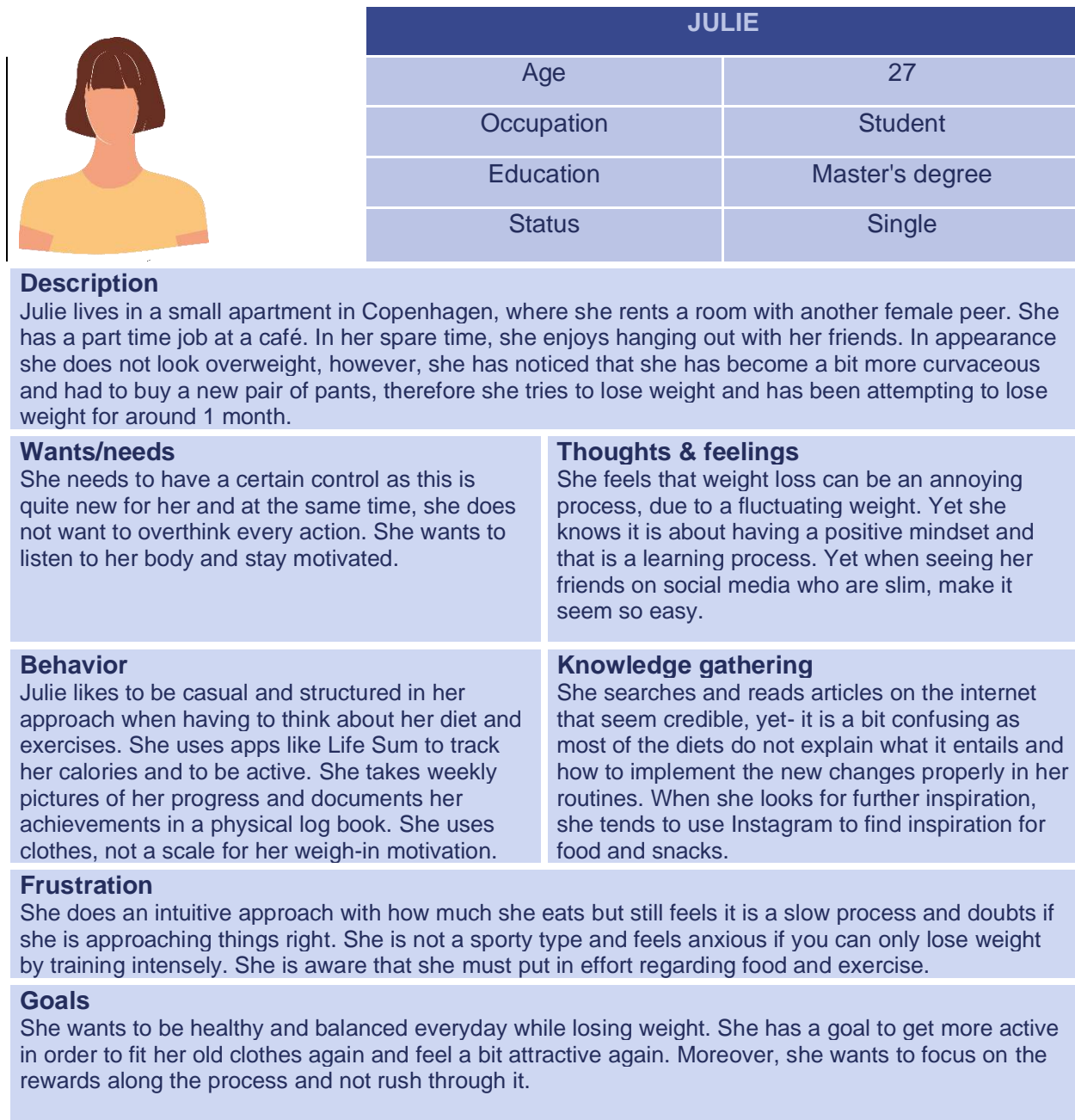
Frustration

She doesn't feel flustered about her weight, because she is grateful to have a healthy body. What nags her a little is her own feeling of weirdness to gain a little weight. She sees different bodies on social media, and she thinks it is wrong that thin bodies are more adored than others. She is happy that diversity appears more in the media.

Goals

Lærke's goal is to maintain and to improve her physical health and become active again. To fully focus on her body's capabilities and rest more in her appearance. Moreover, neutralize the weird feeling she has toward herself by distancing from the body images portrayed in the media.

Picture 10. Lærke with a casual practice to maintain weight. By N. Saabye & M. Nielsen, 2021.



Picture 11. Julie with a casual practice to lose weight. By N. Saabye & M. Nielsen, 2021.

Even though “personas” are fictional characters that were based on insights collected through research; they represent the different types of people in the weight loss context that could potentially use our service. Moreover, it helped us understand the potential user’s needs, practices and goals. It helped us recognize how different people were and how they practiced weight loss. Thus ends our chapter 4. In the next chapter we go in-depth with chapter 5 Design of a service concept.

5. Design of a service concept

Chapter 5 - Design of a service concept

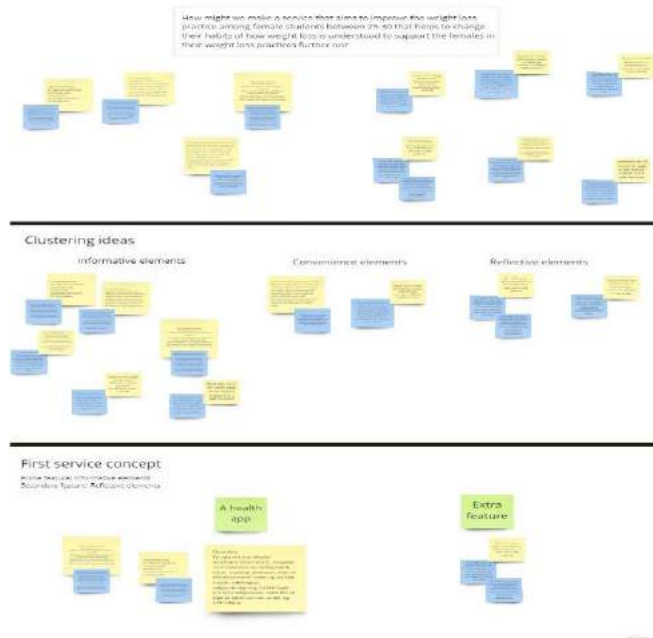
Based on the comprehensive research, the created “personas” allowed us to empathize with people even more, and better address the problem statement. The next step was to implement the collected and summarized data into ideation activities, to create a service concept that would support the users weight loss practices. Brainstorming is a method used in the ideation phase, which is the third phase in the Design thinking process (Interaction Design Foundation, 2018). It is a creative process where participants generate ideas in form of solutions by using methods and techniques. It inspired us, and developed ideas that addressed the problem statement (ibid.). Then to find new angles and address the problem statement in a productive way, we initially planned a brainstorm session on our own. We also had another brainstorm session with people from the in-depth interviews and online survey. The purpose with the order of ideation sessions was that we needed to establish the dynamic of the interdisciplinary collaboration, and find several Service Design concepts that potentially affected the users of the weight loss practice. To enhance and improve the ideation process for a more efficient outcome, we facilitated an online “co-creation” with the informants. This with the purpose of retrieving feedback on our ideas or concepts and then brainstorm further on the ideas to gain valuable insights into all aspects of the service concept. In the next part we elaborate on the ideation process of the thesis.

5.1 The ideation process

The ideation session started with the following problem statement:

“How might a combination of methods from SSD and MALIC be used to design a service concept? The service concept should aim to improve the weight loss practice among female students, to help them understand and support their future weight loss practices?”

Due to the Covid-19 pandemic, we used Miro to facilitate the brainstorm exercise for a design, as seen in picture 8. For a full overview and to see the content of the sticky notes, go to the appendix about Ideation process (Appendix K, 74). We also applied the brainstorming sessions to generate ideas quickly. To do so, we wrote the ideas on virtual sticky notes in Miro, as seen in picture 12 below.



Picture 12. Brainstorming, by N. Saabye & M. Nielsen, 2021.

5.2 Brainstorming for a design

We made three rounds of ideation; the first round was a warmup, in the second round we wrote a couple of more ideas, and the third round was to pass ideas between each other for the ideas to develop. At the end of the session, we clustered the ideas to identify reoccurring themes with the purpose of getting an overview and even merge the ideas together to refine the concept. In picture 5, under the heading “Clustering ideas”, we found three repeated elements repeated: Informative, Convenience and Reflective.

After clustering the ideas, we assessed and evaluated which ideas could be merged, and how it could better address the problem statement, based on the insights from the qualitative research and “personas”. From the in-depth interviews (Appendix D, 34), the informants expressed that it was challenging to find reliable information. In the survey, the group with female students between 21-30 used evidence-based sources in their “knowledge-searching activity”. Even though the data showed that the majority relied on reliable data, it was in the best interest of us to consider the aspect that not everybody did, and therefore, the service concept had to contain a source that assist the users who found it difficult to find trustworthy sources related to weight loss. We selected ideas with Informative and Reflective elements to refine the concept to a service idea in form of an app that was primarily informative with an extra feature that was Reflective. As our researched showed that a weight loss practice can affect a person’s mental health negatively, we wanted a Reflective element in the app.

In this section we show the sketch of the service concept, the informative weight loss element.

5.3 Sketching the concept

Based on the brainstorming session, we tried to sketch what we imagined the service concept would look like visually. The drawings were a rough sketches either as a physical object for the user to write in with a pen and paper or a digital object as an app. We sketched a journal as many participants in the survey used the “logbook” as a tool for their weight loss practice. The sketch of the concept was showed below in figure 1.1. and figure 1.2.

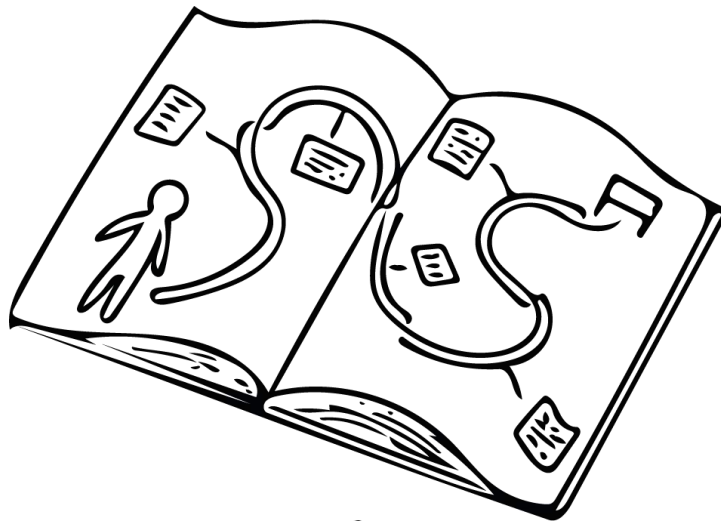


Figure 1.1. Sketch of the service concept, the informative weight loss app. By N. Saabye & M. Nielsen 2021.

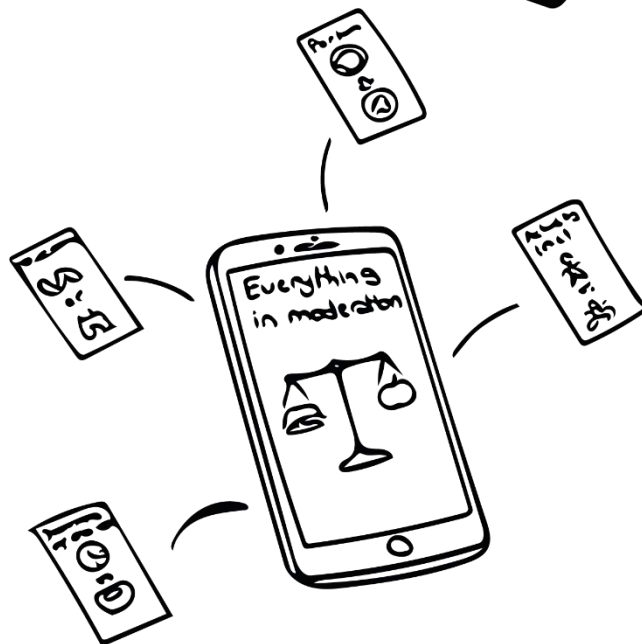


Figure 1.2 Sketch of the concept, the informative weight loss app. By N. Saabye & M. Nielsen 2021.

Now, we have explained and showed the sketch of the service concept. We assessed the concepts and decided that an app was most ideal for the target groups weight loss practices. In the next section, we elaborate on the initial service idea.

5.4 The initial service idea

Our initial idea was an app that functioned as a “fact checker”, where all evidence-based knowledge was gathered, and if the user was more curious of a certain topic, the page would suggest references that directed the user to the source. Moreover, for the reflective element, the app had a logbook feature, where the user could document their progress and receive tips and advice to overcome mental frustration with their practice. Moreover, it had a page where it was clearly and visually explained how and what to consider when starting a weight loss. The uncertainty with the app was whether it had to be an extension of an existing site, such as, Sundhedsstyrelsen, or it had to be an independent app. This brings us to the next section, which is the ideation session called online “co-creation” with informants.

5.5 Online co-creation

For this thesis, we facilitated a “co-creation” workshop during the phase of *Design for a service concept*. “Co-creation” allowed for us to have informants participate in a workshop and receive feedback and ideas for our service concept (Design Kit, n.d.) In this case, our service concept was an app for relevant weight loss information. As we were in the middle of the Covid-19 pandemic, it was not possible for the informants to participate physically in the “co-creation” workshop. Therefore, we chose to do an online “co-creation” via Zoom. The link and password were sent via e-mail to the informants to participate. The “co-creation” workshop was held on April 26 2021 at 1.00 to 1.30 p.m. The workshop was set to last 30 minutes in total. It was attended by three participants and with Natalie Saabye and Maria Nielsen as facilitators. The participants in the online “co-creations” had participated in the survey, and one had also participated in an in-depth interview. We started the workshop with the facilitators presenting the agenda. The first five minutes were spent on the introduction followed by 21 minutes on idea generation via image collage, where the participants had to select images representing weight loss. Finally, four minutes on a summarization of the collected knowledge, ending the workshop. The idea generation part consisted of three rounds of seven minutes, where the participants chose which pictures they felt belonged to the questions asked. The three questions asked were as follows.

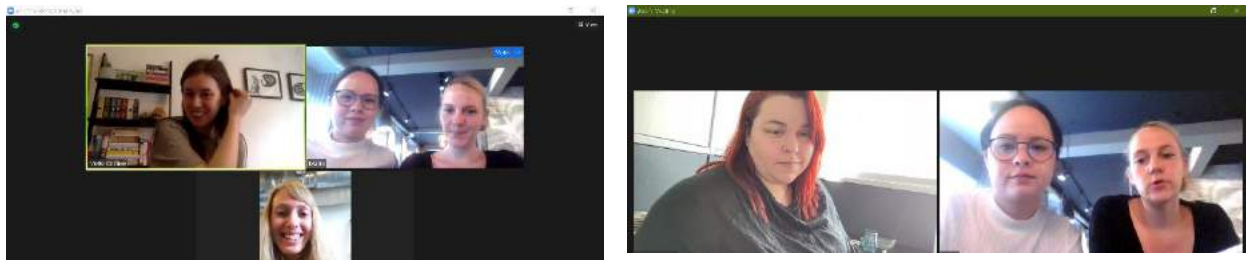
1. *What are your thoughts on weight loss? (Then the participant selected three pictures at once)*
2. *What do you feel a weight loss should look like? (Then the participant selected three pictures at once)*

3. *What should a weight loss app contain in your opinion as a user? (Then the participant selected three pictures at once)*

After each round, three of the photos were gathered in groups that belonged to the question asked. The reason we chose to create a photo collage for the “co-creation” was that the participants could freely choose between what they thought and what they related to weight loss in a visual way. In addition, with the “co-creation” workshop, the idea was to gain insight into the elements that should be included in the service concept we developed, which the participants provided. Furthermore, the “co-creation” workshop was held to gain knowledge that was contemporary and fitted the practices of the target group, so that we could create a relevant service concept. Finally, after the three rounds of questions, the facilitators summarized the insights and thanked the participants for the cooperation. In the next we explain the process of the “co-creation” workshop.

5.6 The process of the co-creation workshop

The pictures below showed how the online “co-creation” took place on Zoom in picture 13 and 14. The participants Marianne and Henriette was pictured to the left. On the picture to the right was participant Katrine and to the right is Natalie Saabye and Maria Nielsen, as facilitators of the “co-creation” workshop.



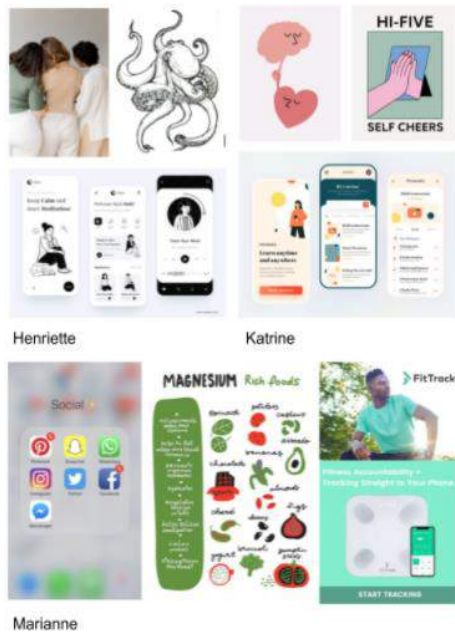
Picture 13 and 14. Pictures of the online zoom “co-creation” workshop with Marianne, Henriette and Katrine, by N. Saabye & M. Nielsen, 2021.

The outcome from the workshop was that the participants selected pictures they associated with weight loss practices and their thoughts of weight loss. The first pictures were related to the first question in the “co-creation” workshop, about their thoughts on weight loss. Marianne conveyed that her thoughts on weight loss was about training and transformation. Katrine showed illustrations with humoristic elements and showed weight and food was part of the practice. Henriette projected her thoughts on weight loss was eating vegetables, training and sought healthy alternatives. This was seen in picture 15 below.

1. *What is your thoughts on weight loss?*

The following pictures belonged to the question the facilitators asked the participants about what a weight loss app should include in their perspective, as a user of the service. The participants selected freely what pictures they wanted. This appears below in picture 17. Marianne showed that the weight loss app should contain a tracking feature, overview of food properties and the service should be connected to social media. Katrine conveyed that the app service should have a feature that helped balance oneself and to help motivate the user. Henriette shared that it should have a feature with social aspects, and it also reminded the user to be mindful of themselves.

3. What should a weight loss app contain in your optics as a user?



Picture 17. The pictures was selected by the participants for a service concept in form of an app design by Marianne, Henriette and Katrine. By N. Saabye & M. Nielsen, 2021.

The next section was the feedback and suggestions, we gained from the received from the online “co-creation” workshop.

5.7 Feedback and suggestions from the co-creators

In the following, we elaborate on the insights from the feedback and suggestions we received from the participants in the online “co-creation” workshop. The participants had various suggestions for app features that we were very pleased with and interested in. One of the ideas was a side product to the app. This meant that the app should have a link to an Instagram or a Facebook account. They mentioned the app would be more present in the user’s consciousness if it were on social media too. In addition, one of the participants, Marianne, mentioned that the app could fulfill a need to reach personal weight loss faster and consequently, reach their weight loss goals. Marianne and Henriette also suggested that the weight loss app could help the user find evidence-based knowledge about weight loss, to replace Google and other search devices. The participant Katrine mentioned that she wanted the app to include different diets that was tested by others. This could be descriptions and others’ shared experiences with weight loss in connection with a specific diet. The informants mentioned that an app could include a “Trustpilotlike” function, where users rated different diets and lifestyle changes. Katrine mentioned that she did not find it relatable to use the internet pages or even Sundhed.dk or Sundhedsstyrelsen. She argued that it was not the place female students aged 25-30 sought information. Therefore, she suggested a service concept in the form of an app. This could be linked to an Instagram account to reach the target group in an efficient way (Appendix L, 78-79). In the next section, we elaborate on the design and prototyping phase.

5.8 Design and prototyping

5.9 Testing the concept

After conducting two ideation sessions that enriched our development process, it was important to decide how to test the idea, and assess what was possible under the Covid-19 circumstances. We considered it a challenge not being able to meet physically to observe how the participants would interact with the service concept and having a conversation with participants in real life due to restrictions. We assessed that a digital pretotype was appropriate, as it was flexible in its nature, in that participants could try it when they found time for it. Furthermore, it helped avoid biases such as the “Hawthorne effect”, where interviewees tend to modify their behavior when they know they are being observed by the people collecting data (Stickdorn et al. 2018, 107). Before initiating the development process of the app service concept, we had to establish the purpose, questions and fidelity.

The **purpose** was to test the service idea and to identify important aspects of the concept.

As for the **questions**, we addressed the content and the features within the app. This was in order to receive feedback on the informative element that was the core value of the service and on the other features.

For the **fidelity** part, we decided to make a low-fidelity version of the service concept, as the content was the priority and not the aesthetics. For these reasons, we made a pretotype of the service concept. The term “pretotype” was coined by Alberto Savio as *“Testing the initial appeal and actual usage of a potential new product by simulating its core experience with the smallest possible investment of time and money”* (Savoia, 2011, 22). The difference between prototype and pretotype is the cost and time-frame. Savio explains that a prototype takes months or years to develop, and that it is costly to build because it is functional and close to the final product (Savoia, 2011, 22). A pretotype, in contrast, is a quicker and cheaper solution (Ibid. 21), and it answers the important question, *“is this the right thing to build”* (Ibid. 23). Therefore we conducted a pretotype to test on female students in the age group 25-30 to evaluate and assess the potential of the service concept. We used a tool called “Adobe XD” to develop the low-fidelity application pretotype of the service idea. It was ideal to create wireframe (a method from service design where one creates a template in the visual program Miro) where it is possible to make it function like a real app (This is service design doing, nd.). In other words, the wireframe can simulate the experience of an app by shifting screens when pressing buttons. In the following, we elaborate on the development of the pretotype.

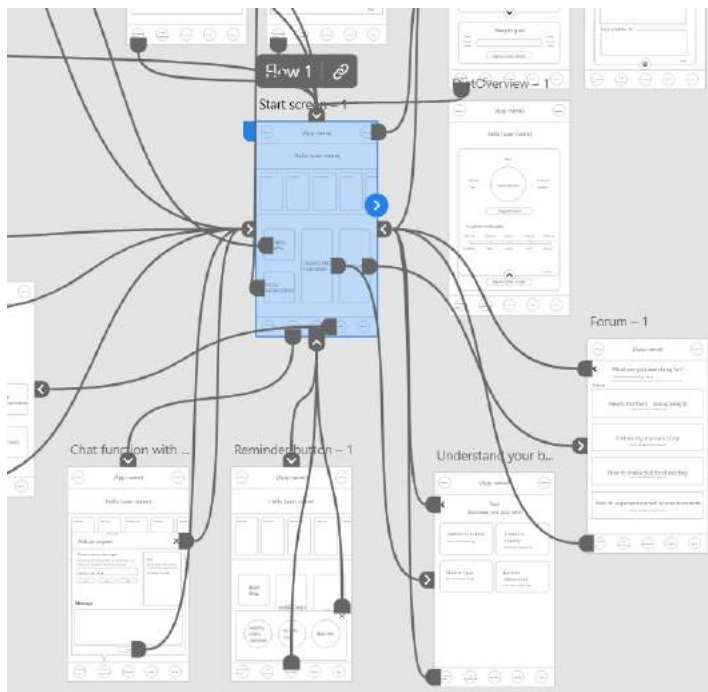
5.10 Adobe XD Pretotype

As we wanted to answer the question of “was this the right thing to build”, we focused on the screens of the “informative” elements of the service as this was where the users primarily gain their knowledge and are enlightened of certain aspects of weight loss. Then assumably apply it in their practice. The wireframe for the informative elements are seen below in Picture 18.



Picture 18. Adobe XD pretotype, Informative elements of the service concept by N. Saabye & M. Nielsen, 2021.

As seen in the picture above, we made a low-fidelity wireframe to create the pretotype quickly and cheap (the tool itself had no cost). The aim of the wireframe was to focus on the content and not make a full-fledged design of the app's interface.



Picture 19. Adobe XD pretotype, connect wireframe by N. Saabye & M. Nielsen, 2021.

We made the wireframes more interactive to engaged the participants. It was possible in Adobe XD to configure specific buttons to connect the screens as seen to the left in Picture 19. This helped the user navigate through the application. Moreover, it gave the participant the feeling of using a functioning app. Presumably, this made it easier for the participant to understand and focus on the experience of navigating through the wireframe. We intended to interview the participants about their experience with the prototype to reach additional insights of their needs and thoughts of the service concept. In the next section, we elaborate on the concept validation we received from the informants.

5.11 Concept validation from potential users

The participants navigated through the app to have a general impression and experience with the features, they were able to give feedback on the service idea we created and it helped answer the question *“was this the right thing to build?”*. First we elaborated on the “front page”.

5.12 Feedback on the features

5.13 Frontpage

All participants gave valuable feedback. They gave us an idea of how to better assess the app and functions. The appearance of the app was familiar, which made it easy to use from the start. However, they expressed that some elements needed to be improved: (1) due to many options it made the “front page” a little confusing in terms of what to focus on. (2) The story function felt as an Instagram feature, where users have to post to reach “likes”. Therefore it was important to clarify that the app was a “safe space”, and that the app was not projection body images on people (3) It was a place (space) for real people. This meant that the app should not use filters on pictures as the app was about reaching goals. In the next, we explain the feature “news wall”.

5.14 News wall

Their feedback were questions and wonderings about whether. (1) Users could post on the wall or was it the app that managed the content. (2) It was other users or only specialists you followed. (3) “News wall” and “facts information” seemed similar, so it was important to distinguish the two features further. In the next section, we go in-depth with the “facts and information” the informants had.

5.15 Facts and Information

All participants had positive reactions to the page as it categorized reading material with clear themes. Moreover, in the “methods/techniques/programmes” theme, the participants were pleased with how “lifestyle change” and “diet” were next to each other

with informative text that explained what users needed to be aware of. Thereby the user could make an informed decision. Besides that, one of the participants expressed the “methods/techniques/programmes” gave a feeling that the user was about to join a program. Therefore, an appropriate name for the feature could be “Different techniques for different results”. In the next section, we elaborate on the feature “*understand your body*”.

5.16 Understand your body

The participants had difficulties understanding this feature, yet they found possibilities within it, as people do want to understand their body. One of the reasons was the purpose. This was regarding the feature, where a test would be taken and that purpose was not clear. Most of the informants suggested that the test could be in the form of a questionnaire. The participants suggested that there could be a feature where users could evaluate. In the next section we clarify what the informants said about the “forum” feature.

5.17 Forum

The participants had mixed reactions and relevant information: (1) they thought it was relevant that the app enabled unity by being able to connect with other users with the same interests, (2) one doubted whether it was possible to communicate with other users and (3) it had to be clear that it was the users who created the group. In the next we go in-depth with the feature “profile”.

5.18 Profile

All participants thought the profile gave clear insights, and were interested to know what the “self-care” square contained.

5.19 Chat function

They thought it was a relevant feature as you were able to contact specialists. What they argued was the importance (1) to clarify it was not a robot that answered the user because it would neglect the “unity” element, (2) it needed to be clarified if there were groups of specialist attached to the service, (3) that having specialists attached to the app would make the service idea different from others. In the next, we explain what the informants thought about the “*reminder*” function.

5.20 Reminder

All participants were confused with this function. However, after it was explained they thought it was smart to have it. One participant mentioned it reminded them of the apps that were designed to remind a user of their water intake.

5.21 Logbook

This was the feature that the participants had no criticism of. Positive feedback entailed (1) logbook reminded them of a personal assistant for overview, (2) managing one's mental health with weight loss was relevant, as one could struggle in a weight loss practice. (3) It enabled the user to go in-depth regarding feelings. The participants even suggested more features. One argued it would be pleasant if it could function as a diary, and another suggested a positive greeting function. This with no intention of reminding the user of their performance. Lastly, the user should be able to log activity, dietary and sleep goals. After the "logbook" feature the informants revealed their general thoughts of the app.

5.22 General thoughts on the app

It was considered manageable and an informative platform, and users were easily convinced by sources online that seemed reliable. Moreover, it was in general a smart app, because it was quite informative. We also had the following additional feedback.

5.23 Additional feedback

The digital platform would be appealing if it had a lot of "fresh" colors that felt energizing. It would be good idea to switch language so English speaking people could use it. An introduction screen was a necessity to inform users of the service's goal. In the next, we explain what the informants suggested about *situations in which the app could be used*.

5.24 Situations in which the app could be used

The participants had interesting comments regarding the use of the service. They all argued the app could potentially be used daily. They mentioned different reasons for how and what would make them use the app in their daily life: (1) the logbook that had the "mental check-in" feature, as the participant thought the focus should be more on mental health, as body and mind are connected, and it was important to be balanced in both, (2) it should have social elements that encouraged the user to check the app, as having training activities together or by following a training video with other people, and (3) features could focus more on setting goals and show how much you had achieved, for example, features like a pedometer. In addition, the app should inspire them with food or exercising techniques. In the next section, we elaborate on the final service concept.

5.25 The final service concept

Based on the feedback from the participants, the service concept was iterated where we evaluated the features and selected the ones that provided the most value. Moreover, the chosen features motivated and addressed their needs better. Thus improved the weight loss practices to support and help their future weight loss practices.

5.26 Informative feature

News wall screen was where all the evidence-based articles, reports, blogs and videos were published that presented all topics related to weight loss. They were provided by specialists with credible education background and years of work experiences, also other health organizations that provided health information. The published health information were written in a condense and informative format where the user could read the main points of the subject. In addition, if they were interested to read more, the service linked the original source of the material to the specialist's or organization's website. "Facts" was before called "facts and information". It presented the evidence-based material into categorization: "Mental health", "body", "food" and "different techniques for different results". The purpose of the option was that user could quickly find their material, if they did not want to browse the "news wall". The "facts" option specifically compared the different approaches that exist in the weight loss practices e.g. Lifestyle change versus diet. The aim of the informative feature was to enlighten the user so they could make informed decisions for themselves and that they could rely on the health information.

5.27 Social feature

"Forum", the users could create private and public forums depending on their preferences. "Forum", was where other users could interact with each other and discuss subjects that mattered to them and feel supported. "Chat function", the user had the option to ask a question to a specialist. If the users had a need to get specific knowledge for their particular situation, the service could provide them the option to write and receive answers from a specialist. This function was not a chatbot or a substitute for a consultation. If the user realized that they needed more guidance from the specialist, they could establish a date for a consultation. The aim of the social feature was to provide social support for the user and to interact with users and specialist that could help their weight loss practices.

5.28 Tracking feature

"Profile", was where the user could get an overview of their weight, activity goals, body measurements, favorites and friends. When the user created the account it would show choices through their profile. For example some people enjoy tracking weight on a scale, however, some prefer to track with measurements: Arms, chest, hips and thighs. In the activity goals, users could write activities they wanted to do and become better. In favorites, they could view and return back to articles/blogs/report/videos that they saved from "news wall" or "facts". Lastly, "friends" was where they view people they were socializing with and they could invite them to "forums". The aim of the options in the "profile" was create a personal space for the user, so they could track their progress and re-read their favorite reading materials.

5.29 Reflective feature

“Logbook” covered a space where the user could register their moods and feelings. It was structured to first ask how the user was feeling. Here the user could check boxes that described their mood. The boxes were: “daily affirmation”, “what I have learned” and “I am grateful for”. The user could elaborate on their experiences related to the chosen mood. The “logbook” was also able to track the user’s mood. If it detected that the user had registered negative emotions lately, it would send a notification that showed the positive things that the users wrote about themselves. Based on the participants’ feedback, we found it was important to balance the mind and body in weight loss practices. Therefore the “logbook” was designed to remind them of their mood and cheer them up. However, this was only possible if the users gave the app permission to track their mood. The aim of the reflective feature was to help the user nurture feelings and remind them that the number on the scales is not what counts the most. However, they should appreciate their development in their weight loss practices. The final service concept was presented in the product report.

In the next section, we present the “user journey maps”, which was created to show how the service was fully developed and how it could be launched. The “user journey maps” displayed different cases for each of the “personas”.

5.30 User journey maps

Terminology

Definitions

Props (physical/digital artifacts): any tangible or digital item that the user interacts with in their service experience (Gibbons, 2017).

Main actors: a customer or an employee presented as a “persona” (Stickdorn et al., 2018, 46).

Use case: a particular experience of a user's interaction with a service (Practical Service Design, n.d.).

To achieve a better sense of the final service concept’s use, and to reveal the key steps of the potential future experience, we applied the “user journey map” to visualize the potential interaction in a series of steps, illustrating how consumers might use the digital service (Stickdorn et al., 2018, 44). Creating a “user journey map” of a potential future experience is called a “future-state user journey map”. The purpose was to imagine and understand the use of the concept (ibid., 50). To briefly refresh what the tool of the “user journey map” entailed, it includes a main actor such as customers or employees to view it from their perspective. It also includes stages, steps, scales and scopes. We added props to show what physical or digital artifacts the users potentially came in contact with in the experience (ibid., 44-47).

In the following we made “future-state journey maps” that presented the “pre-service” experience, where the “personas” discovered the new app and three other maps that showed aspects of the service concept for each “persona” we created. All the “user journey maps” show the potential future experience from the “personas” perspective. Stages describe the main phases of the “persona’s” experience, e.g. Tasja went through the phases of “awareness”, “enter”, “register”, “engage”, “evaluate” and “check out” as we see in figure 3. The steps in the “user journey map” showed what the “persona” did in each phase in the particular experience (ibid.,46). The scale and scope for the “user journey map” for “pre-service” showed the experience in a small scale that covered one day where the goal was to communicate how the “persona” discovered the service. When presenting each “user journey map” for each “personas”, it began with a scale that ranged three months, as we attempted to communicate the idea of when the “persona” used the service. Then “zoomed in” on a smaller scale where the “user journey map” showed how the “persona” used the app service during one day. Lastly, in the small scale “user journey maps” showed the touchpoints that specified the digital or physical artifact that users interacted with during each step. In the next section, we explain how the service was exposed to the users, the female students.

5.31 Pre-service

Figure 2 below shows how the “personas” (users) came across the service. The awareness of the service occurs on social media such as Instagram. They scroll through Instagram and view a post shared by a specialist they follow. Then, they were in an evaluate phase, where they figured out whether they wanted to try out the service by reading the post. When informed and having gained an understanding of how the new app worked, they onboarded the service by downloading the app. In the register phase, they signed in and set up their account. After they had created an account, they were in the explore phase, and tried different features in the app. Lastly, it was envisioned that the consumer would use the service more purposely by e.g., finding and reading specific articles.

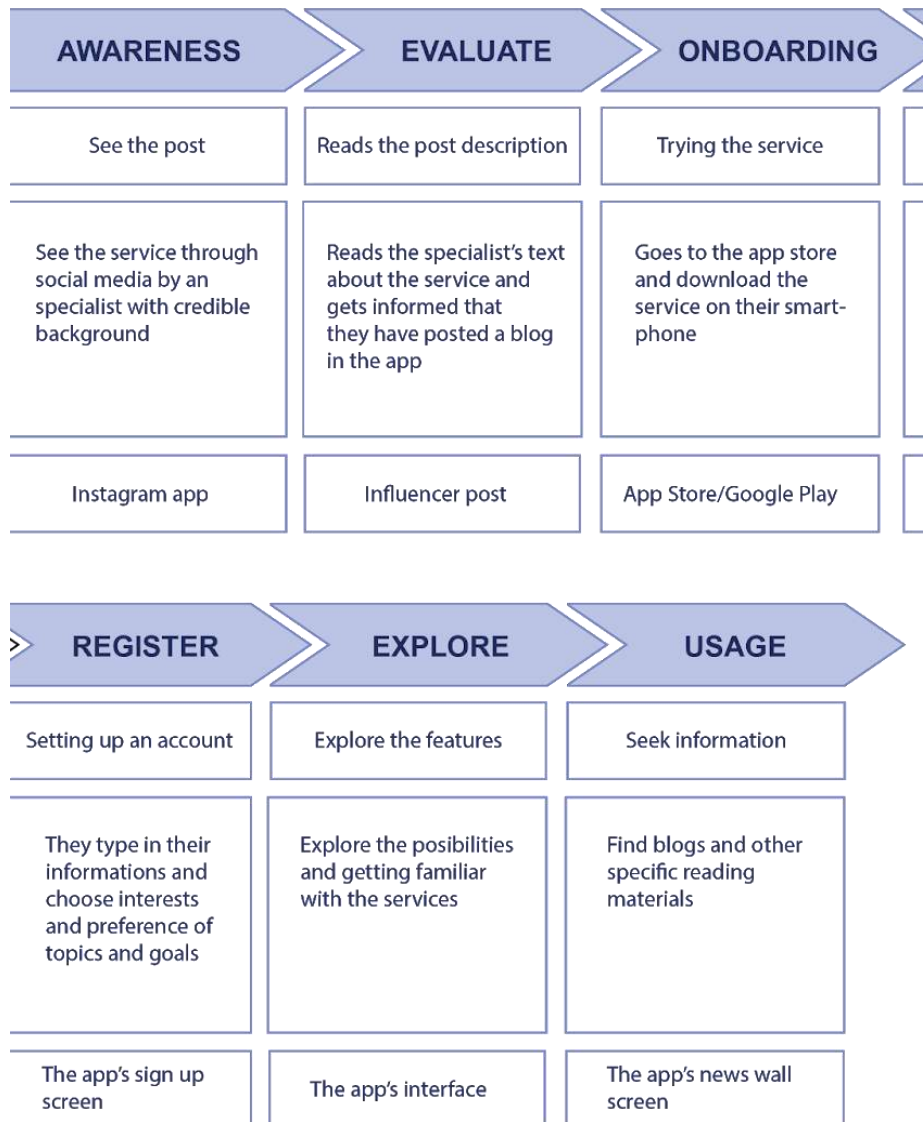


Figure 2. Pre-service, how users get exposed to the new service. By N. Saabye & M. Nielsen 2021.

In the next section, we continue with a particular situation (use case), where the persona Tasja used the “logbook” feature.

5.32 Tasja - Use case: Logbook

The “logbook” feature was the service concept’s reflective element, where the user could do a “mental check-in” to register mood and write affirmations, lessons learned and what they were grateful for. The function of the “logbook” was that it tracked the user’s positive and negative mood. It particularly monitored the negative moods; the service was designed to remind the user of the positive aspects of themselves, which was seen in the app as notifications. Tasja had a restrictive approach to weight loss, and focused on results. Her eagerness to reach her weight goals fast lead to her focusing on her actions,

and forgetting to appreciate the small achievements along the way and her body as it was. Tasja's underlying goal was to be comfortable in her own body, therefore we imagined that Tasja would benefit from using the "logbook" feature to balance her mind and body. The large-scale "user journey map" showed three months of the future experience. We envisioned Tasja would use the new service concept for around two months as shown in figure 3 below.

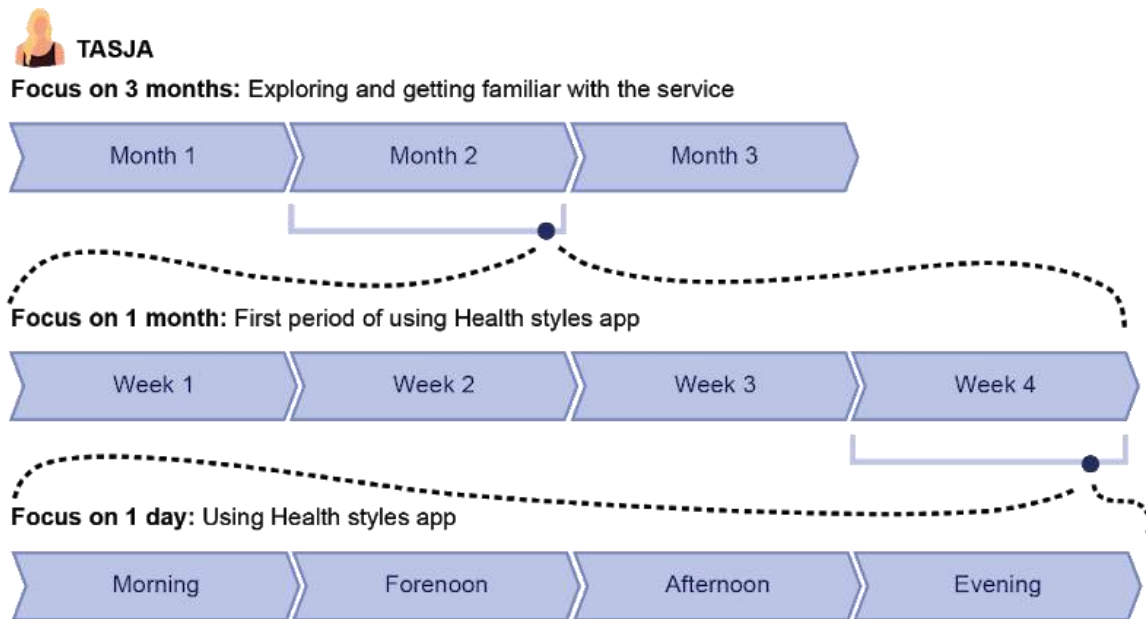


Figure 3. "User journey map" shown in a large-scale that ranges three months. By N. Saabye & M. Nielsen 2021.

Figure 4 shows how Tasja became aware that she gained weight using her scale. She opened the app to enter the logbook to register her mood and filled out the boxes "daily affirmations", "grateful for" and "lessons learned" in the app. As she registered her mood, the app sent her a notification, which she opened to read. Then she viewed all the positive things she wrote about herself through the weeks of registration. The app reminded her of the ups and downs that followed in a weight loss practice. We envisioned that the "logbook" feature would cheer the user up.

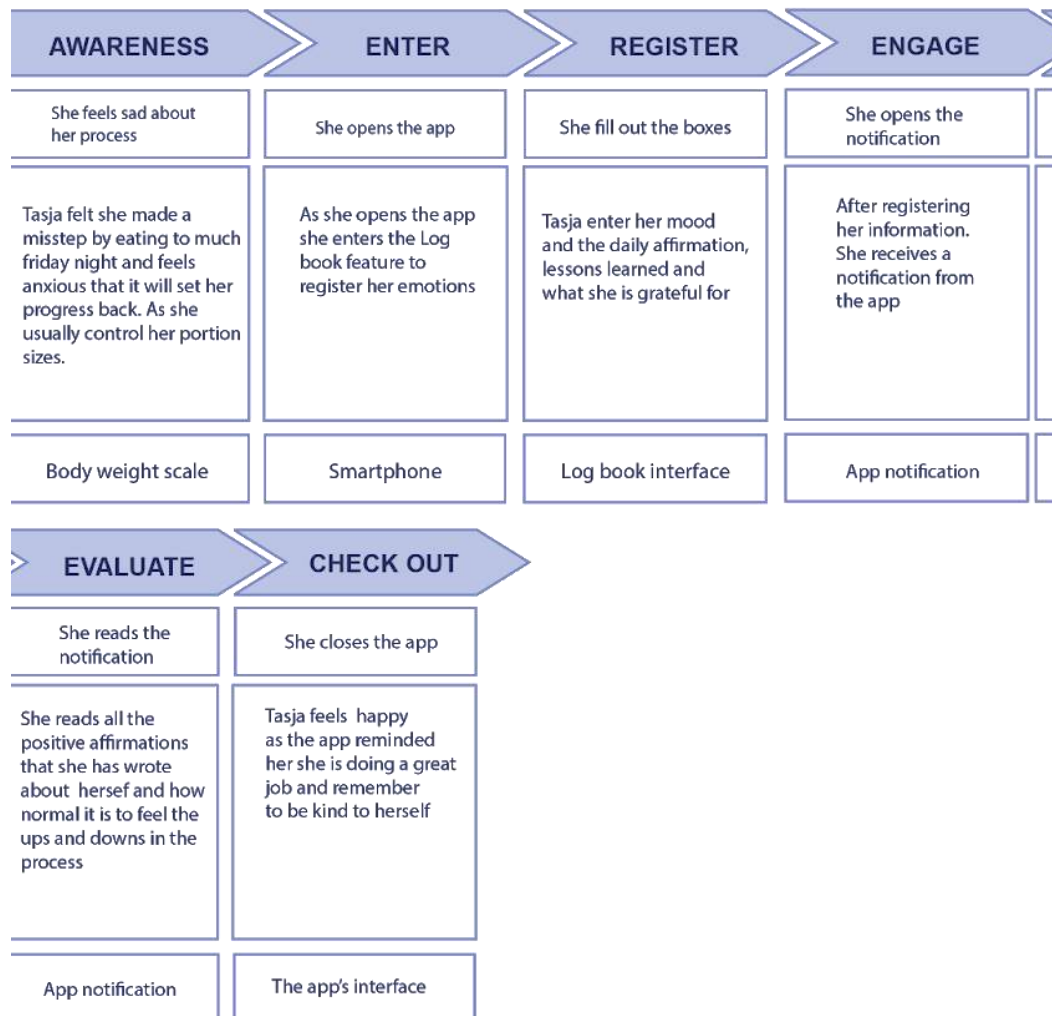


Figure 4. Tasja's experience, small-scale "user journey map". By N. Saabye & M. Nielsen 2021.

In the next section, we continue with a particular situation where the persona Lærke wanted to find inspiration for exercise.

5.33 Lærke - Use case: Find inspiration for exercise

The "news wall" feature was the service concept's informative element, where the user could find and read evidence-based knowledge provided by specialists. The function of the "news wall" was to present articles, blogs and videos posted by specialists. Moreover, it was possible for the user to search and choose suggestions to find their topic of interest. When they read the published material, they could either: like it, share it or save it for later. In addition, the app suggested related articles that discussed the same subject. Lærke aspired to maintain her weight, and had a casual approach to reach her goal. Due to her injury, it was difficult for her to carry out any training, and she was forced to rest. She wanted to be active again, however, at the same time, she did not want to inflict more

injury. Therefore, we imagined Lærke would benefit from the “news wall” feature to find inspiration for exercises at home to maintain her weight. Figure 5 below presents the large-scale “user journey map”, showing three months of the future experience. We envisioned Lærke started to use the new service concept for about one month.

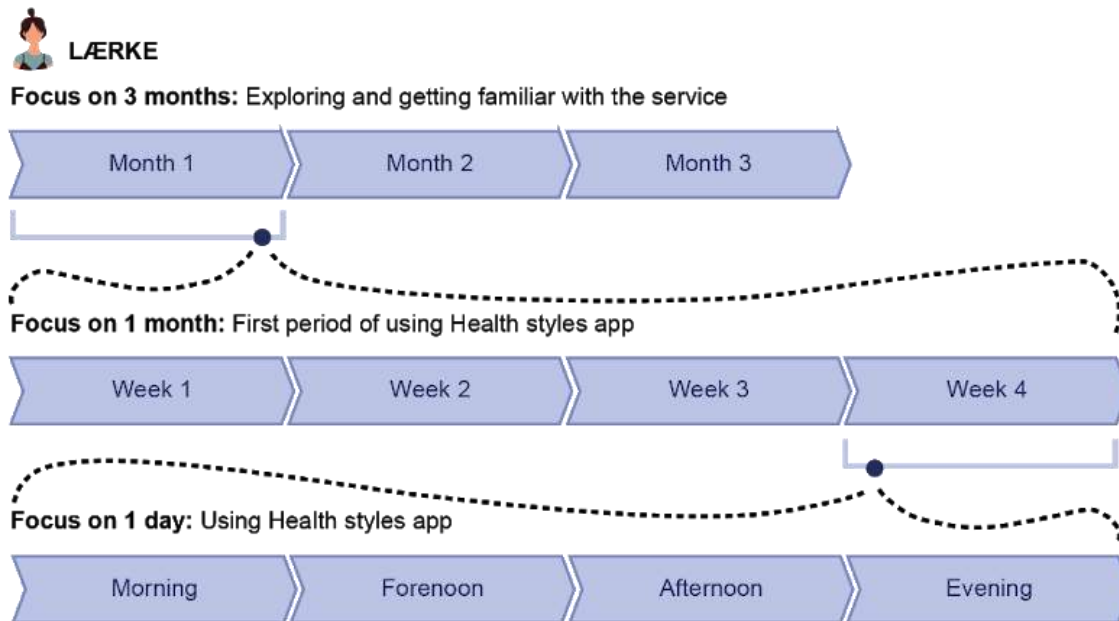


Figure 5. “User journey map” shown in a large-scale that ranges for three months. By N. Saabye & M. Nielsen 2021.

Figure 6 below shows how Lærke became aware of her need to exercise. She opened the app to explore and to find training exercises that suited her. In the “news wall” she viewed articles and videos. She used the search bar to seek exercise materials that were suitable for her. The app showed articles and videos that matched the search word, and when viewing videos, she could view how to do the exercises that were explained by credible specialists. Lastly, she applied the new gained knowledge at home and fulfilled her goal of becoming healthy and maintaining her weight.

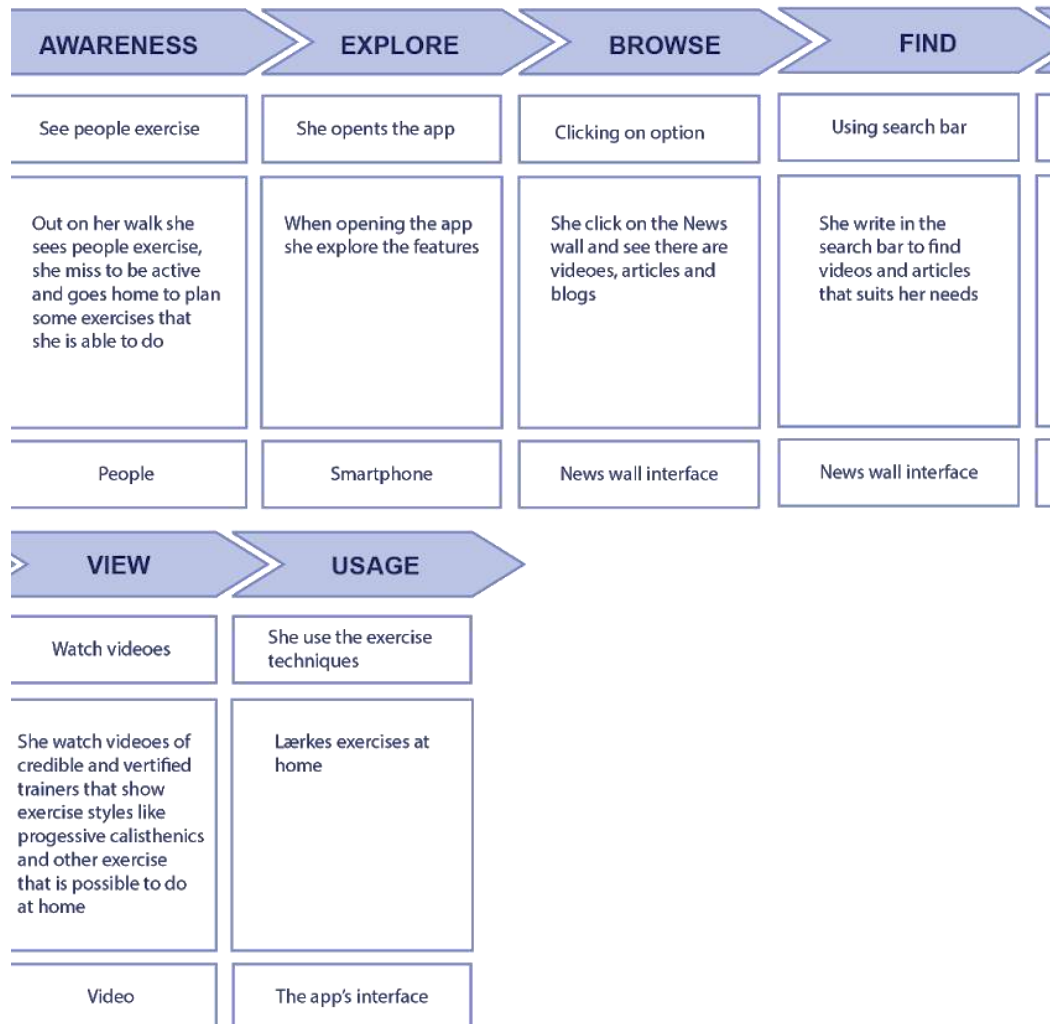


Figure 6. Lærke's experience, small-scale "user journey map". By N. Saabye & M. Nielsen 2021.

In the next section, we continue with a particular situation (use case), where the persona Julie search information to understand weight loss.

5.34 Julie - Use case: Searching information to understand weight loss

The "facts" feature was also one of the service concept's informative element. The evidence-based information was categorized into four main themes: "mental health", "body", "food" and "different techniques for different outcomes". It involved health in connection with weight loss. The purpose of the categorized themes was to make the users search activity efficient, and it presented the health information in a concise and informative format. They also had the possibility to "read more" if they wished to investigate further. Julie wanted to lose weight, and was motivated to put in the work, yet she wanted to "live a little" and was afraid to live restrictively. She followed her intuition, but she did not see much progress. When she searched online, there were numerous

websites that suggested various aspects of weight loss, which made her unsure of how to develop her approach in an efficient way. Therefore, we imagined that Julie would benefit from the “fact feature”, presenting health knowledge in a brief, explanative form. For example, “different techniques for different outcomes”, where different methods for weight loss were compared, so the user would know what the methods entailed. Hopefully, this would help the user to make more informed decisions concerning their weight loss practice. Figure 7 below presents the large-scale “user journey map”, showing three months of the future experience. We envisioned Julie used the service for approximately one month.

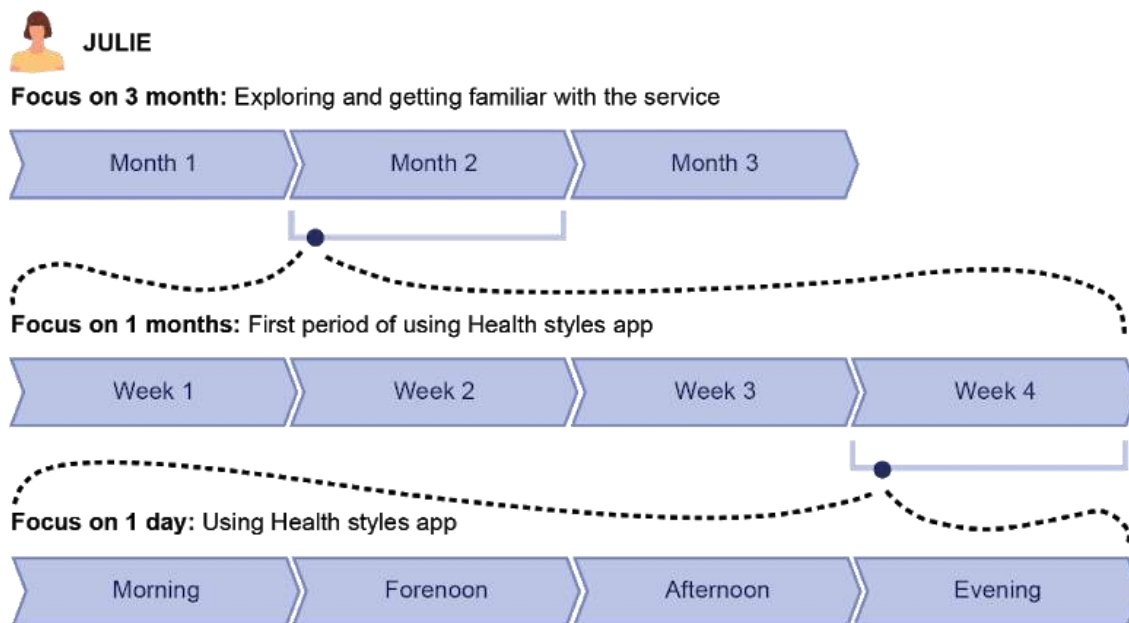


Figure 7. The "user journey map" shown in a large-scale that ranges three months. By N.Saabye & M. Nielsen 2021.

Figure 8 below shows how Julie became aware of gaining a little weight. She discovered it through her clothes. She used clothes as measurement and not a scale. Once and for all she wanted to understand how to improve her approach. She opened the app to explore and to seek knowledge. Julie used the “fact” feature and scrolled to view the topics in the “different techniques for different outcomes”. Julie read the health information, and saw what the different techniques entailed. Then she applied the new knowledge to her routines.

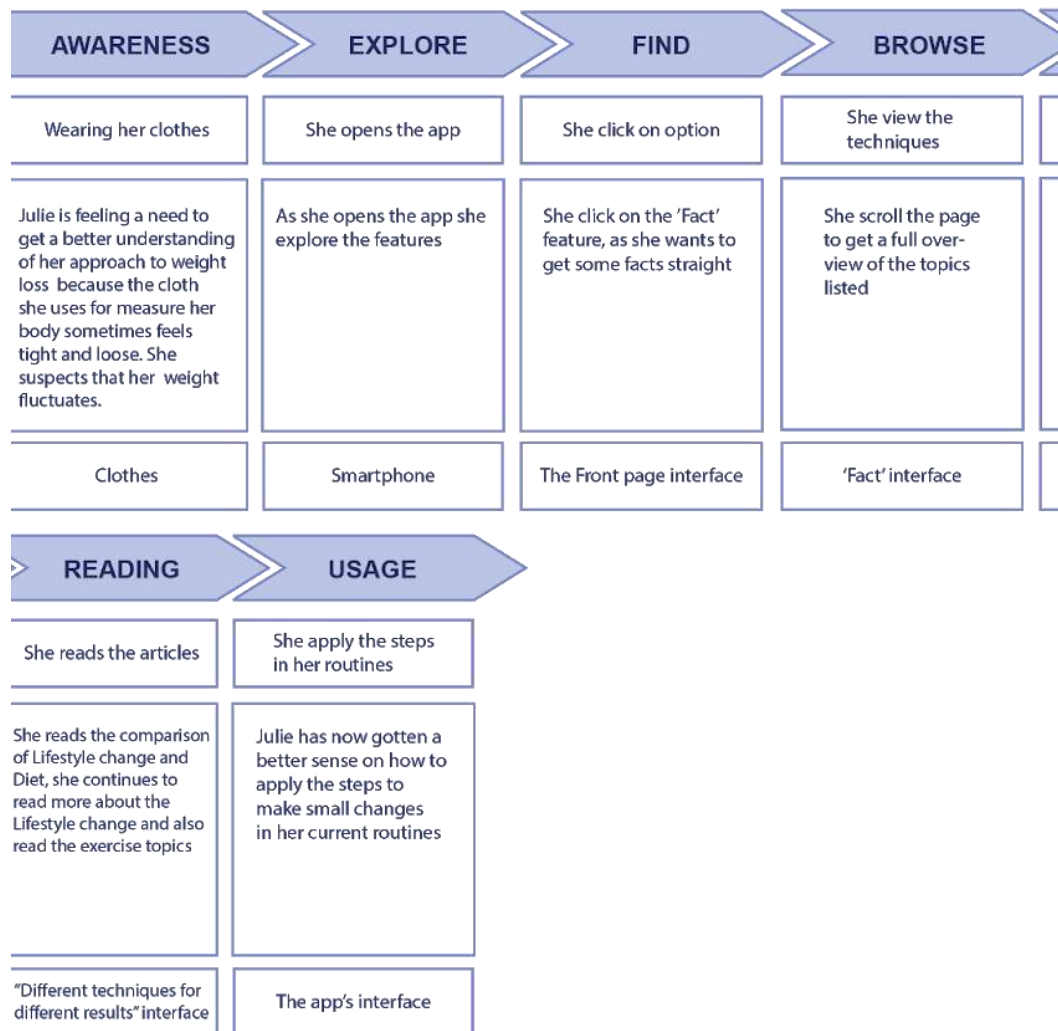


Figure 8. Julie's experience, small-scale "user journey map". By N. Saabye & M. Nielsen 2021.

Now, we have elaborated on the final service concept, the "user journey maps", with the different cases for each of the "personas". Thus this ends chapter 5., *Design of a service concept*.

The next chapter is 6 Discussion, where we elaborate on the process of the thesis, collaboration of the two professions and reflect on the learning goals for MALIC and SSD.

6. Discussion

Chapter 6 – Discussion

6.1 Reflection on the process of the thesis

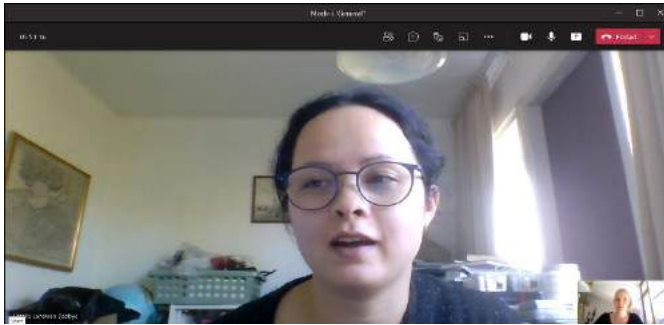
The purpose of this thesis was to gain insight into weight loss practices of female students between 25-30. In addition, it was a goal for us to learn the role of a Learning and Change agent and a Service Systems Designer. In addition, it was a goal to help uncover practices and analyze with tools from MALIC and provide service solutions in the form of concepts from SSD. It was with the aim to investigate and find out what weight loss practices were according to female students at AAU, CPH. Using the resources we had at our disposal, we tried to develop a realistic and evolving service concept which was an informative weight loss app to help find evidence-based knowledge more efficient. It could be argued that with more resources we could have increased representativeness and have had more people participate, both informants and specialists. If we would have asked a larger field, this had helped to build the conclusions of the thesis on a larger basis empirically. If we had more resources in the form of more group members, it would have been possible to gather more empirical data where we could have a larger field uncovered. For example several groups that we could have investigated in using online field research or conducted more interviews with informants and had more “co-creation” workshop sessions. This would have increased the validity of the thesis. It was challenging to make any general conclusions on the online field research of the three Facebook weight loss groups, due to limitation of resources and that we did everything online, as a result of Covid-19. Furthermore, we would have liked to do a study of several groups all over Denmark to get a broader study demographically, which would have contributed to more empirical findings.

6.2 Reflection on the collaboration between two professions

In the following, we elaborate on the collaboration between the two professions, MALIC and SSD, with a practice oriented perspective. The idea for writing the thesis together was initiated in the fall of 2020. We decided on a thesis collaboration on the basis of their backgrounds, a Bachelor’s degree in Nutrition and Health and a Bachelor’s degree in Jewelry, Technology and Business. We had a common interest in weight loss, and a general curiosity to improve the already existing service solutions within weight loss practices. The thesis collaboration began with an official thesis contract, which was approved by the study boards. Later, we made a separate contract with “rules” that matched learning goals from each curriculum, expectations and requirements. This, it may be argued, contributed positively to the work practices, due to the fact that we continuously adjusted our requirements and expectations. Our “general understandings” were in form of our separate values for the process and what we agreed what was morally and culturally appropriate to do in our work. We took up the “rules” from the contract when there were disagreements or challenges with each other. By using “materials” such as computers and the program Google docs, we made a Gantt chart that we consumed to

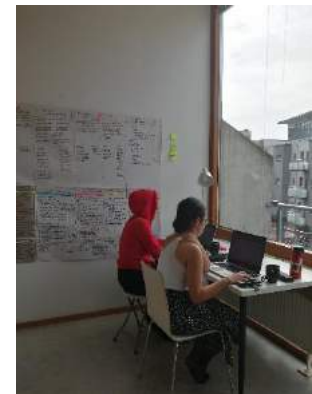
Interdisciplinary master thesis Weight loss phenomenon			February																											
TASK	START	END	Week 5							Week 6							Week 7							Week 8						
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Understand formalities			M	T	O	T	F	L	S	M	T	O	T	F	L	S	M	T	O	T	F	L	S	M	T	O	T	F	L	S
Brainstorm research planning																														
Desk research																														
Interview planning experts																														
Conduct interview w. experts																														
Indexing desk research																														
Online field observation																														
Survey																														

During the thesis process, we found that their practices changed immensely. This will be discussed in the following. When we began the process in the middle of the Covid-19 pandemic, we had set a “rule” to have all meetings online. To start with, we had agreed on a “rule” that the meetings were Monday, Wednesday and Friday, on Microsoft teams, starting at 9.15 a.m. and lasting approximately two hours. During these meetings, we had a “practical understanding” that Maria was the facilitator. Maria informed briefly about the program for each group meeting. First, we updated each other about any personal aspects that could affect the work, then we started to work on the thesis. It may be argued that this helped bring the social aspect into the thesis, and that we established whether there were any problems or personal circumstances we had to consider. Below is a picture from one of our online group meetings.



Picture 21. The picture is from one of the virtual Microsoft group meetings. Members from SSD, Natalie and from MALIC, Maria, by N. Saabye & M. Nielsen, 2021.

At the end of each meeting, we had a “practical understanding” about distributing the tasks. This we argue contributed positively to the written part of the process. In the beginning, we mostly did research. During this phase, Natalie was prominent in terms of her competence and strength as an “analyst”, (we elaborate this in the next section about team roles). We had a “general understanding” that we had to spend February and March collecting empirical data, that is desk research, field research, interviews and survey. In April, we had the opportunity to meet in person, as the lock-down restrictions were eased. Therefore, we had an analysis workshop at Maria’s residence (see the pictures 22, 23, and 24 below). We had a very productive weekend analyzing weight loss practices for the three online Facebook groups and the in-depth interviews. In April we also had a remote “co-creation” workshop.



Picture 22, 23 and 24. Illustrates the analysis workshop “the mechanism of the social order”, to find weight loss practices from the empirical collection, by N. Saabye & M. Nielsen, 2021.

At the end of April, we met at a library to begin the last stage of the thesis. Focus was mainly on finding key insights from the survey, write the discussion and the conclusion, and work on the *Design of a service concept*. It may be argued that the group meetings online at the beginning of the process were effective, as we did not spend time on

transport and, fortunately, held many interviews. This was because the informants worked from home, as a consequence of the Covid-19 pandemic. In addition, it was also positive that a large part of the interviewees worked at home, as the interviews did not have much background noise, and this made it easier to transcribe and process the data. Despite agreeing to a practice where we mostly worked at home, we were grateful to be allowed to meet in person for the analysis workshop. This, we argue, made it more tangible. Also, we found it more efficient to work face to face. In the next section, we reflect on our roles.

6.3 Team roles

From the beginning, we decided to make a “rule” to clarify the individual strengths and weaknesses we had, using Belbin's Team Roles (AAU, studievejledning n.d.). It can be argued that this was one of the most important decisions we made, as it helped us delegate work and be very efficient with our tasks. That each had certain strengths during different parts of the thesis process made our thesis come together quickly. In addition, there were some weaknesses that caused challenges in the process. We discuss this more detailed in the following. We began the thesis by clarifying the three most obvious of Belbin's roles and strengths that Natalie (from SSD) had.

We found that Natalie was an “Analyst”, the strength being a good listener, a “Communicator”, the strength being socially oriented, and a “Finisher”, the strength being perfectionist. We argue that these qualities contributed positively to the teamwork in the interdisciplinary thesis. This was because Natalie, as an “analyst”, was always responsive to new ideas. As a “Communicator”, she focused on us being social. Although we were working, Natalie had the social element in mind for us to find energy in the process. In addition, her strength as a “finisher”, was her perfectionism. This was shown in her “doings” with all the creative aspects of the thesis such as graphic design and working with the “materials” in forms of Miro, XD and Google Forms.

In addition, there were also weaknesses concerning the roles. It can be argued that the “analyst” may be perceived as skeptical. This was expressed with some misunderstandings in our communication. In addition, as a “communicator”, we found a weakness in Natalie's indecisiveness. As a “finisher”, we discovered a weakness in Natalie that she took on a lot of the assignments and had difficulty to delegate work.

After this, we found the three most occurring strengths that Maria (from MALIC) had. We found that Maria was: “Organizer”, where strength was discipline, “coordinator”, where strength was goals setting and “finisher”, where the strength was perfectionism. These qualities contributed very positively to the teamwork in the interdisciplinary thesis. As an “organizer”, Maria was disciplined with work assignments. She was also the facilitator and responsible for the calendar and our meeting structure. As “coordinator”, Maria had the strength to focus on meeting deadlines, so we achieved the desired results. In addition, her strength as a “finisher”, was her perfectionism. This was in terms of the strength being patentable in all the text-based sections, where she analyzed, edited content and proofread.

A weakness in Maria might be that, as an “organizer”, she was so structured it made her somewhat inflexible when it came to changes. This was expressed when she had too many tasks at hand. As “coordinator”, a weakness for Maria was to have too many initiated projects. In the role of “finisher”, the weakness was not to delegate tasks. This was expressed when Maria took on many tasks herself. We argued that, because the we made “rules” about having team roles it made us aware of individual strengths and weaknesses for us. In addition, our roles made the collaboration and work practices more transparent. Furthermore, due to knowing our roles and challenges, conflicts rarely became personal. This because we knew each other's roles and why we had different practices and where our strengths and weaknesses lied. It could also be argued that it contributed to a more structured and efficient work practice and collaboration, as we were able to quickly address who was most competent for a certain task, which we valued because we solved tasks and challenges in the thesis more efficiently. In the section below, we continue with a reflection on the learning goals reached.

6.4 Reflection of Learning goals for SSD and MALIC

6.5 Reflection of Learning goals for MALIC

In this section, we reflect upon whether the learning goals from the Master of Arts in Learning and Innovative Change (MALIC) was reached for the student Maria Nielsen, for the thesis and education. Therefore, the following will be described in a first person narrative. As we mentioned, in the beginning of the thesis, the overall goals for the student's knowledge development are that the student, after completing a master's degree, has acquired knowledge of the following key subject, as well as, within science theory, method and communication knowledge, skills and competencies. During the education I used problem-based learning, where I grounded project work on a PBL basis. In our thesis, we based the problem statement on the weight loss practice for female students between 25-30 at AAU, CPH.

In regards to achieving the objective of learning theory, I argue that I obtained the goals by applying learning theory on 9th semester, where I used Lave & Wenger's theory about “Community of practices” in an assignment about my internship at the organization Mind Institute. This theory was applied to discuss if I were a part of the company as a legitimate peripheral participant. In Mind Institute I became a legitimate peripheral participant because I was part of the community, however, I did not serve the company to a degree where they used the work tasks I did as an intern (Nielsen, 2020, 24).

Regarding knowledge about Organizational learning, this too can be argued was reached, as I finished the 8th semester optional subject in the course “Organizational Learning”. I wrote a project about digitalization of the classes during Covid-19. Here, I argue I reached the learning objectives of knowledge in that the project comprised research about what the characteristics of the students' perception of digital teaching were during the Covid-19 pandemic, and how it affected the relationship between technology and students in their individual study practice. I argue that the learning goals for knowledge were reached

by using methods such as qualitative methods, e.g. observation and in-depth interviews, and quantitative methods, such as surveys and the above mentioned theories.

Regarding skills, I reflected on and understood the education's subject areas' knowledge on a scientific basis. I also identifying relevant issues that could be the subject of scientific work. This was due to learning about different theories, such as, Edgar Schein's three levels of culture in organizations and practice theory by Theodore Schatzki and Elizabeth Shove. I used PBL where I identified issues based on problem statements and analysis methods from the subject.

In addition, I learned to make well-founded assessments and qualified choices among the subject area theories, methods and tools and design scientifically substantiated analysis and solution models. This I did by using critical thinking skills, and based my answers in assignments on evidence based knowledge and sources. In addition, I learned to use qualitative research methods and techniques such as semi-structured interviews with informants and participant observation, during my practice stay at the company Mind Institute.

In regards to competencies, I developed competencies about managing work and development processes in situations that were complex, unpredictable and required analytical and practical approaches in the project work with other co-students, e.g. in terms of handling problems in group work and dealing with analytical work from different theoretic approaches and workshop, group work and sessions. I also learned to initiate projects with others and alone. For example, for the thesis, we took on a group work where I collaborated interdisciplinary with SSD. From this I learned to collaborate with a person with different knowledge and approaches, and I also learned to use critical thinking skills, which improved our work and the thesis. Lastly, I learned to take responsibility for my own competences professionally, this in regards to developing and specializing my skills. I did this by assessing my knowledge and skills during the education, e.g. by evaluating my skills with the course student development sessions "Studie Udviklingssamtaler" from the course "Faglig Udviklingssamtale".

We continue by reflecting on the learning goals for Natalie Saabye from SSD below.

6.6 Reflection of Learning goals for SSD

In this section I, Natalie Saabye, reflects on the learning goals from the Master of Science in Service Systems Design.

For the thesis, to gain a holistic view of the weight loss practice, I used user-oriented methods such as in-depth interviews with people who use weight loss services and with service providers such as personal trainers and other specialists that work within the field. Moreover, I used questionnaires to gain statistical data for an overview of segment perception and knowledge of the weight loss practice. Applying user-oriented methods helped us to gain knowledge of the target group in the weight loss practice and profile potential users, which was done by using methods such as "empathy map" and "persona"

to create a lifelike representation of an actual user. It aligned our understanding and knowledge of how to create and define value for the users in the service for the thesis. As we worked with weight loss, it was essential to understand the issues related to weight loss practices and how users interact with current services and sought health information to improve their practices. To have a clear picture of the users health information seeking activity was essential to map the touch points in order to see where our service fit in the ecosystem. As we were able to narrow our target group, it was possible to actively involve them in a “co-creation” where they contributed with insights and involved them in the design of the service concept. With the methods we applied, we analyzed the output to interpret the users’ insights and implement it in the thesis. When we reached the design and prototype part of the project, I applied my skills of sketching the ideas to emphasize the values, experience and use of the service. I also used Adobe programs to design interfaces for the service concept that a user would interact with. Moreover, I applied the “user journey map” to envision the users’ interaction with the created service concept called “future-state journey maps”.

To summarize, we have in chapter 6 discussed the process of the thesis, the collaboration of the two professions and reflected on the learning goals reached for MALIC and SSD. This led to the final chapter of the thesis, where we conclude.

7. Conclusion

Chapter 7 – Conclusion

In the beginning of the thesis, we selected a flat ontological direction about practices in terms of weight loss practices. MALIC and SSD shared almost the same qualitative and quantitative research methods. The research methods that we applied in the research phase was: Desk research, online ethnography (field observation), in-depth interview and survey (online). This contributed to the thesis empirical data collection used in both analyzes in the interdisciplinary thesis. In the thesis, we utilized user-oriented methods from SSD, to understand and empathize with the target group in the weight loss practice context. We uncovered the participants' interaction with services and their particular practices and preferences to approach their weight loss practices. The methods from SSD we applied were brainstorming, "empathy map", "personas" and "co-creation". "User journey map" was applied to visually explain how the service concept appear in interaction with the user. MALIC primarily used the qualitative method, where we used online ethnography, non-participant observation of three Facebook groups. The purpose was to use the descriptive, the focused and the selective observation to observe what weight loss practices were in the field. We used the qualitative method for semi-structured interviews with specialists to gain more background knowledge about weight loss. The in-depth interviews with informants were held to narrow down the target group to 25-30 year old female students from AAU, CPH, and uncover their weight loss practices. We applied a literature review from SSD where we applied user-oriented methods and SSD approach for the thesis. We used practice theory from Schatzki and Shove to the analysis of "the mechanisms of the social order". The analysis from SSD included an uncovering of key insights and synthesizing of data. From the synthesis of the survey, we extracted key insights that helped build the "persona" that was used as reference in the ideation of service concept. The key insights we extracted from the survey synthesis were that the minority of participants who had a weight loss practice used either physical tools (lists) or digital devices (apps) to monitor activities in exercise and food and to view weekly results. Based on survey answers, a typical preparation was counting calories and exercising. The synthesis showed, participants mostly sought health information from evidence based sources and gathered information by engaging with services across various channels like websites and apps. Based on the survey, 61 out of 98 participants in the age group 21-30 said they were content with their body, but wished to change something. This was both in the *"Yes- started to lose weight"* and the *"No- not trying to lose weight"* group. The data showed the majority of the *"Yes- started to lose weight"* group was affected by body image portrayed on social media. The *"No- not trying to lose weight"* group was less affected. In the question on social media, we found the 21-30 year that were influenced subconsciously. They either felt uncomfortable, not affected or were motivated to have a healthy body. By extracting key insights from the survey and the in-depth interviews, we applied the "empathy map" and "personas" to create a life-like characteristics of users in the target group, 25-30 year old female students. We identified three "personas" that were research-based and close to a real representation of the users in the weight loss practice.

To answer the problem statement for SSD, we used a combination of methods such as desk and field research from SSD and MALIC to design the service concept that resulted in an informative weight loss app. The service concept was an informative weight loss application that gave female students access to evidence-based knowledge efficiently, which aimed to improve their weight loss practices. The app had features including, *information on weight loss, chat function, profile, forum, logbook, news wall and fact check*. The app had an additional feature, a reflective element, where the user could balance body and mind. These features could help them understand and take more informative decisions on how to improve their current practices, and support female students future weight loss practices. The app was concept validated by informants. The informants were selected because they were part of the target group. They helped us with feedback for app features that fit the informants' needs and practices.

To answer the problem statement for MALIC, we used "the mechanisms of the social order", from Theodore Schatzki's theory of practices in a structured order to analyze the observed groups on Facebook and the in-depth interviews with informants. We made a comprehensive presentation of the findings from the analysis. We found that it was very difficult to change a single weight loss practice without changing other weight loss practices. Moreover, We concluded that there were overall very similar weight loss practices in the observed online groups and in-depth interviews. The "practical understandings" were found in the observed Facebook groups about interacting with others and sharing weight loss information and commenting in what we interpreted as a moralizing way. The "practical understanding" from the in-depth interviews with female students aged 25-30 from AAU, CPH, was about sharing food images. They had weight loss restrictions by calorie counting and/or by eating low-calorie foods. The "practical understandings" derived from "general understandings" that it was normal to comment on others weight loss practices. We argued this was due to the diet and perfection in society. From the interviews, there was a "general understanding" that informants wanted to lose weight to feel attractive. In general, they felt they had to look a certain way, because society, media and films, showed thin female body images. The "general understanding" about counting calories and eating low calorie foods came from an "general understanding" from informants that they had to do a restrictive practice like counting calories to have success with weight loss. In the discussion, we applied a practice oriented theory to describe our own practices in the thesis. We discussed that if we had more resources, we could increase representativeness with more informants and specialists, and could have asked a broader group to make more elaborate conclusions. It was discussed that our work practices changed in four months and our "rule" of having meetings online was efficient, due to no transportation time and less disturbance in interviews. The physical workshops helped the thesis to efficient work practices. Finally, we discussed that the "rule" about having team roles clarified strengths for us.

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Artikel

Læring og Forandringsprocesser

Aalborg Universitet - København

Tværfaglig specialeafhandling

10.Semester - Forår 2021

Vejledere: Vibeke Andersen & Luca Simeone

Studerende: Maria Nielsen

Studie nummer: 20191488

Sider: 4.29

Anslag med mellemrum: 10.311

Abstract

Dette er et uddrag af det tværfaglige speciale fra foråret 2021, som er skrevet på 10. semester på SSD og LFP på AAU, CPH. Specialet tog afsæt i Schatzki's teori om praksisser. Vi undersøgte væggtabspraksisser for kvindelige studerende på mellem 25 til 30 år på baggrund af Schatzki's model "den sociale ordens mekanismer". Der anvendtes brugercentreret metode og en service design tilgang. Vi undersøgte, hvordan en metodekombination fra SSD og LFP kunne designe et servicekoncept, der kunne hjælpe med at forbedre væggtabspraksisser hos 25-30 årige, kvindelige studerende. Servicen skulle kunne støtte og bidrage til forståelse i deres fremtidige væggtabspraksisser. I diskussion reflekterede vi med et praksisorienteret perspektiv over processen, samarbejdet mellem LFP og SSD og om læringsmålene for de enkelte studielinjer blev opfyldt. Vi fandt, at det var svært at ændre én enkelt væggtabspraksis uden også at ændre andre praksisser, og at der var meget ens væggtabspraksisser. Med baggrund i en forståelse af hvordan vi så problemet med væggtabspraksisser i vores målgruppe, designede vi en informativ væggtabsapp med egenskaberne: information om væggtab, chat, profil, forum, logbog, fakta-tjekker og et refleksiv element, for at bidrage til en bedre forståelse og støtte de kvindelige studerende i deres fremtidige væggtabspraksisser. Appen blev afprøvet af informanter ved en koncept validering.

Introduktion

Det tværfaglige speciale er baseret på et motiv om at undersøge væggtabspraksisser for 25-30 årige, kvindelige studerende fra AAU, CPH. Specialet blev påbegyndt i februar og var frem til maj måned, altså i hele perioden, påvirket af Covid-19restriktioner. Dette resulterede i primært onlinearbejde med undtagelse af få gange, hvor det var muligt at mødes fysisk for at lave analyse og "co-creation" workshop. Problematikken handlede om at designe et servicekoncept for at støtte de kvindelige studerendes fremtidige væggtabspraksisser. Med en flad praksisontologi undersøgte vi, væggtabspraksisser for kvindelige studerende mellem 25-30 år, på AAU, CPH. Gennem indsamling af empiri var det gruppens mål at undersøge generelle praksisser om væggtab. Dette for at forsøge at forbedre væggtabspraksisser for kvindelige studerende mellem 25-30 år ved at udvikle en serviceløsning til målgruppen til at støtte dem i fremtidige væggtabspraksisser.

Metode

Metodedelen tog udgangspunkt i desk-research og field-research, hvor vi online observerede tre væggtabsgrupper på Facebook. Dertil foretog vi observation på tre niveauer: beskrivende, fokuseret og selekteret. Vi foretog interviews med specialister og lavede dybdegående interviews med informanter til indsamling af empiri. Derudover udarbejdede vi et online-survey for at definere en målgruppe, og undersøge generelle væggtabspraksisser. Vi anvendte mixed methods til at bearbejde problemstillinger i

specialet (Frederiksen, 2013, 32). Empiriindsamlingen tog udgangspunkt i både observation og interviews. Vi udarbejdede to forskellige interviewguides: en for specialister og informanter. Dette fremgik i bilagene (Bilag D og Bilag E, 89). Interviewguiden var i semi-struktureret form, hvor spørgsmålene anvendte inspiration fra Schatzkis ramme om praksisser. Der udarbejdedes åbningsspørgsmål for at skitsere rammen. Der var strukturerede praksisorienterede spørgsmål og derefter var spørgsmålene mindre strukturerede med forbehold for at give informanterne plads til svar.

Teori

Fra LFP anvendte vi Schatzki, som argumenterer, at praksisser er: “[...] *an open-ended, spatially temporally dispersed nexus of doings and sayings*” (Schatzki, 2012, 14). Schatzki argumenterer altså, at praksisser altså er åbne uden ende, hvilket betyder at de fortsætter, men samtidig er midlertidige (Schatzki, 2012, 15). Schatzki argumenterer, at det er en kombination af flere handlinger: “doings” og “sayings”. Derudover anvendte vi Shoves social praksis teori, som inkluderer “materiel arrangementer” og begrebet “consumption”. Ifølge Shove er “consumption” et resultat af en praksis, og hun argumenterer, at mennesker forbruger materialiteter, for eksempel objekter (Shove, 2013, 1). Dette anvendte vi til at undersøge de “materielle arrangementer” i specialet. I SSD anvendte vi brugercentreret metoder og SSD tilgang. Derudover, er Service Design også karakteriseret som en visualisering og prototype-praksis, hvor visuel formidling bruges til at kommunikere immaterielle elementer og gøre indholdet mere håndgribeligt. Dette gjordes for at levere et klart og tydeligt speciale, der kunne illustrere kundskaber fra både LFP og SSD. I analysen anvendte vi praksisser fra Schatzkis model “den sociale ordens mekanismer” med begreberne “praktiske forståelser”, “regler”, “teleoaffektive strukturer”, “generelle forståelser” og “materielle arrangementer” til at etablere, hvad væggtabspraksisserne var for målgruppen (25-30 årige kvindelige studerende fra AAU, CPH). Vi benyttede Schatzkis teori om praksisser sammen med Shove for at frembringe en forståelse af Shoves “materialiteter”.

Analyse

I analysen af målgruppens væggtabspraksisser klarlagde vi, hvilke praksisser informanterne havde vedrørende væggtab. I vores undersøgelse startede vi med et online survey for at få et generelt billede af aldersgruppens væggtabspraksisser. Dernæst analyserede vi key-insights fra surveyen, hvor vi så, at dem, der svarede på undersøgelsen, var mellem 21 og 30 år, hvorefter målgruppen med de 25-30 år fastlagdes for at indsnævre feltet. Metoderne de deltagende fra surveyen anvendte til væggtab var apps, som “MyFitnessPal” og “Lifesum”. Deltagerne i undersøgelsen svarede, at de så forskellige slags kroppe på de sociale medier. 43 svarede, at de blev påvirket af sociale medier og kropsidealer. Der var både “ja”-, “nej”- og “både/og”-svar i undersøgelsen. Det var forskelligt, hvor deltagerne søgte og havde deres viden fra. Det var ligeledes en blanding af evidensbaseret og erfaringsbaseret viden, de søgte. For at

kunne få en dybdegående forståelse for vægttabspraksisser og snævre målgruppen, foretog vi et interview med målgruppen. Dertil anvendte vi "den sociale ordens mekanismer" for at analysere væggtabspraksisserne, og fandt, at det var svært at ændre én væggtabspraksis uden også at ændre andre væggtabspraksisser, og at informanterne overordnet set havde meget ens væggtabspraksisser. Derudover bestod de observeredes "doings" i at dele information om væggtab og kommentere på en, som vi fortolkede det, moraliserende måde. For informanterne var "doings" at dele madbilleder, at tælle kalorier og spise lavkalorie madvarer. I "regler" var der regler i form af "sayings" om, at hvis der blev kommenteret noget upassende i facebookgrupperne ville medlemmet blive smidt ud af gruppen. I de "teleoaffektive strukturer" analyserede vi os frem til, at der var følelser om, at man skulle kompensere med motion for kalorieindtag. I de "generelle forståelser" analyserede vi os frem, at de observerede facebookgrupper havde en "generel forståelse", at det var normalt at kommentere moraliserende på andres væggtab, som følge af normer fra diæt- og perfektionskulturen. Informanterne havde en "generel forståelse", at de ville opnå væggtab for at blive attraktive fordi medier, tv og sociale medier, fremstiller billeder af tynde kropsbilleder af kvinder. "Materielle arrangementer", analyserede vi os frem til, var digitale medier.

Diskussion

I diskussionen reflekterede vi med et praksisteoretisk perspektiv over processen i det tværfaglige speciale mellem LFP og SSD. Vi reflekterede og diskuterede samarbejdet mellem de to linjer og hvad det bidrog til. Desuden diskuterede vi anvendelsen af teamroller, hvor vi anvendte Belbins teamroller under processen, som for Maria var "organisator", "koordinator" og "afslutter" og for Natalie "analysator", "formidler" og "afslutter". Teamrollerne bidrog til et struktureret og effektivt samarbejde. Dertil anvendte vi computeren som "materiale" og et andet materiale i form af Google docs til at lave et Gantt chart for at få overblik over deadlines. Til sidst diskuterede vi, hvor vidt vi individuelt og sammen havde nåede læringsmålene fra LFP og SSD. Vi konkluderede, at Maria Nielsen fra LFP opnåede de pågældende læringsmål sin studieordning ved at leve op til mål om viden, færdigheder og kompetencer. Vi konkluderede ligeledes, at Natalie Saabye opfyldte sine læringsmål fra SSD.

Opsummering

I denne formidlende artikel konkluderede vi, at det indsamlede kvalitative empiri, samt kvantitative empiri var observationer, interviews og survey, som var med til at svare på de to problemformuleringer fra henholdsvis LFP og SSD. Det vidste sig at være svært at ændre én enkel væggtabspraksis uden at ændre andre væggtabspraksisser, og der var overordnet ens "praktiske forståelser" for de observerede grupper og informanterne. De "praktiske forståelser" var "doings" for de observerede grupper om at dele væggtabsinformation og kommentere på en, som vi fortolkede det, moraliserende måde. For informanterne handlede "praktiske forståelser" om "doings" om at dele madbilleder,

tælle og spise lavkalorie mad. De "generelle forståelser" bunder, i de observerede grupper, i diæt- og perfektionskulturen, om at det er normaliseret at kommentere moraliserende på andres væggtabspraksisser. De "generelle forståelser" fra interviewene handlede om, at informanterne ville tabe sig for at være attraktive for at blive accepteret af samfundet, som følge af mediernes fremstilling af tynde kropsbilleder. Kalorietælling udsprang af en "generel forståelse" om at være restriktiv for at have succes med sit vægttab. Med afsæt i analysen af "den sociale ordens mekanismer" konkluderede vi, at vi undersøgte væggtabspraksisser for kvindelige studerende mellem 25-30 år. Dette gjorde vi i analysen for at finde frem til informanternes praksisser som "sayings" og "doings" (Halkier & Jensen, 2008, 51). Derudover analyserede vi med metoder fra SSD, de hovedindsigter, der var fra survey for at finde frem til en målgruppe. Baseret på vores fund fra empiriindsamlingen og analyserne designede vi en informativ væggtabsapp. Denne app havde til formål at forsøge at forbedre væggtabspraksisser for kvindelige studerende, til at hjælpe dem med at forstå væggtabspraksisser og støtte dem i deres fremtidige væggtabspraksisser.

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NaMaStay Fit

Product report



Programme: Master in Service Systems Design

Semester: 10th

Title: NaMaStay Fit - Natalie Maria Stay Fit

Project period: 01.02.2021 - 31.05.2021

Semester project: Improve weight loss practices

Supervisors: Luca Simeone & Vibeke Andersen

Group Members: Maria Nielsen & Natalie Lanawan Saabye

Pages: 14

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Abstract

A lot of female students who practice weight loss have a couple of difficulties to improve their current weight loss practices. Finding health information sources related to weight loss is difficult, as people seek information online by reading articles or using websites that appear credible. Through social media female students also seek inspiration with the purpose of applying the knowledge to their own practices e.g. Diets. The credibility of health information related to weight loss is a prominent factor for the female students. As anyone can publish content online there is a chance that the information is inaccurate and unreliable. There is a high probability of e.g. dietary information that is inaccurate, harmful or used improperly in their weight loss practices. The consumer cannot evaluate if the information on the website is appropriate for their need as some sources do not specify directly their targeted users and objectives with the health information. The other difficulty that the female students come across is the influence of social media, where it is possible to interact with peers through sharing and viewing posts. Social media subsequently builds up a culture of comparison as people notice other peoples "likes" and "followers" which influence their perception of themselves and eventually influence their weight loss practices in terms of fixating on reaching their weight goal instead of the practice to a more fit body.

NaMaStay Fit is a service concept that aims to improve the female students weight loss practices. It is an informative service with a reflective component which both informs and balances the users mind and body, that will help and support their future weight loss practices by providing them an digital platform that contains evidence-based information and help tracking their weight loss progress.

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Introduction

This product report presented the finalized design of a service concept and the design process of 10th semester Interdisciplinary Master Thesis between Master of Arts in Learning and Innovative Change & Master of Science in Service Systems Design at Aalborg University Copenhagen. The theme of which was weight loss practices.

The product that was presented in this report is NaMaStay Fit, a informative weight loss application designed for female students. The service concept was developed with female students from AAU, CPH as participants in an online co-creation workshop. The participants collaborated and helped the thesis group through the entire phase of the Design of a service concept. We explain the service further in this product report. This report is to be viewed as a report for future execution and development.

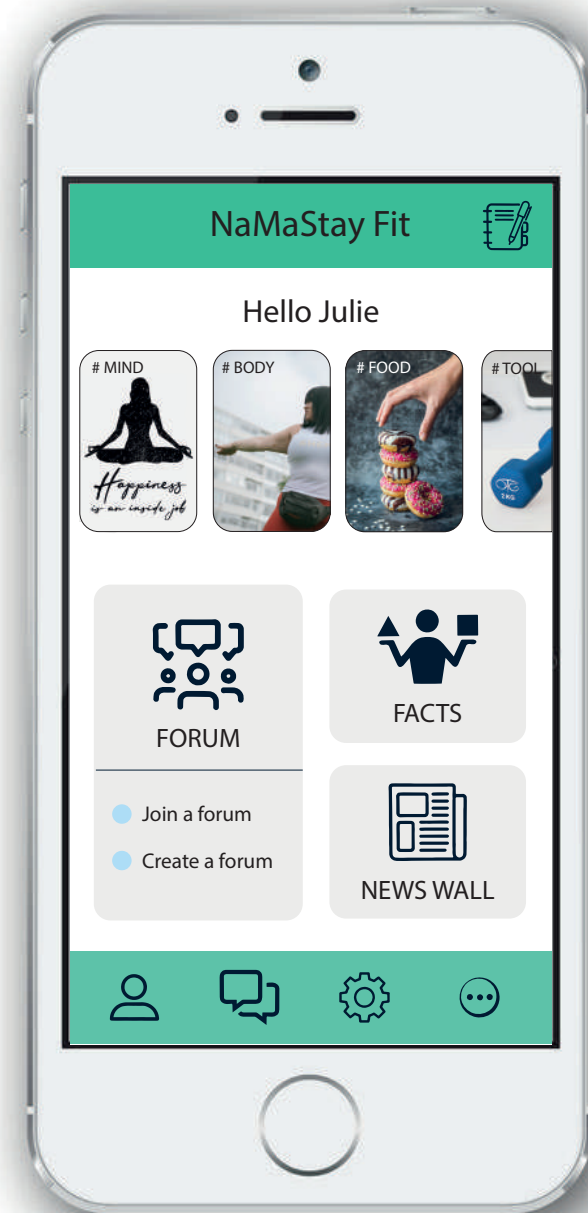
The report has been made by two students with Danish Nationality, with a background in Nutrition and Health - Food and Management from University College Copenhagen and Jewelry, Technology and Business from Copenhagen School of Design and Technology at Københavns Erhvervsakademi, KEA.

The service

What is NaMaStay Fit

The app functions as a “fact checker”, where all evidence-based knowledge was gathered. If the user was curious about a topic, the page would also provide a reference that directed the user to the author’s source. For the reflective element, the app has a logbook feature, where the user can register their mood. Moreover, it also has a tracking feature where the user can document their progress and received tips. When the users set up their account and choose weight loss as a goal, the app will visually explain how and what to consider when starting a weight loss. The informative and reflective element of the service aims to minimize mental frustration that follows in a weight loss practice. The app’s service also aims to support a user’s current weight loss practices and help them in their future to better address their needs.

As the service contains and presents evidence-based materials, it only provides health information that follows the public guideline such as Sundhedsstyrelsen (Danish Health Authority). In addition, the service also publishes articles, blogs and videos from specialists with long educational backgrounds within health and are experienced with weight loss practices. The purpose of the service is also about giving the user safety and that they can trust it is quality assured. It is essential for the app to present accurate and reliable information so the user can apply new knowledge in their weight loss practices. The app could potentially be an extension of Sundhedsstyrelsen.



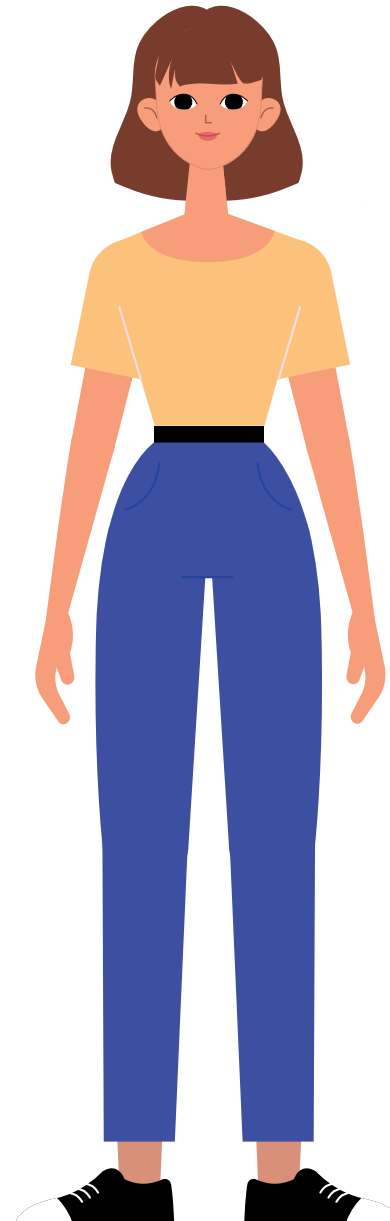
Target group - described as persona

Julie - Female - Student - 27 years old - Single

She lives in a small apartment in Copenhagen, where she rents a room with another female peer. She has a part time job at a café. In her spare time, she enjoys hanging out with her friends. In appearance she does not look overweight, however, she has noticed she has gained curves and had to buy a new pair of pants, therefore she tries to lose weight and attempts to lose weight for around 1 month. She needs to have control as this is quite new for her and at the same time, she does not want to overthink every action. She wants to listen to her body and stay motivated.

Julie likes to have a casual and structured approach when having to think about her diet. She uses apps such as LifeSum to track her calories and be active. She takes weekly pictures of her progress and documents her achievements in a physical log book. She uses clothes, not a scale.

When she looks for further inspiration, she tends to use Instagram to find inspiration for food. She has an intuitive approach with how much she eats, but still feels it is a slow process. She is not a sporty type and feels anxious if one can only lose weight by training. She is aware that she must put in effort regarding food and exercise. She wants to be healthy and balanced everyday while losing weight. She has a goal to get more active to fit her old clothes again and feel a bit attractive. She wants to focus on the rewards along the process and not rush weight loss.



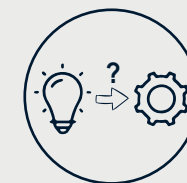
Pain points



She searches and reads articles on the internet that seem credible, but finds it a bit confusing as most of the diets do not explain what it entails, and how to implement the new changes properly in her routines.

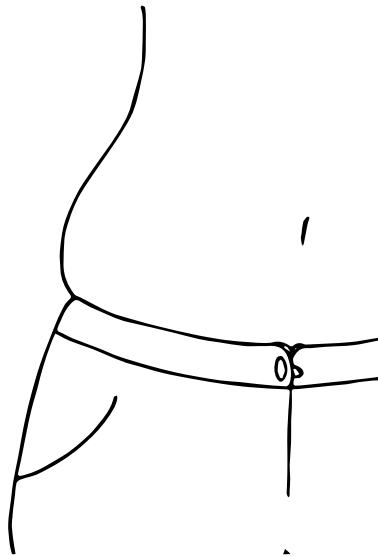


When seeing her slim friends on social media, it makes her aware of her own body, which makes her miss her old clothes that she once fitted.



She feels that weight loss can be annoying, due to a fluctuating weight. She does not know how to approach it more efficiently

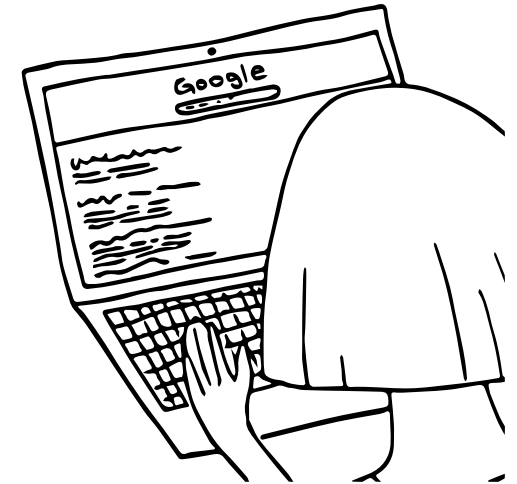
Story board - Julie, discovering and applying the service



Julie can feel that her pants has become to tight and she is a bit frustrated that her weight fluctuates.



She goes on her computer to seek information on how she can better approach her weight loss



She googles "how can I lose fat around my stomach" and various answers appears, it shows about slimming pills, fat freezing and vegetarian diets.

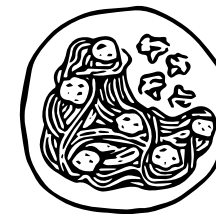


After it failed with google search, she goes on Instagram to find meal and exercise inspiration. She sees a specialist explainig about NaMaStay Fit app. She downloads the app and set up her account.



Before use, the app show introduction slides of the app's possibilities. She goes to the Fact page and then "Different techniques for different outcomes". When clicking on "Lifestyle", it shows SST's "Små skridt til vægttab" and also provides a link to the web pdf format.

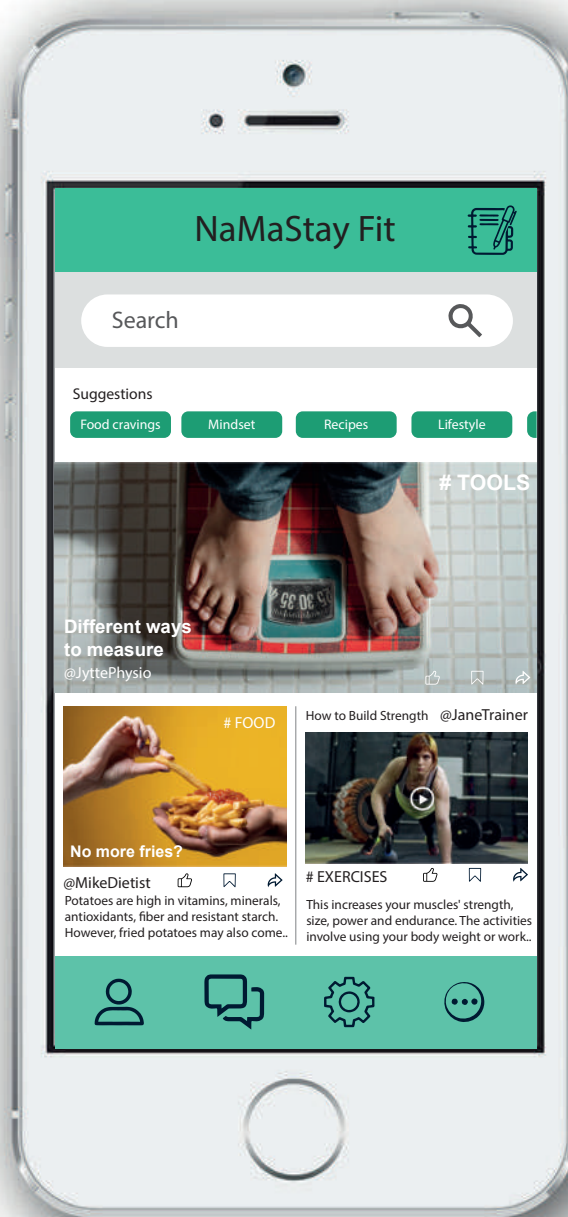
FIRST DAY



SECOND DAY

Julie is happy to know that weight loss does not need to be restrictive, she applies the knowledge in her routines. Starting with her meals, she started to adjust the portion sizes by scaling it down and start to choose healthier alternatives little by little.

How does it work?



Informative feature

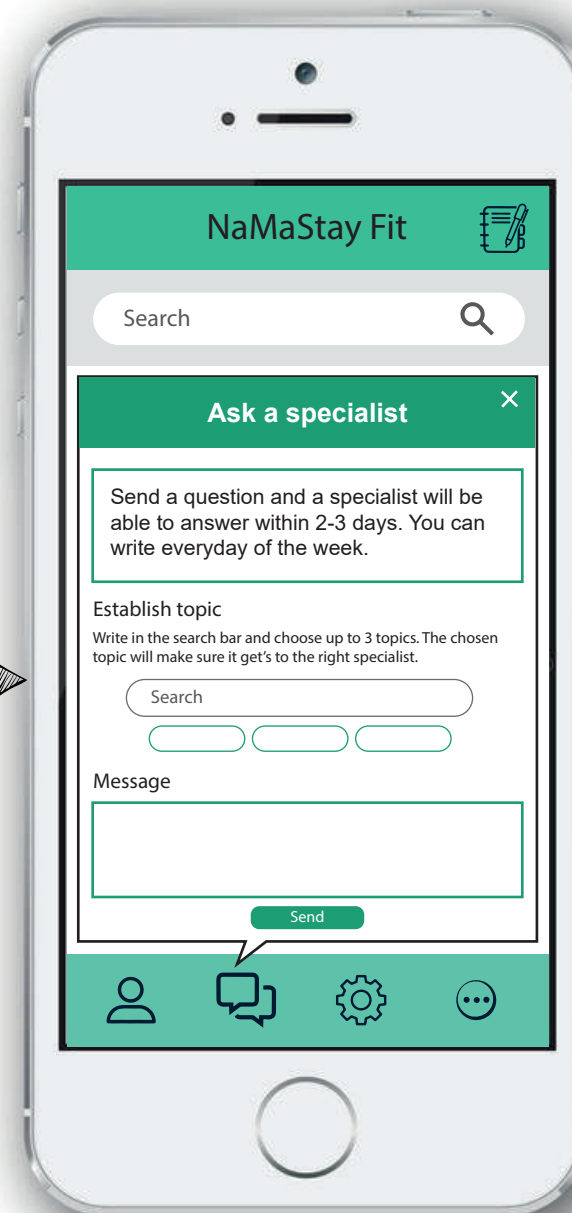
News wall

News wall screen was where the evidence-based articles, reports and videos were published that presented topics related to weight loss. This was provided by specialists with credible education backgrounds and years of work experience. The published health information was written in an informative format where the user could read the points of the subject. If they were interested to read more, the service linked the original source e.g. specialist's or organization's website.

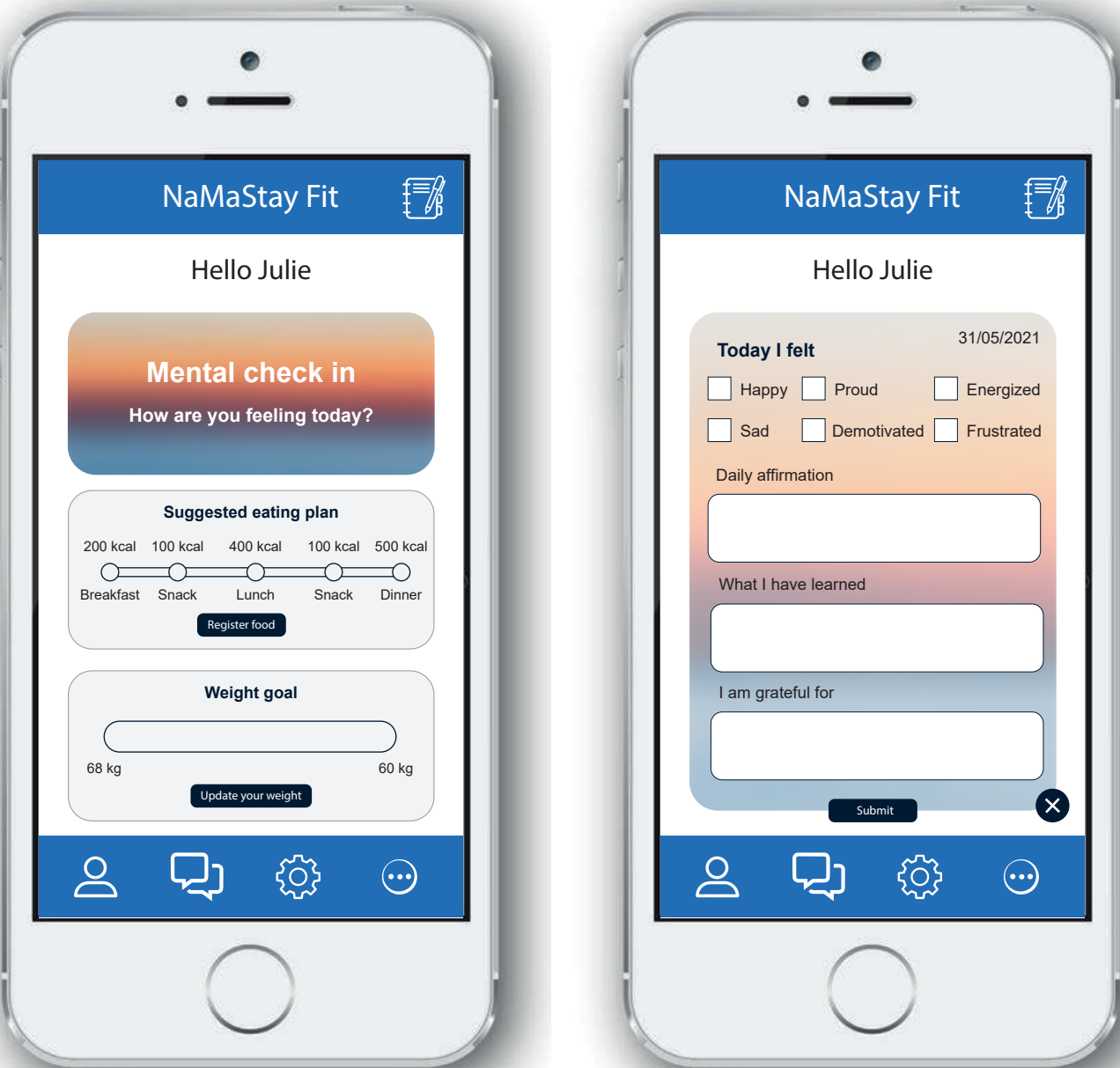
Chat function

The user can also write a message to a specialist if they need a specific answer to their situation. The purpose of the chat is to get an quick and informative-answer. When the user receives an answer from the specialist, they can asses if they need to book an consultation with the specialist.

The aim of the informative feature was to enlighten the user to make more informed decisions, and that they could rely on the health information sources.



Reflective feature

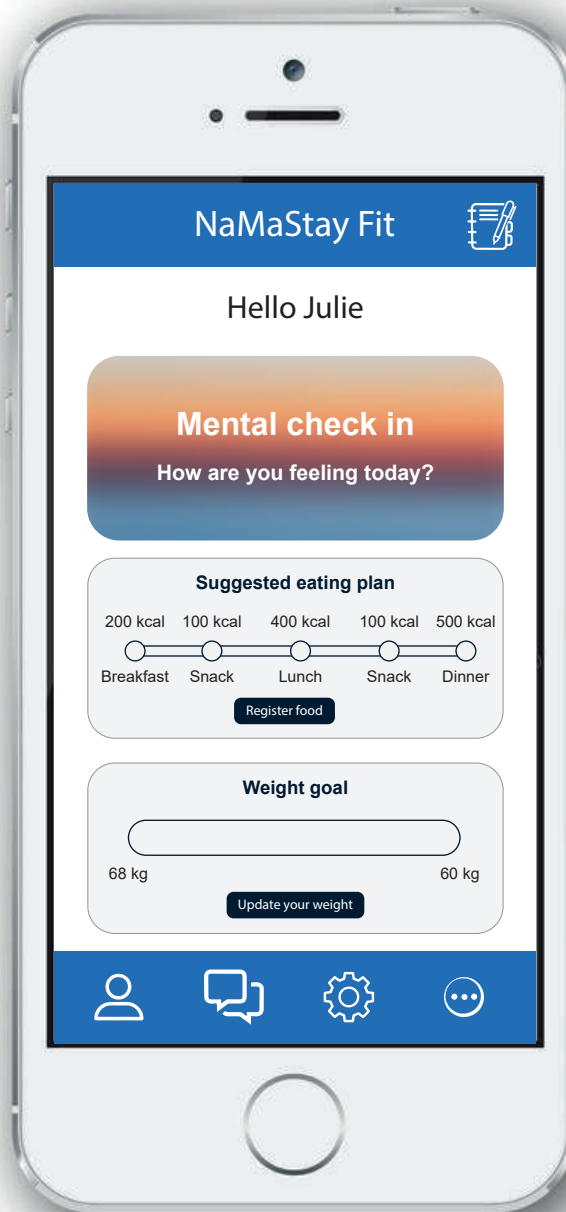


Logbook

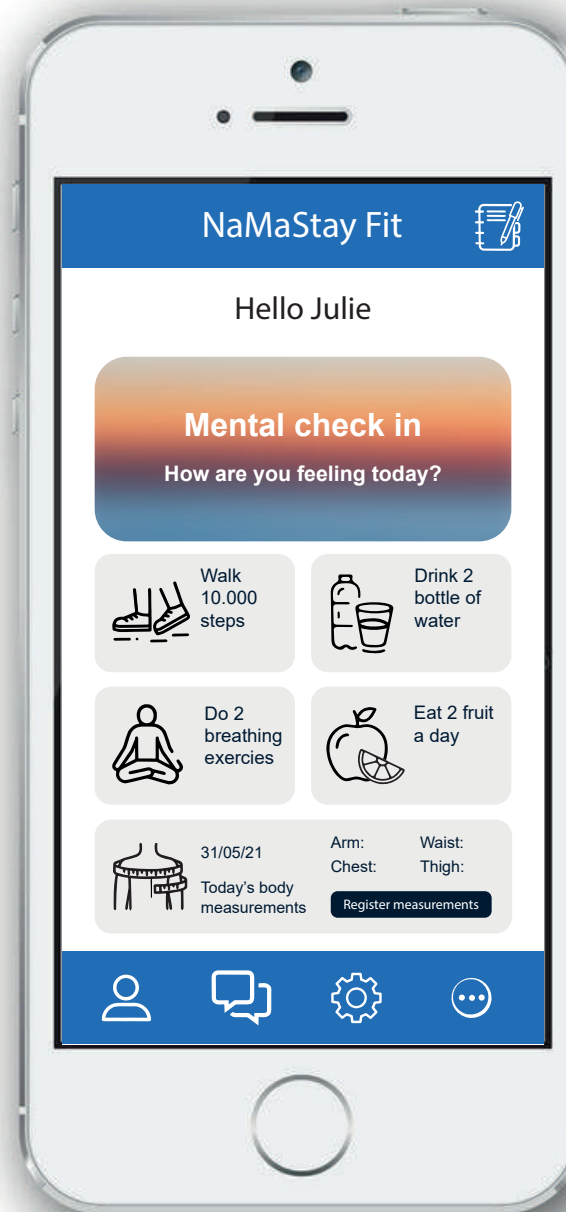
“Logbook” covered a space where the user registered their moods and feelings. It was structured to ask how the user was feeling. Here the user could check boxes that described their mood. The user could elaborate on their experiences related to the chosen mood. The “logbook” was able to track the user’s mood. If it detected that the user had registered negative emotions lately, it would send a notification that showed the positive things that the users wrote about themselves.

Through research it was found that it is important to balance the mind and body in weight loss practices. The aim of the reflective feature was to help the user nurture feelings and remind them that the number on the scales is not what counts the most. However, they should appreciate their development in their weight loss practices.

Tracking feature



A



B

In the Logbook, they can also keep track of their progress. They can personalize their account and choice preferences on how they wish to track their activities. As we discovered in our research, users measure themselves differently. Some users like to focus on weight and counting calories (A) and for others they like to measure their body and work to reach small activities that motivates them (B).

When the user register their progress in the Logbook, it will also show in their profile to give them an overview and show their status.

Stakeholder map

The stakeholder map presents who are involved in the service and it takes the perspective from the digital product (NaMaStay Fit). More specifically it visualizes the major stakeholders who have an influence and how much impact they have on the app's content.

The three circles refer to the level of impact stakeholders have on the service: Essential, important and other. It shows that Sundhedsthyrelsen has the main responsibility of the system and handles the information that is included in the service.

Stakeholders

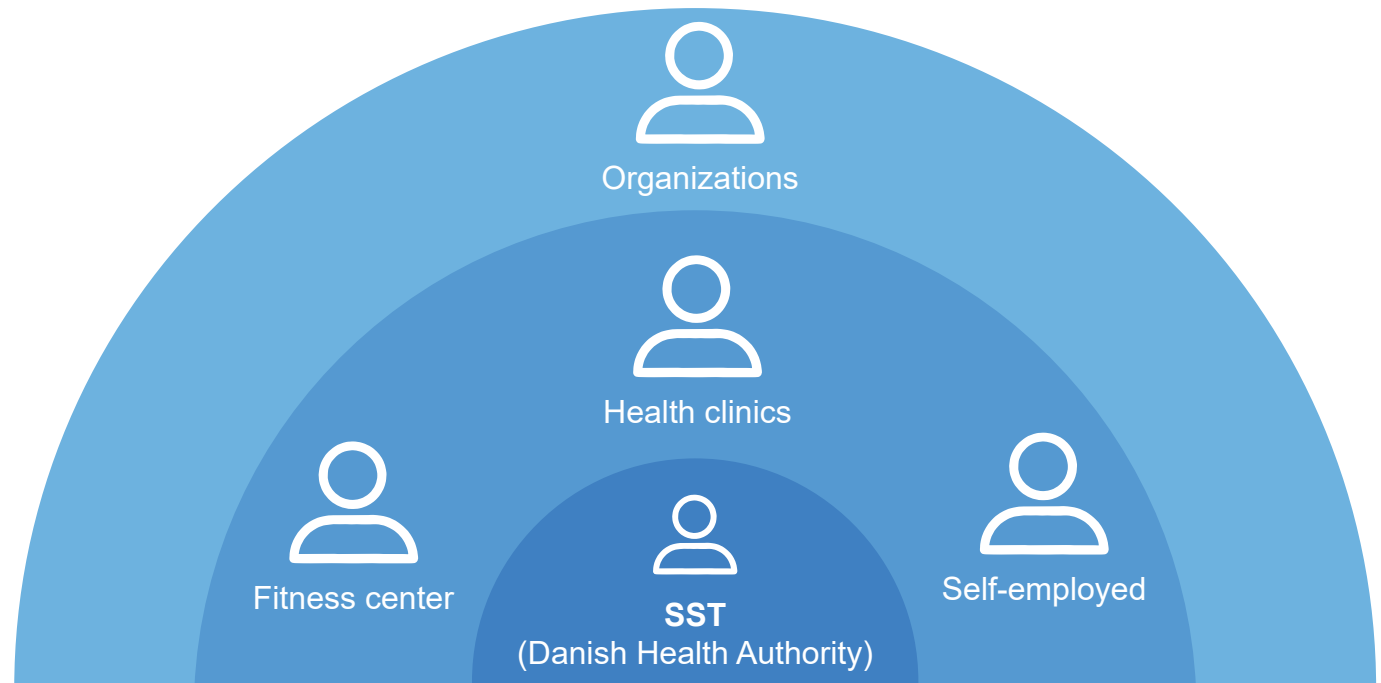
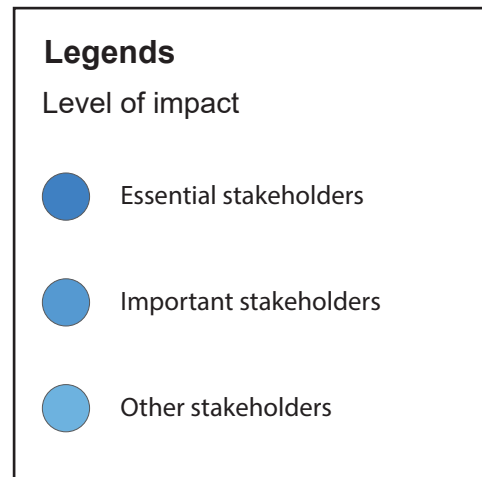
Health clinics like Diætishuset and FysioDanmark has a huge network that could provide credible specialists

Self-employed, there are specialist like physiotherapists, dietitian, personal trainer and nutrition therapist who have their own company.

Fitness center, has a personal trainers with credible background ex. Fortius Fitness

Other organizations like Fødevarestyrelsen, Hjertereforeningen and Landsforening mod spiseforstyrrelser og selvskade (LMS)

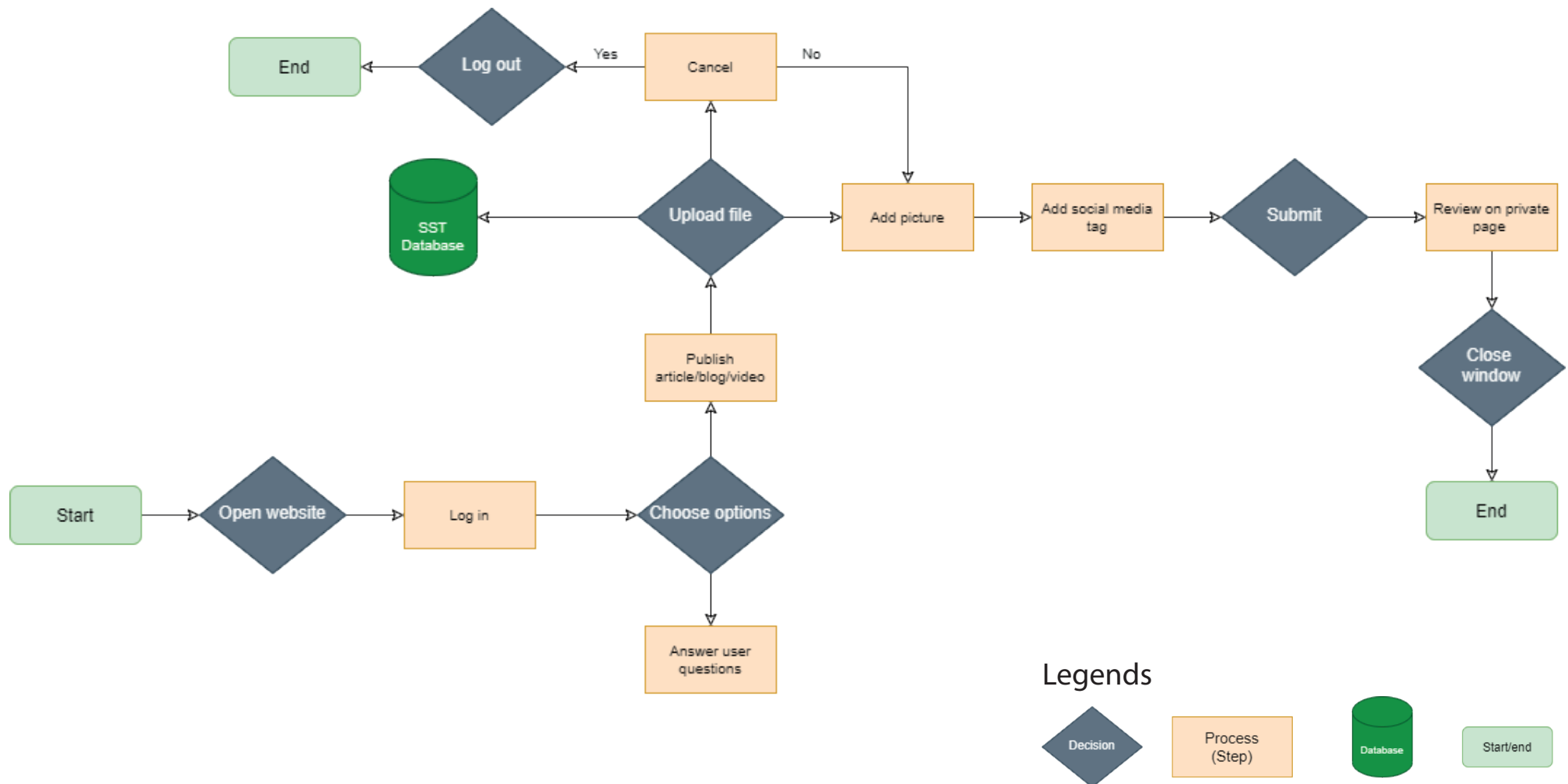
They can provide knowledge to the app through articles, blogs and videos. The link that is attached to the reading material can direct the user to the specialist's page who authored the article/blog/video, thereby the stakeholders would also gain exposure and potential clients.



Flow chart - How specialists publish their article/blog/video

The flow chart visualizes the interactions that the user might do in a specific context of the service. It illustrates how users navigate through the interface in the app to achieve their objectives. This flow chart specifically shows the task flow e.g. when specialists publish articles.

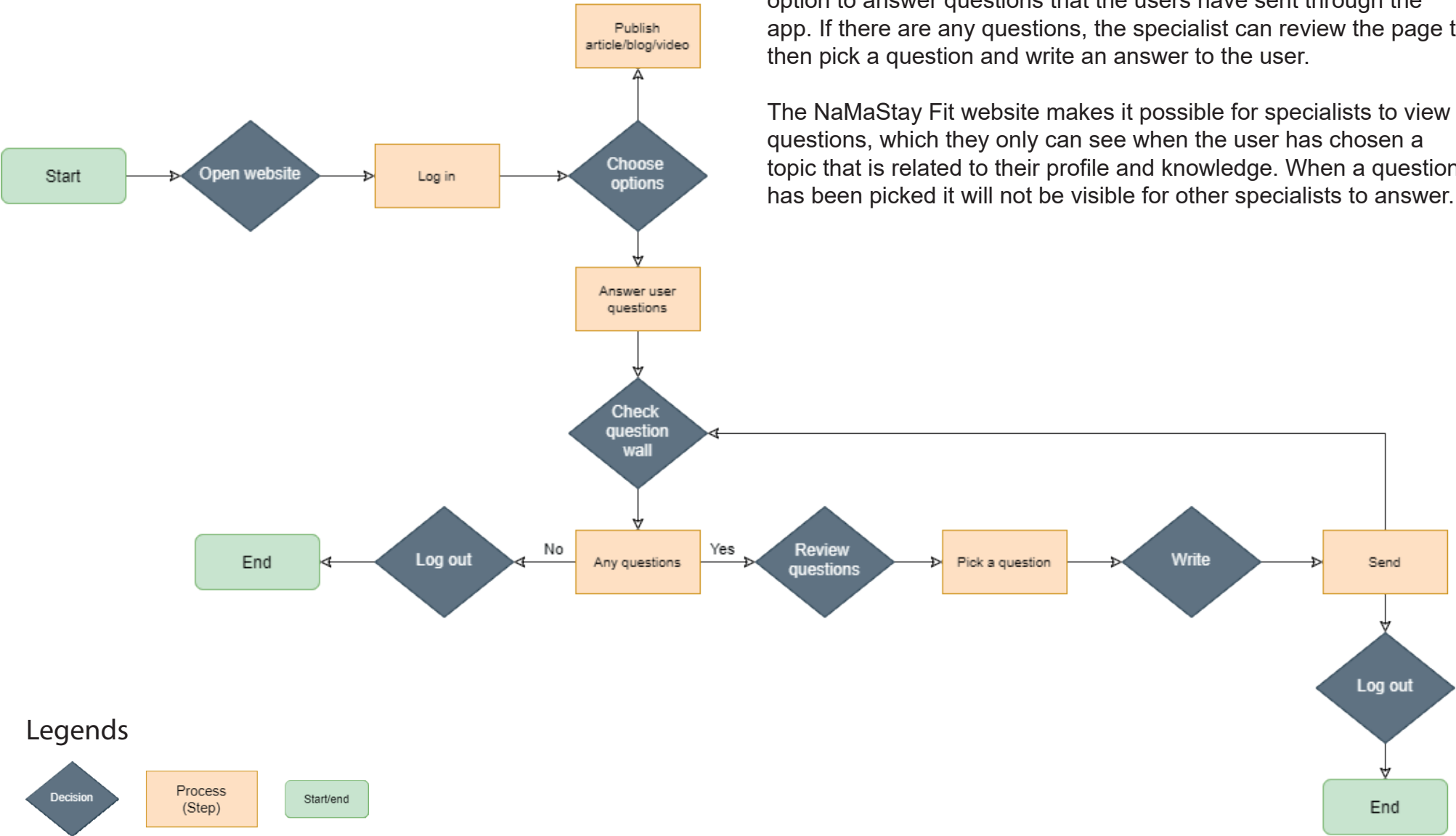
It illustrates how the specialists start the interaction by logging into the NaMaStay Fit website, where only specialists can access. When logging in they can choose to publish an article, blog or video. The specialist can either cancel their task or follow through the steps and then end the task.



Flow chart - Chat function with specialists

This flow chart presents the task flow of the “chat function” part of the NaMaStay Fit service, it shows from the specialist’s perspective. Similar to the previous flow chart, the specialist can choose the option to answer questions that the users have sent through the app. If there are any questions, the specialist can review the page to then pick a question and write an answer to the user.

The NaMaStay Fit website makes it possible for specialists to view questions, which they only can see when the user has chosen a topic that is related to their profile and knowledge. When a question has been picked it will not be visible for other specialists to answer.



Conclusion and further consideration

The project's main focus was to improve the weight loss practices among female students in the age group 25-30, and help them understand the challenges and reduce the misperceptions of health information that occurs in their weight loss practices.

The benefit of NaMaStay Fit is that it is an informative and reflective weight loss service. It helps to balance the body and the mind of the user, where people can approach their weight loss practices better and make informed decisions when implementing changes to their current practices when reaching their weight goal. The service concept has potential to support future weight loss practices. However, to uncover how the service concept works in practice and to see the level of interest, it requires to be tested further. Therefore further development has to be made to implement the service, which entails conducting more in-depth research on users, investigate if there are other apps with similar features and use prototypes to generate more knowledge of the service appeal and use.

To involve more possible stakeholders during the implementation phase, it has to be clearly stated which benefits they would receive by becoming a part of the app service. With the current knowledge it is not possible to define the internal structure of the service and level of impact, because it requires to know the departments within the organization and employees within the department. This could be the case if an organization like SST (Sundhedsstyrelsen which is a Danish health authority) is interested and can contribute with further knowledge on weight loss practices and help ensure the target group can practice weight loss without restricting themselves.

Right now the project focus has been female students aged 25-30 years old, but theoretically NaMaStay Fit can be expanded to other user segments in Denmark.