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UNIVERSITY OF TECHNOLOGY



User Journey Map and development of a pantyliner

Presenting an approach for User Centred Design in feminine care

Master of Science Thesis in the Master Degree Program, Industrial Design Engineering

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Master of Science Thesis

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Master of Science Thesis PPUX05

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ABSTRACT

Half of the world population are women and thereby in need of feminine care products to maintain a healthy intimate hygiene. Feminine towels and pantyliners of today are well performing in absorption, fit and comfort. User experience however, is dependent on more than functionality – the products must meet cognitive and emotional needs as well. Since the matter of intimate care is private, and menstruation a taboo subject, the usage of feminine care products is not very well-known.

The Thesis was initiated and performed in collaboration with Essity's feminine care department with the aim to identify and map the interaction with feminine towels and pantyliners. In addition, a user problem should be addressed, generating a concept for product improvement based on the users' needs.

The project was conducted following a User Centred Design process where interviews and surveys were the basis for studying how women interact with feminine towels and pantyliners. The users' behaviour and experience as well as the products' properties and the market for towels and liners were investigated to gain a good understanding of the entire usage of feminine care products. The data collection was followed by an extensive Affinity diagram analysis with the user in focus, defining problems and user needs to create guidelines for how to address the identified issues.

This thesis presents how User Centred Design can be applied in product development and how a User Journey Map can be used as a tool in the process. The User Journey Map includes two parts - the Map and the Users - and is illustrated as a printable folder to be used as a source of information in development processes of feminine care products at Essity. The user experience differs depending on where the interaction takes place. Therefore, the Map is divided into the three phases; *Obtain new products*, *Use at home* and *Use away from home*. These phases are further divided into events that the users act within. Problems were found in every event, caused by social aspects, lack of knowledge or deficiencies in the products' properties. The Users are embodied in three *Personas* which constitute the second part of the User Journey Map. The User Journey Map's purpose is to support Essity in User Centred Design processes by showing correlations between events and problems and place the user in focus.

Applying the User Journey Map in product development was exemplified by a redesign of Libresse pantyliner *Normal*. The concept includes a new design for the product's print, the release paper and the package. The concept better instructs the users of how the liner should be placed in relation to the body, improving its usability. Also, the redesign aesthetically connects the product's parts, achieving a more unified expression which empowers Libresse brand. By this, the users can be more confident using Libresse pantyliners and gain a better user experience.

Keywords: feminine care, feminine products, feminine towels, pantyliners, user centred design, user journey map, usability, product development, SCA, Essity, Libresse

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1. INTRODUCTION

Approximately 50 percent of the world population are female and at some point, most women are menstruating (South-East Asia Regional Office 2017). In Sweden, the average woman gets her first period when she is 13 years old and enters the menopause at the age of 51 (Umo.se 2017 & 1177.se 2016). Bleeding five days, once a month, for 38 years, means that women spend six years of their life menstruating. To live an ordinary life during the period - for example going to school or work, perform sport activities and meet friends - women are dependent on feminine care products. Thereby, feminine care products are used by many and are crucial in women's everyday lives.

Over the years, feminine care products have been developed regarding functionality, including absorption, fit, material and comfort. As a result, Libresse, together with other suppliers of feminine care products, provide products that are of a very high quality regarding performance. To convey this, the brands use claims on their products. On Libresse's packages you can for example read that their products provide Triple Protection against leakages, SecureFit™ and CurveFit™ technology (Libresse.se 2017c).

For a long time, menstruation and intimate hygiene have been taboo and overshadowed in society. Ignorance and preconceptions affect the health of millions of women every day. Libresse's parent company SCA has therefore partnered with the Water Supply and Sanitation Collaborative Council, WSSCC, taking responsibility for women's health. In conjunction with the Volvo Ocean Race stopover in Cape Town 2014 they educated women about menstruation and hygiene. By teaching what happens to the female body during puberty and menstruation, young women will be better prepared. Also, Jan Johansson, former President and CEO of SCA, states that by learning the fundamentals to gender equality women will be empowered - "Menstruation should not hold women back to participate fully in society socially, educationally and professionally." (Sca.com 2014b).

Besides corporations' large-scale commitments, the subject has in recent years been brought forward in other forums. An example is within sports, where questions regarding how menstruation affects female athletes' performance have been raised and studies have been initiated (SvD.se 2016). This is a forum where Libresse has been active, with the campaign RED.FIT the brand strives to raise awareness of how menstruation affects the body's prerequisites to perform sports (Libresse.se 2017b). Another platform where the subject has received attention is in social media - podcasts, blogs and YouTube. Clara Henry, a Swedish media profile, wrote a book regarding menstruation in 2016. In the book, "JA JAG HAR MENS, HURSÅ?", Henry (2016) writes about her own experiences and provides tips on how to manage life during the period. This is a positive development, but as the subject of menstruation and intimate hygiene is rather private, even now, there is little or no available information about how women in general handle their feminine care products.

The interaction with the feminine care products includes more than just their primary use - wearing them in the panties. Feminine towels and pantyliners are part of a much larger context as they must be purchased, stored, changed, brought and disposed. To develop the products even further, and improve the user experience, all these events must be considered. Libresse has realised this and in 2014, the solution Roll.Press.Go™ was launched which helps women to handle used feminine towels (Sca.com, 2014a). By rolling the towel in its wrapper and pressing the adhesive areas on the edges, a small package is created. The feminine towel can then be brought out from the toilet in a convenient and hygienic way and be disposed later if there is no waste bin. This launch was one step in the direction towards more user-friendly products with a design that encompasses more than just the product's main properties.

Within product design users' needs can be described as a pyramid with three levels; physical, cognitive and emotional needs (Wikberg Nilsson et al. 2015). The functionality of today's feminine care products is of such excellent quality that the needs on the first level in the pyramid are for the most part met. Thereby, other values such as usability and user experience, representing the second and the third level in the pyramid, are getting more important. So, in the near future, similar

innovations to Roll.Press.Go™ are needed to further simplify the everyday life for women and work against the taboo regarding menstruation and women's intimate hygiene.

1.1 Aim & Objectives

The project aim was to investigate how users interact with feminine care products. All occurring events from pre-purchase to disposal were to be analysed in order to provide knowledge and understanding regarding the entire use. A User Journey Map is a method, or tool, to communicate knowledge regarding the user's interaction with a product. It consists of a timeline, building a story of the user's needs, experiences and actions throughout a defined set of events. The method contributes with guidance, important aspects and information in a user centred product development process (Boeijen et al. 2016). Thereby, the objectives of the project were to visualise the gathered information in a User Journey Map and from that, improve the usage and experience of Libresse feminine towel *Ultra Normal Wings* and pantyliner *Normal* with respect to the event identified as most troublesome, important or rewarding.

To achieve the project aim and objectives, following research questions were to be answered:

- What happens in the events from pre-purchase to disposal?
- In what events do problems occur?
- What characterises these problems?
- How can a redesign solve these problems?

1.2 Deliverables

Expected outcomes of the project were, beside a written report, two main components. First, the User Journey Map presented graphically in a folder to simplify the interpretation of the collected information. Secondly, a concept - a system, new product or improvements of current product - shown as illustrations, sketches and/or prototypes.

1.3 Target group

Users that were included in the project were women aged 16 to 65 as they are the main users of feminine towels and pantyliners. The ages 16 to 45 represent users of feminine towels and 16 to 65 users of pantyliners.

Women from both Sweden and France have been included in the performed user studies to generate a more reliable result that could be applied to the European market.

1.4 Report disposition

After this first chapter of introduction, the theoretical framework for the project is presented, including theory about User Centered Design, User Journey Mapping and Semiotics. Next comes a description of feminine care products and more specifically the two products in focus of the study - Libresse feminine towel *Ultra Normal Wings* and Libresse pantyliner *Normal*. Thereafter, the methods used in the project are described in the order of the project process.

One of the project's main results is the User Journey Map presented in chapter 5. It is followed by a thorough walkthrough of the users' interaction with the products. Ideas on how to solve the problems shown by the User Journey Map are found in the chapter after that, leading to a decision of which concept to develop further.

Print it presents the second major result of this project - the new design of the pantyliner *Normal*. After this, it is clarified how well it performs and how the print was developed. Last in this report comes a discussion of the project and the results as well as the conclusions that could be drawn.

2. THEORETICAL FRAMEWORK

The project was conducted according to a User Centred Design process. This chapter describes the theory of that methodology. To further communicate the results and provide a tool for Essity to adapt to the same principles, a User Journey Map can be used, constructed as described below. Furthermore, the theoretical framework contains theory of semiotics; gestalt and semantic functions, as this played a significant role in the development of the new pantyliner.

2.1 User Centred Design

Product development driven by the users' needs and desires is called User Centred Design, UCD. The purpose of UCD is to look at the entire usage from the users' perspective in order to understand how a product, system or service works and then refine or create new solutions that better match the users' behaviours and expectations (Marquez and Downey 2015).

To grasp the importance of UCD, usability and user experience must be understood (Wickens 2003). According to ISO standards, user experience is defined as "A person's perceptions and responses that result from the use or anticipated use of a product, system or service." (International Organization for Standardization [ISO] 2009). Christian Kraft (2012) describes it as being the sum of all feelings that the user experiences when using a product. Usability on the other hand, is the ease of use and the learnability of a product, system or service (Wickens 2003). The product's usability depends on the design of the human interface - objects or surfaces that the user sees, hears or touches (Han et al. 2000). The elements of a product are physical or logical; either a component or a message or metaphor, but altogether, the functions should be displayed in a comprehensive manner, explained to the user by the product's design (Han et al. 2000). The level of usability elicits feelings and may lead to either a positive or negative user experience. Usability could be said to be the foundation for generating good user experiences which means that it is of great importance in UCD. Therefore, should usability in addition to user characteristics, tasks and workflow of a product, service or system be given attention throughout the entire design process and the designers should not only suppose or envision the way users are likely to approach a product, but also validate their assumptions regarding user's behaviour. This entails that a solution based on UCD first and foremost must be based on information gained by user studies.

Within product design, user needs can be described as a pyramid with three levels; physical, cognitive and emotional needs, see Figure 1 (Wikberg Nilsson et al. 2015). The physical needs relate to functionality and users do not necessarily express these as they expect and rely on the product to fulfil them. Cognitive needs imply that the user should understand the product and how it should be used - comparable to the concept of usability. On the top of the pyramid, the emotional needs are found. These needs are hard for the users to express verbally but they concern their dreams and hopes and represents the user experience. To reach the next level in the pyramid the needs on the previous level must be fulfilled.

To reach the top of the pyramid and achieve the ideal user experience, you must know the target users and their needs. Identifying the true user needs can only be done by consulting the user (Kraft 2012). Therefore, empirical measurements should permeate the entire process and it should be iterative - a cyclic process of tests, analyses, and refinements where the design is improved in each cycle. Throughout the entire UCD process, there is focus on the end users and the tasks they need the product to perform. Needs are defined by analysing problems that the users encounter in specific situations, or when using certain products. Conducting interviews and observing the user in action are central aspects of UCD since

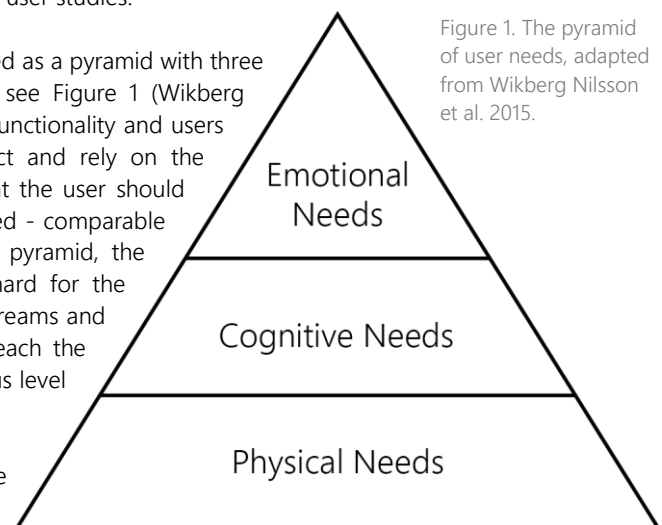


Figure 1. The pyramid of user needs, adapted from Wikberg Nilsson et al. 2015.

facing the user yourself is key (Kraft 2012). Applying this strategy forms a base for efficient development of a solution with the user's needs in focus.

In conclusion, a UCD process contains three main areas. First are the target users and their characteristics, always at centre in the process; secondly, the user needs derived from problems that occur in the interaction with the product, system or service; finally, the core tasks that are the reference points for where development opportunities should be explored. As Donald A. Norman (2009) put it: "No product is an island. A product is more than the product. It is a cohesive, integrated set of experiences. Think through all stages of a product or service — from initial intentions through final reflections, from first usage to help, service, and maintenance. Make them all work together seamlessly."

2.2 User Journey Map

Implementing the tool User Journey Map, UJM, is part of adapting to a UCD process. As the theory for UCD processes advocates, a UJM contains an overview of the entire usage, presenting problems in each stage from the user's perspective. The main idea is that it is a description of the interaction with a specific product, system or service used to identify the users' experience in each step of the usage (Wikberg Nilsson et al. 2015). The method helps to see to the product or system as a whole, with the user at centre, designing products with a coherent user experience (Boeijen et al. 2016).

As the process of UCD has three main areas, the UJM similarly focuses on conveying these three: the *target users* and the *user needs* linked to *core tasks* (Boeijen et al. 2016). The Map is built upon data collected in the UCD process, orientating the user's actions, experiences and needs on a timeline. This simplifies the overview of data gathered in user studies.

According to Kraft (2012) the ideal user experience can only be achieved by focusing the design around the core tasks. In accordance to that, core tasks (also referred to as events or activities) are fundamental in this method. As mentioned, the events are derived from user studies where the main activities are identified. Highlighting the main events is important since those are the tasks that the user spends most time performing. It is a great opportunity to improve the user experience and deliver extra features in these main events, because, over time those are the activities that the users will expect developments within. Knowing the main events, leads to efficient problem solving and resources will be wisely spent, instead of fixing problems in situations which the user seldom encounters (Kraft 2012).

The process of creating a UJM can be condensed into four steps (Boeijen et al. 2016);

STEP 1

Start by determining and describing the target user as precisely as possible. Results from qualitative user studies are the primarily source of information at this stage.

STEP 2

Draw two axes and map the events that the user goes through on one of them. The events are activities that the user performs on the journey towards a goal. This information is also derived from analysis of user studies and is in the user's perspective.

STEP 3

On the second axis, plot categories such as behaviour, problems, needs or emotions. The categories could represent questions such as How does the user act? What is the user's aim? What works well and what does not? How does the user feel?

STEP 4

Finally, fill the map by answering the questions in each category.

Layout wise, the UJM could take many shapes but most important is that it is illustrated visually to be used as a mediating object and facilitate conversations around the usage. The UJM illustrates what steps are required to perform a certain task and how well users succeed in each task.

Moreover, it could be used to show correlations between problems in different events and how solutions could be fused together (Marquez et al. 2015).

If the ideal product is said to address all three levels of the pyramid of user needs, see section 2.1, a UJM is the method to identify these needs. Using this method in a development process, it aids a designer to create products with improved and coherent user experience.

2.3 Semiotics

Semiotic rules can be used for designing user-friendly products as they are the study of signs and sign systems. These rules played an important role for the concept development in the project's second part.

Even though signs are interpreted through all our senses - what we hear, see, feel, smell or taste - we often consider design to be only visual as the visual sense is the most dominant one. However, we also use our other senses when experience the design of a product. Monö (1997) gives the example that every time our car does not sound as usual we get suspicious or when a large powerful man speaks with a tiny voice we do not take his strength serious. In fact, the senses affect each other and what is perceived by one sense creates expectations for the others. Thereby, semiotics mean that we place meaning in what we perceive (Monö 1997).

2.3.1 Gestalt

Gestalt can be described as a phenomenon that is discerned as a whole - something that is perceived as more than the sum of the parts of which it consists. A product's gestalt should describe and simplify the use and understanding of a product. So, how a product is to be used should be intuitively expressed in the design, not be read in a manual. All factors of a product - form, colour, sound and material structure - work together and influence each other (Monö 1997).

It is said that what is aesthetic lies in the eyes of the beholder. A product that is found aesthetically appealing is considered as more user-friendly than one that is perceived as less aesthetic. Thereby, the gestalt of a product contributes to the experience and the perception whether the product is easy to use or not (Wikberg Nilsson et al. 2015).

The following eight factors are described by Monö (1997) as helping us to distinguish products' gestalts;

The proximity factor

When grouping objects their relationship becomes more clear, and the closer they are the clearer the gestalt, see Figure 2. The keys on a computer keyboard are one example, they are grouped by function, e.g. the number keys, which makes their relation more apparent for the user.

The similarity factor

Objects or figures with the same properties create gestalts. Their similarity makes them stand out and form units even though they are not placed next to each other. Figure 3 illustrates this factor.

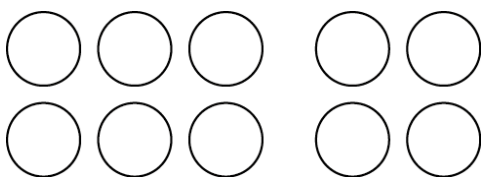


Figure 2. Illustration of the proximity factor, adapted from Monö 1997.

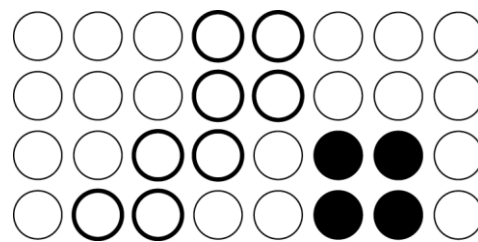


Figure 3. Illustration of the similarity factor, adapted from Monö 1997.

The area factor

The smaller an enclosed area is, the clearer we experience the gestalt. Regardless if the area is light or dark it is the smaller area that draws our attention. Monö (1997) exemplifies this with help of the Swedish flag which is described as a yellow cross on a blue background and not the other way around. The illustration seen in Figure 4 visualises this phenomenon.

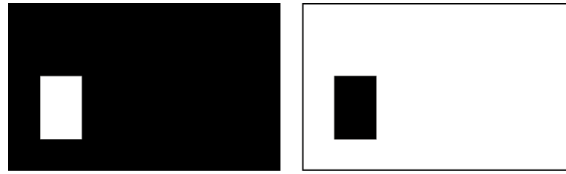


Figure 4. Illustration of the area factor, adapted from Monö 1997.

The symmetry factor

Grouping objects symmetrically creates gestalt. As seen in Figure 5, the lines grouped symmetrically, are considered to belong together.

The inclusion factor

Lines that encircle an area are perceived as a unit. In Figure 6 the vertical lines on the two rows are the same but the horizontal lines are placed differently, when they link the vertical lines gestalts are created.

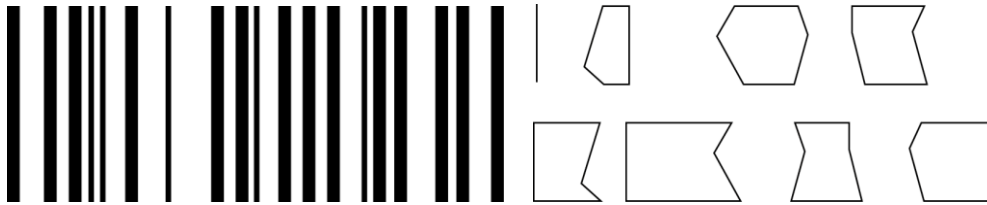


Figure 5. The lines visualise the symmetry factor, adapted from Monö 1997.

Figure 6. Illustration of the inclusion factor, adapted from Monö 1997.

The common determining factor

This factor is also referred to as the good curve and allows us to see gestalt by continuity, the arrangement that make the least change or break in a straight line or continuous curve. Figure 7 contains four lines that are perceived as a whole because of their ordered relation.

The common movement factor

Different objects with the same movement create gestalt. Monö (1997) exemplifies this with a dual-carriageway motorway, the cars moving in each direction create two gestalts.

The experience factor

We must observe an object in the way we have learnt, to see a specific gestalt. A picture of the letter r is only perceived as that letter when it is correctly oriented, see Figure 8.

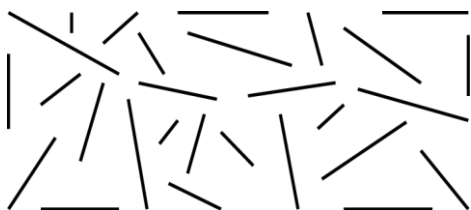


Figure 8. Illustration of the common determining factor, adapted from Monö 1997.



Figure 7. An example of the experience factor, adapted from Monö 1997.

2.3.2 Semantic functions

Semantics is the study of the signs' meaning - what a product means to the user. For a user to enjoy and find a product attractive, most important is that the use of the product is understood. Monö (1997) presents semantics as a tool for designers to make sure that the intended meaning is communicated. Thereby, it is key that the designer is aware of what the user must understand to be able to use the product.

Monö (1997) describes four semantic functions that can be used in the design of a product;

To describe

This function states that the gestalt of the product should clearly and intuitively describe what the product is. The signs building the form should instruct the user about the product's function. The better known the sign is - the greater modifications can be made to the design.

To express

The product and its parts should be designed with an expression. The expression should reveal something about the product; is it light, fast or compact. Two products within the same product category are *described* in the same way but they can have different *expressions*.

To exhort

The product's gestalt should exhort the user to a certain behaviour. This semantic function is intended to trigger a reaction by the person which it is directed to. Monö (1997) gives the example of the rhythmic clicking sound at a pedestrian crossing. The change in the rhythm tells the pedestrians when to cross the road.

To identify

The function to identify means that the product should be designed in a way that it relates to its product category or brand. By this, the product is recognised and more easily understood. Designing for identification can for example be done using a specific form language or logotypes.

3. FEMININE CARE PRODUCTS

Feminine towels and pantyliners are feminine care products used to absorb body fluids - menstrual blood and discharges. They are similar in terms of function but differ in form, size and absorption level. The products vary to match the users' different preferences and needs.

Feminine towels are menstruation protection products, they cover a large area of the panties and have high absorbency. Pantyliners on the other hand, are smaller and marketed as intimate hygiene products, used to protect the underwear from discharges to keep fresh all through the day. However, liners have more usage areas; as protection for small urine leaks and as a menstrual protection in the start, end or during the period if the flow is light.

Comparing products corresponding to Libresse feminine towel *Ultra Normal Wings* and pantyliner *Normal*, available in Sweden's most common grocery and drug stores, there are some apparent differences. All brands are competing for the customers' attention with colourful, detailed patterned packages, but what is more interesting is how the actual products, inside the packages, differ from each other. Libresse distinguishes itself by the products' shapes and aesthetic attributes. No other brand has an asymmetrical shape that specifies the products' front and back, they are either concave or straight. Moreover, Libresse, Always, and ICA are the only brands that make use of coloured prints on their products. Similar to Libresse, the competitors have decorated their pantyliners with soft shapes in light purple, but for their feminine towels Always and ICA use a blue print. All products and aspects analysed in the benchmark can be seen in Appendix 1.

3.1 A Libresse feminine towel & pantyliner

Libresse's products are designed with respect to both functionality and aesthetics. In this section, the products, together with their packages are described according to these two design aspects. How the products are constructed determines how well they perform regarding absorption, maintenance of a natural microclimate and fit. Also, their print decides their expression and level of usability.

3.1.1 Functionality

Libresse's feminine towels and pantyliners consist of a highly absorbent core that encapsulates body fluids. To make sure that the fluid does not leak through to the underwear the products have a thin plastic coating on the backside. For the pantyliners, this material has small pores that enable the skin to breathe and preserve a natural microclimate in the intimate area. The top material, closest to the skin, is soft to avoid skin irritation and works as a barrier between the fluid and the body to keep the skin dry. The highly absorbent core material also creates an environment with low pH-level which hinders bacterial growth and thereby prevents odour (Libresse.se 2017c).

Both products, the towels and liners, are designed to adjust to the body and stay in place in the underwear. For feminine towels this technology is called SecureFit™ and for pantyliners CurveFit™. The technologies keep the product in place by a waist that locks to the tendons on the upper, inside thigh. The product must be placed correctly for the waist to function as an anchor, preventing the product from moving forward or backward. In addition, SecureFit™ and CurveFit™ is favourable for the comfort of the products, following the shape of the body (Libresse.se 2017c).

Regarding Libresse's feminine towels, their thickness is denoted as Ultra-thin or Maxi. An Ultra-thin towel is three millimetres thick whilst a Maxi towel is six millimetres. For feminine towels, the absorption levels are available from four to six out of six drops. The user can also decide which length they prefer on their towel, as they can choose between normal and long. The measurements of normal and long are dependent on the type of towel though, and the lengths vary from 233 to 320 millimetres. In addition, a feminine towel can either have wings or no wings (Libresse.se 2017a).

The system for pantyliners is not as structured since they differ more in terms of shape and length to fit a wider range of underwear. There are liners for string, liners with scent and odour control; normal, long and extra long; super slim and extra protection - hence, there is a wide range of different features. It exists two different drop systems for liners with either a maximum of three or four drops. The level of absorption is marked with half-filled drops as well, which further extends the amount of combinations (Libresse.se 2017a).

The products' packages differ in terms of material, size and number of products included. Feminine towels have plastic packages which are opened by a perforation at the top. Pantyliners on the other hand come in cardboard boxes. The pantyliners' packages often have two different openings so that the user can choose if the products should be stored standing or lying down. Regarding additional packages, feminine towels have an easy-wrap and pantyliners are either easy-wrapped, single-wrapped or not wrapped at all. A single-wrapped product has a release paper and is then placed in a plastic wrapper while an easy-wrap means that the product is directly attached onto the plastic wrapper.

3.1.2 Aesthetics

Libresse products have both a coloured print and an embossed pattern. The print and pattern are both aesthetic and functional, they contribute to the overall product expression at the same time as they guide the user how they should place the product in the underwear. The same light purple colour is found in all prints on Libresse products which helps to identify the products' origin - designed for identification (Monö 1997). The products are very gentle and friendly in their expression which is important as the products should be placed directly against the user's skin.

The print on the pantyliner is seen in Figure 9 and consists of four elements. The first element is an uncompleted, dotted heart on the front of the liner. The heart is not closed, instead the lines are bent outwards which creates a waist with a large radius. The dots in the waist are filled which enhances the liner's shape and the CurveFit™ technology. The second element is two concave, tapered curves. These curves are an indication that should encourage the user of where the pantyliner should be placed in relation to the body - the curves are where the tendons on the upper, inside thigh and the liner should meet. At the rear of the liner you can find the third element; a sharp, dotted curve. The two end points of this curve have a direction inwards and illustrates the area that encapsulates fluids. The dots filling the first and second element constitute the print's fourth element and by the symmetry factor their symmetric pattern makes them being perceived as one unit. On the pantyliner there is also an embossed pattern which reinforces the coloured print. However, it is not very prominent but contributes considerably to the qualitative feeling of the product.

Figure 9. Libresse pantyliner Normal.



The release paper on the pantyliner, see figure 10, has a pink swirling pattern consisting of sparkles which it is a recurring element on Libresse's products, packages and other branded material such as on the website and in commercials.



Figure 10. The pantyliner's release paper.

There are seven elements in the feminine towel's print, see Figure 11. The first element can be found at the very front of the towel and it is a tapered curve discreetly shaped as an arrow head. In the middle of the front part there is a coloured heart, which, together with the arrow show the towel's direction. Two curves run along the outer edges of the towel to clarify the shape of the product and enhance the waist of the towel. The feminine towel's waist is further marked by two concave curves to imply how the product should be placed in relation to the body - SecureFit™. The area where the fluid ideally should meet the product is the fifth element. Like the heart, this area is coloured and outlined with dots. Two sharp curves on the back of the towel are a clear reference to the anatomy of the body. The last element is found at the very back of the towel, it is the two curves following the sixth element and thereby further indicating that this part should be placed backwards, towards the butt. The embossed pattern on the towel subtly complements the coloured print and just as on the pantyliner it adds to the qualitative experience of the product.

Figure 11. Libresse feminine towel Ultra Normal Wings.



The pattern on the feminine towel's easy-wrap consists of the same pink sparkles as on the pantyliner's release paper, see Figure 12. An instruction is added with illustrations on how Roll.Press.Go™ is intended to be used. The protection paper on the towel's wings indicates which part of the towel that should be placed forward and is also decorated with sparkles.



Figure 12. The feminine towel's easy-wrap.

The main element on the products' packages seen in Figure 13 is the Libresse logotype. The logotype consists of a dark blue rhomb with the brand name as well as a shining star, and behind the rhomb there is a pink banner. Furthermore, there are sparkles in the background of the logotype, these are also sprinkled over the rest of the package. On the lower right side of the package there is a product picture to display what the product inside looks like. The product's name together with the drops informs about the product properties and the absorption level. Present on the packages are also the different claims Libresse have for their products and on the feminine towel's package there is an illustration with instructions for Roll.Press.Go™. Libresse packages are characterised by strong colours and the packages for the two products in this project are bright pink. Furthermore, they are quite bold and their expression can be described as youthful and playful.



Figure 13. Packages for Libresse feminine towel Ultra Normal Wings and Libresse pantyliner Normal.

3.2 Summary

From the benchmark, it was found that Libresse is the only brand with asymmetrical products, both the feminine towel and the pantyliner have a front and a back. Thereby, this is something that differentiates them from their competitors. However, the liner is lacking instructions regarding how to correctly place the product. There are no instructions on neither the product, the release paper nor the package. The towel on the other hand, has instructions on the wings' protection paper. Also, it has a more clear shape and print that refers to the anatomy of the body.

Furthermore, Libresse's products and packages differ in their expression. The products are perceived as very soft and gentle while the packages are more bold and playful.

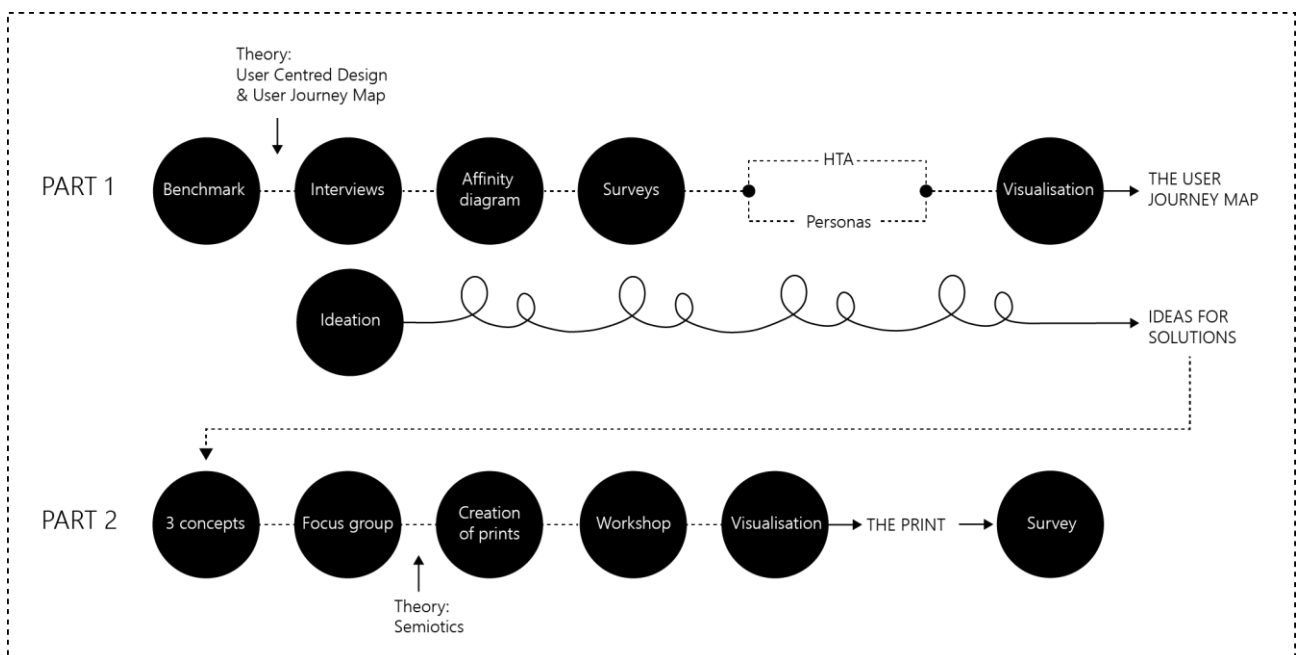
4. METHOD

The process of this Thesis is described in Figure 14 below. The first part of the project was dedicated to the creation of the User Journey Map. The work begun with a benchmark to gain knowledge about the product categories involved in the project. Furthermore, theory about User Centred Design and User Journey Mapping was studied. The focus then turned to user involving activities, information regarding how the users interact with the products was collected through interviews, user tests as well as surveys. The qualitative data from the interviews was analysed with the method Affinity diagram to sort the information into groups and identify problem areas. Based on the findings from the interviews two surveys were formulated - one for feminine towels and one for pantyliners - generating quantitative data for the UJM.

Based on the user studies, an HTA was constructed to sort the users' actions into sequences and thereby were the phases and events in the user journey formed. In addition, the users were embodied as personas to become a part of the UJM. The user journey and the personas constitute the UJM which was visualised in a folder. Throughout the first part of the project, ideation sessions were carried out to gather ideas with varying perspective.

The second part of the project was devoted to product development. From the ideas generated in the project's first part, three concept areas were created. The concept areas were presented and evaluated in focus groups with representatives from Essity's innovation team as well as product developers at feminine care, resulting in the choice of the concept *Direction* - regarding the pantyliners print. With input from theory regarding semiotics, the print was further developed as three themes - *Functional*, *Cute* and *Curvy*. A workshop with industrial design students was held to collect new perspectives on how to show the pantyliner's direction. During the workshop, the themes were also evaluated and based on that information a final version of the print was developed and visualised by digital illustrations and physical prototypes. To evaluate the new print, a survey was conducted and the result was compared to former investigations.

Figure 14. The project process.



4.1 Data collection for the User Journey Map

The first part of the project was to create a User Journey Map with focus on the users' experience. Therefore, the data was gathered by interviews, user tests and surveys including the users. However, a benchmark was also performed to collect information regarding the two product categories - feminine towels and pantyliners - processed in the project. The data collection methods are described in this section; how they have been applied as well as how they have contributed to the project's aim and objectives.

4.1.1 Benchmark

Initially, the range of feminine towels and pantyliners available in Sweden's most common grocery and drug stores were included in a benchmark. Benchmarking is a way to map the market to find out what is already offered within a specific product category. The benchmark can thereby be used to identify if there are gaps in a product range and imply possibilities for product development (Boeijen et al. 2013). Towels and liners by eight different brands, including Libresse, were collected and compared to identify the characteristics and specifics as well as differences within each product type. The comparison included both package and product and they were assessed with regard to both aesthetics and functionality. This information was then used as reference during the concept development process and as evidence for Libresse's unique features. In addition, the information from the benchmark was important in order to be prepared for, and understand the interviewees' situation, as all participants used products by different brands.

4.1.2 Interview & User test

Ten interviews were conducted with women aged 17 to 44 years. A pilot interview was held to test the material, and afterwards it was revised as there was room for even more questions within the set time - 45 minutes. Prior to the interviews, each participant was required to answer a survey. The pre-interview survey, see Appendix 2, contributed with valuable information about the interviewees and it was used to plan each interview to better suit the participant. Including open questions in the survey urged the participants to start reflecting about the subject and their feminine care products. By this, the interviewees were better prepared and they better knew what to expect when arriving at the interview. Also, they were asked to send a photo of their storage of feminine care products.

The selection of interview participants was based on age and frequency of use; the women should be between 16 and 45 years and they should be using feminine towels and/or pantyliners regularly, see Table 1 for a list of the participants. The questions that were asked in the interviews concerned the topics of *The product*, *Storage*, *Purchase* and *Daily usage*, and followed a pre-determined interview model with open questions and supplementing probes, see Appendix 3. This type of interview, a semi-structured interview, allows a degree of consistency between different interviews but the users can still express ideas, opinions and explanations to why and how actions are performed. Since personal opinions and experiences are in focus, qualitative data is generated (Brace 2008). The photos of the interviewee's storage were used as a mediating object, guiding the user in the conversation about storage, packages and use of the products at home.

Table 1. List of participants in the interviews.

PARTICIPANT	AGE	USE OF FEMININE TOWELS	USE OF PANTYLINERS
PILOT	25	Occasionally	-
1	23	1-2 weeks per month	Occasionally
2	17	1-2 weeks per month	Occasionally
3	37	Occasionally	Every day
4	24	Occasionally	1-2 weeks per month
5	26	Occasionally	1-2 weeks per month
6	43	Occasionally	Occasionally
7	44	Occasionally	Occasionally
8	27	1-2 weeks per month	1-2 weeks per month
9	30	1-2 weeks per month	A few days per week
10	38	A few days per week	Every day

Furthermore, a user test was performed as a part of the interview. Imagining that an ordinary chair was a toilet, the users were asked to sit down, put on a pair of underwear and apply a Libresse pantyliner *Normal*. Then, they staged a change into a feminine towel, Libresse *Ultra Normal Wings*. The user test was a direct and open observation which displays how a user actually interacts with a product, instead of the user providing subjective reviews on the handling (Jorgensen 2000). This provided a deeper understanding of the users' description of their handling of the products.

As a whole, all parts of the interview provided knowledge regarding the user's experience and interaction with the products in different environments and situations. All interviews were recorded and notes were taken during the conversation for further analysis. The analysed interviews constituted a basis for the following surveys, the User Journey Map as well as the product development.

4.1.3 Affinity diagram

The qualitative data from the interviews was analysed with the method Affinity diagram (Kaulio et al. 1999). By writing all data on pieces of papers - one data unit on each paper - it was sorted into clusters based on their interrelation. From this, natural categories were formed in the data. The information and problems within each category clearly described the users' interaction with the products as well as the problems they faced. To create a survey, containing relevant questions, the findings from the Affinity diagram were. Also, this type of analysis helped to ensure that the facts displayed in the User Journey Map were not based on presumptions about the users' interaction with feminine care products.

4.1.4 Online survey

A large scale online survey was performed both in Sweden and France based on the analysed interviews. This survey separated the users of feminine towels and pantyliners - hence, one survey for feminine towels and one for pantyliners were conducted, see Appendix 4-7.

An online survey is a way to collect data from a large number of people, statistically confirming opinions and tendencies (Brace 2008). The survey questions were both of open and closed character with the purpose to confirm or contradict the findings in the interviews and to, additionally to the statistics, generate even more qualitative data. The result was used for the information and statistics displayed in the User Journey Map, adding to the results of the interviews.

The surveys were sent out by an external firm - the market research company Scandinfo. Participants were recruited through their pool of survey respondents and the initial questions in the surveys made sure that the respondents met the desired criteria. The target group for feminine towels were women, 16-45 years of age, using thin, winged towels as their main menstrual protection. For pantyliners, the women should be between 18 and 65 years old, using at least five liners during a month. The both surveys were sent to Sweden and France with 100 participants to

each survey in each country, resulting in 400 respondents in total. The Swedish survey was in Swedish and the survey for France was in French, translated by Scandinfo. This was important for the respondents to fully understand the questions and be able to use their native language to express themselves properly. The distribution of participants in terms of age, can be seen in Table 2.

Table 2. List of respondents in the surveys.

FEMININE TOWELS		
Age-groups	Number of respondents Sweden	Number of respondents France
16-24	16	8
25-34	35	32
35-45	49	60
PANTYLINERS		
Age-groups	Number of respondents Sweden	Number of respondents France
18-34	33	45
35-49	44	57
50-65	23	0

As there was no room for tailoring questions, it was important that the questions were asked in a way that could not be misinterpreted. Also, if closed questions are asked it is important that the respondents can relate to the answers that are provided (Brace 2008). Therefore, the market research company offered professional consultation and analysis of the surveys that reduced angled questions and bias. The result from the surveys were delivered as tables, dividing and presenting the answers based on product brand (Libresse, Always or Other) and the age-groups seen in Table 2. Responses to open questions were displayed in lists and added to the categories in the Affinity diagram.

4.2 Creating the User Journey Map

This section describes the methods used to apply the data from the interviews and surveys in the User Journey Map. The procedure of creating a UJM is abstract, as the four steps presented in section 2.2 imply. To approach these steps, further methods were required. Therefore, an HTA and personas were created to generate a timeline and order the usage into sequences and give the users a context and a face.

4.2.1 Hierarchical Task Analysis

An HTA was made to understand how different tasks in the interaction with feminine care products are performed. HTA is a method to decompose a complex task into more tangible sequences of actions (Stanton 2006). The result, usually represented as a tree diagram, visualises all actions and subtasks the user must perform to reach the task's goal (Stanton 2006). Three tree diagrams were constructed based on the main goal: *Collect body fluids and maintain a good intimate hygiene*.

The purpose of the HTA was to work as a link between the outcome from the Affinity diagram and the UJM as the theory for User Journey Mapping does not provide guidance in the identification of phases and events. The HTA was therefore created by assessing the categories in the Affinity diagram by ordering and fitting them to a timeline. Even though the usage is not linear, the HTA visualises an overall sequence in which the user interacts with a product. Primarily, it was useful for assembling and rephrasing the actions into phases and events in the UJM.

4.2.2 Persona & Scenario

To represent the target group for this project three personas were created - Lisa, Anna and Elisabeth. A persona is a fictive description of a typical user of a product or system and includes information such as needs, attitudes, quotes and user scenarios (Wikberg Nilsson et al. 2015).

The personas were generated by the data from the user studies. Going through the usage sequence in the HTA with three different perspectives, scenarios were composed to stage their personal experiences in every use phase. Each persona was illustrated by summarising the users' personal characteristics, attitudes and use of feminine care products.

The personas were an important complement to the user journey and the User Centered Design process as they highlight the persons behind the data - creating a relation to the users. Furthermore, they helped to display and condense important findings from the interviews and surveys and place the users in focus of the UJM.

4.2.3 User Journey Map

The complete user journey in chapter 6 describes the entire usage; all problems, user needs and guidelines for solutions. It was created from the information from the analysed user studies and the timeline drawn by the HTA. As the theory for user journey mapping described in section 2.2 proposes, the user journey presents problems tied to different stages of the usage.

The UJM consists of two parts - the Map and the Users. The Map is a condensed version of the user journey, created by summarising the most important issues and illustrating statistics and user quotes. The Users, illustrated and described as personas, act as a complement to the Map. The personas embody the users and represent the target group. Together the two parts form a product development tool, with easily accessible information about the usage of feminine care products.

4.3 Concept development

The methods used in the second part of the project were activities for creating concepts. How these methods have worked in this project is described in this section. The purpose of the methods differed as some were used to generate ideas while others worked as aesthetic guidelines. Also, the methods have been used in both divergent, explorative phases as well as in convergent, tapering phases.

4.3.1 Ideation

Throughout the first part of the project, ideation was conducted as sessions of brainstorming and mindmapping. Different themes were defined based on the information available in the current stage of the project, which provided ideas with varying perspectives. The methods can be performed in several ways but most important is to not criticize any ideas - not your own or anyone else's (Boeijen et al. 2013). Ideas were generated and communicated by combining sketches and text, ideating with a particular problem, user or scenario in mind. The ideas did not have to be realistic or thought through, by generating a large quantity of ideas as well as seeing or hearing about other ideas one's creativity is stimulated (Boeijen et al. 2013).

In the second part of the project the ideas were combined and further developed into the three concept areas - *Information*, *Direction* and *Take Away*. The concept areas were illustrated by digital sketches and descriptions of their properties and functions. Furthermore, as the project progressed the areas for ideation became more and more specific.

4.3.2 Focus group

When evaluating the three concept areas it was done in two focus groups - one with the innovation team, and one with the product developers at Essity's feminine care department. In total, 15 persons participated. A focus group is a group of persons, somehow related to the project, discussing a subject or question at issue (Wikberg Nilsson et al. 2015). The intention with gathering a group is that the conversation triggers the participants' thoughts. It is important though, that everyone's opinions are seen to and that no one takes over the conversation.

The two sessions held had the same set up. First, the concepts and their background were presented, then the participants were asked to walk around looking at posters with the three concepts and use post-it notes to comment both pros and cons for each concept. Also, each person had to mark their favourite concept. After this, when everyone had had the time to reflect on their own, an open discussion was held where the participants could tell about their thoughts and motivate their choice of favourite concept. The information and opinions brought forward in the focus groups were used for deciding which concept to work further with.

4.3.3 Mood board

When the project turned to concern the concept area *Direction* and thereby the print on the pantyliner, a Mood board was created to define the desired expression. A Mood board is a collage visualising a feeling and it can contain pictures, sketches, photos, colour schemes as well as words to explore the desired emotional experience (Wikberg Nilsson et al. 2015). The Mood board primarily worked as an aesthetic, internal communication tool in the design process - guiding and inspiring in the creation of the print.

4.3.4 Creating prints

The concept area *Direction* - indicating the pantyliner's front and back - was further developed by refining the print. Guidelines for what a print must fulfil in order to cohere with Libresse as well as instruct the users about the pantyliner's function were formulated. From this, the print's expression and functionality was explored which resulted in three themes - *Function*, *Cute* and *Curvy*. In addition to the guidelines, semiotic rules as well as the expression visualised in the Mood board were applied in the process of creating the prints. Initially, prints were drawn upon the original product, then digital sketching tools were used to illustrate and present the designs in a more accurate, yet efficient, way. Finally, printouts of the illustrations were used to assess the prints in full-scale.

4.3.5 Workshop

To obtain new ideas on the pantyliner's print, a workshop with eight industrial design engineering students, three men and five women, was held. By gathering a group of people their creative potential can be used for exploring possible solutions to a problem (Wikberg Nilsson et al. 2015). The intention of the workshop decides its setup, participants and activities, and thereby it is a very flexible method that can collect diverse types of data.

The participants were first asked to perform a preparatory task, writing down all their associations to the word *Direction*. After that, they were given a description of the problem - identifying the liner's front and back. The main activity was that the participants should, in an as clear way as possible, mark the direction on a blank pantyliner. Then they were shown the Mood board to create a new print, still showing the pantyliner's direction but now resembling Libresse as well. Lastly, the participants draw a print which they passed on to the person next to them who then continued developing that idea.

Furthermore, the workshop participants evaluated the three themes of the pantyliner print - *Function*, *Cute* and *Curvy*. The outcome of the session provided new perspectives on the print; mainly regarding its expression but also how it can show the pantyliner's direction.

4.4 Finalisation of the print

Feedback provided during the workshop was used in the development and finalisation of the print. It was made as two versions based on the area factor described by Monö (1997). To evaluate the two variants, 20 industrial design students were asked to identify their front. After answering, they also had to motivate why they perceived that direction which provided valuable feedback on how to further improve the print. Also, the answers helped to choose between the two prints, to know which one should be included in the verification survey.

Prototypes were built in the studio at Essity in order to communicate the design. As a complement to the pantyliner's new print, the release paper and package were redesigned to further instruct the users about how to place the pantyliner. Except for usability, the creation of their appearance was based on the Mood board to enhance the desired expression and to aesthetically connect the three parts.

4.5 Verification

The final evaluation of the new pantyliner print was made through an online survey, see Appendix 8 and 9. To obtain data comparable to the findings during the data collection, the exact same question was asked for the new print: What would you say is the front of this pantyliner? Additionally, a second question was put, formulated like the first one, but with pictures of both the liner and the new package design. The result from the survey was compared to the prior survey, to prove that the new design improved the usability - simplifying the identification of the pantyliner's front and back.

The survey was once again conducted by the external research company Scandinfo. The target group were the same as for the online survey for pantyliners, hence women between 18 and 65 years old, using at least five liners during a month. 200 persons participated; 100 Swedish women and 100 French women. The distribution of the participants' ages can be seen in Table 3. In addition to the survey, the print was evaluated towards the guidelines seen in Appendix 10.

Table 3. List of respondents in the verification survey.

PANTYLINERS		
Age group	Number of participants Sweden	Number of participants France
18-34	32	35
35-49	41	32
50-65	27	33

5. THE USER JOURNEY MAP

The User Journey Map constitutes the first main result of this Thesis. This chapter is intended to be used as a product development tool and could be used as a separate folder. The UJM consists of two parts; first the Map that is a general description of the usage divided in three use phases and the second part is the Users, presented as three personas. Combining these parts, the UJM comprehends the interaction with feminine towels and pantyliners - problems, users' experiences, their needs and desires.

5.1 Using the User Journey Map

According to a User Centred Design approach, described in section 2.1, a User Journey Map can be utilised as a tool to keep the user in focus in development processes. As Boeijen et al. (2016) proposes, and as presented in section 2.2, the UJM provides information about the products and the users as a system. Also, it shows how introducing a change in one phase might affect another, but most fascinating is how the overall user experience can be influenced by improving one single event.

The first part of the UJM is the Map - an overview of the usage divided into three phases, further subdivided to events. The events include a determined set of actions that cover the product interaction in that event. Moreover, an event represents the user's goal; what she needs to achieve to perform the next event. A prominent problem in each event is described by a quote, and the overall experience is illustrated by the events' placement, vertically, in relation to each other. The lower an event is placed, the more stressful and negative it was experienced by the users. The overview is followed by more information about each phase, but to keep the Map informative, yet legible, it is a condensed version of the user study, containing the most critical facts. In section 6.1, the interaction is described in detail.

Personas - the Users - are the second part. They embody the users and represent the target group. The personas are illustrated by personal characteristics that summarise the most common user traits identified in the user study. Also, scenarios for all phases are narrated to put these personalities into context. As the target group is a wide range of users, the three personas represent users with different views on menstruation and intimate hygiene. Developing a solution with the personas in mind, the product will be made for the target group and fulfil their needs.

Using the UJM, one can either focus on one problem or see to an entire phase, so the Map could be viewed from both a bigger perspective, but also zoomed in. The problems can be derived to their cause and linked to the users. Additionally, the UJM suggests guidelines for solutions for the most prominent issues. In combination with the phases and events, the personas are to be used when developing new products, or improving existing products, to ensure that the solution does not affect any user or other event negatively. In this way, a coherent user experience can be achieved. As the user experience is said to be the total sum of the usage, not an isolated event, the UJM is a valuable tool for improving the entire journey of using towels and liners, for all users (ISO 2009 & Kraft 2012).

5.2 The Map

The user journey consists of three phases - *Obtain new products*, *Use at home* and *Use away from home* - each one including events with different purposes, see Figure 15. The phases represent different environments that the user acts within as it is the social context that primarily affects the user's experience. An event is a situation or a series of actions that the user performs, they are divided according to the character and goal of the interaction with the product.

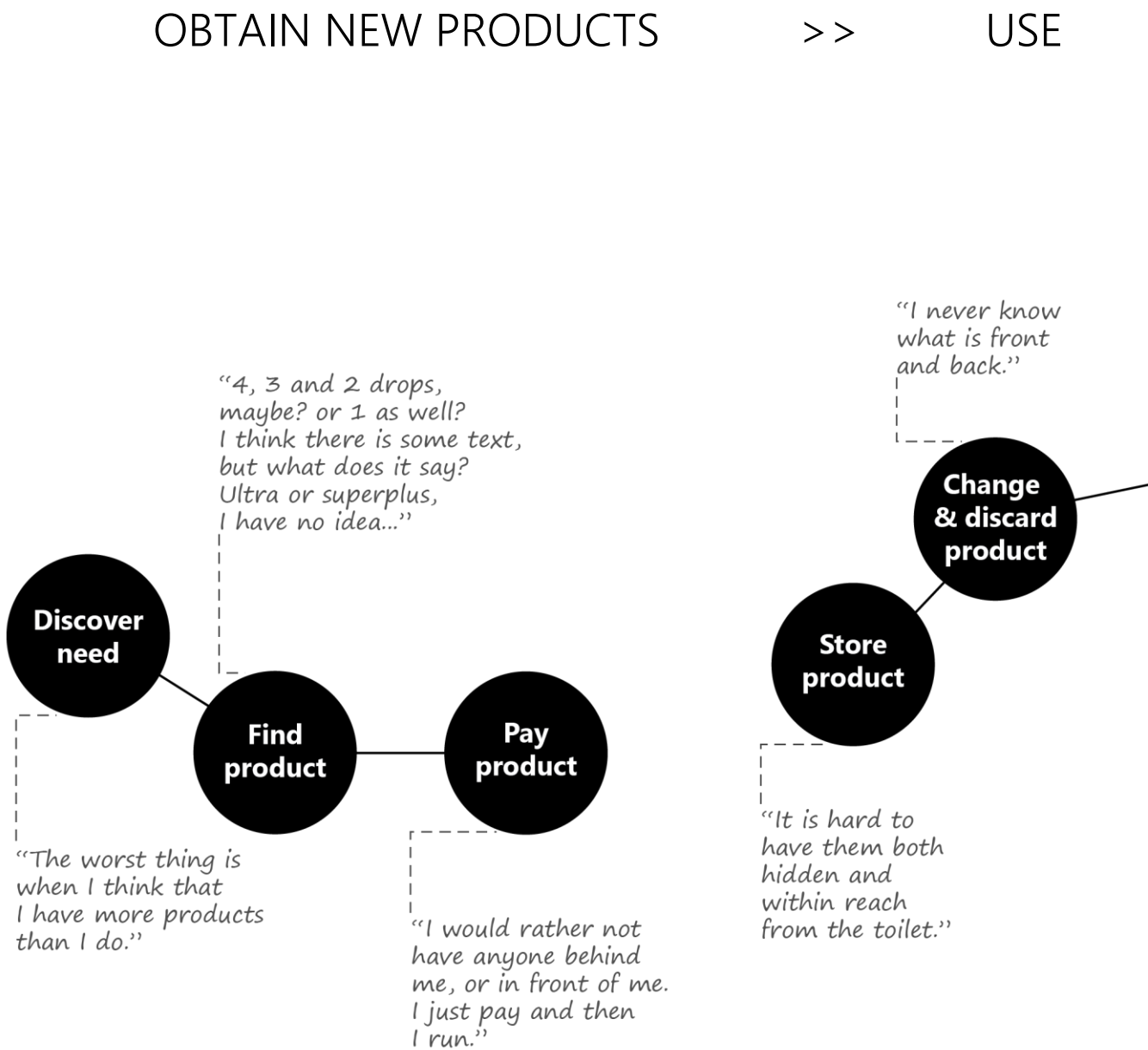
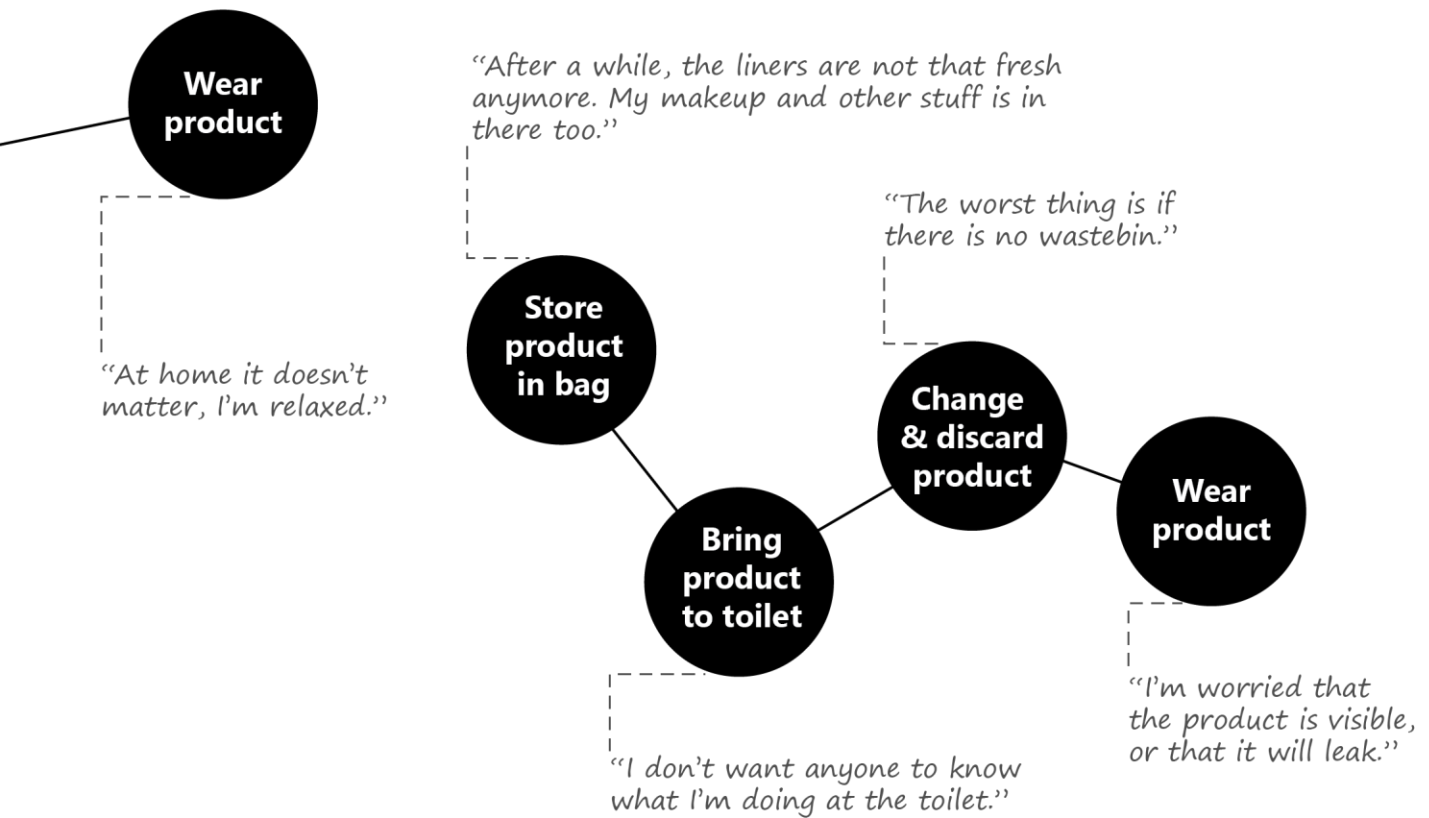


Figure 15. The Map - Phases and events.

AT HOME

>>

USE AWAY FROM HOME



5.2.1 Obtain new products

The first phase, *Obtain new products*, contains the events discover need, locate and find the right product in store and pay at the cash out counter, see Figure 16. As the interaction mainly takes place in an open and social environment many users find this phase quite stressful.

Discover need

The purchase could be planned or unplanned, either way, the phase starts at discovering a need to obtain new feminine care products. The need can occur when noticing that the products are running low or when the period starts and there are no products left.

“The worst thing is when I think that I have more products than I do.”

Find product

Next step is to go to the store, to find and pick a product. There are many available options but generally, the users do not find themselves to be very active when choosing feminine care product. Only 37% stated that they were active or very active in their choice of feminine towels. To try different products, search for information or ask for recommendations to examine the range of feminine care products are uncommon and something most users have not even thought of. In store, the users want to identify their product quickly so that no one will see them standing by the shelf.

Pay product

All interviewees found it normal and natural to buy feminine care products, but nevertheless many users experience discomfort when purchasing new products. Younger users are more attentive and aware about themselves and their surroundings when paying their products at the cash out counter. One interviewee said that “I would rather not have anyone behind me, or in front of me. I just pay and then I run”. They would also prefer a female cashier and consciously reflect upon which counter to choose based on the cashier’s gender. Regardless of age, the majority of the interviewees preferred to purchase the products while doing grocery shopping, both by convenience but also to conceal the feminine care products amongst other goods.

Figure 16. Main issues in the phase Obtain new products. ►

EVENTS

Discover need >> Find product >> Pay product



are active or very active in their choice of feminine towel.



COMPLICATED DROP SYSTEM

CHOOSING PRODUCT

1. Functionality
2. Price
3. Availability

FINDING PRODUCT

1. Brand
2. Colour
3. Drops

"4, 3 and 2 drops, maybe? Or 1 as well? I think there is some text, but what does it say? Ultra or superplus, I have no idea..."



Not even 1 out of 10

buys products based on recommendation which indicates that people do not talk about their usage of feminine care products.



Younger users prefer female cashiers and are more attentive of their surroundings.



"I would rather not have anyone behind me, or in front of me. I just pay and then I run."

"If I buy towels on a weekly shopping, I don't think so much about it, because then they go up with 'falukorven' and everything else."

A SOLUTION SHOULD...

Make sure that the products do not run out

Simplify identification of products

Advocate a neutral discussion about women's intimate hygiene

5.2.2 Use at home

In the phase *Use at home*, the interaction with the products consists of storing them, changing and discarding them as well as wearing them, see Figure 17. Most users feel safe and calm in this phase since they are comfortable with the home environment and have control over the situation.

Store product

The storage of feminine care products is most often placed in the bathroom. Generally, there is limited space so towels and liners are therefore stored together with other hygiene and beauty products. The interviews indicated that storing the products is inconvenient and no one claimed to have an optimal storage solution.

According to the survey respondents, it was more important to reach the products from the toilet than keeping them hidden. However, almost no one stores the products near the toilet even though they have the possibility to do that. If the storage by the toilet is an open shelf, users chose another place because the fact is, that they are not keen on storing the products openly.

Change and discard product

At home, the users do not have to worry that someone, except the family, will hear or in some way notice that they are changing product. Also, they can change product whenever they need. This is therefore an event where most users feel calm and confident.

“I never know what is front and back.”

The changing procedure includes several actions, performed in varying order, depending on the user’s personal preferences and habits. A crucial moment, is when the user secures the product to the underwear. Position and direction are important for both comfort and performance, but unfortunately, many users were uncertain of how to place the pantyliner. Almost half of all survey respondents believed the back of the liner to be the front.

Wear product

The third event is where the products’ main purposes are fulfilled - absorbing body fluids and menstrual blood to maintain a good intimate hygiene and protect clothes from being stained. When wearing towels or liners at home, the users do not have to care whether it is visible or not. Clothes can then be worn more comfortably and in case of a leakage the underwear can easily be changed.

Figure 17. Main issues in the phase Use at home. ►

EVENTS

Store product >> Change & discard product >> Wear product

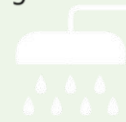
STORAGE PROBLEMS

Prefer to conceal packages

Moist environment

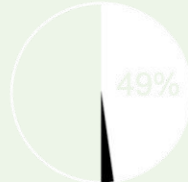
Limited storage space

Cannot reach products from toilet



The single wrappers are perceived to generate much waste.

“At home I know I can change if there is an accident.”



of all survey respondents thought the back of the liner was the front and may place the product backwards. 4% were not sure about the direction.

“It is hard to have them both hidden and within reach from the toilet.”



A SOLUTION SHOULD...

Organise products

Provide storage in reachable distance from toilet

Make sure that the products are not exposed to dirt and moisture

Simplify correct placement of product in relation to the body

Advocate a neutral discussion about women's intimate hygiene

5.2.3 Use away from home

Use away from home includes four events where the users store products, bring a product to the toilet as well as change, discard and wear the product, see Figure 18. Although the latter events are similar to the usage at home, the whole phase is affected by new environments and surrounding people.

Store product in bag

Almost everyone bring products sometime, and more than 40% bring towels or liners away from home every day. However, a crucial moment is to remember to bring them when leaving home. This is the first step to ensure a convenient change of product away from home. Users store their feminine towels and pantyliners in some kind of cover or just as they are in an inner pocket in their bag. For older users, a plastic food bag is a common storage for liners.

Bring product to toilet

Transporting feminine towels or pantyliners from the bag to the toilet is a critical mission and an exposed situation since most users want to conceal their product. The users either hide the product in a pocket or bring the entire bag to the toilet for discretion. A liner is more difficult to bring in a hygienic way as it is, most often, not single wrapped. Therefore, the users fold it and try to hide it in the hand.

“You don’t want to show off your needs.”

The main reason for covering the product is that it is considered a private matter and the users do not want anyone to know what they are doing at the toilet, neither do they want to be involved in others’ personal care business. Using the products is also seen as embarrassing by some. By this, it

is not socially acceptable to openly show the products amongst other people. One woman said that “I experience that men think it is disgusting.”.

“How should I say that I need to go to the toilet this urgently, and what would they think if I bring my entire bag with me?”

Forgetting to change before a meeting or an activity could lead to stressful situations where the user has to leave a group of people for going to the toilet, and in some discreet way bring a towel or liner.

Change and discard product

When changing product in a public restroom, users are anxious that someone will notice what they are doing. However, the main concern when changing product away from home is if there is no waste bin. It is both difficult and awkward to bring a used product, especially liners that are not single wrapped, from the toilet, looking for a waste bin elsewhere.

Wear product

In a public space, having your period and wearing a towel or liner cause greater stress than at home. Users worry about the product being visible or about leakage. An accident in a public environment is worsened by the exposure to other people and not having access to change of clothing. Also, since the users are more attentive to their surroundings they experience that the people around them are extra attentive too.


Figure 18. Main issues in the phase Use away from home. ►

EVENTS

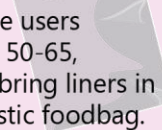
Store product in bag >> Bring product to toilet >> Change & discard product >> Wear product

"I can always feel the towel, so I'm always conscious about it and believe that other people can see it, even though they don't."

Almost all users bring products away from home when they know that they will need them and 40-45% bring products every day.

 In France, it is more embarrassing showing a towel in public and menstruation in general, is seen as embarrassing.

"The worst thing is if there is no waste bin."

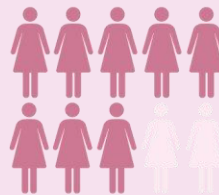
 Of the users aged 50-65, 43% bring liners in a plastic foodbag.



The main concern is if there is no wastebin at the toilet and no convenient way to bring the used product from the toilet.

"I always forget to bring products."

"It is easier to hide a tampon than a towel or liner."



8 out of 10 try to conceal the product on their way to the toilet.

A SOLUTION SHOULD...

- Remind user to bring products
- Provide storage for products in bag
- Allow the user to bring a product without feelings of shame and embarrassment
- Provide help to plan change of product
- Provide easy and efficient concealment of used product
- Enable hygienic transport of used product
- Not be based on being ashamed of using feminine care products
- Advocate a neutral discussion about women's intimate hygiene

5.3 The Users

The Users are represented by three personas that reflect the different users within the target group. Primarily, it is their personalities and habits that differentiate them and make them represent the target user. Personal characteristics and scenarios describe their experiences of feminine care products. The personas Lisa, Anna and Elisabeth they have different views on the topic of intimate hygiene - Lisa the disgusted, Anna the confident and Elisabeth the embarrassed who believes herself to be comfortable, but is not.

5.3.1 Lisa

Lisa lives with her husband and two children, 6 and 8 years old, in a townhouse. She herself is 38 years and works at an office as a chemical engineer. When she is not at work, or playing with her children, she goes to classes at the gym. She enjoys getting some time alone and take care of herself.

According to Lisa, menstruation is troublesome and disgusting. Every period is a struggle trying to be as discreet as possible so no one will notice it. As protection, she uses the towels Libresse *Ultra Normal Wings*. The reason she wears feminine towels is that she believes they are more hygienic than tampons. When expecting her period, as well as when it is about to end she uses *Normal* pantyliners by Libresse because they are smaller and more discreet than towels. Her personal characteristics are summarised in Figure 19.

Figure 19. Personal characteristics for Lisa. ►

ABOUT

Age: 38 years old
Occupation: Chemical Engineer
Family: Husband, two children
Activities: Training at the gym

Social: 
Organised: 
Active: 

ATTITUDES

Lisa thinks that menstruation is...

Private 

Embarrassing 

Unfresh 

Feminine 

"I think it is unfresh to see someone bring a towel to the toilet."

PRODUCTS

As protection Lisa uses feminine towels as she believes they are more hygienic than tampons. When expecting her menstruation, as well as when it is about to end she uses pantyliners because they are smaller and more discreet.



PRACTICALITIES

In the shared family bathroom, Lisa stores the products in a closed cabinet so no one will see them. It is not optimal since the packages break and the products get mixed with her hair and facial products - it is so unorganised!

Lisa never brings pantyliners away from home since they are not single wrapped. The towels however, she stores in the inner pocket in her bag.

"I only buy new products when the last one is used."

5.3.2 Lisa Scenarios

Obtain new products

Purchasing new products is not something Lisa has on routine - it is always a surprise when the products have run out. Buying new products is therefore often done quite acutely, which makes her visit at the store more stressful.

In the store, Lisa searches for Libresse's pink packages, but there are several sorts of liners in different shades of pink which makes her confused. As she finds it embarrassing to stand by the product shelf she grabs the products as fast as possible, resulting in her ending up with the wrong sort sometimes.

"I would rather not have anyone behind me, or in front of me. I just pay and then I run."

She always hopes that she will not meet anyone she knows, and usually Lisa heads for a cash out counter with a female cashier. It feels as if the situation gets less awkward if it is a woman. Since Lisa buys products when she is in a direct need, and not during the weekly grocery shopping, she puts only packages of feminine care products at the counter. Lisa wants the purchase to be as quick as possible since she feels exposed, so she pays fast then takes the packages and leaves the store in a hurry.

Use at home

In the bathroom, which Lisa shares with the family, she stores the products in a closed cabinet. It is not optimal since they have to share space with her hair and facial products, but it is the only place where she can conceal them. Lisa cannot reach the products from the toilet so she picks one before sitting down.

Performing the change, Lisa first removes the old towel and covers it in toilet paper and put it on the floor to later dispose it in the waste bin by the sink. Then, she opens the new towel and attaches it to the panties, with the heart at front. The liners though, she never remembers which way they should be placed. Both ways feel natural and correct.

"It looks a bit butt-shaped so I guess it is the back, but I really don't know."

Use away from home

When Lisa is at work, she can be stuck in meetings for hours. Fortunately, she uses to realise that she needs to change right before the meeting starts. Otherwise she would be unsure whether the product will leak and feel stressed about having to leave in the middle of the meeting.

As Lisa is not that organised, she often forgets to bring towels with her even if she knows she might need them. She never brings pantyliners away from home, since they are not single wrapped. The towels however, she stores in the bag's inner pocket and luckily, she often finds a towel tucked in there. The easy-wrap is bright pink and not that easy to conceal when walking across the open landscape office, but bringing the entire bag feels even more revealing. Therefore, she picks the towel from the bag and places it in the pocket of her jeans - trying to bring it as discreetly as possible.

"I think it is unrefreshing to see someone bring a pantyliner or towel to the toilet."

Lisa fears the sound of opening the towel and detaching it from the plastic wrapper. When changing towel at work, she removes the old towel, opens the new one as gently as possible and places it in the panties. The used product she wraps first in the plastic wrapper, then in some layers of toilet paper to conceal it in the waste bin.

During her menstruation, Lisa is not as active as usual as she feels uncomfortable with wearing a towel under the tight training clothes as well as changing clothes in the public dressing room - someone might see that she is wearing a feminine care product. Therefore, she skips the gym that week of the month and heads directly home where she can feel safe and relaxed.

5.3.3 Anna

20-year-old Anna is an economics student and she lives together with her boyfriend in a two-room apartment. In her spare time, she plays soccer, which she loves, mostly because of the team spirit but also for the exercise. Her personal characteristics are summarised in Figure 20.

For Anna, menstruation is not the most fun thing in the world but she finds it important to raise awareness and be open about the subject as it is something that affects women's everyday life. If you can help to improve society's attitude towards menstruation, why not?

As menstrual protection, Anna uses feminine towels. She started using towels in her teens and has used the same product ever since. It is towel Libresse *Ultra Normal Wings* and she uses it every day of the period as she perceives herself having a normal flow. Simple as that! But sometimes, in the beginning of the period, it happens that the towel leaks and in the end, it is often almost completely dry.

Figure 20. Personal characteristics for Anna. ►


ABOUT

Age: 20 years old


Occupation: Student

Relationship: Boyfriend

Activities: Plays soccer


Social: 

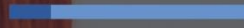
Organised: 

Active: 

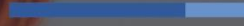
ATTITUDES

Anna thinks that menstruation is...

Private 

Embarrassing 

Unfresh 

Feminine 

"It is inspiring to see someone break the norms, for example bring a towel visible in the hand."

PRODUCTS

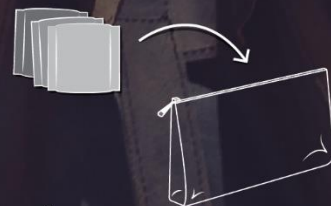
During her period, Anna uses feminine towels for protection. This is the menstruation protection she started with in her teens and she has not thought of trying something else.



PRACTICALITIES

Most products she stores in a closet in the hall and in the bathroom she has a box on a shelf which she refills as she uses the products. She has placed the products so she can reach them from the toilet since that is most convenient and she does not have to plan for a change. In the bathroom she has a waste bin for disposing the used products, this is also good for guests as they use this bathroom too.

Stores products in a toiletry bag, which she brings to the toilet.



"I carefully plan my purchase, so I always have towels at home."

5.3.4 Anna scenarios

Obtain new products

As the structured and ordered woman Anna is, she purchases her products to always have a stock at home. When she writes her weekly shopping list, she makes sure to add towels.

In the store, she quickly finds her towels by looking for the bright pink packages with the Libresse logo. What the packages actually say, she does not know, but she knows that the pink one is with wings and that is what she wants. If that particular product is not available, Anna would never buy another sort. She would wait until the store got them or go somewhere else to find them.

"I always go for the pink ones."

At the cash out counter, Anna pays for her groceries and towels without thinking about it being something awkward. The towels are just part of all the other goods. She has never bought only towels though, and might react differently then.

Use at home

When the box in the bathroom is about to become empty, Anna collects towels from the hall closet and refills it. She stores the box so she can reach a towel from the toilet since that is most convenient and she does not have to plan for a change or get up with the pants at her feet to fetch it. The box is marked "Towels", then someone else who might need one can help themselves. In the bathroom, she has a waste bin for disposing the used products which also is good for guests as they use this bathroom too. She knows that it could be stressful if there is nowhere to get rid of a used towel or tampon.

"People can feel a bit uncomfortable, when being at someone else's house. Therefore I have a waste bin."

Use away from home

In the morning, before going to the University, Anna packs her toiletry bag with towels if it is that time of the month. The change of product she performs more or less according to fixed intervals because it makes her feel in control of the situation, so, she counts how many she will need and adds one extra. Just in case.

"I like to plan, if I need three I bring four. I always bring one extra."

When it is time to change towel, in between two lectures, she collects the toiletry bag and brings it in her hand to the toilet. As Anna believes that menstruation is natural and something we should talk more about she is only glad if someone sees her little bag. Often, she notices how other students glance at her when she heads for the toilet.

After changing, Anna uses the plastic wrapper for disposing the product. This function is nice since there is no waste bin in the toilet cubicles at the university and you must bring the used product with you. It has improved the situation remarkably.

Using towels is not something that hinders Anna from doing what she wants, so even if she has her period she always heads for her soccer practice. In the changing room, there is an open climate where they, if needed, share products as well as experiences regarding the subject. This attitude towards menstruation is not something she has encountered anywhere else. Sad, but true!

5.3.5 Elisabeth


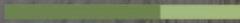

Elisabeth is 57 years old. She has three adult children and today she lives alone in her three-room apartment and is very pleased with her life in general. She works half time teaching at a primary school and she loves her job. At her spare time, she is practicing yoga, which makes her relax after a day with the energetic children. Elisabeth's personal characteristics are presented in Figure 21.

Women's intimate hygiene is something she finds natural, but embarrassing, and Elisabeth uses pantyliners every day. The liners make her feel safe and fresh in all situations. Ever since she started to wear pantyliners Elisabeth has used the same sort - Libresse *Normal*. She likes the fit and knows that they work, so why try something else?

Figure 21. Personal characteristics for Elisabeth. ▶

ABOUT

Age: 57 years old
Occupation: Primary school teacher
Relationship: Single
Activities: Yoga

Social: 
Organised: 
Active: 

ATTITUDES

Elisabeth thinks that intimate hygiene is...

Private 
Embarrassing 
Unfresh 
Feminine 

"It is a private matter."

PRODUCTS

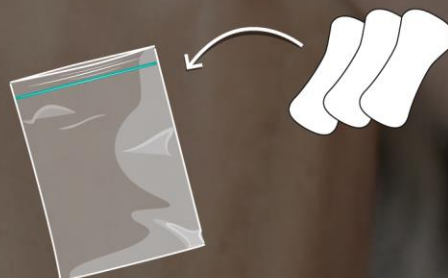
Elisabeth uses pantyliners on a daily basis. Ever since she got children she has suffered from small urine leaks and the pantyliners make her feel fresh and safe in all situations. She changes liner a few times during the day.

"I buy liners whenever I am reminded in the store."

PRACTICALITIES

At home, Elisabeth stores the pantyliners in her underwear drawer. It is convenient, the package keeps the liners organised. However, it takes up just as much space even if it is nearly empty.

Stores pantyliners in a plastic food bag to keep them hygienic.



5.3.6 Elisabeth scenarios

Obtain new products

Elisabeth would describe herself as quite organised but when it comes to buying pantyliners she seldom plans the purchase. Whenever she is in a grocery store and is reminded about her need, and the liners at home are running low, she buys a package.

"I often buy liners when I am grocery shopping. Then you walk buy the products and think; I need these."

She does not fancy to stand in front of the product shelf for too long. But she knows what she wants so she can quickly identify her liners. It is a pink package from Libresse! If it happens that her liners are out of stock, she would wait and buy the pantyliners another day.

Use at home

At home, Elisabeth stores the pantyliners in her underwear drawer. This is convenient as she can place the liner in her panties when she is getting dressed after her morning shower. What she does not like about the pantyliners' paper package is that it takes up unnecessary space when it is not full!

"The package takes up a lot of space even when there are only two or three liners left."

When changing product in the afternoon, Elisabeth picks a pantyliner in her bedroom before heading towards the bathroom. Since it is only herself living in the apartment it feels unnecessary to have a waste bin in the bathroom, solely for the liners. Instead she rolls up the used product and disposes it, just as it is, in the kitchen waste bin.

The apartment hosts one bathroom and she shares it with her guests. Since she stores the products in her bedroom, no one needs to see them. Elisabeth thinks that everybody might not be comfortable with her pantyliners being on display. And even though she does not like to admit it, she is quite pleased with the liners being hidden as well.

Use away from home

Before heading to work, Elisabeth packs a few pantyliners in a plastic food bag. It is cheap and it serves its purpose. The products are not single wrapped and they need some protection.

Elisabeth's days at work are hectic and there is little privacy. Children are curious creatures and ask questions about everything. Puh! Therefore, Elisabeth appreciates the pantyliner being as discreet as possible.

When changing liner during the day she collects a liner from the plastic bag and folds the product in her hand. Mainly to keep it clean on the way to the bathroom, but also to conceal it. If a child asks what she has in her hand, she always asserts that "It's nothing". Children standing outside the

toilet door, knocking, can sometimes be stressful. When disposing the liner Elisabeth uses toilet paper. Also, she tries to hide it under some paper towels in the waste bin as there are others using the same bathroom.

"I would panic if the liner rolled up in the waste bin, it would not feel very fresh. It would not be fun for anyone."

In her age, Elisabeth thinks that one should be comfortable and not ashamed of completely natural things such as menstruation, discharges or urine leaks. However, she is torn as this is what her intellectual self says, but if the subject of intimate hygiene or menstruation is brought up, she would blush and never openly share her own experiences.

"I could place the liners in my toiletry bag, but I don't do that because there are so many other things in there. A plastic food bag feels more hygienic then."

6. READ MORE ABOUT THE INTERACTION

This chapter presents the users' interaction with the product in detail; their actions, problems thoughts and opinions. The analysed data from the interviews and surveys is presented based on the three phases - *Obtain new products*, *Use at home* and *Use away from home* - followed by a problem analysis and guidelines for possible product improvements. Consequently, the user journey and personas in section 5.2 – 5.3 derive from the information found in the following sections.

6.1 Phases & Events

As the Map shows, the analysis of the user studies resulted in three use phases formed by events. The phases and events are divided according to the character of the interaction with the product in different environments and with different purposes. The HTA, found in Appendix 11, and the Affinity diagram analysis were the foundation for the compilation of events.

All statistics in this section are results from the surveys. The answers from Sweden and France have been merged together in the cases where the both countries agreed, otherwise their differences are specified.

6.1.1 Obtain new products

In the interviews it was shown that, when obtaining a new product the users go through the events discover need, find product and pay product. To know which product that is best suitable, based on personal needs, is difficult and most users are not very active in their choice of product. The phase most often includes interaction with another person, the cashier, which many users experience stressful.

Generally, the attitude regarding purchasing products was that it is a natural action - everyone does it. Nevertheless, some users felt exposed and embarrassed during this phase. Because of this, they preferred to buy towels and liners together with other groceries to conceal their purchase. Some users, especially the younger ones, also preferred to pay to a female cashier. In addition, there was an overall approach to perform the purchase as quickly as possible, to spend as little time as possible by the shelf or at the cash out counter with the products on display.

Discover need

The purchase could be planned or unplanned, either way, the purchase phase starts by discovering the need to obtain new feminine care products. For a planned purchase, there were two main types of users; the user who always had products at home, ensuring that the storage never dwindled, and the one who purchased new products only when the last one was used. An unplanned purchase on the other hand is triggered when the user is already in the store or suffers from an unexpected flow and does not have access to products.

Storage at home is described in next section, 6.1.2, and indicates that products are often stored hidden. According to the interviews, it could thereby be difficult to keep track of how many products that were left. As one woman put it; "The worst thing is when you think you have more products that you do".

Find product

Next step in the purchase phase is to go to the store to find and pick a product. When entering a grocery store most users would look for the products by other hygiene products. Almost all interview participants mentioned that they would search by the shampoo and some said that the products are often placed where you do not expect them to be, such as near the cash out counters. If the users can not find the product shelf they said that they would ask a shop assistant for help, preferably a female assistant since that was perceived as less uncomfortable.

In the stores, there are many available options of feminine care products. According to the interviewees, no one would ask for help to find the right product while standing at the shelf in a grocery store. In a pharmacy however, they would be more comfortable to inquire information about the products. Regardless, reading at the packages was rare since the users preferred the stop by the shelf to be as short as possible. Identifying a desired feminine towel in the shelf was primarily done by searching for brand and colour. One user said; "First I look for Libresse, then pink", this does not guarantee though that she walks home with the right product as there are a lot of pink on the shelf, see Figure 22.

The users tend to stick to the same brand when it comes to feminine care products, but if their brand is not available at the shop, they would look for another well-known brand. That it should be a known brand was stated as important and many would not buy products from a brand they do not recognise. If giving instructions for someone else to buy products, almost all interviewees would mention the colour on the package along with the brand.



Figure 22. Libresse packages are colourful and many of them are pink.

Pantyliners were primarily identified by brand and drops, not colour, although the drop system for absorption level was stated as inconsistent in the interviews. The majority of users perceived themselves as being "normal", searching for the mid-range products on the drop scale. For a night product, it was desired to contain as many drops as possible. One interviewee said; "If I want a night towel I want it to have as many drops as possible because then I know that I can trust it". The scales differed between brands as well as within the same brand. Libresse have three different scales with a maximum of either three, four or six drops. This could be misleading as the following quote implies: "I know there are drops, but I can't say how many there are. I have no idea!"

Furthermore, more than 30% of the survey respondents stated that they would make use of the products' name when identifying their product. Even so, not one of the interviewees knew the full name of their product.

Many users bought their products on routine, not consciously considering other available options, while others did not have a specific product or brand that they were loyal to which meant that they bought different products each time. However, a choice must have been made at some point and it was affected by different factors. For both type of users, their product choice depended primarily on the product's functionality. Price was the second most common decision factor and third came availability. No significant differences between users of different ages could be found. Additionally, mothers were identified as a common source of information regarding this product segment and the feminine care products available at home during the first years of menstruation tend to be used also later in life.

Generally, the users did not find themselves to be very active when choosing feminine care product. Only 37% stated that they were active or very active in their choice of feminine towels. To try different products, search for information or ask for recommendations, to examine the range of feminine care products were uncommon and something most users had not even thought of. In fact, only one out of ten users considered recommendations when deciding which product to buy.

Looking at the different age ranges, younger users were less content with their products and also far less active in their product choice. Users aged 35-45 were to a higher degree satisfied with the products they used and the interviews indicated a similar pattern; older users were less bothered by, and concerned of, insufficient functionality or embarrassing accidents. Thereby, they were more at ease with the products they used.

Pay product

Buying feminine care products was something normal according to all interviewees, but nevertheless many users experienced discomfort when paying them. Younger users were more attentive and aware about themselves and their surroundings when paying their products at the

"I would rather not have anyone behind me, or in front of me. I just pay and then I run."

cash out counter. The younger users would also prefer a female cashier and consciously reflect upon which counter to choose based on the cashier's gender. Regardless of age, the majority of the interviewees preferred to purchase the products during the weekly grocery shopping, both by convenience but also to conceal the

feminine care products amongst other goods. Buying solely feminine towels or pantyliners was expressed as an exposed situation by several of the interviewees. Additionally, bumping into someone they know while purchasing feminine care products would cause some users to feel insecure. Thereby, it was desired to complete the purchase quickly with as few interactions as possible.

"If I buy towels on a weekly shopping, I don't think so much about it, because then they go up with 'falukorven' and everything else."

6.1.2 Use at home

At home, the interaction with the products consists of storing, changing and discarding as well as wearing them. Most users feel safe and calm in this phase since they are comfortable with the home environment, have control over the situation and do not have to worry that someone will hear or in some way notice that they are changing product, and additionally, if the product leaks they are not exposed.

Store product

During the interviews, it was found that feminine care products were most often kept in the bathroom. Generally, there is limited space in bathrooms and towels and liners were therefore stored together with other hygiene and beauty products. The interviews also indicated that storing the products was inconvenient and no one claimed to have an optimal storage solution. Figure 23 shows how some of the interviewees stored their towels and liners - quite unorganised and mixed with other products. On the contrary, the survey revealed that a large majority of the users were satisfied or very satisfied with their storage.



Figure 23. Photos of the interviewees' storages.

According to the survey respondents, it was more important to reach the products from the toilet than keeping them hidden. 79% stated that it is important to reach the products when sitting on the toilet whereas only one single interviewee had the possibility to store the products in that convenient way. If the storage by the toilet is an open shelf, users tend to choose another place, because the fact is, that they are not really keen on storing the products openly. Users that were not as satisfied with their storage answered that: "There is no obvious, good, space for storing them." and "It is hard to keep them both hidden and close to the toilet".

The product packages differ in terms of form, material, size and the number of products they hold. Feminine towels are often single packed and sold in plastic packages whilst pantyliners are stacked in a cardboard box. Obviously, both packages have advantages as well as disadvantages. The paper package is stackable, resealable and easy to collect a product from according to the users but it takes up a lot of space even if it is nearly empty. Some survey respondents considered it economical since it contains many products. The plastic package on the other hand, was considered convenient to bring since its shape adapts to the content but at the same time, that results in the package being difficult to stack and keep organised.

Interestingly, the thing mentioned as the most beneficial with the towels' package was also the one thing the majority thought was the worst; the easy-wrapper. The positive aspect brought forward in the survey, as well as the interviews, was that the easy-wrapper makes the products easier to bring away from home. At the same time the users experienced that it causes an unnecessary amount of waste.

"A lot of plastic is not very environmental friendly."

Change and discard product

Changing the product at home consists of the actions 3.1-3.3 in the HTA, see Figure 24 on the next page - a new product is collected, the change is performed and the used product is disposed. The changing procedure includes removing and folding or rolling the used product, then opening and securing the new product to the underwear and lastly discarding the used product, just as it is or by wrapping it in the plastic wrapper or in toilet paper. These actions are performed in varying order, depending on the user's personal preferences and habits.

A crucial moment was when the user should secure the product to the underwear as position and direction are important for both comfort and performance. When placing the product in the panties the user matched the feminine towel or pantyliner to the seams and edges. Most users were accustomed to the fit of their own panties and thereby, they adjusted the product's placement to that. Also, the prior product was sometimes used as an indication for where to place the new one.

"I never know what is front and back!"

Libresse's towels and liners, equipped with the SecureFit™ and CurveFit™ technology, are customised to the anatomy of the female body. Unfortunately, almost all interviewees said that they were not sure what was the front and back of the pantyliner and one participant placed the liner backwards in the user test performed during the interview. This result was confirmed by the survey where as many as 49% believed that back of the liner to be the front and additionally 4% answered that they did not know what was the right direction. There are no instructions on either the pantyliner, the release paper or the package regarding how it should be placed, only vague design cues on the product that were easily misinterpreted.

"I know that the heart on the towel should be in the front, but this I don't know".

Most users have a waste bin in their bathroom where they discard the used products. For hygienic reasons, the used product was most often rolled in paper or the plastic wrapper, doing this also facilitated the procedure of emptying the waste bin as the products did not stick to the canteen. Due to concerns of odour some chose to dispose the products in the kitchen bin, since they emptied that more often.

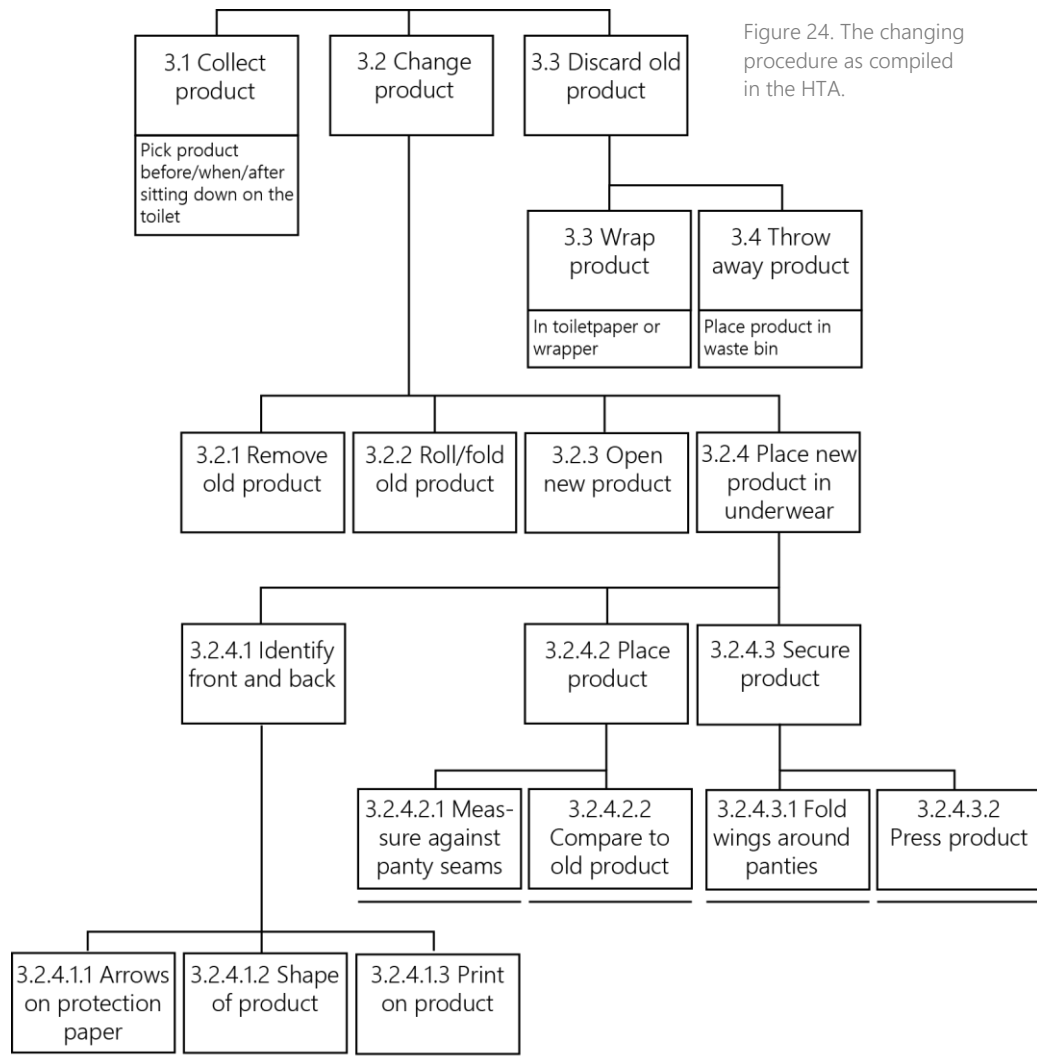


Figure 24. The changing procedure as compiled in the HTA.

Wear product

This is the event where the product's main purposes are fulfilled - collecting menstrual blood and maintaining a good intimate hygiene, thereby protecting the clothes from being stained. Wearing the product is however a non-active event, it implies that the product is in the user's underwear. Nevertheless, this event affects the users' experience of the product.

A pantyliner has several areas of use besides protecting and keeping the underwear clean to stay fresh. 55% of the survey respondents stated that they wore it before and after menstruation as a transition product, 25% wore it during menstruation as a complement to another feminine care product and 15% used pantyliners as their primary menstrual protection. Furthermore, just over one third used pantyliners as protection for bladder weakness.

At home, the users do not have to worry that their use of feminine towels or pantyliners is exposed. Thereby, clothes can be worn more comfortable and in case of a leakage the underwear can easily be changed. Towels and liners used as menstrual protection are of course worn at all places, but liners used for light discharges was not seen necessary to wear at home because of the possibility to change underwear but also to let the intimate area breathe.

The user's main concern in this event was leakage at night. During heavy bleeding, some found it difficult to be ensured that the product was secured properly and that its absorption level was high enough. One interviewee said that the product's length and shape did not fit her body which meant that the blood did not hit the product and thereby leaked. To solve this problem, she put toilet paper between her buttocks at night.

6.1.3 Use away from home

In the phase *Use away from home* the user stores the products in a bag, brings a product to the toilet, then changes, discards and wears the product. The latter events are similar to the events in *Use at home*, but new environments and surrounding people affect the user during the entire phase.

Store product in bag

A large majority of users bring feminine towels and pantyliners away from home to be able to change during the day and as many as 45% respectively 40% of the survey respondents said that they bring towels or liners every day.

A crucial moment is to remember bringing products when leaving home. This is the first step to ensure a convenient change of product away from home. Some users complained about their own forgetfulness and said that they could never remember to bring products, even if they knew that they would need them during the day. Others were more structured and counted how many changes they might need, then added one or two extra towels and packed them carefully in their bag.

When bringing their feminine care products, many users placed them in an inner compartment in the bag or in some sort of case. How the liners were stored differed between the age ranges. Older users placed their liners in a case or a plastic food bag to a larger extent than the younger users, who instead stored the liners without any extra protection. As many as 43% of the users aged 50-65 used an ordinary plastic food bag. Products with single- or easy-wrappers were seen as more convenient as they are easier to keep hygienic. But, whether the products were wrapped or not did not seem to affect the way the users stored the feminine towels and pantyliners remarkably. A 20 year old user who stored her liners in a toiletry bag said; "After a while, they are not that fresh anymore. My eyeliner, makeup and other stuff is in there too. I maybe should store them in another way".

Bring product to toilet

Transporting feminine towels or pantyliners from the bag to the toilet is a critical mission and an exposed situation since most users did not want to display their personal needs. 80% of the respondents in the pantyliner survey stated that they try to conceal the product when bringing it with them. The users either hid the product in a pocket or brought the entire bag to the toilet for discretion, others tried to conceal the towel or liner in their hand or brought it in a toiletry bag.

"Because it feels as if I should."

The main reason for covering the product was that it is considered a private matter and the users did not want anyone to know what they were doing at the toilet, neither did they want to be involved in others' personal care business. Using the products was also seen as embarrassing. By this, it was not considered socially acceptable to openly show the products amongst other people. The statistics differed between Sweden and France in this matter. On the question *Why do you want to conceal the towel on your way to the toilet?* 39% of the French women entered "Embarrassing", compared to only 9% in Sweden. Seeing someone else carrying a towel openly in their hand was also seen as more embarrassing in France; 23% versus 8%. Menstruation in general, was considered embarrassing by one third of the French respondents, while only 5% of the Swedes said the same thing. Naturally, having your period was nothing that users wanted to proclaim to their surroundings but many wished for a more open climate and freedom to be relaxed about it.

"I experience that men think it is disgusting."

In social situations, the need of change could appear in a bad timing. The need to visit the toilet urgently could feel revealing, and bringing a product along worsens the stress. Users expressed that oneself is extra attentive in general when menstruating, and that increases the feeling of being analysed when heading for the toilet. One user described the scenario of being in a meeting and

suddenly feeling the need to change towel, she said that; “How can I say that I need to go to the toilet this urgently, and what would they think if I bring my entire bag with me?”

Change and discard product

The procedure of changing product away from home is similar to the responding event in the phase *Use at home*. What differs is the physical environment and the presence of other people. When changing product in a public restroom, users were anxious that someone would hear or in some way notice what they were doing. When there are toilet cubicles some users worry that the product will be seen from the outside during the change. Also, the easy wrapper of the feminine towel causes quite a loud sound when being opened which was expressed as troublesome by several users.

“It makes a quite loud sound when you try to change towel discreetly.”

One of the users’ main concern when changing product away from home was if there is no waste bin as it could be both difficult and awkward to bring a used product from the toilet, looking for a waste bin elsewhere. An even more stressful situation is at other people’s homes, where the situation is more intimate. The users solve the problem by wrapping the product in overmuch toilet paper or the easy-wrapper and temporarily store it in the handbag. Also, even though there is a waste bin in the bathroom, many users find it uncomfortable to leave such an evident trace behind.

Wear product

In a public space, having your period and wearing a towel or liner cause greater stress than at home. Users worried about the product being visible when wearing it or about leakage, an accident in a public situation is worsened by the exposure to other people and not having access to a change of clothing. Leakage can result in an embarrassing situation, and since the users were more attentive to their surroundings they experienced that the people around them were extra attentive as well. Moreover, wearing towels at night was expressed as even more stressful when staying at another place. As most users wanted to keep their menstruation private, bleeding through the clothes and staining someone else’s linens was not considered a fun experience.

“I can always feel the towel, so I’m always conscious about it and believe that other people see it, even though they don’t.”

Menstruation can affect women’s performance at work or in school due to its physical and psychological impact. If that is the case, 58% of the French survey respondents stated that they would tell the truth; that it is their period affecting them negatively. In Sweden, the corresponding number was 65%. The unwillingness to talk with others is displayed by the fact that it is not obvious to turn to the health care for help if experiencing problems with the intimate area. In Sweden, more than 50% would search for information to solve the problem themselves. Women in France were better at contacting healthcare as well as turning to relatives or friends for advice and only 25% would try to solve the problem on their own.

Lastly, wearing a pantyliner away from home was considered fresh and hygienic according to the survey participants. It is a small convenient protection for the underwear, providing security without being as ungainly as a towel. Changing liner a few times during a day prolongs the feeling of wearing a new pair of panties and users said that once you start wearing pantyliners it is hard to stop.

6.2 Concluding the problems

Social aspects, lack of knowledge or deficiencies in product properties are three main causes for problems that occur in the interaction with feminine towels and pantyliners. All phases contain all types of problems, but some were more prominent in a certain phase. Ranking the problems by their consequences’ severity, 1 being the least severe and 5 the most serious, the highest scoring problems are displayed in Table 4. The table also includes guidelines for how a solution should address each problem. The problems are further analysed and discussed in this section, and the complete list of problems, causes, consequences and guidelines can be seen in Appendix 12, divided by phases and events.

The problems in the first phase, *Obtain new products*, were mainly caused by lack of knowledge. Based on the habitual purchase and usage of products, the conclusion was drawn that women are not aware of the variety of products available. It does not matter how extraordinary the products are if the users use the wrong product. Product information can reach the users via the package, product and other users, but evidently it does not. Exchange of information and recommendations were found to be rare and the users did not spend enough time in front of the product shelf to gain knowledge of the product range. These problems were in fact a result of social barriers and they hinder the product information from reaching the user. Therefore, this information needs to be available elsewhere, easily accessible regardless of time and place.

Table 4. Highest ranked problems and guidelines for solutions.

PROBLEM	A SOLUTION SHOULD...	RANKING
Having no products when the need occurs	Make sure that the products do not run out	4
Find right product	Simplify identification of products	4
Store products in an efficient way	Organise products Provide storage in reachable distance from toilet	4
Keep products protected	Make sure the products are not exposed to dirt and moisture	4
Difficult to identify front and back	A solution should simplify correct placement of the product in relation to the body	5
Not talking with others about menstruation and intimate hygiene products	Advocate a neutral discussion about women's intimate hygiene Not be based on being ashamed of using towels/liners	5
Discover need on toilet without having a product	Remind user to bring products	4
Keep products protected in bag	Provide storage for products in bag	4
Difficult to transport product from bag to toilet discreetly	Allow the user to bring product without feelings of shame and embarrassment	5
Need of change in a bad time	Provide help to plan change of product	4
Conceal product in waste bin	Provide easy and efficient concealment of used product	4
Dispose used product	Enable hygienic transport of used product	5

Problems concerning product properties exist mostly in the latter phases - *Use at home* and *Use away from home*. Both packages and product features caused issues for the user. Poor storage solutions due to ungainly packages lead to unorganised products as well as broken packages and thereby wasted products. Furthermore, the design of the pantyliner - shape and print - was lacking in instructing the user of correct placement. This could cause discomfort and deteriorated function leading to leakage. Leakage is a severe consequence since it may put the user in an exposed and humiliating situation. Discomfort is not pleasant either. As a user of any product, it is fundamental to know how it should be used and for a product with such uncomplicated design as a pantyliner, the usage must be intuitive. The moment of hesitation and uncertainty when placing the liner in the panties affects the entire user experience. Consequences caused by product characteristics must be addressed by a redesign of packages and products to provide safe and convenient storage as well as instruct and simplify correct usage.

Another main issue is the problems of using products away from home. Bringing products when leaving home could easily be forgotten when analysing the user's journey, but it is a very important moment to address in order to avoid stressful consequences. Users that often forget to bring products can make use of a reminder when the menstrual period approaches. Needing to change in bad timing could also be avoided by reminders and better planning. Although these stressful moments do not affect the performance of the product, they influence the user experience. Providing aids to help the user in each step towards placing the product in the panties would eliminate several inconvenient situations. Furthermore, a solution must provide efficient storage in the bag, both for new and used products. This especially concerns pantyliners without single wrappers. Regarding the social norms about discretion and privacy, the solution should allow the user to bring products without feelings of shame and embarrassment.

Although the privacy and possibility to be discreet when using feminine care products should be protected, the discussion about menstruation and women's intimate hygiene must be raised. A solution should not in any way further disguise the subject and contribute to the taboo. There are advantages of sharing experiences openly, in a natural manner, for all users. Therefore, a solution should advocate neutral dialogues, making women's intimate hygiene a less charged topic.

To summarise, social interaction is a constant factor for the problems that occur in the interaction with feminine care products. It is intertwined with, and affects the intake of information and the experience of the product properties. Lacking knowledge is partly because the users avoid social interaction. Requiring a storage and transportation solution is also based on the social aspect of feminine care products not being natural, or in some cases not acceptable, to show in public. Similarly, the back and front problem with the pantyliner is derived from lack of information about the CurveFit™ technology. Applying the UCD approach, the entire sequence of actions must be attended since they together create the overall user experience.

7. SOLVING THE PROBLEMS

Previous section analysed the problems and generated the guidelines "A solution should...". This chapter, describes ideas generated based upon those guidelines, solving the identified problems. As some guidelines are found in more than one phase in the User Journey Map, the solutions solve problems in several phases. Thereby, the categorisation in this section does not follow the User Journey Map, instead it describes the different type of ideas that were created.

7.1 Reminders & Information

To remind and inform the user, a mobile application could be a useful tool. Ideas for the application is seen in the sketches in Figure 25. Amongst many things, it could help the user to make sure to always have products at home when the need occurs. By registering bought products and changes, the application could provide a reminder when there are only a few products left and tell the user to plan for the next purchase. With this system, the user could keep track of the storage and hopefully avoid the exposed and stressful situation of having to buy solely feminine towels or pantyliners. Another way to make sure that the user does not run out of products would be a subscription of feminine care products which could be a part of the mobile application as well.

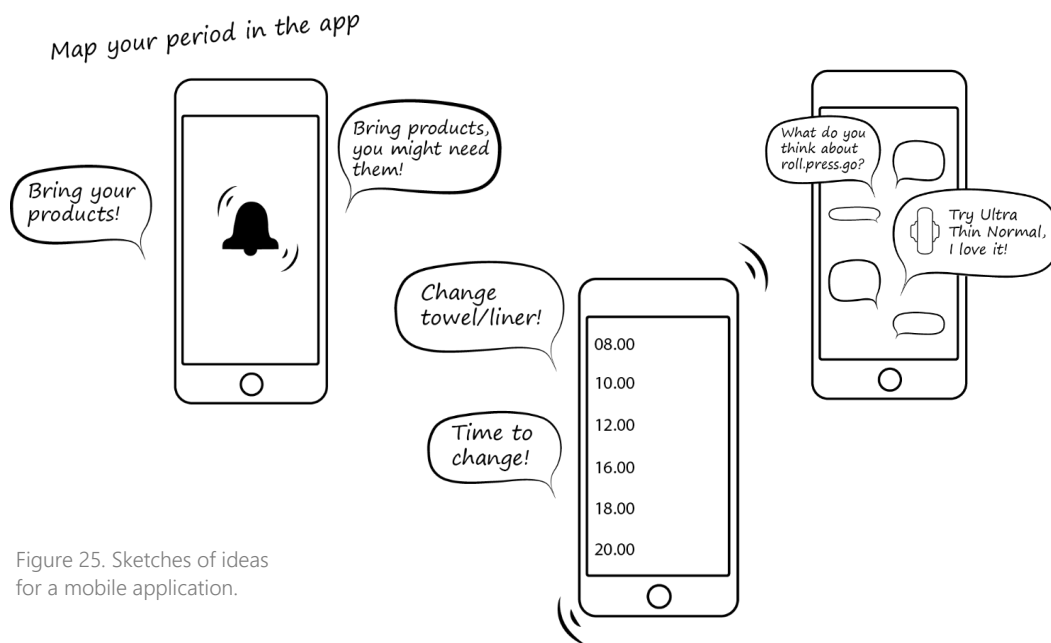


Figure 25. Sketches of ideas for a mobile application.

Furthermore, the application could be used for reminding the user to bring products away from home. In the morning, an alarm would tell that products must be brought, also which products and how many. By mapping your period, the application could inform when it is approaching and that it is a good idea to bring protection, just in case. During the day, users sometimes find it hard to remember to change feminine towel or pantyliner. To avoid this, the application should be linked to the daily schedule and provide suggestions on when it is most suitable to perform the changes. By that, awkward and exposed situations such as having to leave in the middle of a meeting, or lecture can be avoided.

In the mobile application, the users could have access to information about Libresse's products; which products they provide, what properties they possess, etc. By reading about the products before buying them the users could spend less time in front of the products in the store as they would know what available options there are and which product that best matches their needs.

Furthermore, it is important to open up the discussion regarding menstruation and women's intimate hygiene. A community with the opportunity to share experiences, review products or discuss problems would allow users to become more informed. Reading about someone else experiencing the same problem, and finding out how they solved it, could for example help a user to find a better suiting product. Being more informed and experienced would hopefully make users more prone to talk with each other in person as well.

7.2 Store & Bring

An improved storage should primarily make the towels and liners reachable from the toilet. The products could be stored in connection to the toilet paper holder since that is a product that exists in all bathrooms in some form, and it is always placed near the toilet. The products and the paper holder could be made compatible in two different ways - adding an external storage solution or changing the packages. The products could be placed and organised in a round box placed on top of the paper rolls on a floor paper holder, or, in a hanging box attached to a wall mounted holder. This same principle, hanging the products on the paper holder, could be achieved by adding a string on the current packages. The ideas are seen as sketches in Figure 26.

Organising the products in a better way could be done with external products, a suggestion is boxes with different compartments. The boxes could be placed in a cabinet or drawer, wherever the user stores the products, and keep the towels and liners in order. If the user has several product types with different kind of packages, this solution could be favourable since the packages are often not compatible in terms of size and opening.

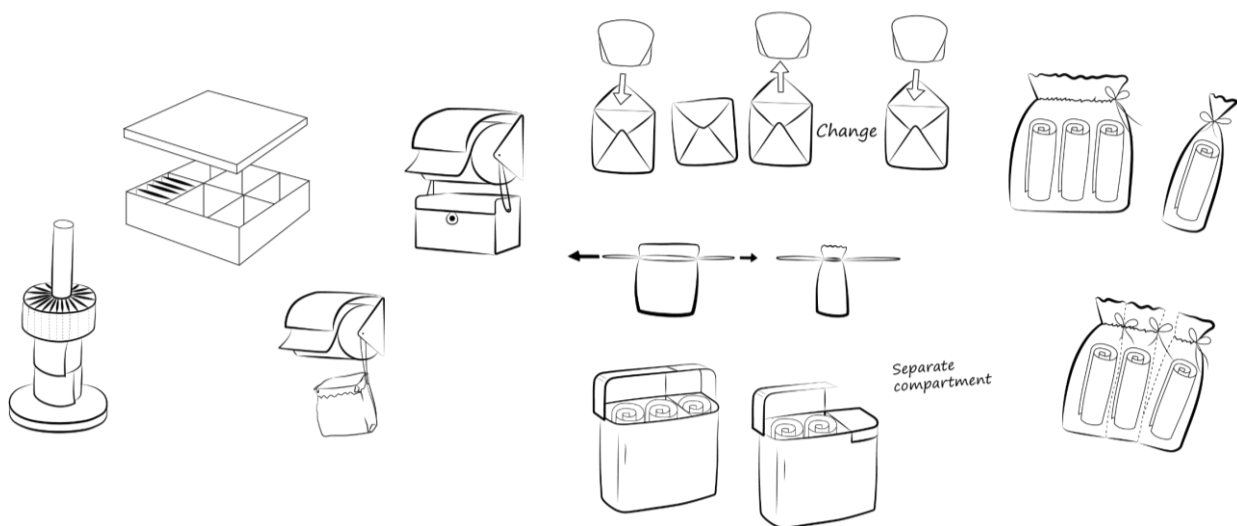


Figure 26. Ideas of storing the products at home and in the bag.

Moreover, it is problematic to store the products in the hand bag. This concerns especially pantyliners that are not single wrapped. The ideas on how to solve this include both single use cases as well as reusable cases, seen in Figure 26. Preferably, the liners should be rolled to be as small as possible, but only if their performance is not affected negatively. Many liners could be stored together in one case to keep them organised in the bag. However, more products require a larger case, which becomes harder to conceal when bringing it to the toilet. Instead, the single use case could have different compartments linked by a perforation. The liners would stay gathered in the bag but when going to the toilet the user could tear one off. Most important, regarding all storage solutions, is that they should make sure that the products are protected against dirt and moisture.

When there is no waste bin on the toilet it would be convenient if the cover could transport a used product. For the single use case, the new liner and used liner would switch places, but for the reusable case a separate tray might be needed for the case to stay hygienic and hold both new and old products. As users should be able to bring the products without feeling embarrassed the case should be discreet, without diminishing the products in a way that adds to the taboo regarding menstruation and women's intimate hygiene.

7.3 Product & Package

Trying to find a product in store is not an easy task and there are benefits in simplifying the identification of products. Ideas on solutions are illustrated in Figure 27. As the user does not spend a lot of time by the shelf, the information regarding the products must be very clear. The drop system is not explicit since it differs both within and between product categories, without clear reasons. Providing a unified system for all products would help the user to navigate the shelf but also ease the change between the two product categories, feminine towels and pantyliners, since they would be comparable absorbency wise. The fact that many users use pantyliners not only as a hygiene product but also during menstruation is something that speaks for a unified system. Adding a colour code system to the products could also help the user to quickly identify a suitable product. The colours could indicate if it is a maxi product or an ultra thin one, if the product has high or low absorbency or if it is a long or normal product. To further help the user, a product chart on the packages would allow the user to discover which suitable options there are before arriving to the store - simplifying the identification of products as well as minimising the time spent in front of the product shelf.

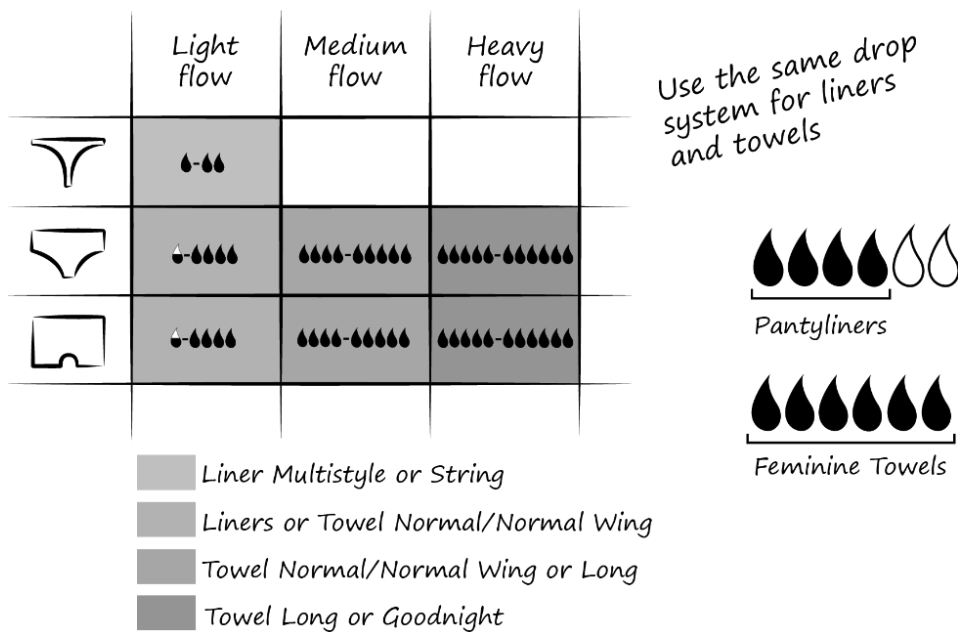


Figure 27. Ideas on how to clarify the identification of a suitable product.

Evidently, almost half of all users have the wrong idea of what is front and back of the Libresse pantyliner *Normal*. As the product has a shape, its placement in relation to the body is key, regarding performance but especially comfort. Making use of elements with a clear direction or reference to the anatomy of the body in the pantyliner's print could make it easier for the user to identify the product's front and back. Examples on how to indicate direction are arrows, hearts and curves as shown in Figure 28.

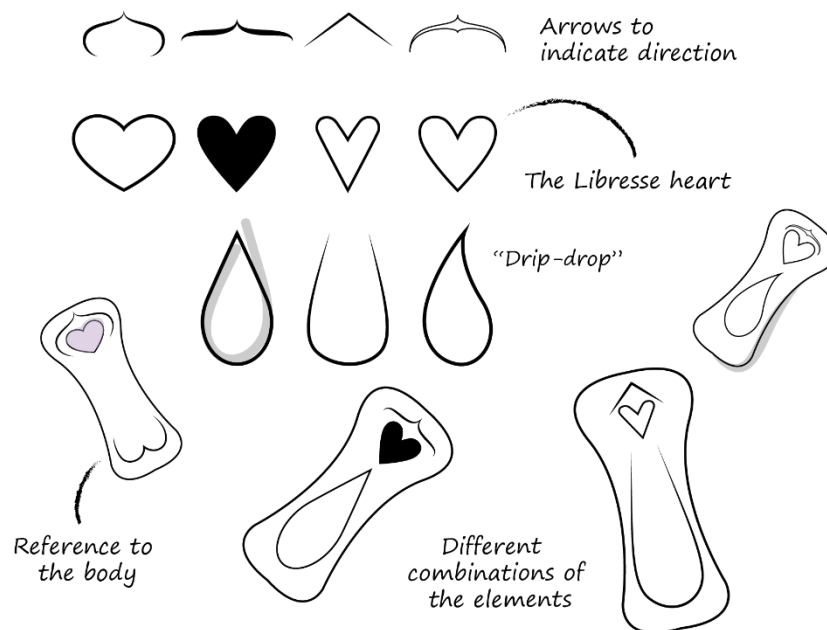


Figure 28. Ideas on how to indicate the pantyliner's direction.

7.4 Evaluating the ideas

The ideas described in the previous sections 7.1-7.3 were created as part of the User Journey Map being applied in a product development process. By approaching the identified problems through the guidelines "A solution should...", relevant solutions can be created.

The ideas that were considered to have the most potential were condensed, combined and developed to form three concepts; *The App*, *Direction* and *Take away*. The concepts can be found in Appendix 13-15. The concepts were presented in two focus groups and one of them were chosen - *Direction* - for further investigation and development. All concepts were appreciated by the participants as the problems they solved were regarded important for improving the users' experience of the products. However, the problem with users not knowing the pantyliner's direction was perceived most acute to address - something that had to be rectified urgently.

8. PRINT IT

A large proportion of the users were not able to identify the front of Libresse pantyliner *Normal*, therefore, this product has been redesigned so they can be more secure in their interaction with the liner. The new design of the pantyliner guides the users to correct and confident use. To inform the users about how to place the pantyliner in their panties the concept consists of three product parts working together: the print, the release paper and the package seen in Figure 29. The design of each part speaks for itself but they also complement each other and create a unit for supporting the users in their handling of the product.

To fulfil the user's emotional needs and create good user experience the cognitive needs must be pursued first (Wikberg Nilsson et al. 2015). This redesign supports the usability and has increased the number of users that place the liner correctly by 51%. This is an important step towards fulfilling the users' needs at the top of the pyramid.

Using recurrent design elements on their products empowers Libresse as a brand. In a smart way, the heart has now become a key element as it is the instruction of how to place the pantyliner. It makes users feel confident when facing a Libresse product, since they know how to interpret the element. When placed like this, the heart also communicates that the users should love their intimate area and take care of it.



Figure 29. The new design of Libresse pantyliner Normal, its release paper and package.

8.1 The print

The pantyliner's upper side consists of mainly two elements; a coloured print and an embossed pattern. These two design elements distinguish themselves from each other to support proper use - the heart and lines indicates direction while the embossing suggests the absorption zone, see the print in Figure 30.

Figure 30. The new print on the pantyliner.



A heart has a well-known direction and together with the arrow head - a prominent symbol for direction - at the very front of the pantyliner, it encourages the user to place this part of the pantyliner forward. By its darker colour and small size in relation to the pantyliner, it stands out from the white background and catches the beholder's attention due to the area factor described by Monö (1997). The heart is a symbol for Libresse, likewise is the purple colour, and by using them there is a clear connection between the pantyliner and Libresse's other products.

Four curves indicate the pantyliner's waist and thereby the correct placement in relation to the body. They are symmetrically placed, two curves on each side of the liner, and the proximity between the curves on each side makes them form a unit, and the similarity between the two units creates gestalt. By this, users will see the curves as one element, marking the narrowest part of the liner, and hopefully understand that it is something special about this area and reflect upon how the liner should be placed.

At the very back of the pantyliner there is a curve that refers to the anatomy of the body - that we are broader on the back than on the front. The curve is wide and blunt, making this part of the liner feel heavier and slower than the front. Together with the curves at the waist and the arrow head at the very front, it creates the outline of the colour print. The elements are not linked, but they are anyway perceived as a whole. This phenomenon is described by the common determining factor, section 2.3.1, which implies that we see arrangements that make the least change or break in a continuous curve.

The curves used for the print are of different character, the base curve is evenly thick, whilst the curves at the waist and the very front are tapered. This makes the base feel static while the front obtains a more dynamic expression. With this, the form of the print - the broad base with a narrow top, linked with a waist - is interpreted as having a direction upwards and forward.

The second element of the print is the embossed pattern and this area constitutes about two thirds of the pantyliner. Due to the proximity factor described by Monö (1997), the small space between the pattern's dots make them form a unit, and having the same size and the same properties further enhance their connection. The embossed area is where the fluids primarily meet the pantyliner, and to simplify for the user to determine when it is time to change liner, it is white.

The coloured print and embossed pattern are what mainly decides the pantyliner's expression. Soft curves, a heart, a purple colour and dots give a friendly impression. As it is a product that should be placed directly against the skin it is important that it feels reliable and gentle. Delicate and feminine are also expressions that describe the pantyliner's appearance. The embossing makes the pantyliner feel light and soft because of the slightly bumpy surface, it also adds to the product's qualitative feeling as the surface obtains a nice finish.

8.2 The release paper

Primarily, the release paper was seen as an untapped area, perfect for communicating to the users. Thereby, two instructing illustrations were added, see the release paper in Figure 31 and 32. First there is an illustration of a small pantyliner, its front is marked with a purple heart, just as the one in the pantyliner's print, and there is an arrow pointing in the direction of the heart. The use of an arrow makes the instruction very, leaving little room for misinterpretations. Secondly, there is a pair of panties, with the purple heart placed by the intimate area. This illustration connects to the liner and the heart displays where and how the product should be placed in the underwear. These two instructions show how well the heart works as a symbol and reference for the pantyliner's direction and placement.

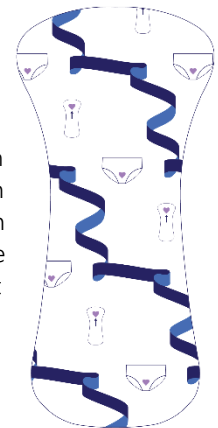


Figure 31. The new design of the release paper.

The banner is a commonly used design element by Libresse. It is found in their logotype as well as on the website and in commercials. The sparkles that are seen together with the banner are also recurrent on Libresse's packages and products and thereby they could be considered being a symbol for the brand. So, the banner and the sparkles decorate the release paper to convey that it is a pantyliner by Libresse. When the users see the liner solely they will know by which brand it is, also, when seeing the liner and the package together the parts are clearly connected. The colours on the release paper - dark blue and purple - work as a link between the liner and the package. Also, by combining these two colours the liner possesses a more mature expression. The release paper challenges the former pink, girly and cute expression but still stays true to Libresse brand.

Figure 32. The new design guides the user in the placement of the liner.



8.3 The package

To further help the users, the pantyliner's package has been supplemented with an illustration of a woman in her panties and the text "Place the heart at front for a perfect fit! Love, Libresse", see Figure 33. The purple heart placed at the front, by the intimate area, works as an indication for the direction in which the pantyliner should be placed - just as the illustration of the panties on the release paper. This connection, between the release paper and the package enhance recognition and supports the user in the handling of the liner. Also, this placement is a symbol of caring for and loving your intimate area. Just as on the pantyliner and the release paper, it is the purple heart that is the key element used for instructing the users.



Figure 33. The package now instructs the user to place the heart at front.

On the package, there should also be a description of the CurveFit™ technology - what it is and how it works. The relation between the pantyliners function, design and print should be clearly stated so if there were to be any uncertainties about the use the users should find the information easily.

8.4 Does it work?

The survey evaluating the new print gave a positive result. 71% of the respondents could identify the front of the pantyliner, 10% answered that they did not know which side of the liner that was the front and 22% still believed the back of the pantyliner to be the front. The numbers for the old print showed that only 47% knew the direction of the pantyliner which means that the new print has increased the number of users knowing the direction by 51%. When providing the users with an extra instruction for the placement, the illustration on the package, the numbers were even better as 88% gave the right answer. The release paper has not been analysed.

The result from the survey indicates that the semiotics applied on the new print, and thereby the design elements constituting it, are better at instructing the users about the pantyliner's direction. It also implies that the heart works well as a key for the pantyliners direction as the instruction on the package helped the users to identify the pantyliner's front.

When evaluating the new print against the guidelines found in Appendix 10 the print performs very well, see Table 5. Although the print has increased the number of users that can identify the pantyliner's front, not all users manage the task. Thereby, guideline 1.1 could not be said to be completely fulfilled. Since no user tests have been performed with the new print, it is neither possible to say if the users will place the pantyliner correctly in relation to the body, guideline 1.2, which means that the tendons at the upper, inside thigh meet the liner at the print's waist indication.

Table 5. List of guidelines for the print.

TYPE	NO.	THE PRINT SHOULD...	
Functional	1.1	Help the user to identify the pantyliner's front and back	/
	1.2	Help the user to place the product correctly, in relation to the body	/
	1.3	Reflect product properties and functions	X
	1.4	Provide instructions in universal codes	X
Aesthetical	2.1	Be subtle and add aesthetic value	X
	2.2	Contribute to a qualitative finish	X
	2.3	Make use of Libresse colour scheme	X
	2.4	Integrate Libresse form elements	X
	2.5	Convey Libresse values	X

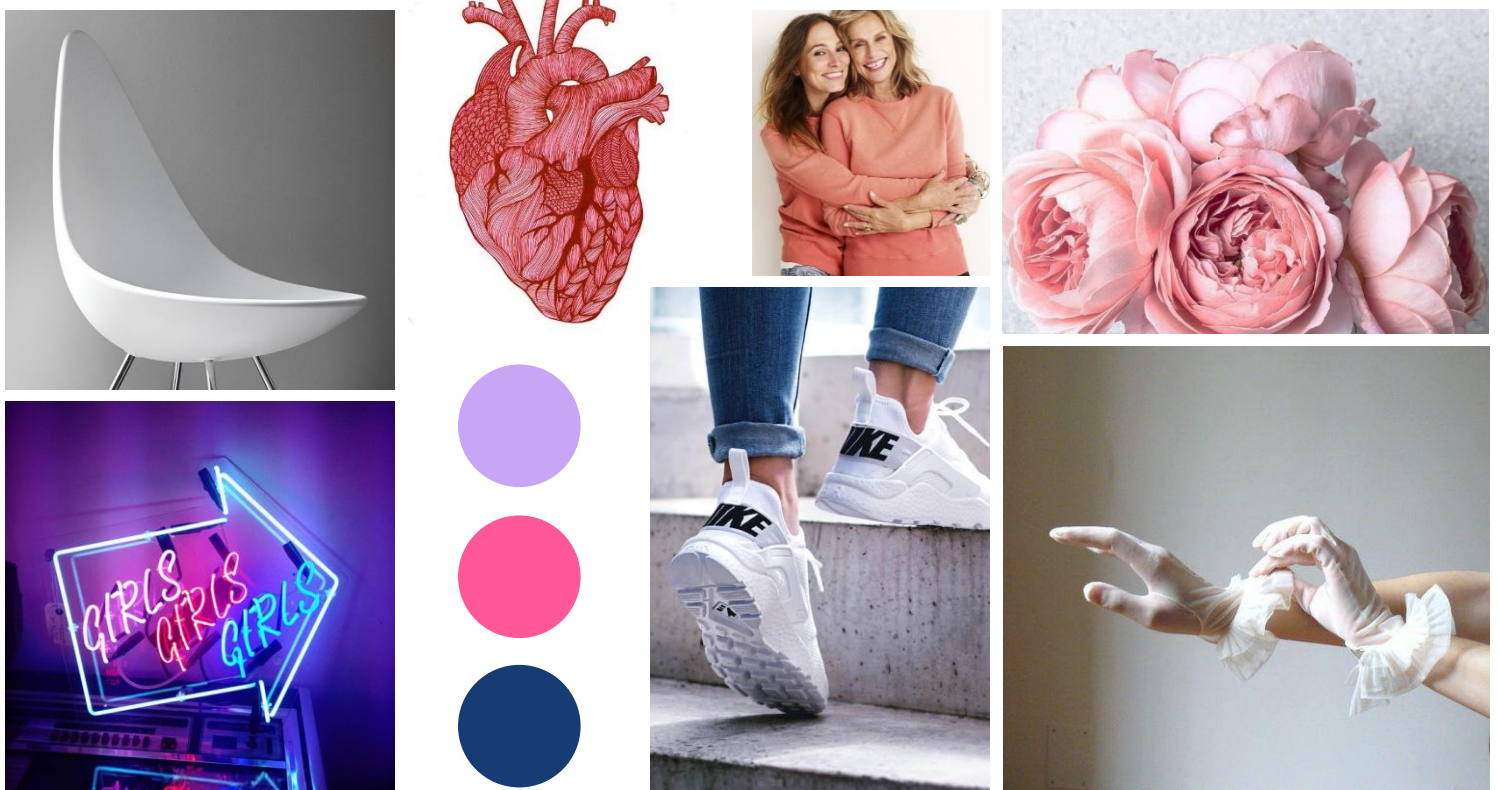
9. DEVELOPING THE PRINT

Several different versions of the print were created based on the theory of semiotics in section 2.3, the Mood board seen and described in the following section and the guidelines found in the list in Appendix 10. The list also includes guidelines for the pantyliner's release paper as well as package. A selection of ideas for prints is presented in this chapter to demonstrate the vast amount of possibilities there are, but primarily the chapter describes how the new print for the pantyliner *Normal* was developed.

9.1 Mood board

The Mood board shown in Figure 34 acted as a reference and inspiration for the desired product expression in the development of the print. The pictures display Libresse's focus on providing products of high quality and performance as well as their care for women and their wellbeing. The heart possesses a key function in the body, to pump the blood. In this context, it symbolises the heart Libresse uses on products and that it has the potential to become an even more prominent symbol for the products by also carrying an important meaning. The presence of an anatomical heart adds a seriousness to the Mood board. Products by Libresse are shaped to offer a perfect fit, this property is communicated through the picture of the shoe and the glove. Also, the shoe express functionality and performance. The chair in the upper left corner is a symbol for design and thought; the form of the products has a meaning and should be clearly communicated. Furthermore, a pantyliner is a product that is placed close to the body and used for protection, thereby it should be perceived as friendly, gentle and caring. All these properties are seen in the picture of the women hugging each other. The flowers are soft and add a delicate and feminine feeling which is also found in the flounces on the gloves. Lastly, the neon sign expresses a playfulness which Libresse often communicate through their quite bold commercials, it is also a symbol for clarity and the arrow shows direction in an unmistakable way.

Figure 34. The Mood board visualises
The desired product expression.



9.2 Variation

During the development of the print, a wide range of versions were created since there are several ways to instruct the user about the pantyliners properties and functions. A selection of the created prints is seen in Figure 35. One similarity between all these designs is that their front constitutes about one third and the back two thirds, creating a smaller area at the front and a larger at the back. This is to make the users associate the back of the liner as being more absorbent, encouraging them to place this part of the liner backwards. So, even though the whole liner can absorb fluids it should feel wrong to place the small area towards your back. Thereby, separating the pantyliner into two areas intends to make the users reflect and notice the asymmetric shape of the liner. The small and large area also act as a symbol for the anatomy of the body, that we are narrower at the front than at the back.

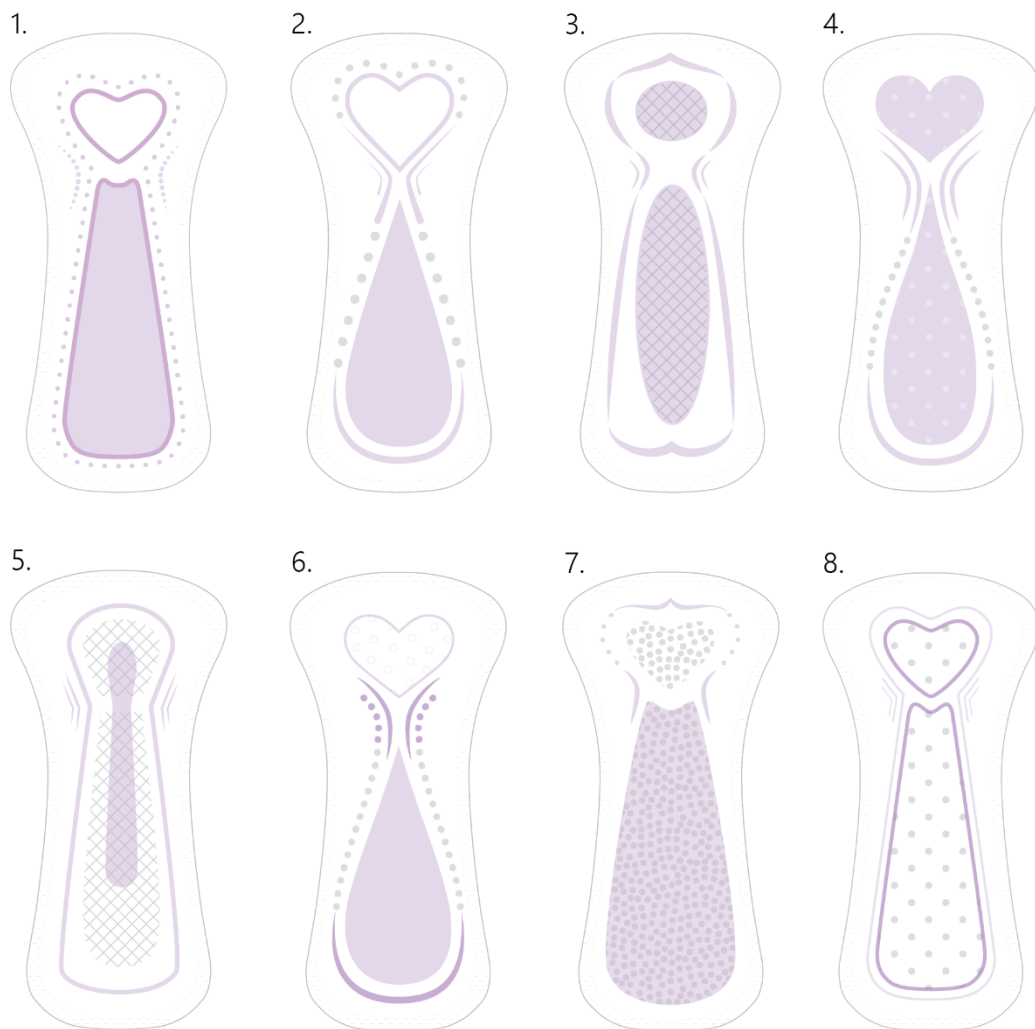


Figure 35. Different approaches on how to communicate the direction of the pantyliner.

Monö (1997) states that; the smaller an enclosed area is the more prominent it becomes. This is demonstrated by print five and seven, where the small purple area in print five is much more eye catching than the large purple area in print seven. Differentiating the front and back is not only made by the size relation but also with colour. On four of the prints the rear area is purple and the front is white, when giving them different colours it becomes even more prominent that they are not equal. Furthermore, on three of the prints the rear area is shaped as a drop to symbolise fluid and inform that it is absorbent.

The blunt curves at the very back of the prints cause the rear part of the pantyliner to be perceived as stable and static - the liners do not have a movement in that direction. The third print's rear curve differs from the others' as it is butt-shaped, creating a clear reference to the human body. The heart, a characteristic symbol for Libresse, found on six of the displayed prints is a form with a definite direction which it transfers to the liners. If the users hold the pantyliner the wrong way, the heart is intended to instruct them to turn it around. At the very front of print three and seven there is an arrow, showing a direction forward, to further define that this is the front of the pantyliner.

The curves used in the prints are for the most part tapered to communicate movement. As an example, when looking at print eight it is perceived as more static than print four due to its uniform outline. Moreover, the prints are perceived as *gestalts* because the curves' similarity makes us interpret them as one unit. Also, it is because that we see form in arrangements that make the least change in a continuous curve.

To mark the waist of the pantyliner and thereby instruct how it should be placed in relation to the body is done by different types of curves. On print two, four and six the waist is very narrow which clearly separates the front and back area of the liner. However, it could cause users to believe that the front area cannot absorb fluids, which might be unfortunate. Depending on the length and thickness of the curves, as well as the number of curves, the waist becomes a more or less distinct part of the print. Print five and eight have very subtle, short and thin, curves at the waist. Print three also has short curves but they are thicker which makes them more evident. At the seventh print, there is only one curve reinforcing the waist and compared to the use of two curves it is not as effective. This is because two curves placed symmetrically on a line are interpreted as one unit - a prominent form element (Monö 1997). Furthermore, the dots on print six draws attention to this area by contrast.

The embossed patterns reinforce and contribute to the *gestalt* of the prints, and they make the pantyliners feel qualitative. Also, the embossed pattern provides a nice surface for the tactile sense as well. Just as the colour print the embossing marks areas, but in a subtler way. The proximity between the embossed dots on the front of print seven makes them form a heart. On print one the waist indication is created with embossing which makes it more discreet than in the other prints.

9.3 Expression

When looking at the prints in Figure 35 they are very different in their appearance and they could be categorised into three expressions; *Functional*, *Cute* and *Curvy* see Figure 36. The *Functional* prints have a more neutral expression than the *Cute* and *Curvy*. By focusing on how to instruct about the usage and display the pantyliner's function they are perceived as stricter. The prints described as *Cute* are very gentle in their appearance and they look friendly, the expression is primarily derived from the use of large radii and a prominent rear area. The *Curvy* prints are characterised by the voluminous heart at the front. The heart together with the drop at the back and the thin waist creates an hourglass shape that is perceived as very feminine.

Figure 36. The prints categorised by three expressions.



The design students participating in the workshop preferred the *Functional* prints. The prints were positively discussed as their expression differed from what is normally associated with feminine care products. This was appreciated as they stated that not all women can relate to, or identify themselves with, the feminine care products available on the market today. Thereby, the participants did not fully appreciate the expression of the *Curvy* prints as they were considered to enhance the perception that all women want a feminine print. Regarding the pantyliner's direction, they said that voluminous hearts could be misinterpreted as a butt and thereby causing the users to place it backwards. The *Cute* prints were perceived as more childish than feminine and as the target group for pantyliners is women aged 16-65 years, these prints felt a little bit off in their expression. However, the heart on the *Cute* prints were said to be better than the ones in the *Curvy* prints in instructing about the pantyliner's direction. Also, the arrows at the very front of some of the prints were considered as a very clear instruction.

9.4 Finalisation

It was considered important that the pantyliner should communicate its origin and show similarities to other products from Libresse, therefore the heart was kept for the new print. According to Monö (1997) it is important that the products by a specific brand can be identified for the brand to be strong. However, the heart was modified to not be as voluminous as in the *Curvy* prints, or as soft as in the *Cute* prints, to obtain a more neutral expression and better serve its purpose to indicate direction. The stricter expression of the *Functional* and *Cute* prints was adapted and brought into the design. The elements building the print were toned to instruct about the use rather than adorn. Two curves were used for the waist indication to create a prominent form element.

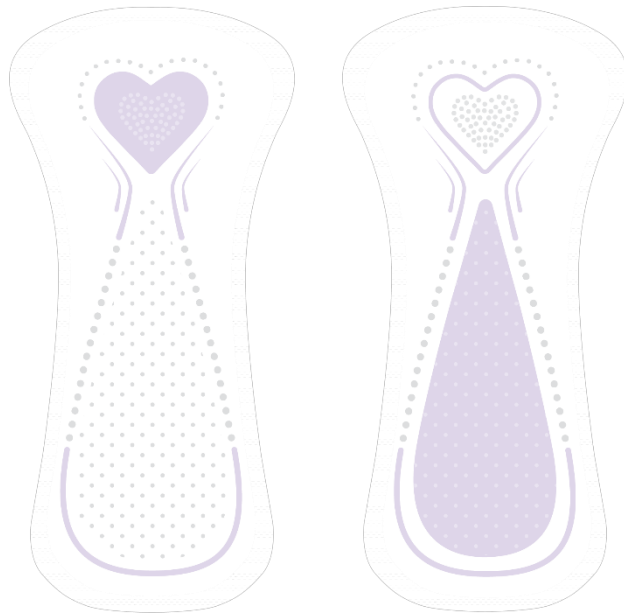


Figure 37. Two versions of the same design but with different colouring.

A final print was made in two versions; one with a purple heart and one with a purple rear area, see Figure 37. The area factor described by Monö (1997) states that the smaller an enclosed area is, the more prominent it becomes. So, when colouring the heart, it becomes more eye catching than when colouring the rear area. As the heart was intended to be the main indication for the pantyliner's direction it was desired to draw the user's attention to this area.

As expected, the participants in the speed interviews found it easier to identify the front on the first liner in Figure 37 - the version with the purple heart. However, the direction was not considered obvious, and it was stated that it could be made even more clear. Thereby, an arrow, which was a very appreciated form element during the workshop, was added at the very front of the print to create the final version which is seen in Figure 38.

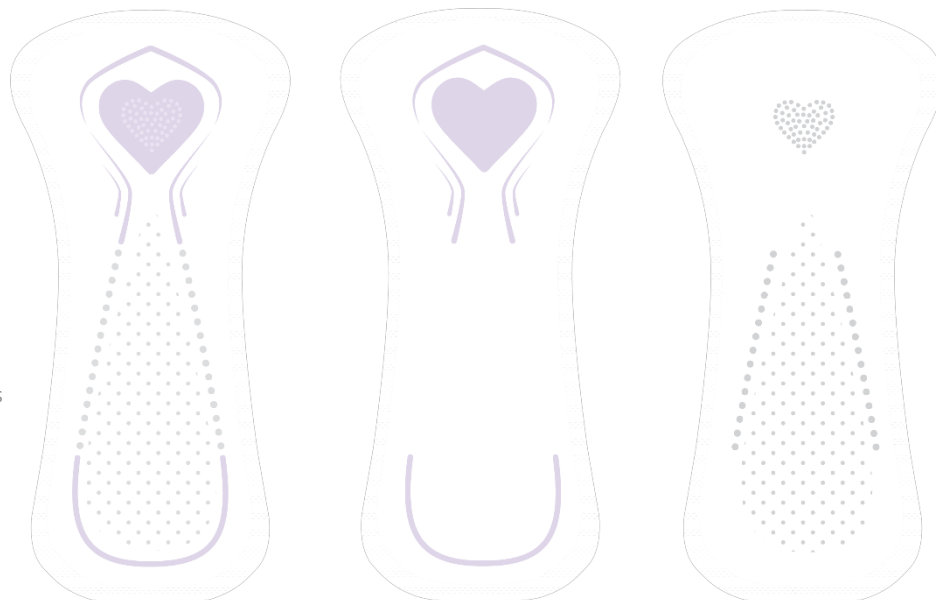


Figure 38. The final version of the pantyliner's print - the coloured and the embossed.

10. DISCUSSION

This chapter includes a discussion regarding the project aim and result; how the theoretical framework has been applied to the field of feminine care products. Also, it highlights the importance of the findings and proposes recommendations for further investigations.

10.1 First, a reminder of the aim & results

The presented study investigates how women interact with feminine care products - feminine towels and pantyliners. The aim of the project was to provide knowledge and understanding regarding the entire use. The expected outcomes were, beside this report describing results and analysis, a User Journey Map visually presented in a folder and an improvement of the usage and user experience of one of the products.

The folder is illustrated in a way that the information is easily accessible for product developers and the innovation teams at the company. In short, it describes what happens in each phase and event and presents the main issues followed by guidelines for how to address these. In addition to the description of the use, the three personas enhance the understanding for the users and the context. For example, they create recognition through scenarios describing the interaction and usage situations that the reader can relate to. The scenarios also connect the personas to the phases in the Map.

Moreover, the concept for improving one of the products is shown as illustrations, sketches and prototypes. The thesis presents a new design to solve the unclear usage of the pantyliner. The design proposes an improved print on the pantyliner and its release paper, also instructions on the package for placing the liner in the right direction. Prototypes were created to better grasp the design as it should be manufactured as a finished product.

The validating survey proves that the usability has been improved. Also, this redesign counts as adding value beyond technical aspects like fit and performance. It concerns the users' perception and emotions; eliminating the hesitation in the event *Change and discard product* also eliminates uncertainty in the next event, *Wear product*.

10.2 The importance of the findings

The main findings of this thesis are that the usage of feminine care products is not a linear procedure and each event is conducted differently by all users. There is no pre-set or defined way of using a feminine care product since there are no instructions or limits on how to handle it, so the approach to it is very personal. For example, the product could be placed backwards, you could attach several products at once or cut it to fit the underwear's shape. In a way, there are no rights or wrongs which is both good and bad because it gives a freedom to the user while at the same time it does not guide the user to how the liner is intended to be used and that can cause confusion.

Although the usage sequence is personal and non-linear, all users act within all three phases - *Obtain new products*, *Use at home* and *Use away from home* - and conduct all events in those phases. By this, the mapping of the usage is representative of the users and thereby relevant and useful for Essity to comprehend the users' interaction with feminine care products. Knowing your customers, future products can be better adapted to their needs.

Another interesting finding is how significant the impact of the social aspects is on the user experience. Probably half of all problems are related to practical issues and the other half concerns product interaction in social situations. Experiences in the phase *Use away from home* were primarily connected to the interplay between the user and other people - "What if people see the product?" and "What would they think of me?" were common issues. It is a bodily function to

menstruate and the towels and liners are merely a necessity due to this physical phenomenon. The products per se, are not the problem. It is the fact that menstruation is perceived as something taboo, or something embarrassing. If the bodily process of menstruation was considered as natural, not being a loaded subject, many problems experienced in the interaction with towels and liners would be non-existing.

The challenge is however, to overcome these norm barriers by addressing the issue through the feminine care products. One approach would be to create solutions that neither hide, nor diminish, the feminine care products and further aggravate that the subject is taboo. Being provocative might not be the solution though, as all users do not want to take that fight against the societal norms. So, we should give the users the choice to take action or not, and deliver neutral and functional products. However, we can never create "neutral" products believing that they will be less charged if the society's attitude towards menstruation and intimate hygiene is not changed.

Since the reproduction system in a female body always has been, and always will be functioning in the same way, the need to collect menstrual blood and other body fluids from the intimate area will remain. Although this has been done in different ways throughout the history, the feminine towels have played a central role amongst the feminine care products. We cannot see anything indicating that this will be changing soon. Cultures will develop though, and the view of intimate hygiene along with it. Thereby, the opinions of these products will also change and it has happened a lot only during the last years. The primary aspect to focus on when developing towels and liners, is therefore the societal discourse of the subject feminine care. Social sustainability implies a society that is equal, where everyone live a good life, with good health and without unjust differences. Menstruation should not be a burden or restriction in women's lives. For women to take part of the society in full, they are dependent on feminine care products. Furthermore, the products must contribute to a convenient use so that women can live their life as usual. Hence, the study points at improving not only the physical needs but also the user's cognitive and emotional needs.

By the concept that is developed in this project, cognitive needs are addressed and as the theory states; the needs in the pyramid can only successfully be fulfilled in correct order, from the bottom to the top. The new print gives the user control over the situation, and confidence using these products. Ahead, we see that Essity must work at fulfilling the needs at the top of the pyramid. One good example of this is Roll.Press.Go™ that relates to the user's emotional needs by assisting the user in one of the most stressful situations - bringing a used towel from the toilet. This innovation, is a great step towards simplifying the everyday life for menstruating women.

10.3 Applying & adapting the method User Journey Map

Discussing the connection between the UJM and the developed print, the thesis proves that the UJM is a great tool to succeed with a User Centered Design process. As the theoretical framework describes, User Centered Design is to see the entire usage from the user's perspective to understand how a product, system or service works and then refine or create new solutions that better match the users' behaviours and expectations. Our UJM proved to be a useful method in that process; the user journey and the personas presented problems and needs concerning the usage of towels and liners and derived from one of the identified issues, a solution that better matches the users was created. Also, it shows that a UJM can be utilised in product development within the field of feminine care.

However, the UJM created in this project is an extended version of the method described in the theory. The description of how to approach the method and create a UJM is very brief, with no concrete examples on how to for example define the target group or divide the use into relevant events. So, at first it was confusing trying to apply the theory in this field.

Initially, personas were added to the process of making the UJM. The first step in making a UJM is to determine and describe the target user by qualitative studies (Boeijen et al. 2016). How that information should be presented is not defined though. For this project, and for the feminine care

field, we considered that personas would be a suitable method. As the target group of this project was very broad, women aged 16-65, and their interaction with the products varied greatly as a result of their personality, it was difficult to describe one typical user and one typical user journey. Therefore, three personas were included in the UJM, displaying the differences between users as well as differences in the usage. Also, since the UJM should be used in a UCD process, the personas highlight the importance of including the users and put them in focus.

According to Boeijen et al. (2016), the second step is to map the events of the interaction, based on analysis of user studies. Mapping the events was a huge task, and it could not have been done without using additional methods. Primarily, the struggle was due to the personal and various ways that the users approach and use the products. User journeys are often mapped in a linear way, where the user performs actions in a certain sequence, or in the most efficient order. The usage of feminine care products turned out to be non-linear and very personal, therefore we needed a tool to arrange all actions before creating the UJM. Thereby, we performed an HTA which is great for decomposing a complex task into more tangible sequences.

For Essity to use the material in the most efficient way they should follow the instructions given; combine the Map and the Users to gain an understanding for the user, the problems they might face as well as the context in which they arise. Thereby, when using the UJM, it is as a guide to the areas in which the products have potential to be improved. Approaching a specific problem, more information than the one presented in the UJM must be collected to gain full understanding for the user in that specific situation.

10.4 Limitations & generalisation

The fact that former analyses regarding the users' interaction with feminine care products are confidential, hence unreachable knowledge, restricted our work. Previous studies that have been conducted in this area are not official and we only had access to the company's own investigations, which are not possible to present in this report. On the other hand, it is always important to gain own insights. We started off empty handed, and built up the UJM from scratch. By this, it reflects the society of today which is important as the social aspects are central to the study. However, historical views upon the topic could have been interesting, but maybe not that rewarding to investigate.

As this study was conducted in two countries, providing similar information, the results could be generalizable to other regions as well. Social norms proved to be affecting the usage, and is therefore a major factor when comparing the analysis of Sweden and France. Whether the culture, social and societal norms are similar between the two countries is not investigated in this study, however, the results were coherent as the statistics from Sweden and France were similar in most aspects. That is why the conclusion can be drawn that the User Journey Map and the proposed redesign of Libresse's liner is applicable beyond Sweden and France, in countries with similar attitudes towards women.

Another generalisation is to apply this result to other feminine care products. It would have been interesting to include for example tampons in this study, since those are often used in combination with towels and liners. Nevertheless, the results may be applied for tampons anyway. The phases and events that are established in the study is considered to match the usage of tampons since it has the same basic principle - it is a single use product that absorbs menstrual blood, that must be brought along by the user and is disposed right after a product change. The study indicates that the user experiences would differ though. For example, a tampon is easier to hide in the hand on the way to the toilet. Hence, tampon usage would consist of similar events but be different from a social perspective - the user experience.

The next step for this project would be to test and further improve the usability of the pantyliner's new print. The verification survey was only a first indication of us being on the right path. The product should be tested in user tests and its aesthetical appearance could be discussed in focus groups with users. Furthermore, it is important to investigate the effects that culture has on this matter.

We have developed an approach to the UJM method. The recommendation for conducting a similar study for other products, is to follow the process that we have created, presented in chapter 4. Analysed user studies are well processed in an HTA to form events for a user journey, then personas are important in a field where user needs must be in focus. Products that should be designed with the user in focus are helped by adding personas to the user journey since they bring forth the user needs more clearly. Essity could investigate and map the interaction with other feminine care products, for example tampons, by approaching user journey mapping in this way. Likely, the phases and events could be applied for other products within the same segment, but new problems and user needs must be identified.

11. CONCLUSION

The User Journey meets the goal of mapping the entire use of feminine towels and pantyliners. It concludes the events from pre-purchase to disposal in an easy accessible manner and highlights problems and opportunities from the perspective of the user.

The new design of Libresse pantyliner will guide users to correct and confident use, improving the user experience. It is a step towards fulfilling the users' needs and making women feel more secure wearing a pantyliner.

Following list concludes the answers to the research questions that were formulated to achieve the project aim and objective.

- The interaction with the products takes place in three phases; *Obtain new product*, *Use at home* and *Use away from home*. There are specific events that all users go through, however, the actions within each event are performed differently and in varying sequences.
- Problems are found in all events of the interaction. They are of different character with the main causes; social aspects, the users' lack of knowledge or deficiencies in the products' properties.
- The problems characterised by social aspects affect the users most negatively. Thereby, the main potential in future product development does not lie in enhanced product performance, but in meeting users' cognitive and emotional needs.
- Redesigning the pantyliner's print improved the usability of the product. By this, the product can be used in a confident and straightforward manner.

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12.2 Picture credits

Figure 19.

Accessed at: <http://foxyoxie.com/wp-content/uploads/2013/10/feminine-3-720x380.jpg> [June 20th 2017]

Figure 20.

Accessed at: <https://cdn.heretotravel.com/wp-content/uploads/2015/10/solo-female-travel.jpg> [June 20th 2017]

Figure 21.

Accessed at: <http://sixtypull.sixtyandmellc.netdna-cdn.com/wp-content/uploads/2015/02/Boomerly.com-50-Women-Over-50-Offer-Advice-for-Finding-Friends-and-Beating-Loneliness.jpg?iv=165> [June 20th 2017]

Figure 34.

Drop chair

Accessed at: <https://www.paletteandparlor.com/products/arne-jacobsen-drop-chair> [June 20th 2017]

Neon sign

Accessed at: <https://s-media-cache-ak0.pinimg.com/originals/87/4b/65/874b654806e26bf8f9507a5c3667dc03.png> [June 20th 2017]

Heart

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Women

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Nike shoes

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Gloves

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Flowers

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APPENDIX

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1. BENCHMARK

Feminine towels

Kronans
Droghandel



Coop



Libresse



ICA



Apoliva



Apotek
Hjärtat



Intuition



Always



	Libresse	Always	Intuition	Kronans Apotek	Apotek Hjärtat	Apoliva	ICA	COOP
PACKAGE								
Type	Plastic bag	Plastic bag	Plastic bag	Plastic bag	Plastic bag	Plastic bag	Plastic bag	Plastic bag
Opening	Perforation at top	Perforation at top	Perforation at top	Perforation at front	Perforation at top	Perforation at top/side	Perforation at top	Perforation at top
Colour	Pink	Green & blue	Blue & white	Green & peach	Blue & white	Blue/green	Green	Pink
Pattern	-	-	Leaves	-	-	-	Lace	Dots & flowers
Drops	4/6	4/7	3	4/6	4/6	4/6	3/5	4/6
FEMININE TOWEL								
Front/Back	Yes	-	-	-	-	-	-	-
Body shape	Concave, offset waist	Concave, symmetric	Concave, symmetric	Concave, symmetric	Concave, symmetric	Concave, symmetric	Straight, round ends	Straight, round ends
Coloured print	Purple floral print in a heart and lines	Blue areas lines, purple swirls	-	-	-	-	Blue lines, swirls and an ellipse	-
Wing shape	Angled rectangle with an add on	Rectangle with a cut out	Rectangle with round corners	Rectangle with round corners	Rectangle with round corners	Rectangle with round corners	Angled rectangle with round corners	Rectangle with round corners
Adhesive area	Two thick stripes	Two thick stripes	Two thick stripes	Two thick stripes	Two thick stripes	Two thick stripes	Two thick stripes	Two thick stripes
WRAPPER								
Material	Matte, rustling	Shiny, rustling	Matte, rustling	Shiny, rustling	Shiny, rustling	Matte, rustling	Matte, rustling	Matte, rustling
Colour	Pink & white	Green	White	White	White	Pink	Green	Pink
Pattern	Diamond & stars	Swirls	-	-	-	-	-	-

Print	Text "OPEN" & an arrow, Illustra- tion of Roll. Press.Go	-	-	-	-	-	-	-
Sealing	Adhesive	Seam	Seam	Seam	Seam	Seam	Seam	Seam
Re- sealable	Roll. Press.Go	Glue tag	-	-	-	Glue tag	Glue tag	Glue tag
WING PROTECTION PAPER								
Type	One per- forated piece	One pieced	One pieced	One pieced	One pieced	One pieced	One pieced	One pieced
Colour	Pink & white	Green & white	White	White	White	White	White	white
Pattern	Diamond & stars	Swirls	-	-	-	-	-	-
Print	Illustra- tion of instruction	-	-	-	-	-	-	-

Pantyliners

Kronans
Droghandel



Coop



Libresse



ICA



Apoliva



Apotek
Hjärtat



Intuition



Always



	Libresse	Always	Intuition	Kronans Apotek	Apotek Hjärtat	Apoliva	ICA	COOP
PACKAGE								
Type	Paper box	Paper box	Paper box	Paper box	Paper box	Paper box	Paper box	Paper box
Opening	"Door"	"Door"	Top	"Door"	"Door"	"Door"	"Door"	"Door"
Colour	Pink	Purple	Pink & white	Turquoise	Blue and White	Blue/ green	Green	Pink
Pattern	-	Lace	Leaves	-	-	-	Lace	Dots & flowers
Re-sealable	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Drops	3/2	2/3	2	2/3	2/6	2/6	-	2/6
PANTYLINER								
Front/ Back	Yes	-	-	-	-	-	-	-
Body shape	Concave, offset waist	Concave, symmetric	Straight, symmetric	Concave, symmetric	Concave, symmetric	Concave, symmetric	Concave, symmetric	Concave, symmetric
Colour print	Purple circles & lines	Purple flowers, lines and dots	-	-	-	-	Purple sides	-
Adhesive area	Whole backside	Whole back side	Three thin stripes	Two thick stripes	Two thick stripes	Four thin lines	Four thin stripes	Four thin stripes
RELEASE PAPER								
Shape	Body shape	Body shape	Strip	Strip	Single wrap	Strip	Strip	Strip
Colour	Pink and white	Purple & white	White	White	White	White	White	White & blue
Pattern	Diamond & stars	Flowers	No	No	No	No	No	Flowers

2. PRE-INTERVIEW SURVEY

Hi!

This survey addresses your usage and attitude towards feminine towels and panty liners. It intends to make you reflection upon menstruation and feminine hygiene as a subject and prepare you for the upcoming interview. We will look at your answers before the interview so some questions can be customised for you. You will always be anonymous if your answers are mentioned in a summary or report. Therefore, you will enter your participant number (not name) below.

/ Elin & Moa

Participant number: ____

How often do you use each product?

	Every day	A few days every week	Continuously 1-2 weeks every month	Occasionally	Never
Feminine towel					
Panty liner					

Which brand do you mainly use?

	Libresse	Always	ICA	Coop	Apotek Hjärtat	Kronans Apotek	Other	Do not use
Feminine towel								
Panty liner								

If another brand, which?

Where do you buy your products?

- Grocery store
- Drug store
- Internet
- Other
- I do not buy the products myself

End the sentences

Think about all steps in the usage of the products - purchasing, storing, planning, bringing, changing, disposing - and end the sentences below.

If you do not use panty liners skip this section.

"The best thing with panty liners is ... "

"When I use panty liners I feel ... "

"The most annoying thing with using panty liners is ... "

End the sentences

Think about all steps in the usage of the products - purchasing, storing, planning, bringing, changing, disposing - and end the sentences below.

If you do not use feminine towels skip this section.

"The best thing with feminine towels is ... "

"When I use feminine towels I feel ... "

"The most annoying thing with using feminine towels is ... "

Training and social activities

What do you do in your spare time?

- Go to the gym
- Hang out with friends
- Horse riding
- Run
- Swim
- Dance

Other activities:

Do you adjust daily activities when using a feminine towel or panty liner?

- Yes, I skip activities I normally do
- Yes, I perform the activity in another way
- No, but I feel uncomfortable
- No, I do what I usually do

In what everyday situation is it the most tough to wear a feminine towel or panty liner?

3. INTERVIEW TEMPLATE

Introduction

Age:

Date:

Hi and welcome. We are glad that you are here to participate in this interview. Would you like something to drink, a coffee, tea, water?

We are Elin and Moa and we are studying our last year at Chalmers at the master program Industrial Design Engineering. Now we are doing our Master's Thesis here at SCA for Libresse. Our task is to map the usage of feminine towels and panty liners and based on our findings develop the product/products in one way or another.

The interview will go on for about one hour, we will start to talk about the products you use and how you store them. Then we will move on to purchase. After that we will ask you to describe a day when you use the products and we will ask questions regarding usage and experience. To end the interview there is a user test where you will show how you change a towel and a liner. We will show the procedure so you can decide if you feel comfortable to perform it.

If there is a question you do not want to answer it is just to say so and we will move on to the next one.

We wonder if it is okay that we record the interview? It is only the two of us that will listen.

You will be anonymous in all the interview summaries and reports.

Checklist

- Interview template
- Computer
- Recording
- Photos
- "My Day"
- Products
- Panties
- Waste bin
- Toilet paper
- Goodie bag

The product

As I mentioned we will start to talk about the products you use.

- In the survey you answered that you use towels by the brand ... and liners by the brand ... Is that correct?
- Do you use feminine care products of any other brand?

- Have you always used towels/liners? Why/why not?
- Do you have different types of towels/liners? Which?
- When do you use each product, towels/liners?

- Do you think about your need and adjust products based on that?
- Do you believe that you have the most optimal products for your personal needs?
- How did you find out that this is the product you want?
- Have you tried different products, been recommended, etc.?

- What do you like the most about the products you use? Absorption, size, shape, price, convenience, etc.?
- Have you used products you did not like? What was it that you did not like?
- What is better with the products you use now?

Storage - Photo

Now we will look at the photo you sent us and talk about how you store the products at home.

- You sent a photo of your storage at home, would you like to describe the photo?

- Are the products accessible where they are placed?
- Do you reach the products from the toilet? If not: How do you do when you are changing product?

- Is this the only place where you can store the products or have you "chosen" this storage?
- How did you reason when you chose this storage?
- Do you want to hide your products? Why/why not?
- What do you like the most/the least with your storage? Accessibility, discretion, space, etc.?
- Who are using the bathroom? Is it only family or visitors as well?

- What do you think about the towels' / liners' packages?
- Are the packages easy to store?
- How do the packages work when you have used the majority of the products?
- Do you pick out the products from their package?
- Do you find that the package last until the products run out?
- How are the packages to bring away from home?
- Which package do you prefer, towels/liners?

- Where do you dispose your products at home? How do you think it works?

Purchase

To obtain the products you must buy them, therefore we are going to talk about the purchase situation. [If someone else buy the products, skip to the next section.]

Buy the products yourself

- You said that you buy your products at ... Is that correct?
- In which context do you buy the products?
- When do you usually buy new products? When they run out, to maintain a stock at home, etc.?

- How do you feel when buying towels/liners?
- Do you choose checkout-counter based on the cashier? If it is a woman, man?
- How would you feel if you met someone you knew while buying the products?

- When you arrive at the store, how do you find your product? Color, name, brand, drops, etc.?
- Do you know the name of your products?
- Do you know how many drops the products have?
- What does the drops tell you?

- In the store, do you compare products?
- Do you read on the packages and take in new information?
- Do you think that the look/aesthetics of the products is important?
- Is price something you consider when choosing product?

- Do you find it hard/easy to find the right product when buying towels/liners?
- Is there something that could make it easier for you?

- What would you do if the product you usually buy is out of stock?
Go to another store, find a similar product from another brand, etc.?

- How would you go about it to find a similar product?
Look at the packaging picture, the name, the drops, etc.?

- Does it happen that anyone else buy the products for you?
- How would you describe the product you want?
- What is most important to mention to get the right product?
- Have you ever gotten the wrong product? Which product did you get?

- If you are in an unknown store, where or in which department would you look for the product?
Why?
- If you do not find the products, would you ask where they are? Would you ask any of the shop assistants?
- Would you ask for help to find the right product for you? Why/why not?

- Do you know what products people close to you use?
- Do you exchange information about the products? If not: Why? Wouldn't it be nice to talk about the products and share experiences?

Do not buy the products yourself

- In the survey you said that you do not buy the products yourself. Is that correct? Who buys the products for you?
- Why do you not buy the products?
- Have you ever bought towels/liners? If yes: When and why? How did you feel?
- Did you know what to buy? How did you know what to buy?

- Are there always products at home?
- Do you tell which specific products you want?
- How do you explain the product you want?

- On what have you based your product choice? Advertising, recommendations, etc.?
- How do you know which options you have?
- If you do not know which options you have, how would you find out?

One day

Towels and liners are used in many different situations but most of the days you spend at work/in school and that is what we will talk about now.

Think about an ordinary day at school/work and describe it. Mark on the timeline where you are and use the small towels and liners to mark a change of product. The timeline starts when you wake up in the morning.

- How do you determine when it is time to change product? Feeling, predetermined intervals?
- Do you change towel during the night?

- Which one of the changes do you find most troublesome or tough? Why?

- Where do you feel the most comfortable/safe when changing towel/liner?
- What is the main difference between changing at home and away from home?

- What is the toughest/hardest with changing towel/liner at a public toilet?
- If you are going to a new place, do you worry about the access to a toilet?
- Think about a toilet at school/work, at a restaurant/café or at a friend's house. Where are you most uncomfortable to change towel/liner?

- Do you always bring towels/liners? Why/why not?
- How do you plan when bringing the products? How many, a few extra, etc.?
- Do you bring different types of products?

- How do you bring the products to school/work?
- Where do you store the products during the day? Why?

- How do you bring the products with you to the toilet? Bring one product, bring a cover with products, bring the bag, etc.?
- Do you think/believe that it is acceptable to bring a towel/liner, openly, in the hand? Why/why not?
- Do you wish that the product would be as discreet as possible or does it not matter?

- How do you handle the product when disposing it? wrap it in toilet paper/wrapper?
- If you dispose the product in a waste bin, do you try to conceal it?
- If there is no waste bin, what do you do?

- Would you ask a friend/colleague for a towel/liner if you have forgotten to bring products?
- What product would you ask for?

- In the survey you answered that you skip activities/feel uncomfortable/do as usual when using a towel/liner? Why?
- If you are changing clothes in a public changing room, e.g. at the gym, how do you do?
- Do you feel in control of the product or do you feel that the product controls you?
- According to the survey the toughest situation for you is... Why? Because of the product/the fact that you have your period/the people around you?
- Is there anything that could make the situation less tough?
- When using a towel/liner, do you feel restricted in your choice of underwear or clothes?
- Do you have special underwear when wearing the products?
- What do you consider when choosing suitable underwear for the products?

User test

If it is okay with you, you will now show how you do when you change product. [Show the participant how the test is intended to be performed]

- How do you know what is the front/back of the product?
- How do you know where to place the product in the panties? Is there something special you look for?
- Do you use the old towel/liner as a reference when placing the new one?
- What is the most difficult part of changing towel/liner?
- Is there anything that could improve that part?
- When opening the wrapper of the product it makes a sound, is that anything you think about?

That was all the questions we had, is there anything regarding your usage of the products that we have not brought up or talked about?

Thank you!

We would like to thank you for your participation with a goodie bag, it contains a variety of Libresse products.

Also, we would like to ask if it is okay if we contact you further on in the project?

4. SURVEY FRANCE - FEMININE TOWELS

This survey is about your usage of and attitude toward feminine towels. The questions concern purchase, storage and usage but also attitudes and social norms regarding menstruation. Your answers will be treated with respect and you will remain anonymous in all compilations of the result.

Please read the questions carefully and reflect upon your personal experiences. Thank you for your answers!

First we would like to know your age?

Roll-list with ages

[Close survey if not 16-45]

To menstruate and wear a feminine towel

What is your main type of sanitary protection?

- | | |
|--|-------------------|
| <input type="checkbox"/> Feminine towels | [Continue survey] |
| <input type="checkbox"/> Tampons | [Close survey] |
| <input type="checkbox"/> Pantyliners | [Close survey] |
| <input type="checkbox"/> Other | [Close survey] |
-

What type of feminine towel do you normally use?

- | | |
|---|-------------------|
| <input type="checkbox"/> Thin towels with wings | [Continue survey] |
| <input type="checkbox"/> Thin towels without wings | [Close survey] |
| <input type="checkbox"/> Thick towels with wings | [Close survey] |
| <input type="checkbox"/> Thick towels without wings | [Close survey] |
| <input type="checkbox"/> Other | [Close survey] |
-

Do you use any other type of product for sanitary protection?

You can tick more than one option.

- | |
|---|
| <input type="checkbox"/> Yes, menstrual cup |
| <input type="checkbox"/> Yes, tampons |
| <input type="checkbox"/> Yes, pantyliners |
| <input type="checkbox"/> No |
-

By which brand are the feminine towels you use most often?

Please tick one option.

- Always
 - Nana
 - Vania
 - Kotex
 - Other
-

Thoughts and attitudes regarding menstruation

Menstruation is...

Tick maximum three options.

- Natural
 - Private
 - Embarrassing
 - Shameful
 - Unfresh
 - Feminine
-

The society's attitude regarding menstruation is...

Feel free to write down all your thoughts and experiences.

To see someone openly bring a feminine towel to the toilet is ...

Please tick one option.

- Embarrassing
 - Inspiring
 - Offensive
 - Neutral
-

If I have menstrual pain that affect my performance at school/work I...

Please tick one option.

- Do not say anything
 - Blame something else
 - Say as it is
-

Purchase and choice of product

How satisfied are you with the feminine towels you use today?

Not satisfied at all

Very satisfied

How active are you in your choice of product?

By active we mean: Have you searched for information and actively chosen a feminine towel that matches your needs?

Not active at all

Very active

Which of the following factors influence your choice of feminine towel?

Tick maximum three options.

- The price
 - The function
 - The look of the packaging
 - The brand
 - Recommendations
 - Availability
-

If you know which feminine towel you will buy, how do you identify it?

Tick maximum three options.

- By the brand
 - By the packaging color
 - By the name
 - By the product picture on the packaging
 - By the product information on the packaging
 - By the absorption indication - the drops
 - Other
-

Storage and usage at home

What do you think about the storage of your towels?

Not good at all

Very good

-
-

Of the following alternatives, which is the most important in choice of storage space?

Please tick one option.

- To hide the towels
 To reach the towels from the toilet
 To protect the towels
-

[If "To hide the towels"]

What is your main reason for hiding the feminine towels?

Please tick one option.

- The look of the packaging
 I do not want other people to see them
 I do not think that other people want to see them
 Other
-

How do you most often handle the feminine towel when disposing it?

Please tick one option.

- I roll/fold it
 I roll/fold it and wrap it in paper
 I roll/fold it and put it in the wrapper of the new towel
 Other
-

To bring feminine towels

Do you bring feminine towels away from home?

Please tick one option.

- Yes, always
 Yes, when I know I need them
 No, never
-

[If "No, never"]

Why do you never bring feminine towels away from home?

You can tick more than one option.

- I do not need to change towel during the day
 - I go home and change towel during the day
 - It is complicated to bring towels
 - I have towels at work/in school
 - Other
-

[If "Yes, always" or "Yes, when I know I need them" following questions, to the next section, should be answered.]

How do you store the feminine towels in your bag?

Please tick one option.

- In a case/cover
 - Without any extra protection
 - Other
-

How do you most often bring the feminine towel to a public toilet?

Please tick one option.

- I take the case/cover in the hand
 - I put the case/cover in a pocket
 - I take the towel in the hand
 - I put the towel in a pocket
 - I bring the bag
 - Other
-

Does it happen that you try to hide the feminine towel when bringing it to a public toilet?

- Yes
 - No
-

[If "Yes"]

What is your main reason to hide the feminine towel?

Please tick one option.

- It is embarrassing
 - It is offensive
 - It is private
 - It is shameful
 - Other
-

To wear and change feminine towel

In which situation is it most troublesome to wear a feminine towel?

Do you adjust daily activities when you are wearing a feminine towel?

Please tick one option.

- Yes, I skip activities I usually do
- Yes, I perform the activity in a different way
- No, but I feel uncomfortable
- No, I do what I usually do

When you are wearing a feminine towel, how worried are you that it will leak and stain your clothes?

Not worried at all

Very worried

-

Emotions in different situations

How safe do you feel when you ...?

Not safe at all

Very safe

Stand in front of the shelf to pick your towels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put the towels at the counter to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change towel at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a towel at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bring a towel to a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change towel in a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a towel away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How observant do you feel when you ...?

With observant, we mean: Extra aware of yourself and those around you.

	Not observant at all			Very observant	
Stand in front of the shelf to pick your towels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put the towels at the counter to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change towel at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a towel at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bring a towel to a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change towel in a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a towel away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Perception of Nana



What is your impression of this package?

Please tick one option for every statement.

Exclusive High quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cheap
Tasteful Aesthetically appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tasteless
Easy to handle Easy to pick a towel from the packaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Difficult to handle
Flexible Easy to store	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not flexible
Reliable Protects the towels inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not reliable
Mature Sophisticated and grown up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not mature



What is your impression of this towel?

Please tick one option for every statement.

Exclusive High quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cheap
Tasteful Aesthetically appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tasteless
Easy to handle Easy to place and secure in underwear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Difficult to handle
Flexible Easy to bring away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not flexible
Reliable Protects against leakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not reliable
Mature Sophisticated and grown up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not mature

Finally, what is your main occupation?

- Student
- Job-seeker
- Employee - part time/full time
- Sick leave
- Other

5. SURVEY FRANCE – PANTYLINERS

This survey is about your usage of and attitude toward pantyliners. The questions concern purchase, storage and usage but also attitudes and social norms regarding intimate hygiene. Your answers will be treated with respect and you will remain anonymous in all compilations of the result.

Please read the questions carefully and reflect upon your personal experiences. Thank you for your answers!

First we would like to know your age?

Roll-list with ages

[Close survey if not 18-65]

Intimate hygiene and wearing a pantyliner

How many pantyliners do you use during a period of 30 days?

Roll-list with the numbers 0-31 or more

[Close survey if 0-4]

For what purposes, do you use pantyliners?

- Hygiene protection
 - Light bladder leaks
 - Before/after menstruation
 - Main menstrual protection
 - As a complement during menstruation
-

By which brand are the pantyliners you use most often?

Please tick one option.

- Always
 - Nana
 - Vania
 - Kotex
 - Other
-

Thoughts and attitudes regarding intimate hygiene

Intimate hygiene is...

Tick maximum three options.

- Natural
 - Private
 - Embarrassing
 - Shameful
 - Unfresh
 - Feminine
-

The society's attitude regarding women's intimate hygiene is...

Feel free to write down all your thoughts and experiences.

To see someone openly bring a pantyliner to the toilet is ...

Please tick one option.

- Embarrassing
 - Inspiring
 - Offensive
 - Neutral
-

If I have problem with my intimate hygiene I...

Please tick one option.

- Contact health care
 - I wait and hope for it to pass
 - Search for information to solve it myself
 - Ask a person I trust for help
-

Purchase and choice of product

How satisfied are you with the pantyliners you use today?

Not satisfied at all

Very satisfied

-
-

How active are you in your choice of product?

By active we mean: Have you searched for information and actively chosen a pantyliner that matches your needs?

Not active at all

Very active

Which of the following factors influence your choice of pantyliner

Tick maximum three options.

- The price
 - The function
 - The look of the packaging
 - The brand
 - Recommendations
 - Availability
-

If you know which pantyliner you will buy, how do you identify it?

Tick maximum three options.

- By the brand
 - By the packaging color
 - By the name
 - By the product picture on the packaging
 - By the product information on the packaging
 - By the absorption indication - the drops
 - Other
-

Storage

What do you think about the storage of your pantyliners?

Not good at all

Very good

Of the following alternatives, which is the most important in choice of storage space?

Please tick one option.

- To hide the pantyliners
 - To reach the pantyliners from where I put them in my panties
 - To protect the pantyliners
-

[If "To hide the pantyliners"]

What is your main reason for hiding the pantyliners?

Please tick one option.

- The look of the packaging
 - I do not want other people to see them
 - I do not think that other people want to see them
 - Other
-

How do you most often handle the pantyliner when disposing it?

Please tick one option.

- I roll/fold it
 - I roll/fold it and wrap it in paper
 - I roll/fold it and put it in the wrapper of the new towel
 - Other
-

To bring pantyliners

Do you bring pantyliners away from home?

Please tick one option.

- Yes, always
 - Yes, when I know I need them
 - No, never
-

[If "No, never"]

Why do you never bring pantyliners away from home?

You can tick more than one option.

- I do not need to change pantyliners during the day
 - I go home and change pantyliner during the day
 - It is complicated to bring pantyliners
 - I have pantyliners at work/in school
 - Other
-

[If "No, never"]

Are the pantyliners you usually use single wrapped?

- Yes
 - No
-

[If “Yes, always” or “Yes, when I know I need them” following questions, to the next section, should be answered.]

Are the pantyliners you bring away from home single wrapped?

- Yes
 - No
-

How do you store the pantyliners in your bag?

Please tick one option.

- In a case/cover
 - In a plastic bag
 - Without any extra protection
-

How do you most often bring the pantyliner to a public toilet?

Please tick one option.

- I take the case/cover in the hand
 - I put the case/cover in a pocket
 - I take the pantyliner in the hand
 - I put the pantyliner in a pocket
 - I bring the bag
 - Other
-

Does it happen that you try to hide the pantyliner when bringing it to a public toilet?

- Yes
 - No
-

[If “Yes”]

What is your main reason to hide the pantyliner?

Please tick one option.

- It is embarrassing
 - It is offensive
 - It is private
 - It is shameful
 - Other
-

To wear and change pantyliner

How do you perceive the discretion of the pantyliner in your underwear?

Not discreet at all

Very discreet

Why? _____

What would you say is the front of this pantyliner?

Please tick one option.



A

B

I do not know

Emotions in different situations

How safe do you feel when you ...?

Not safe at all

Very safe

Stand in front of the shelf to pick your pantyliners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put the pantyliners at the counter to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change pantyliner at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a pantyliner at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bring a pantyliner to a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change pantyliner in a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a pantyliner away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How observant do you feel when you ...?

With observant, we mean: Extra aware of yourself and those around you.

	Not observant at all			Very observant	
Stand in front of the shelf to pick your pantyliners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put the pantyliners at the counter to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change pantyliner at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a pantyliner at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bring a pantyliner to a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change pantyliner in a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a pantyliner away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Perception of Nana



What is your impression of this package?

Please tick one option for every statement.

Exclusive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cheap
High quality								
Tasteful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tasteless
Aesthetically appealing								
Easy to handle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Difficult to handle
Easy to pick a liner from the packaging								
Flexible	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not flexible
Easy to store								
Reliable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not reliable
Protects the liners inside								
Mature	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not mature
Sophisticated and grown up								



What is your impression of this pantyliner?

Please tick one option for every statement.

Exclusive High quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cheap
Tasteful Aesthetically appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tasteless
Easy to handle Easy to place and secure in underwear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Difficult to handle
Flexible Easy to bring away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not flexible
Reliable Protects against leakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not reliable
Mature Sophisticated and grown up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not mature

Finally, what is your main occupation?

- Student
- Job-seeker
- Employee - part time/full time
- Sick leave
- Other

6. SURVEY SWEDEN – FEMININE TOWELS

This survey is about your usage of and attitude toward feminine towels. The questions concern purchase, storage and usage but also attitudes and social norms regarding menstruation. Your answers will be treated with respect and you will remain anonymous in all compilations of the result.

Please read the questions carefully and reflect upon your personal experiences. Thank you for your answers!

First we would like to know your age?

Roll-list with ages. [Close survey if not 16-45]

To menstruate and wear a feminine towel

What is your main type of sanitary protection?

- Feminine towels [Continue survey]
 - Tampons [Close survey]
 - Pantyliners [Close survey]
 - Other [Close survey]
-

What type of feminine towel do you normally use?

- Thin towels with wings [Continue survey]
 - Thin towels without wings [Close survey]
 - Thick towels with wings [Close survey]
 - Thick towels without wings [Close survey]
 - Other [Close survey]
-

Do you use any other type of product for sanitary protection?

You can tick more than one option.

- Yes, menstrual cup
 - Yes, tampón
 - Yes, pantyliners
 - No
-

By which brand are the feminine towels you use most often?

Please tick one option.

- Libresse
- Always
- Other: _____

Thoughts and attitudes regarding menstruation

Menstruation is...

Tick maximum three options.

- Natural
 - Private
 - Embarrassing
 - Shameful
 - Unfresh
 - Feminine
 - Other: _____
-

The society's attitude regarding menstruation is...

Feel free to write down all your thoughts and experiences.

To see someone openly bring a feminine towel to the toilet is ...

Please tick one option.

- Embarrassing
 - Inspiring
 - Offensive
 - Neutral
-

If I suffer from menstrual pain that affect my performance at school/work I...

Please tick one option.

- Do not say anything
 - Blame something else
 - Say as it is
-

Purchase and choice of product

How satisfied are you with the feminine towels you use today?

Not satisfied at all

Very satisfied

-
-

How active are you in your choice of product?

By active we mean: Have you searched for information and actively chosen a feminine towel that matches your needs?

Not active at all

Very active

Which of the following factors influence your choice of feminine towel?

Tick maximum three options.

- The price
 - The function
 - The look of the packaging
 - The brand
 - Recommendations
 - Availability
-

If you know which feminine towel you will buy, how do you identify it?

Tick maximum three options.

- By the brand
 - By the packaging color
 - By the name
 - By the product picture on the packaging
 - By the product information on the packaging
 - By the absorption indication - the drops
 - Other: _____
-

Storage and usage at home

What do you think about the storage of your towels?

Not good at all

Very good

Why? _____

Of the following alternatives, which is the most important in choice of storage space?

Please tick one option.

- To hide the towels
 - To reach the towels from the toilet
 - To protect the towels
-

[If "To hide the towels"]

What is your main reason for hiding the feminine towels?

Please tick one option.

- The look of the packaging
- I do not want other people to see them
- I do not think that other people want to see them
- Other: _____

What do you like the most about the feminine towels' packaging?

What do you like the least about the feminine towels' packaging?

How do you most often handle the feminine towel when disposing it?

Please tick one option.

- I roll/fold it
- I roll/fold it and wrap it in paper
- I roll/fold it and put it in the wrapper of the new towel
- Other: _____

How do you experience the handling of the waste?

To empty the waste bin where you dispose the used feminine towels.

To bring feminine towels

Do you bring feminine towels away from home?

Please tick one option.

- Yes, always
- Yes, when I know I need them
- No, never

[If "No, never"]

Why do you never bring feminine towels away from home?

[If "Yes, always" or "Yes, when I know I need them" following questions, to the next section, should be answered.]

How do you store the feminine towels in your bag?

Please tick one option.

- In a case/cover
- Without any extra protection
- Other: _____

How do you most often bring the feminine towel to a public toilet?

Please tick one option.

- I take the case/cover in the hand
- I put the case/cover in a pocket
- I take the towel in the hand
- I put the towel in a pocket
- I bring the bag
- Other: _____

Does it happen that you try to hide the feminine towel when bringing it to a public toilet?

- Yes
- No

[If "Yes"]

What is your main reason to hide the feminine towel?

Please tick one option.

- It is embarrassing
- It is offensive
- It is private
- It is shameful
- Other: _____

To wear and change feminine towel

In which situation is it most troublesome to wear a feminine towel?

In which of the following situations is it most troublesome to change a feminine towel?

- At a friend's house
- At a restaurant
- At school/work

Why? _____

Do you adjust daily activities when you are wearing a feminine towel?

Please tick one option.

- Yes, I skip activities I usually do
- Yes, I perform the activity in a different way
- No, but I feel uncomfortable
- No, I do what I usually do

When you are wearing a feminine towel, how worried are you that it will leak and stain your clothes?

Not worried at all

Very worried

Emotions in different situations

How safe do you feel when you ...?

Not safe at all

Very safe

Stand in front of the shelf to pick your towels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put the towels at the counter to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change towel at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a towel at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bring a towel to a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change towel in a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a towel away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How observant do you feel when you ...?

With observant, we mean: Extra aware of yourself and those around you.

	Not observant at all			Very observant		
Stand in front of the shelf to pick your towels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put the towels at the counter to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change towel at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a towel at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bring a towel to a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change towel in a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a towel away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Perception of Libresse



What is your impression of this package?

Please tick one option for every statement.

Exclusive High quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cheap
Tasteful Aesthetically appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tasteless
Easy to handle Easy to pick a towel from the packaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Difficult to handle
Flexible Easy to store	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not flexible
Reliable Protects the towels inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not reliable
Mature Sophisticated and grown up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not mature



What is your impression of this towel?

Please tick one option for every statement.

Exclusive High quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cheap
Tasteful Aesthetically appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tasteless
Easy to handle Easy to place and secure in underwear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Difficult to handle
Flexible Easy to bring away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not flexible
Reliable Protects against leakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not reliable
Mature Sophisticated and grown up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not mature

Finally, what is your main occupation?

- Student
- Job-seeker
- Employee - part time/full time
- Sick leave
- Other

7. SURVEY SWEDEN – PANTYLINERS

This survey is about your usage of and attitude towards pantyliners. The questions concern purchase, storage and usage but also attitudes and social norms regarding intimate hygiene. Your answers will be treated with respect and you will remain anonymous in all compilations of the result.

Please read the questions carefully and reflect upon your personal experiences. Thank you for your answers!

First we would like to know your age?

Roll-list with ages [Close survey if not 18-65]

Intimate hygiene and wearing a pantyliner

How many pantyliners do you use during a period of 30 days?

Roll-list with the numbers 0-31 or more [Close survey if 0-4]

For what purposes, do you use pantyliners?

- Hygiene protection
- Light bladder leaks
- Before/after menstruation
- Main menstrual protection
- As a complement during menstruation

By which brand are the pantyliners you use most often?

Please tick one option.

- Libresse
- Always
- Other: _____

Thoughts and attitudes regarding intimate hygiene

Intimate hygiene is...

Tick maximum three options.

- Natural
 - Private
 - Embarrassing
 - Shameful
 - Unfresh
 - Feminine
 - Other: _____
-

The society's attitude regarding women's intimate hygiene is...

Feel free to write down all your thoughts and experiences.

To see someone openly bring a pantyliner to the toilet is ...

Please tick one option.

- Embarrassing
 - Inspiring
 - Offensive
 - Neutral
-

If I have problem with my intimate hygiene I...

Please tick one option.

- Contact health care
 - I wait and hope for it to pass
 - Search for information to solve it myself
 - Ask a person I trust for help
-

Purchase and choice of product

How satisfied are you with the pantyliners you use today?

Not satisfied at all

Very satisfied

-
-

How active are you in your choice of product?

By active we mean: Have you searched for information and actively chosen a pantyliner that matches your needs?

Not active at all

Very active

-
-

Which of the following factors influence your choice of pantyliner?

Tick maximum three options.

- The price
 - The function
 - The look of the packaging
 - The brand
 - Recommendations
 - Availability
-

If you know which pantyliner you will buy, how do you identify it?

Tick maximum three options.

- By the brand
 - By the packaging color
 - By the name
 - By the product picture on the packaging
 - By the product information on the packaging
 - By the absorption indication - the drops
 - Other: _____
-

Storage

What do you think about the storage of your pantyliners?

Not good at all

Very good

-

Why? _____

What is most important in choice of storage space?

Please tick one option.

- To hide the pantyliners
- To reach the pantyliners from where I put them in my panties
- To protect the pantyliners
- Other: _____

[If "To hide the pantyliners"]

What is your main reason for hiding the pantyliners?

Please tick one option.

- The look of the packaging
- I do not want other people to see them
- I do not think that other people want to see them
- Other: _____

What do you like the most about the pantyliners' packaging?

What do you like the least about the pantyliners' packaging?

To bring pantyliners

Do you bring pantyliners away from home?

Please tick one option.

- Yes, always
- Yes, when I know I need them
- No, never

[If "No, never"]

Why do you never bring pantyliners away from home?

You can tick more than one option.

- I do not need to change pantyliners during the day
- I go home and change pantyliner during the day
- It is complicated to bring pantyliners
- I have pantyliners at work/in school
- Other: _____

[If "No, never"]

Are the pantyliners you usually use single wrapped?

- Yes
- No

[If “Yes, always” or “Yes, when I know I need them” following questions, to the next section, should be answered.]

Are the pantyliners you bring away from home single wrapped?

- Yes
 - No
-

How do you store the pantyliners in your bag?

Please tick one option.

- In a case/cover
 - In a plastic bag
 - Without any extra protection
-

How do you most often bring the pantyliner to a public toilet?

Please tick one option.

- I take the case/cover in the hand
 - I put the case/cover in a pocket
 - I take the pantyliner in the hand
 - I put the pantyliner in a pocket
 - I bring the bag
 - Other: _____
-

Does it happen that you try to hide the pantyliner when bringing it to a public toilet?

- Yes
 - No
-

[If “Yes”]

What is your main reason to hide the pantyliner?

Please tick one option.

- It is embarrassing
 - It is offensive
 - It is private
 - It is shameful
 - Other: _____
-

To wear and change pantyliner

What is the best thing with wearing pantyliners?

How do you perceive the discretion of the pantyliner in your underwear?

Not discreet at all

Very discreet

Why? _____

What would you think about a pantyliner in another colour than white?

What would you say is the front of this pantyliner?

Please tick one option.



- A
- B
- I do not know

Emotions in different situations

How safe do you feel when you ...?

Not safe at all

Very safe

Stand in front of the shelf to pick your pantyliners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put the pantyliners at the counter to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change pantyliner at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a pantyliner at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bring a pantyliner to a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change pantyliner in a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a pantyliner away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How observant do you feel when you ...?

With observant, we mean: Extra aware of yourself and those around you.

	Not observant at all			Very observant	
Stand in front of the shelf to pick your pantyliners	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put the pantyliners at the counter to pay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change pantyliner at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a pantyliner at home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bring a pantyliner to a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Change pantyliner in a public toilet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wear a pantyliner away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Perception of Libresse



What is your impression of this package?

Please tick one option for every statement.

Exclusive High quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cheap
Tasteful Aesthetically appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tasteless
Easy to handle Easy to pick a liner from the packaging	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Difficult to handle
Flexible Easy to store	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not flexible
Reliable Protects the liners inside	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not reliable
Mature Sophisticated and grown up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not mature



What is your impression of this pantyliner?

Please tick one option for every statement.

Exclusive High quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cheap
Tasteful Aesthetically appealing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tasteless
Easy to handle Easy to place and secure in underwear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Difficult to handle
Flexible Easy to bring away from home	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not flexible
Reliable Protects against leakage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not reliable
Mature Sophisticated and grown up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Not mature

Finally, what is your main occupation?

- Student
- Job-seeker
- Employee - part time/full time
- Sick leave
- Other

8. VERIFICATION SURVEY FRANCE

This survey is about pantyliners. Thank you for your answers!

First we would like to know your age?

Roll-list with ages

[Close survey if not 18-65]

How many pantyliners do you use during a period of 30 days?

Roll-list with the numbers 0-31 or more

[Close survey if 0-4]

What would you say is the front of this pantyliner?

Please tick one option.

- A
- B
- I do not know



What would you say is the front of this pantyliner?

Please tick one option.

- A
- B
- I do not know



9. VERIFICATION SURVEY SWEDEN

This survey is about pantyliners. Thank you for your answers!

First we would like to know your age?

Roll-list with ages

[Close survey if not 18-65]

How many pantyliners do you use during a period of 30 days?

Roll-list with the numbers 0-31 or more

[Close survey if 0-4]

What would you say is the front of this pantyliner?

Please tick one option.

- A
- B
- I do not know



What would you say is the front of this pantyliner?

Please tick one option.

- A
- I do not know



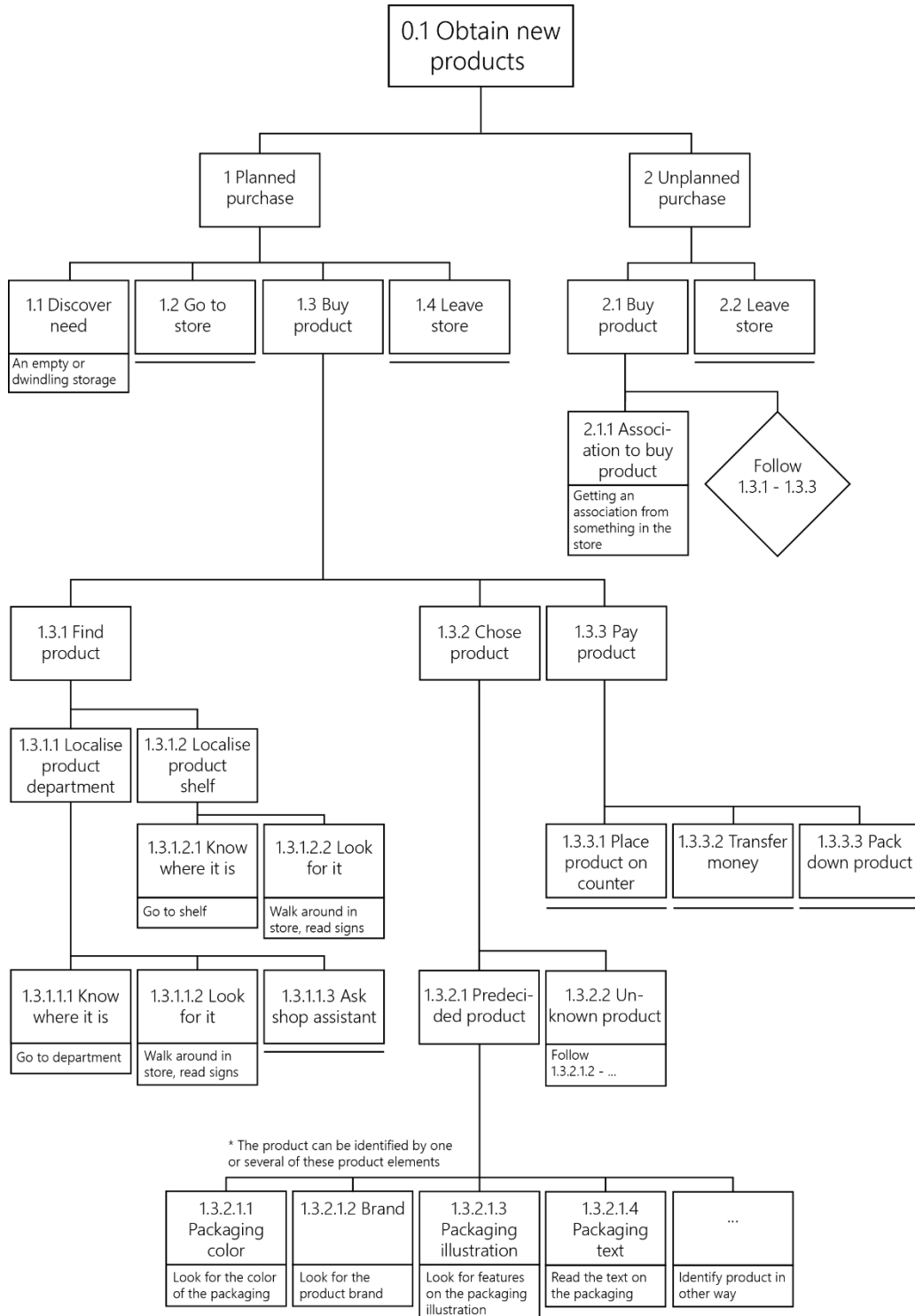
- B

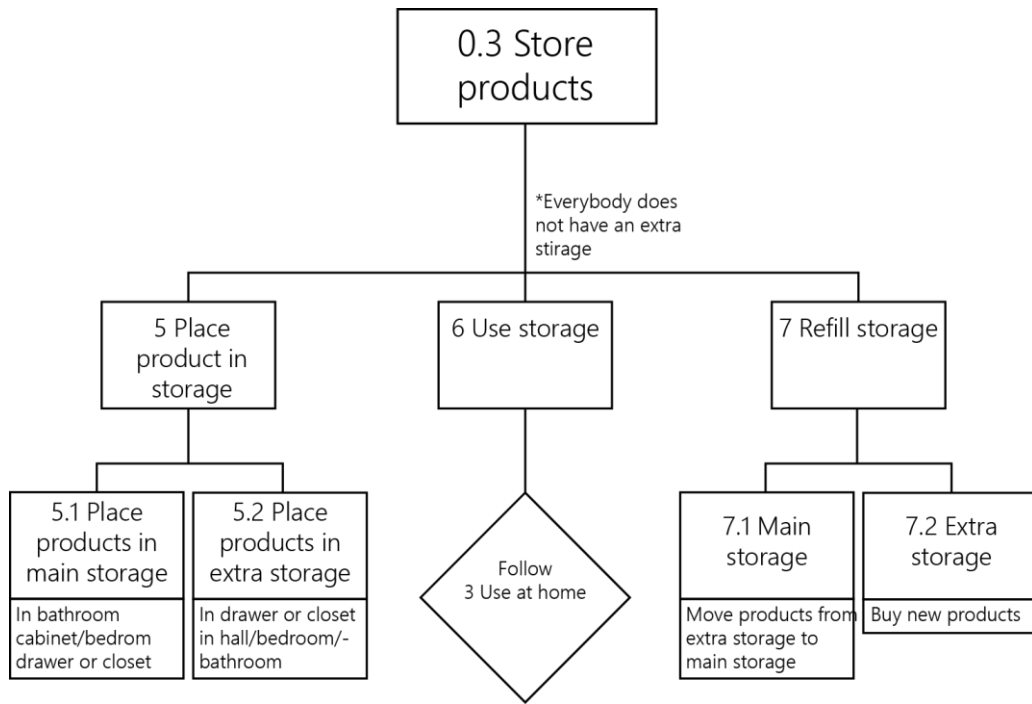


10. LIST OF GUIDELINES

Category	The print should...	The release paper should...	The package should...
Functional	Help the user to identify the pantyliner's front and back	Help the user to identify the pantyliner's front and back	Help the user to identify the pantyliner's front and back
	Help the user to place the product correctly, in relation to the body [The pantyliner's waist should meet the tendons on the upper, inside thigh]	Provide instructions in universal codes	Inform about product properties and functions [The users should be able to read about the product and its functionality on the package]
	Reflect product properties and functions [Mark the different areas on the pantyliner]	-	Instruct the user of the relation between placement and product functionality [The users should be able to read about how the product should be placed in relation to the body]
	Provide instructions in universal codes	-	Provide instructions in universal codes
Aesthetical	Be subtle and add aesthetic value	Add aesthetic value	Add aesthetic value
	Contribute to a qualitative finish	Contribute to a qualitative finish	Make use of Libresse's colour scheme
	Make use of Libresse's colour scheme	Unify product and package [Make use of the form language and colours found in the products as well as on the packages]	Convey Libresse's values
	Integrate Libresse form elements	Make use of Libresse's colour scheme	-
	Convey Libresse's values	Integrate Libresse's form elements	-
		Convey Libresse's values	-

11. HIERACHICAL TASK ANALYSIS





12. LIST OF PROBLEMS

Phase	Event	Problem	Cause	Consequence	A solution should...	Ranking
Obtain new products	Discover need	Having no products when the need occurs	Not noticed that the package is empty Several users The need occurs unexpected	Meet the need of protection in an alternative way Acute purchase Leakage and staining of clothes	Make sure that the products do not run out	4
		Acute purchase of solely towels/liners	Not noticed that the package is empty Several users The need occurs unexpected	The desired product is not available Exposed situation in store buying solely feminine care products	Make sure that the products do not run out	3
	Find product	Find product section and shelf in store	Stores have different layout Users have wrong mental model of where the products are placed	Time consuming Must ask for help Walk away from store without product	Simplify orientation in store	1
		Find right product	Towels and liners are mixed The brands are mixed The information on the packages is inconsistent and lacking The naming of the products is Inconsistent	Time consuming Must ask for help Walk away from store without product Walk away from store with wrong product Personal needs are exposed	Simplify identification of products	4
	Pay product	Prominent package	Colourful package	Unpleasant situation at counter Personal needs are exposed	Blend in amongst other groceries	2
	Use at home	Store product	Store products in an efficient way	Packages are not stackable when opened because the opening is placed at the top	Disorder Wasted spaces Inconvenient changing procedure, having to stand up from	Organise products Provide storage in reachable

			Different shapes and sizes of different packages Plastic packages lose their shape Paper packages are not flexible	the toilet to reach products	distance from toilet	
		Keep products protected	Package breaks Non resealable package Moist environment	Disorder Products fall out Contaminated products Dispose unused products	Make sure the products are not exposed to dirt and moisture Simplify picking one product at the time, without affecting the package	4
Change & discard product		Pick product from package	Too small opening Too big opening	Products fall out Package breaks	Simplify picking one product at the time, without affecting the package	3
		Plan the change of product	Does not reach products from toilet	Stand up to reach product Drip blood	Provide storage in reachable distance from toilet	1
		Identify front and back on pantyliner	No instructions Ambiguous shape or symmetrical	Hesitation Place product wrong Leakage and stain on clothes Discomfort	Simplify correct placement of product in relation to the body	5
		Correct placement in panty	Individual needs Depending on product type	Hesitation Discomfort Leakage and stain on clothes	Simplify correct placement of the product in relation to the body	5

		Conceal product in waste bin	<p>Curls open</p> <p>Bleeds through paper/wrapper</p> <p>No single wrap</p> <p>No toilet paper</p> <p>Colourful wrapper</p>	<p>Unfresh</p> <p>Embarrassing</p> <p>Residues are exposed</p>	Provide easy and efficient concealment of used product	4
		Inconvenient to empty the waste bin	<p>Products are sticky</p> <p>Products smell</p>	<p>Time consuming</p> <p>Unfresh</p>	Provide easy and efficient wrapping of used product	2
	Wear product	Not feeling safe at night	<p>Leakage when lying down</p> <p>Not trusting the product</p>	<p>Staining clothes and bed linen</p> <p>Restless sleep</p> <p>Embarrassing</p>	Be leak proof	3
		Difficult to know which product to use	<p>Wide range of products</p> <p>The information on the packages is inconsistent/inexplicit</p> <p>Varying need</p>	<p>Using wrong product</p> <p>Discomfort</p> <p>Staining clothes</p> <p>Embarrassing</p>	Provide guidance of suitable product	2
		Not talking with others about menstruation and intimate hygiene products	<p>The subject is seen as taboo by the society</p> <p>The subject is everyone's private matter</p>	<p>It will continue to be taboo</p> <p>People believe that they are alone with their problems</p> <p>Do not dare to ask for help with problems</p> <p>Women have to hide their products</p>	<p>Advocate a neutral discussion about women's intimate hygiene</p> <p>Not be based on being ashamed of using towels/liners</p>	5
Use away from home	Bring & store product	Bring the panty liners' package	<p>Inflexible</p> <p>Ungainly</p>	<p>The package breaks</p> <p>Products fall out</p>	Simplify transport of several products	3
		Forget to bring product away from home	<p>Bad planning</p> <p>The need occurs unexpected</p> <p>Lapsus</p>	<p>Ask for product</p> <p>Meet the need of protection in an alternative way</p> <p>Acute purchase</p> <p>Staining clothes</p>	<p>Remind user to bring products</p> <p>Make sure products are always brought</p>	4

		Keep products protected in bag	No dedicated place in bag No case/cover No single wrap	Dispose unused products No products when need occurs Personal needs are exposed	Provide storage for products in bag	4
	Bring product to toilet	Difficult to transport product from bag to toilet discreetly	Prominent product Rustling product Does not fit in hand/pocket	Personal needs are exposed Bring the whole bag instead	Allow the user to bring product without feelings of shame and embarrassment	5
	Change & discard product	Perform a discreet change	The material of the wrapper rustle The glue make the wrapper sound when being opened There might be toilet cubicles	Personal needs are exposed	Allow the user to change product without feelings of shame and embarrassment	3
		Perform a smooth/convenient change	Handling several products at once No surface to place products No place to put jacket	Contaminated product Discard unused products Drop product Personal needs are exposed Messy	Simplify the procedure of change	2
		Perform a hygienic change	No toilet No basin Soiled environment	Contaminated product Fear to cause an infection	Provide possibility to good hand hygiene	1
		Need of change in a bad time	Cannot control flow Does not know how heavy the flow is Worried to leak	Inform others of an urgent visit to the toilet Urgently find a toilet	Provide help to plan change of product	4
		Discover need on toilet without	Cannot control flow	Meet the need of protection in an alternative way	Remind user to bring products	4

		having a product	Does not know how heavy the flow is The need occurs unexpected Lapsus	Go and fetch product and return to the toilet		
		Identify front and back on pantyliner	No instructions Ambiguous shape or symmetrical	Hesitation Place product wrong Leakage and stain on clothes	Simplify correct placement	5
		Correct placement in panty	Individual needs Depending on product type	Hesitation Discomfort Leakage and stain on clothes	Simplify correct placement	5
		Dispose used product	No waste bin or sanitary bin	Bring used product Exposed personal needs Flush down the product in the toilet	Enable hygienic transport of used product	5
		Conceal product in waste bin	Curls open Bleeds through paper/wrap No sanitary bin/bag No single wrap No toilet paper Colourful wrapper	Unfresh Embarrassing Residues are exposed	Provide easy and efficient concealment of used product	4
	Wear product	Not feeling safe at night	Leakage when lying down Not trusting the product	Staining clothes and bed Restless sleep	Be leak proof	4
		Difficult to know which product to use	Wide range of products The information on the packages is inconsistent/inexplicit Varying need	Using wrong product Discomfort Staining clothes	Provide guidance of suitable product	2

		The product feels big and clumsy	Thickness Length	Discomfort	Be slim and comfortable	2
		The product is visible	Thickness Length Shape Colour Wings	Limited in choice of clothing/panties Personal need is exposed	Provide an as small and discreet product as possible Provide a product that blends into the panties	3
		Not talking with others about menstruation and intimate hygiene products	The subject is seen as taboo by the society The subject is everyone's private matter	It will continue to be taboo People believe that they are alone with their problems Do not dare to ask for help with problems Women have to hide their products	Advocate neutral discussion about women's intimate hygiene Not be based on being ashamed of using towels/liners	5

13. CONCEPT: THE APP

Within the phase *Obtain new products* the most prominent problems regard information and knowledge, not product properties. In order for users to be satisfied with their feminine care product it is important that they match the product to their personal needs. However, users are often not aware of the options they have - what properties different products hold. The first concept area is therefore an information system, as a mobile application, to provide easy access to information about Libresse's products, but it could also work as a tool for the user to, for example, plan changes and purchases.

In the interviews, it was found that many users tend to use the same product throughout their period, independent of changes in their flow. To avoid this, and to provide the best experience for the user, Libresse app recommends what product to wear and when. In the application, the user should register what product she uses, how often she has to change and if the product has leaked. Based on this information the application calculates if that product is the best suiting, or if there is another Libresse product that might work better. After some periods, when the application has mapped the user's flow and habits, it could provide personal recommendations on which product, or products, to use.

The application could also be linked to the user's daily schedule to remind upon changes at appropriate times. Users expressed that they find it stressful if they discover that they have to change towel or liner during an activity, when it is hard to leave the room discreetly. In combination with the user's schedule, used product and flow, the application provides suggestions on when, during the day, it is suitable to perform product changes. Then, the application sends a reminder that it is time to change product before starting the meeting, lecture or activity.

Reminders could also be used to ensure there are always products at home when the period approaches. Registering product purchases and product changes, the application reminds the user when the products are running low and it is time to buy new ones. Buying solely feminine care products was something the users expressed as exposing as their personal needs are put on display, and by this function, the user is always prepared when the period starts and an acute need for purchasing new products will not occur. Also, in the morning the users can be reminded to bring products away from home, both during the period, but also when the period is approaching to make sure that they are prepared.

Talking about feminine care products in general, and sharing experiences of specific products, is rare according to the interviewees and survey respondents. By including a community in the application, users could share their thoughts and opinions with each other. Providing the users with the opportunity to rate and comment products would generate valuable feedback for Libresse that could be used in future product development.

14. CONCEPT: TAKE AWAY

The phase *Use Away from home* includes unfamiliar environments and interaction with other people in difference from *Use at home*. That personal needs can be displayed when transporting a feminine care product was perceived as a problem since the use of the products is considered private by most users. The trouble of bringing products especially applies on the pantyliners that are seldom single wrapped and in their full size. The lack of a single wrapper creates problems with transporting them in a hygienic way. The second concept area is thus an on-the-go storage solution for pantyliners.

The concept area has two different tracks - single use cases or reusable cases. A single use case would be convenient as it protects the pantyliner in the bag, it would also conceal the liner when bringing it to the toilet and cover the pantyliner in the waste bin. Additionally, if there is no waste bin it could be used to transport an already used pantyliner away from the toilet.

For the first version of the single use cover - the pantyliner is rolled and placed in a little plastic bag that is sealed with a string. By rolling the pantyliner it becomes much smaller and thereby easier to transport in a discreet manner. When bringing more than one pantyliner it would be convenient if the products were collected and organised in the bag. By making the plastic bag larger it could carry more than one liner. However, that would make it harder to conceal the products in a hand or pocket on the way to the toilet, which was expressed as very important by the interviewees and survey respondents. Another version of a single use case is to join the single product bags with a perforation. This allows the user to take out as many cases as needed. The liners will stay organised in the bag but when going to the toilet one liner can be torn off.

A reusable case would hold the same properties as a single use one, however, it would not help to conceal a pantyliner in the waste bin. The cover could be made to hold one, or several, products and by including a separate compartment it could bring a used pantyliner if there is no waste bin on the toilet. That the concept allows users to single wrap only the products that they bring away from home aligns with the comments from the surveys, that it is unnecessary with single wraps on the products that are used at home, due to the extra amount of material that must be disposed.

15. CONCEPT: DIRECTION

The users did not express many problems in the phase *Use at home* as they felt very safe and calm in this well-known environment. However, regarding the pantyliners, almost all interview participants said that "I never know which way is forward!" and the pantyliner survey showed that 50% might place the pantyliner the wrong way. Placing the liner the wrong way results in functionality losses as well as decreased comfort. The third concept regards the print on the pantyliner which, in an effective but subtle way, should guide the user to place the product correctly.

The message can be achieved in several different ways and the figure shows six different prints. The fourth print illustrates how an active area has been added in the middle of the liner, which indicates where the discharges should go and refers to the anatomy of the body. By broadening the curve on the rear of the pantyliner clarifies the product's actual shape, that it is formed after the female body. On the second print, a line in the shape of an arrow head has been placed on the very front of the pantyliner. This discreet element can be found on Libresse feminine towel *Ultra Normal Wing* where it works as an indication for how it should be placed. On all prints, a heart has been placed on the front of the liners which helps the user to interpret the direction of the liner. The broad base on the sixth pantyliner has been complemented with an inward bend to symbolise the anatomy of the body.

All versions of the print have two symmetric curves by the waist of the pantyliner, just as the original print. The curves indicate where the tendons on the upper, inside thigh should meet the pantyliner. This has to do with the CurveFit™ technology - that the pantyliner should not move in the panties - which implies that the liner's waist works as a barrier to hinder the product from moving forwards or backwards.

