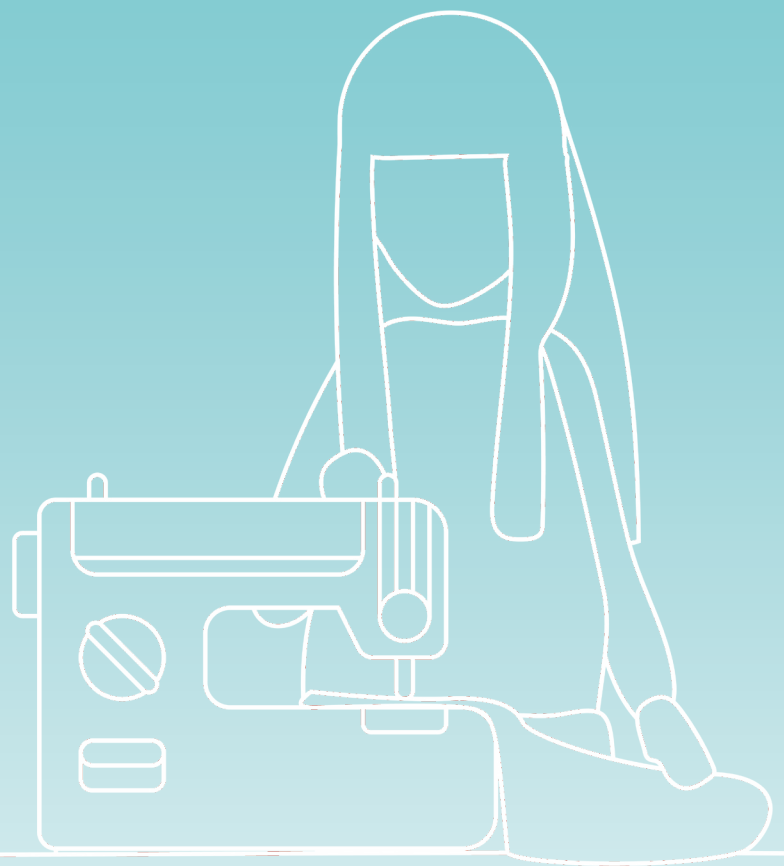


Sustainable teenage behavior

Lowering the threshold for teenagers
to repair their own clothes.



Sarah Veldhuizen

Colophon

Master thesis

**Lowering the threshold for teenagers to repair
their own clothes.**

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This report looks into the subject of sustainable teenage behavior. With the current strikes for the environment, it's interesting to see how the younger generation wants a sustainable world, but does not act out this way. The research conducted from this problem focused on the textile industry and the shopping behavior of teenage girls, in order to answer the research question: "How to lower the threshold for teenagers to repair their own clothes?".

After investigating the topic of clothing repair and teenage shopping behavior, it appeared that most teenagers buy new clothes because their changing fashion style and their need to express themselves through clothes. From there on the project focus shifted to creating a pleasant first time experience to make teenagers familiar with clothing repair, and making it possible to upgrade clothes. By doing so, it is possible for the user to change their clothes according to their own new wishes.

A literature review and a target group research consisting of several interviews gave a framework for the design project: in order to stimulate teenagers to start a project, they need information on the subject, help with developing their crafting skills and motivation. The mentioned motivation needs to involve them personally. While they all want to work towards a green world without child labor, they did not feel the responsibility to change their own behavior to reach these goals.

By designing a concept that touches upon these subjects and iterating it with multiple concept tests, a final concept was created. In this product teenagers are motivated by having the possibility to design with their own clothes and make it personal. They can look up information or inspiration in an online blog, buy do-it-yourself kits to practice and design at home, and have the possibility to go to a weekly crafting table to ask for help. The crafting kits include guidelines on how to tackle a project and include tools to practice sewing.

At last, the design project included the creation of a brand and marketing strategy. The product is branded as a way of practicing your fashion design skills and being able to stay up-to-date with the latest fashion trends. It is thought that the product should be positioned as an alternative of buying new clothes, instead of a new sewing kit. The marketing strategy focuses on creating brand awareness, considering the product and brand are new to this market. The marketing is done by a social media campaign focusing on teenagers and parents as well, flyers in art classes and crafting clubs, and search word optimization for the blog.

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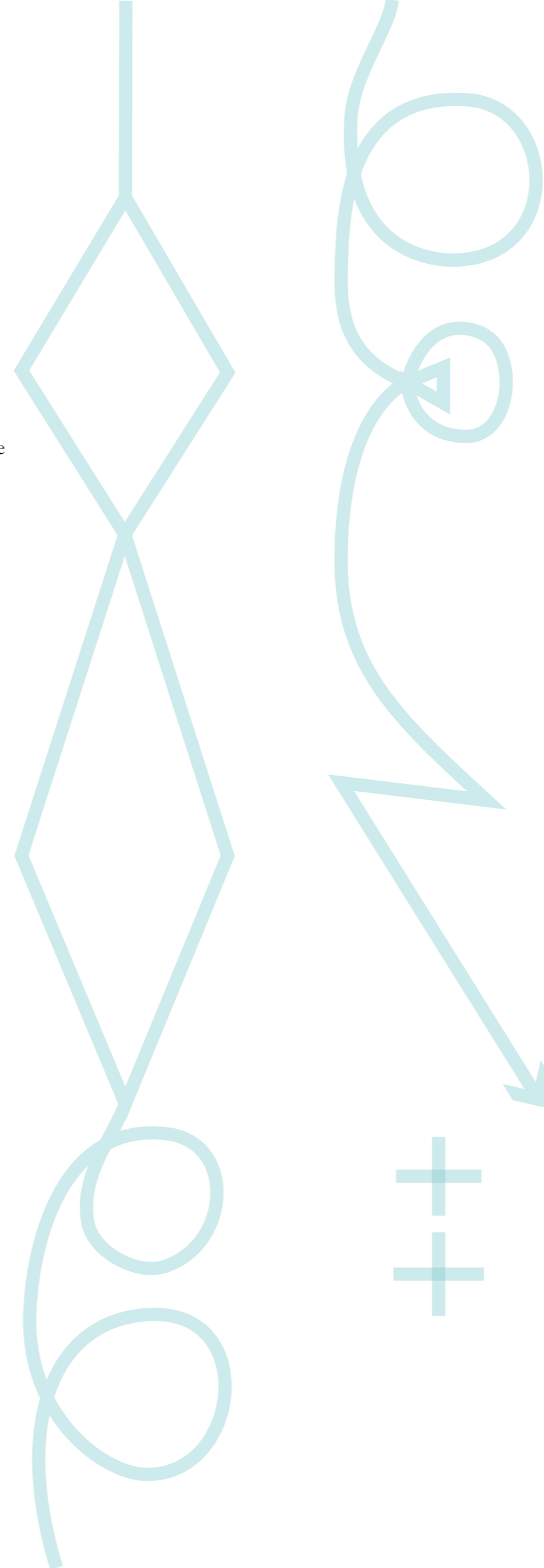
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Research aim

By now, sustainability is a widely known problem. While multiple companies work on creating a sustainable world and improving their old products, there still is a lot of work left to do. Not only researchers know that, but the younger generation is very aware of this as well. Last months teenagers made clear that their generation feels the need to do something for the world by striking from their schools and demonstrating for the environment. The newspapers were all over it, but had some remarks as well. The same group of teens who went to demonstrate, visited the McDonald's for lunch. Did they not know that eating meat has consequences for the environment too? Or what about their shopping behavior in the hours after the demonstration? Of all people, these teenagers were highly aware that their buying behavior sends a direct message to the world on their morals and values. This is where we start with the project: how come that those teenagers, who do want to put effort in a sustainable world, do not behave like this?

These questions on teenage behavior seem fairly important considering teenagers are the future, but still have little literature on them. When it comes to stimulating sustainable behavior, little products on the market are aimed at teenagers. Most people simply point at the overall consensus that "teenagers have no responsibility", so why would you try? Is this lack of research and products a misstep of the society we're living in? It seems a strange step towards sustainability: excluding the next generation. It would be beneficial to seek new solutions for what is needed for the next generation to become sustainable.

From this starting point a design brief is created (the complete design brief can be seen in Appendix K). Sustainable teenage behavior should be possible, but needs to be approached step-by-step. In this design project we focus on the shopping behavior for new clothes. As will be explained in the literature review, the textile industry has a big environmental impact. This has not always been that way, but with the rise of fast fashion and cheap fashion stores it is easier to replace something instead of repairing it. How do you stop this trend? Buying everything new is a non-sustainable solution that will not survive when the world turns green. The younger generations indicate that they leave the sewing to their mother. However, what happens when they grow up? They need to realize that there will not always be a mother who can do the sewing for you, at one point you are the mother yourself. Introducing them to this problem now, gives them the possibility to develop these skills and get ready for the future. This leaves us to the research question:

“How to lower the threshold for teenagers to repair their own clothes?”

From this research question, we can subtract three sub-questions that help exploring this subject:

1. Why do teenagers buy new clothes?
2. Which skills do teenagers have when it comes to repairing clothes?
3. How can you motivate teenagers to repair their own clothes?

The introduction gives the objectives and approach of the research project.

Research approach

To answer the stated research question and sub-questions, the project will make use of a few methods. These are part of the double diamond approach (Design Council UK, 2005), which gives a concept to work with by discovering, defining, developing and delivering. This concept can be iterated into a final concept. From there on the branding of the product will be done according to the brand models of Keller (2012). This complete design process is visualized in Figure 1, but can also be seen in the table of contents.

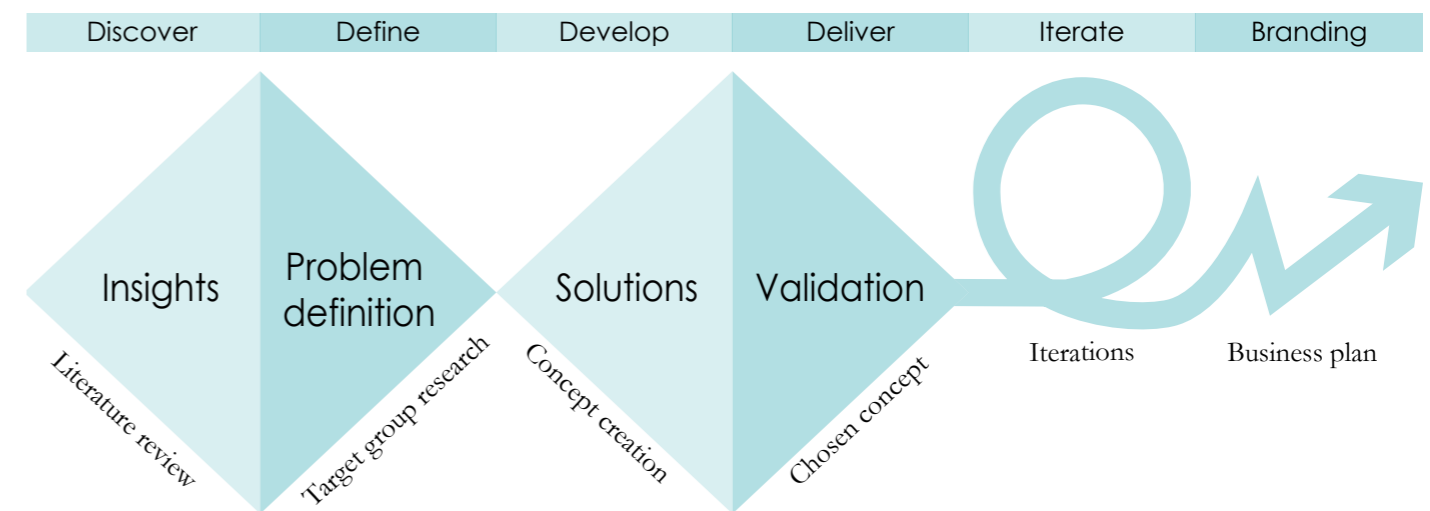


Figure 1. Research approach, including the double diamond model (Design Council UK, 2005).

Introduction in the textile industry

With the current consumer behavior, the textile industry has a big environmental effect due to the carbon, water and waste footprints during the lifecycle of clothes. WRAP wrote a report on this effects in 2012 stating that a household's new and existing clothing have a annual footprint that is equivalent to the weight of more than hundred pairs of jeans. The water needed in this footprint could fill over a thousand bathtubs, and the carbon emissions could be compared to driving an average modern car for 6,000 miles (WRAP, 2012).

Almost 50% of the textile used worldwide is made out of cotton, while a kilogram of cotton requires between 7.000 and 29.000 liters of water (Fletcher, 2008). Besides the required water, the cotton industry uses a lot of pesticides. While 2,4% of world's agriculture is growing cotton, cotton causes 24% of the world's insectile market (WWF, 2003). This excessive use of pesticides results in water pollutions, which could be seen as an extension on the already required volume of water.

The greenhouse gas emissions from the textile industry in 2015 totaled 1.2 billion tons of CO₂ (Shepherd et al., 2017), which would be more than the CO₂ emissions of all international flights and maritime shipping combined (International Energy Agency, 2016). These numbers are alarming and seem to rise, caused by an estimated duplication of the clothing production in the last 15 years (World Bank, 2017). The rise appears to be the result of the growing middle-class population across the globe and increased sales per capita. This increased sales is mainly due to the 'fast fashion' trend, with multiple styles and collections per year, and extremely low sales prices (Shepherd et al., 2017). Lee (2003) named this trend, calling it McFashion. The name refers to the similarity with the McDonalds fast-food chain because of these low prices, worldwide uniformity and predictability.

Fast fashion companies transfer new fashion collections from design to store shelves within two weeks. This business plan allows retailers to gain big profits by selling large amounts of cheap clothes to customers who frequently seek for something new to wear (Keynote, 2008). Fast fashion retailers, such as Primark, H&M, Zara, Bershka and Forever 21, have designs that are made to be worn less than 10 times (McAfee et al., 2004). As a result of this trend many people, especially teenagers, purchase cheap, fashionable items from low budget companies. Moreoften, they are fully aware that the items from these companies have a very short lifespan (Fisher et al, 2008).

Fast fashion leads to full closets with little to wear in it. About 30% of items from the household wardrobe has not been used for at least a year. This is more worth than €1130 per household. Research indicated that 80% of the people own at least some clothing items that they don't wear anymore because they no longer fit or because the items need altering (WRAP, 2012). In 2008 the Environment Select Committee revealed that the amount of textile waste being brought to collection points had increased from 7% to 30% by weight in only five years (Poulter, 2008). This indicates that not only more clothes are being bought, more clothes are being discarded as well. Disposal reasons indicated were wear and tear, poor fit and being bored with their own clothes (Laitala, 2014), which means that fast fashion does has a big influence on clothes disposal.

This chapter gives a literature review on the context of the textile industry, possible solutions for the stated problem, creating a pleasant first time experience and creating awareness on a subject.

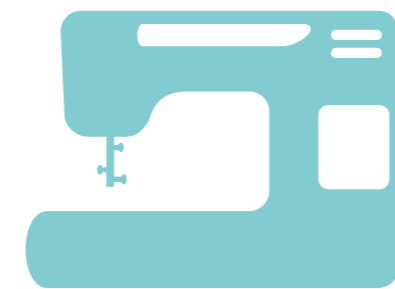
Sustainable fashion solutions

As a countermovement to these fast fashion trends, more and more institutes try to normalize sustainable consumption. Sustainable consumption is defined as 'consumption that supports the ability of current and future generations to meet their material and other needs, without causing irreversible damage to the environment or loss of function in natural systems' (OCSC, 2000). Multiple reports on sustainable fashion offer solutions that could help developing a healthy textile industry in the upcoming years by sustainable consumption. These solutions are divided in the life cycle stages of clothing: the fiber production, clothing production, usage and disposal.



Within the stage of fiber productions it is suggested to:

- ▶ use inspections for the technical production processes (e.g. checking the discharge of toxic chemicals into water supplies) (WRAP, 2012);
- ▶ make use of shallow soil cultivation and water deficit during early crop development and before harvesting of cotton plants, combined with drip, sprinkler and alternate furrow irrigation methods (WWF, 2003);
- ▶ grow cotton on suited locations and seasons to get maximum benefit of available water (WWF, 2003);
- ▶ coordinate innovation and align industry efforts to create safe material cycles (Shepherd et al., 2017);
- ▶ drastically reduce plastic microfiber release (Shepherd et al., 2017).



Within the clothing production it would be possible to gain sustainability by:

- ▶ using lower impact fibers in clothes, for example polyester instead of cotton (WRAP, 2012);
- ▶ adjusting the designs to a more durable design by creating a timeless look, using better quality materials or making it easier for customers to adjust and repair the clothes (Shepherd et al., 2017; WRAP, 2012);
- ▶ specifying the type of textile used in clothing items,

to encourage the adaption of alternative textiles by consumers, that have a lower environmental impact (WRAP, 2012);

- ▶ creating designs that are durable in laundering, suitable in multiple usage situations, give a tactile and satisfying use experience and are comfortable to wear (Niinimäki, 2009);
- ▶ creating design which values meet the consumer personal values (Niinimäki, 2009).



During the usage of clothing progress could be gained by:

- ▶ increasing clothing utilization further through brand commitment and policy (Shepherd et al., 2017);
- ▶ encouraging consumers to make greater use of owned clothes by trying other ways to wear them (new combinations, accessories, etc.) (WRAP, 2012);
- ▶ reduce damage to clothes caused by the laundry, by having consumers check the labels, sort the clothes on washing temperature, less use of the tumble drier and using clothes longer before washing them (WRAP, 2012);
- ▶ normalize clothing repair and restyle services to increase clothing utilization (Shepherd et al., 2017);
- ▶ having clear labels and repair guides to increase utilization by making it easier for users to care for their clothes (Shepherd et al., 2017).



And at last could the disposal of clothes be optimized by:

- ▶ stimulating a circular economy by selling quality pre-owned clothing, and making it possible for consumers to resale their own unwanted quality clothing (Shepherd et al., 2017; WRAP, 2012);
- ▶ stimulating consumers to hire or exchange clothes with other people (WRAP, 2012);
- ▶ wholly improve the output quality and economics of recycling (Shepherd et al., 2017).

Clothing repair

This report focuses on the life cycle stage of clothing usage. This was chosen because this stage concentrates on the consumer behavior, rather than the industry. From these two target groups, the consumer seems to be the first and most important step, considering the industry follows the consumer choice. Within clothing usage, the research is specified on the adoption of clothes repair. This direction seems to be an interesting phenomenon because it used to be a common practice, but disappeared over time. Besides having to change the consumer behavior, the activity of repairing clothes most likely needs an image change in order to fit in the present society.

An increase of consumers who repair their own clothes, could create a longer lifespan for clothes. By using clothing items for three more months on an average lifespan, the footprints for carbon, waste and water would reduce by 10%. With a bigger extension of nine months on the average lifespan (extending the average clothing item life to three years), the costs of resources used in clothing supply, laundry and disposal could be reduced by €5,7 billion a year (WRAP, 2012). An overview of these effects can be seen in Table 1.

Despite these environmental advantages, the amount of households that repair their own clothes did decrease throughout the years. Research concluded that repair work has declined in the U.K., partly because labor costs are increased throughout the years, while the manufacturing costs are decreased by moving to countries with low wages (Cooper, 2005). This conclusion is in line with the research of Shepherd et al. (2017), in which it appeared that areas where the cost of new clothing is low compared to the cost of labor, the repair and restyling services are often not profitable. The current recycling activities are mostly motivated by ethics or lifestyle choices.

Price deflation in the western clothing market has made consumers view clothes as disposable products. They feel that professional repair is hardly a worthwhile

option, according to Goworek et al. (2012). Besides these economical influences, routine clothing maintenance also declined due to lack of time, repair services and sewing skills (Fisher et al., 2008; Gibson & Stanes, 2011).

Other reasons for the decline mentioned are habits, routines and concepts of cleanliness which may outweigh enlightened views on sustainability (Fisher et al., 2008). The lack of technical equipment like sewing machines, scarcity of haberdashery suppliers and the absence of sewing and repairing lessons at school (Fisher et al., 2008) are mentioned as reasons as well. In the research of Fisher et al. (2008) there were participants that spoke of an association of repairs with poverty and indicated that they did not want clothes with visible repairs to protect themselves and their families from stigma. Besides this insecurity, the research indicated that many people don't feel confidence on their ability to do clothing repairs and compare themselves with previous generations. Younger women more often dispose or replace clothes because of fashion, while older people were more likely to repair their clothes. This is also mentioned in the paper of Birtwistle & Moore (2007), in which most participants indicated to not repair the clothing themselves, but some participants had older female relatives who did this for them.

The study did find that some of the participants every now and then used repair services offered by dry-cleaners, but this option was considered too expensive by many participants (Birtwistle & Moore, 2007). A survey by Laitala & Boks (2012) indicated that 64% of the respondents had sewn on a button in the last year and 52% had fixed an unraveled seam, but as the tasks became more difficult, less people encountered the activities in the last year. Only 34% patched clothing, 11% made something new out of old clothing and none darned clothing, fixed a trousers length, adjusted size or changed a zipper. Contrary to these results, the research of Fisher et al. (2008) did indicate that there was still a desire to be able to repair clothes, especially when the clothes were costly or persisted special value.

| | CO ₂ | Water | Waste | € |
|------------------|-------------------|-----------------------------|------------------|--------------|
| Current lifespan | 38 million tonnes | 6300 million m ³ | 1 800 000 tonnes | 25,4 billion |
| + 3 months | 35 million tonnes | 5700 million m ³ | 1 650 000 tonnes | 23,1 billion |
| + 9 months | 28 million tonnes | 2300 million m ³ | 1 400 000 tonnes | 19,6 billion |

Table 1. Overview of the effects of increasing the lifespan of clothes (WRAP, 2012).

Triggering product care

The desire to be able to repair clothes can be seen as a part of the consumers' product care. The definition of product care given by Ackermann (2018) is "all activities initiated by the consumer that lead to the extension of a product's lifetime. These activities can be executed by the consumer him/herself or by a service. Product care goes beyond repair and maintenance, as it covers also preventive measures, such as protective covers for smartphones." Considering the project has the goal to trigger the product care for clothes by teenagers, this report will discuss multiple methods to trigger product care: Design for Disassembly, servitization, creating product attachment and the Fogg model.

The first approach, Design for Disassembly (DFD), enables the disassembly and reassembly of a product. DFD can facilitate the maintenance, repairs, updating and remanufacturing of products likewise their recycling processes (Boothroyd & Altling, 1992). With DFD the repair of the product has to be done by the consumer itself.

A second approach would be servitization in which the consumer is the owner of the product, but the company repairs the product. This process is called a product-service system (PSS). PSS includes services such as renting, upgrading, redesigning, or lending to reduce the usage of natural resources while at the same time increasing product quality and the product lifespan, as well as the customer satisfaction (Heiskanen & Jalas, 2003; Tukker, 2004). Using PSS for clothing can provide the textile industry a mechanism to increase aspects as product quality and product lifespan, and provide other consumption models that decrease unnecessary consumption at the same time. There are researches that described consumer interest in PSS for clothing, such as rentals, participatory design, or repair services (Niinimäki, 2011; Niinimäki & Hassi, 2011).

The third method discussed to trigger consumers' product care is giving the product a special value for the consumer. When someone gets attached to an object, he/she is more likely to care for the product, to repair it when it's broken and to postpone the replacement (Mugge et al., (2005). Mugge et al. (2008) describes four determinants of product attachment:

1. Pleasure: the product provides the owner with pleasure.
2. Self-expression: the product expresses the owner's identity.
3. Group affiliation: the product expresses the owner's belonging to a group.
4. Memories: the product reminds the owner of the past.

Of these four determinants, not all will trigger the consumer into product care (Mugge, 2017). This trigger depends on the location of the product feature on the hierarchy of product attachment as seen in Figure 2 (Mugge et al., 2008). The pyramid starts with general product features, these are

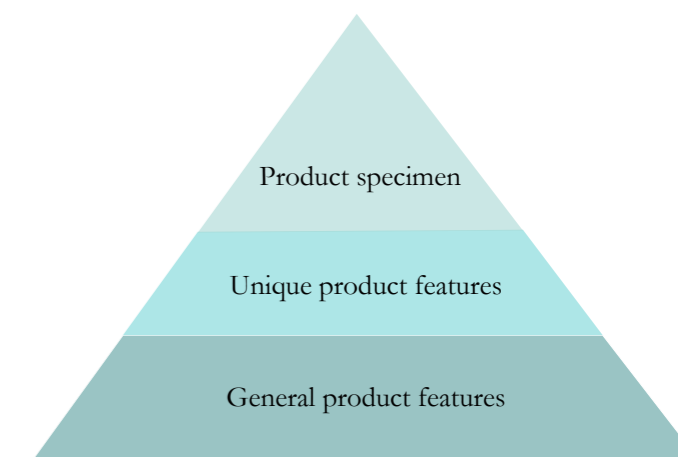


Figure 2. The hierarchy of product attachment (Mugge et al., 2008)

features like the functionality or appearance. Considering there are multiple products with these features, it would be easy to replace a product from this category. Second come the unique product features, which only occur in a specific product variant. This suggests that a specific type of product has a special meaning for the consumer. It is a lot harder to replace a product from this category, but it remains possible. At last there is the product specimen, which means that the consumer has a personal attachment with the product that can not be replaced. An example could be the context in which the product was obtained (Mugge et al., 2008). Mugge suggests that these different product values can be used in designing a product. Considering the inability to replace a product when the features become more personal, the designer should keep this in mind when designing the functionalities of a product. A lamp for example would normally be a product with general features, but by giving the owner the possibility to adjust and personalize it, the lamp will become less easy to replace, triggering product care.

This theory of product attachment relates to the last method discussed: the behavior model by Fogg (2009). This model combines motivation (if people want to do it) with ability (if people can do it) and triggers (a stimulus that provokes people to do it) to predict behavior. In this model the motivation is often linked to the value of a product, it is described as pleasure, hope or social acceptance. The corresponding negative aspects of these factors, pain, fear and social rejection, can also function as a motivator. The model distinguishes time, money, physical effort, brain cycles (the cognitive effort), social deviance and non-routine as ability factors. These ability factors can be barriers for the consumer by being perceived as demanding. The triggers mentioned by Fogg are sparks, facilitators and signals. A spark enlarges a person's motivation by evoking a feeling of pleasure, hope or social acceptance. Second, a facilitator enables a person to act in a manner that he/she wants to. In this situation the person is already motivated, but lacking the ability. At last, a signal is often just a reminder for the required action, it only works when the person is already motivated and has the ability. The complete model can

Fogg Behavior Model

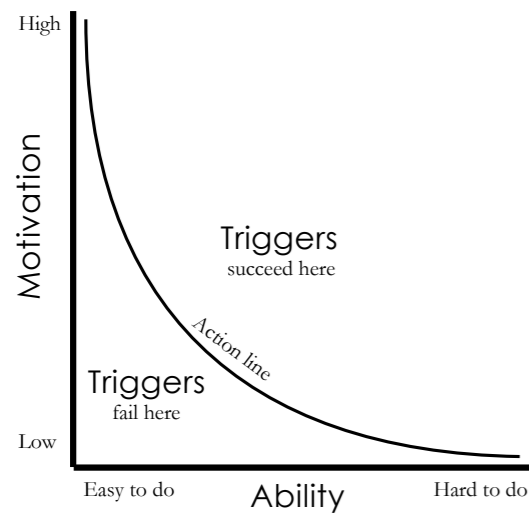


Figure 3. The Fogg behavior model (behaviormodel.org, 2018)

be seen in Figure 3. The action line shows the amount of motivation and ability that needs to be present in order to enable behavior when a trigger occurs.

Using the Fogg model as a framework, Ackermann et al. (2018) did research on the motivators, ability and triggers for product care. Nine motivations were found in the categories of product-related motivators, person-related motivators and person-product relationship related motivators, four ability factors and five triggers were found. These can be seen in Table 2. These motivators, ability factors and triggers can be used in designing a product to enhance product care, and thus the repair by consumers. From the four discussed methods to create product care, the Fogg model seems to be the most multifaceted. The model leaves the possibility to create various concept with different solutions for the problem. This makes that the Fogg model is chosen to use in the designing process.

| | | |
|------------|--|---|
| Motivators | Product-related motivators | Financial aspects |
| | | Pleasure |
| | | Functionality |
| | | Aesthetics |
| | Person-related motivators | Intrinsic motivation |
| | | Rebellion against the brand policy (this can be a motivator for people who want to be able to repair the product on their own, while the brand declines the possibility to do so) |
| | Person-product relationship related motivators | (Ir)replaceability |
| | | Fitting with the participant's identity |
| | | Shared ownership (which is mostly a reason for low product care) |
| Ability | Knowledge and skills | |
| | Time and effort | |
| | Lack of tools | |
| | General lack of repairability of a product | |
| Triggers | Appearance triggers | |
| | Time triggers | |
| | Social triggers | |
| | Previous care experiences | |
| | Challenge-based approach | |

Table 2. Motivators, Ability and Triggers identified by Ackermann et al. (2018)

Teenagers' product care

Looking at product care in clothing, it appears that young consumers are the target group where most progression could be made. According to the report of Langley et al. (2013) on clothing longevity, younger people (especially women) appear to buy most new items in a year and throw away most clothing items in a year. Young people are known to be the biggest consumers of the fast fashion trend, by preferring multiple cheaper purchases instead of buying one more expensive item (Morgan & Birtwistle, 2009). They are heavily influenced by the fashion press and media regarding to fashion trends (Greene, 2008). This information leads to the choice of our target group within this project: teenage girls.

The study of Piacentini & Mailer (2004) investigated the symbolic meaning of clothes for teenagers. It appeared that clothing is 'an essential social tool' that provides a way of self-expression, can be a source of confidence and a base to judge other people. This self-expression would be of particular importance in the process of change and growing up, considering clothes is an easy medium to show these changes. Clothes act as a signal that the wearer is like the other people who wear comparable clothes, which is an important issue when meeting new people. Clothing would be important as it stands for many different aspects of the character of the person that wears it. They are also used to signal that individuals 'fit in' to the broad social group. It can be seen as a way of ensuring they are wearing clothing that are socially accepted by their wider community, and not just by their inner circle. For teenagers, clothes also could indicate to the outside world that they were not poor, by buying branded clothes. Brands signaled product knowledge (i.e. you know which brands are accepted and fashionable). At last, this study indicated that clothes that are required for certain activities (sport clothes for example), make the wearer feel more confident and better equipped to certain roles.

Young consumers appear to be more concerned with trends than probably any other age group (Martin & Bush, 2000). 58% of people aged between 16 and 24 owns items they no longer wear because it would not be part of their style or taste anymore, compared to a 36% overall (WRAP, 2012). This means that clothing has a different value for younger people, and is easier to be replaced by other items that are part of a new trend.

It gets even reinforced by people partly being involved with clothes because of their desire to spend time on an enjoyable activity, which is provided by 'the shopping

experience' (Michaelidou & Dibb, 2006). This is an interesting aspect to keep in mind, because it shows that buying new clothes is not always related to a lack of clothes. When designing a product that should keep people from buying clothes, this should be kept in mind. People simply like buying new clothes, because they enjoy shopping, the actual consumption of goods is secondary (Hamilton et al., 2005). This concept is known as "retail therapy" and makes it difficult to create a situation where repairing clothes gives the same enjoyable time.

Besides this urge to buy new clothes because of a changing fashion style, younger people also occur to be the group that has most problems with the wear and tear of clothes and whose clothes have the shortest lifespan (Langley et al., 2013). In the study of WRAP (2015) the younger participants (between the age of 18 and 24) indicated that there were less confident in their ability to tell whether one garment will look good and last for longer compared to another. They indicated to feel like they could do more to buy items that are made to last for longer and would like to do so. At last, the study concluded that younger people in particular are less likely to have clothing repair skills like altering a hem or darn a hole. Morgan & Birtwistle (2009) pointed out that young female consumers agree that there generally is a lack of knowledge on the disposal of clothes, or even how clothes are made, such as the environmental consequences of artificial fibers and intensive cotton production.

This awareness of their own lack in repairing skills and knowledge on sustainability is in line with other experiments. Reyna & Farley (2006) found that teenagers have the knowledge, values, and processing efficiency to evaluate risky decisions as good as adults do. It appears that teenagers tend to make irrational decisions based on other factors. One of these factors is social pressure and the presence of peers (Albert et al., 2013). Even just knowing that they are being watched by peers, makes teenagers more likely to take greater risks and increases the salience of immediately available rewards. Throwing away damaged clothes cannot be seen as a risk, but it is an example of an immediately available reward (new clothes) or a long-term reward. Mangleburg et al. (2004) supports this by indicating that teenagers tend to spend more money on new clothes when they are with friends. By creating a situation in which the social environment of a teenager would stimulate to repair clothes, they would be more likely to do so.

Conclusion from this literature

From this literature it does not seem like teenagers see the advantage of repairing their own clothes. Looking at the sustainable behavior of teenagers from the Fogg model perspective, it appears that motivation, ability and triggers are missing. It also appears that damaged clothes is not the main reason to buy new clothes: changing styles is. There needs to be an additional value for repairing clothes compared to buying new clothes, more awareness for the environmental consequences of fast fashion (not only for the consumer, but also for the social environment), a greater ability to repair and adjust clothes and a trigger that pushes them to do it when the clothes gets damaged.

Within this project, it is too much to target all these goals. Considering that teenagers currently do not feel the need to repair their own clothes, it firstly is important to introduce them to the topic in order to trigger their interest (Fazio & Zanna, 1981). Because of this reason, we focus on creating teenage awareness for sustainable fashion by a pleasant first time experience with repairing clothes. This first time experience should encourage the motivation to repair more often. In order to create a concept with this purpose, more information is needed on “creating a pleasant first time experience” and “creating awareness”. A literature review on these subjects is done in the following paragraphs. To get more insight in motivation and behavior of teenage girls multiple interviews were done, which are also discussed in the upcoming chapters.

Creating a pleasant first time experience

To create an enjoyable first time usage, literature points out that the user experience should be the main focus. To analyze the user experience of a product, we use the model created by Hassenzahl. This model could be seen as an extension of the “motivation” in the Fogg model. By creating a good user experience, the user will gain motivation to use the product.

Hassenzahl (2011) distinguished three levels if it comes to user experience: why, what and how. “What” are the things that people want to achieve by using a product. “How” is the manner in which the user can achieve that goal by using the product (by pressing a button for example). “Why” are the needs and emotions involved in the experience. An example of Hassenzahl is making a phone call. People want to make a phone call (what), by navigating through the calling menu (how), to communicate with their loved ones (why).

This relates to the fact that user experience is subjective. Therefore, actual experiences with products can significantly differ from the experiences intended by the designer. They vary between situations and they may change over time (Hassenzahl, 2003). Designers can create the “how” and have intentions for the “what”, but the reason why users take certain actions will differ per person, while this is an important factor in their perception of the product. This relates to the user experience model created by Pucillo &

Cascini (2014) (seen in Figure 4) that Hassenzahl described in this papers: when a product fulfills the perceived hedonic qualities, it enables the be-goals (the “why” in product use) of a user (Hassenzahl, 2011). When these goals are accomplished, the user will experience a pleasure from using the product. The perceived pragmatic qualities of a product need to be fulfilled in order to accomplish the “what” and “how” of a product. Considering that the user expects the product to have these qualities, the product will only be satisfying when these goals are reached (Hassenzahl, 2004). This satisfaction can also be described as a perceived usefulness of the product. In this design project, this information is the first step to create a pleasant experience. It gives a starting point to analyse which perceived hedonic qualities are needed to enable the “why” with the concept.

There is a significant relationship between perceived usefulness and the experienced value of the concept in successful and unsuccessful technology adoptions. This relation suggests that the perceived usefulness could have an important role in predicting overall user experience evaluations across the full range of user experiences (Partala & Saari, 2015). This gives the product designer a challenge, considering most products need a bit of experience before all features are discovered by the user. When someone starts using a skill-based product, he first must overcome the steep initial learning stage of the skill-acquisition process in order to fully understand and use all the product’s features

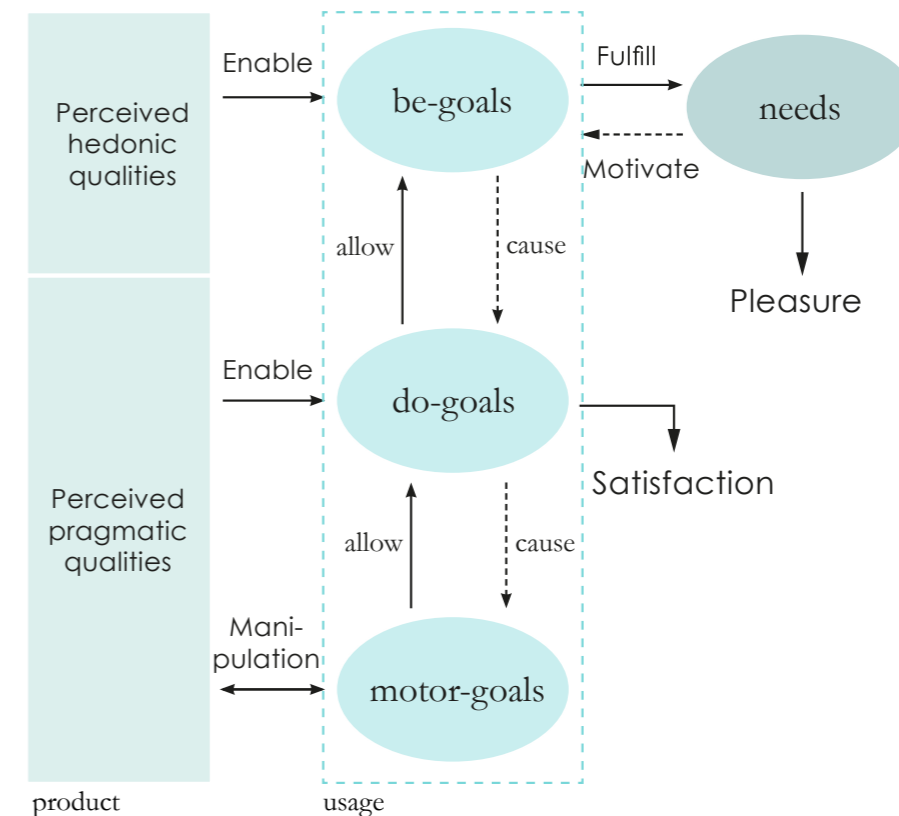


Figure 4. Representation of the Hassenzahl User Experience model created by Pucillo & Cascini (2014).

Creating awareness

and benefits (Billeter et al., 2011). Fitts (1964) proposed a three-stage framework for understanding skill acquisition. In this framework the first step is collecting the facts needed to understand and perform the task, next is trying out the task, and at last is mastering the task. In this stage the learner's actions are fast, smooth, accurate, effortless, and largely removed from the learner's awareness (Evans, 2008). The initial adoption and the continuing of use most likely depends on consumers' expectations regarding their own ability to master usage of the product (Billeter et al., 2011).

At last we discuss the timeline of fun, skills and money when it comes to the learning timeline. The timeline of fun, skills and economical aspects (as seen in Figure 5) illustrates what aspects of a concept are important for the user at what moment in the usage. The user starts using a product in order to have fun, as a recreational activity. During this usage he creates skills, and in the end when these skills are developed, the repair of clothes can have an economical aspect in which it's simply cheaper to do it yourself than buy it.



Figure 5. Timeline of fun, skills and economical aspects

From this information on creating a pleasant first time usage experience it is concluded that the product first of all should fulfill do-goals of the user. In the further on usage, it should be beneficial to also target the be-goals, but that is not necessary when designing a first time usage. To specify these goals in-depth interviews with the target group are needed. Furthermore the learning process of the user is an important aspect in the usage. The product should give the user the expectation that the skill is easy to learn. The facts needed to understand and perform the task should be given right away at the user, in order to make it accessible to try the task. At last, the product should be fun to use. Without fun, the user will never continue using the product, which will make the product pointless.

To change the behavior of people, the first step is to create awareness on the subject (Hutton & Baumeister, 1992). In this project, that would be creating awareness on the environmental impact of the textile industry. There are two types of awareness: cognitive awareness and affective awareness. There are many definitions of cognitive awareness, but the one we will be using here is given by Huiitt (1997) who describes cognitive awareness as "the knowledge of the individual on his own cognition system and thoughts. It is the awareness of his basic skill to learn how to learn." Affective awareness is described by Yakar & Duman (2017) as "the interest and need, motivation, caring about, perceiving, developing an attitude, showing behavior, and internalizing them so that it becomes personality during the learning process." In the case of change in shopping behavior, it would be important to create affective awareness. This because it is an external subject towards which people create an attitude. There are multiple methods to create affective awareness on a subject, which now will be described.

The study of Simsekli (2015) indicated that elementary level students can gain environmental awareness by environmental education implementations. These implementations should catch their attention by focusing on a local environmental problem. From there, it can also be a step to expanding the focus to more abstract global environmental problems. This would mean that getting involved with schools could help to create more environmental awareness, for which we first need to establish what the current environmental education implementations are.

A study of Lapointe et al., (2014) demonstrated that social media is already used to create awareness in other domains. The social media was used to connect, communicate and collaborate to inform, educate, support, share, advocate and raise funds, in order to create awareness.

Another theory suggests that the combination of motivation, knowledge and skills together create environmental awareness (Partanen-Hertell et al., 1999). In this theory the first step is motivation, which is often linked to health. People tend to feel like organizations or scientists should solve these problems, so the next step is to create knowledge on the effects of their own behavior. The last step to environmental awareness is skills, these are the energy and water saving skills or skills on sorting out waste (see Figure 6). This theory could also be used very well to set-up awareness for the impact of the fashion industry.

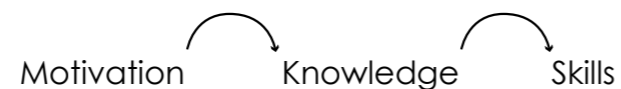


Figure 6. From motivation to knowledge to skills (Partanen-Hertell et al., 1999).

Current solutions

On the current market, there are few solutions to be part of the sustainable fashion movement. These solutions are not specified in repairing clothes, but focus on an overall environmental friendly way of using clothes.

There are a lot of sites or apps helping to reuse old clothes, by selling it to a new user. Examples are Marktplaats, United Wardrobe, Letgo, Swapp, The Next Closet, and multiple Facebook groups are used as an online thrift shop. Other apps are focused on making it possible to share your closet with friends or family. Examples of these apps are Share Closet, TradeYa, Listia or Peerby. A last category of apps tries to make the user more aware of their buying behavior by pointing them out what's already in their closet. Examples are Stylebook, Smart Closet, ClosetSpace GlamOutfit and Pureple Outfit Planner. These apps create an digital overview of what's already in the closet, help choosing outfits and give an advise for shopping choices.

Besides these solutions to stimulate users in recycling their old clothes, multiple sites try to stimulate users to give their clothes a longer lifespan by giving advice on the use of clothes. Examples of these sites are Recyclebank, WRAP and Good On You. It differs per website if they focus on the sustainability aspect or the financial aspect of the longevity of clothes, but all the sites refer to washing techniques, requirements when buying new clothes, ways to

remove stains, ironing techniques and the basics of clothing repair. These websites do not offer direct solutions, but do offer information on the subject for users. Another website in this category would be ifixit.com. A website on which users can upload guides on how to repair and maintain products. These products go from tablets, cars, kitchen utensils to clothes. YouTube could be seen in the same category, considering it makes it possible to share clothing repair techniques with other users. Examples of channels that offer these instruction videos are Professor Pincushion, Easy Sewing for Beginners, Slick and Natty or Made Everyday.

When looking at specifically solutions that are developed to repair clothes, the first results are tailor shops. Checking product that enable the user to repair clothes themselves, there are some simple clothing repair kits on the market, that make it possible to repair the very basics. Shops that sell these sewing kits in the Netherlands are HEMA, IKEA, Kruidvat or Blokker. These sets cost between €5 and €10 on average. Besides these basic sewing kits, some specified kits are being sold. An example would be the latex repair kit (Vex Inc. Latex Clothing, 2018) that can be used to repair latex clothing, but also kits for neoprene products are being offered online (ROOSTER SAILING, 2018). Furthermore multiple shops still sell the well-known clothing patches, which can be used as an easy solution to cover damages.

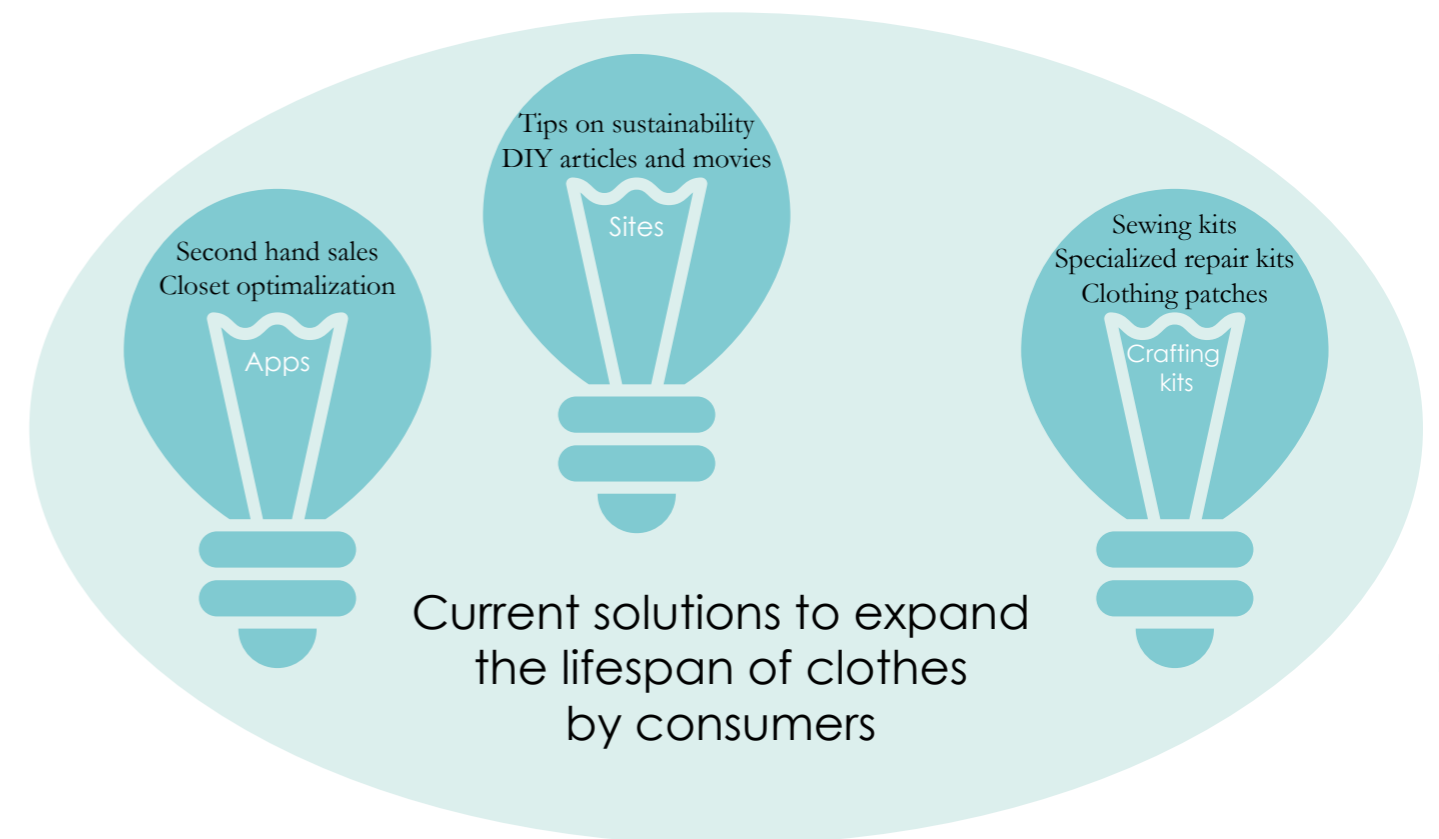


Figure 7. Categories of current solutions.

Trend analysis

When creating a product for teenagers, it's important to have an overview of the ever changing environment that creates their world. A trend analysis was done, which focused on fashion trends, trends for teenagers and megatrends that will influence the way of buying products in the long run.

Co-Creation between brand and customer

More and more companies give their consumer the power to design their own products. This trend is used in multiple industries (Gilliland, 2018), and as Phelan (2016) pointed out, it is also upcoming in the fashion industry. It is already seen at companies that allow their customers to be a small part of the designing process, like Nike or Adidas. The customer is able to choose the materials and colors of the different elements in their shoes (Adidas America Inc., 2018; Nike, 2018). This example can be seen in Figure 7.

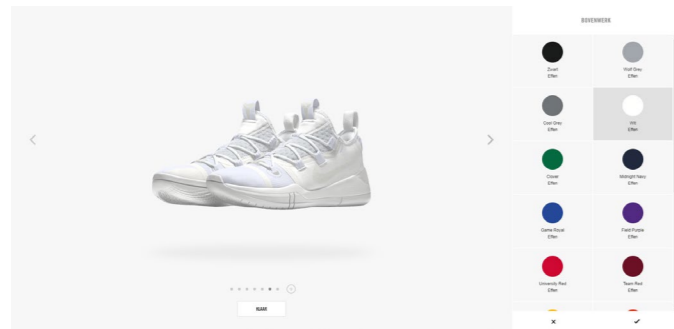


Figure 8. Designing your own shoes at Nike.

Personalization

The possibilities of co-creation between customer and brand, leads us to the next trend: personalization. Personalization is a megatrend (Trend Hunter, 2018), which means that it is expected to last up till 30 years. This trend can be seen in products, services, experiences, as well as in advertisements. It's all part of the human urge to be unique, and makes that the customer is personally involved with the product. An example can be seen in Figure 9.



Figure 9. Having your own name on a bottle of Coca Cola.

Creating an experience

The personal experiences that are mentioned before, are also part of a third trend: creating experiences. These experiences are meant to be one-of-kind. People want places where they can not only shop, but also eat food, listen to music, meet friends and play with the product

(Goldston, 2017). Especially the millennial generation would rather spend money on an experience than on a product (Eventbrite, 2017) and Generation Z (the people born after 2000) follow this trend (Fromm, 2018). An example can be seen in Figure 10.



Figure 10. Escape rooms are a new successful concept.

Influencers on social media

Generation Z is a group that asks a complete new way of advertisement. Companies need to approach them where they are the most: online. Social media influencers have a direct contact with the teenagers and are seen as peers. Teens look them up for inspiration and updates (Miachon, 2018). This doesn't stop at one platform: companies need to have influencers at Instagram, YouTube, Snapchat and stay up-to-date with the new platforms like Musical.ly and TikTok. An example can be seen in Figure 11.



Figure 11. Kylie Jenner, one of the biggest influencers of the world.

Having impact

Although it could be said that everybody in this world wants to have impact in some sort of way, Generation Z appears to feel this urge even more. Surveys indicated that 60% of Generation Z wants to have an impact in the world with their job, compared to 30% of the millennials (Ayub, 2018). This impact is described as "wanting to add something to the world" or "wanting to have a positive influence on the world". This is not only an ambition for the work they do, but also for the products they buy. Teenagers know they have a choice when spending their money, so they want to spend it on a company that shares their values (Forbes Communications Council, 2018).

Gamification

When specifically looking at trends to introduce people to new products, experiences or skills, gamification is a big trend (Extend Limits, 2018). This means that companies use games to learn people new information or to motivate them. The latest developments within this trend is gamification through apps.

Servitization

Another megatrend discussed for this research is servitization. It could be said that this trend was born out of environmental friendly perspective, to create products that last longer, but it is also an opportunity to make the customer dependent on the company (Rathmann, 2018). The company delivers the outcome instead of the product, which is often offered as a product service system. Customers choose for services above products because a service saves them effort, time and is able to improve over time. An example can be seen in Figure 12.

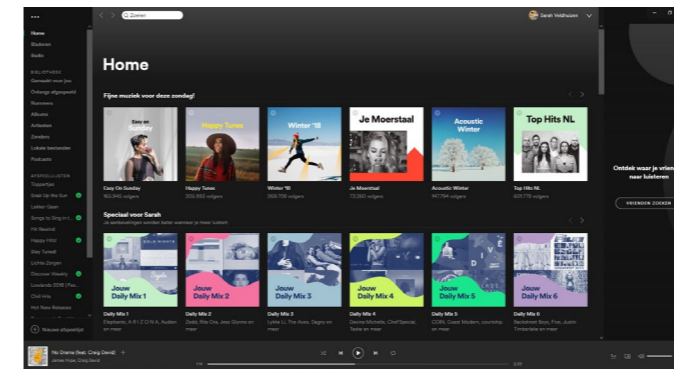


Figure 12. Spotify, a music service.

Sharing economy

The sharing economy is, like servitization, part of companies delivering outcome instead of the product. Consumers do not own the product anymore, they rent it from the company. Customers choose for these rental products because it allows them to use goods when they need them, instead of having to purchase them in case they need it in the future (Newlands, 2015). It can be seen as a trend that is stimulated by the environmental friendly character of sharing products, as well. An example can be seen in Figure 13.

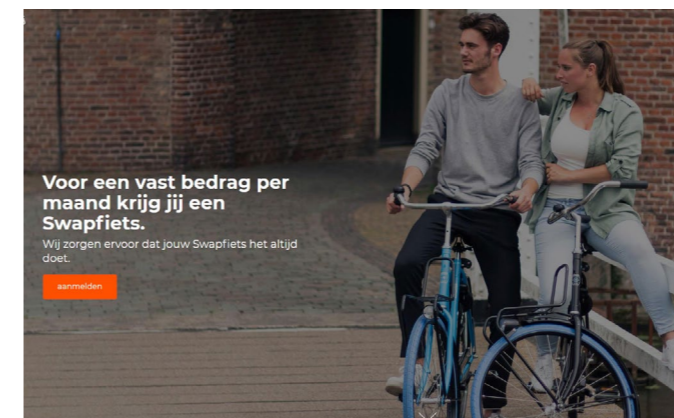


Figure 13. Swapfiets, a bicycle rental company.

From the literature a lot of general information on sustainable clothes, learning new skills, creating a user experience and creating awareness has been discussed. This knowledge is of course the basis of creating a good concept, but in order to create a successful product that is attractive to the target group, a small target group research needs to be done. As discussed before, the do-goals and be-goals need to be specified in order to create a motivation in the user experience. Furthermore, the study should provide more information on the teenage behavior related to clothes.

Method

To get a better insight of the teenage shopping behavior and their perception of repaired or sustainable clothes, in-depth interviews with small groups of participants were conducted at a high school. The study was done with 22 girls with an age between 13 and 17 years old. Their modus age was 14 years. Participants were volunteers at the high school and were selected aiming on a variety in age. Besides these in-depth interviews, a small diary study was conducted with 13 girls, with an age between 14 and 17 years old, with a modus age of 17 years. The purpose of the diary study was to get insight in the daily usage of clothes in the teenage life. The participants were selected via Instagram through an advertisement by a girls magazine “Huis van Belle”. A lifestyle magazine for Christian teenage girls, that has articles about religion, fashion, crafts and lifestyle. This magazine was used because it focuses on teenage girls with interest in fashion and crafting. Again, the participants were selected aiming on a variety of age. Examples of the social media post to recruit participants can be seen in Figure 14 and Figure 15.

Procedure

The first part of the study was conducted via semi-structured, face-to-face interviews with small groups of three to four girls. The girls were encouraged to respond on the answers of their friends, in order to make it more of a conversation in which they could discuss their answers. This ensured that all participants felt comfortable and were willing to answer all the questions. The average interview time was around 20 minutes. The interviews took place in a conference room at the high school, in order to make it possible for the participants to do the interviews in between their lectures. All participants were informed about the purpose of the study and that their answers would be anonymously.

The interview began with questions on their buying behavior of new clothes, followed by questions on the origin of the clothes they bought. Did they know where their clothes were made? Further question included what the participants did with old clothes, if they ever repaired clothes or were able to do it and if they wore repaired clothes. The last questions included 11 pictures of repaired clothes, of which the participants needed to indicate of they would want to wear it, and 9 pictures of damaged clothes of which the participants indicated of they still would repair it.

The second part of the study was conducted via a structured online diary study, in which the girls received a question about their clothing behavior every day during a week. In this week the participants were asked to report new purchases or damaging on their clothes as well. The diary study was

conducted over Instagram, to create a low threshold to participate and give the possibility to enclosure pictures with the answers. All participants were told that their answers would be anonymously and that the results would be used for a study. The questions asked were as followed:

- Day 1: What was the last time you bought new clothes and why did you want this item?
- Day 2: How do you check the latest fashion trends?
- Day 3: What is your favorite clothing item and why?
- Day 4: Do you sometimes repair your clothes? What kind of repairs do you do?
- Day 5: Do you have damaged clothes in your closet? Do you still wear these?
- Day 6: How often do you buy new clothes? What is a reason to go shopping?
- Day 7: When and how do you decide what to wear on a day?

These questions were chosen because they give insight in the following subjects:

- ▶ The frequency of buying new clothes.
- ▶ The relation between buying new clothes and the newest fashion trends.
- ▶ The most important aspects in an clothing item.
- ▶ The frequency of repairing clothes.
- ▶ The relation between repairing clothes and the amount of damaged clothes, and what normally is done with damaged clothes.
- ▶ Reasons to go shopping.
- ▶ Which aspects have an influence on the clothing behavior of teenage girls.

The total of these subjects give an overall insight in the clothing and shopping behavior of the participants.



Figure 14. Instagram post to recruit participants.

Analysis

All interviews were audio recorded and fully transcribed. One example of an interview can be seen in Appendix A. The interviews were done in Dutch, which is why they were transcribed in Dutch. The analysis of these transcriptions was done according to the thematic analysis. The interviews were coded in NVivo, which resulted in 57 codes. These codes can be seen in Appendix C. The codes were divided into five categories: Variables in repairing clothes, Reasons to wear an item, How I dress, Buying new clothes and Awareness of sustainable fashion.

The answers of the diary study were reported in a table per participant. An example of the answers on a question can be seen in Appendix B. These answers are in Dutch as well. Again, a thematic analysis was done. The answers were coded with NVivo, which resulted in 35 codes, these codes can be seen in Appendix D. The codes were divided into the same five categories as the codes of the interview, considering there was a lot of overlay.

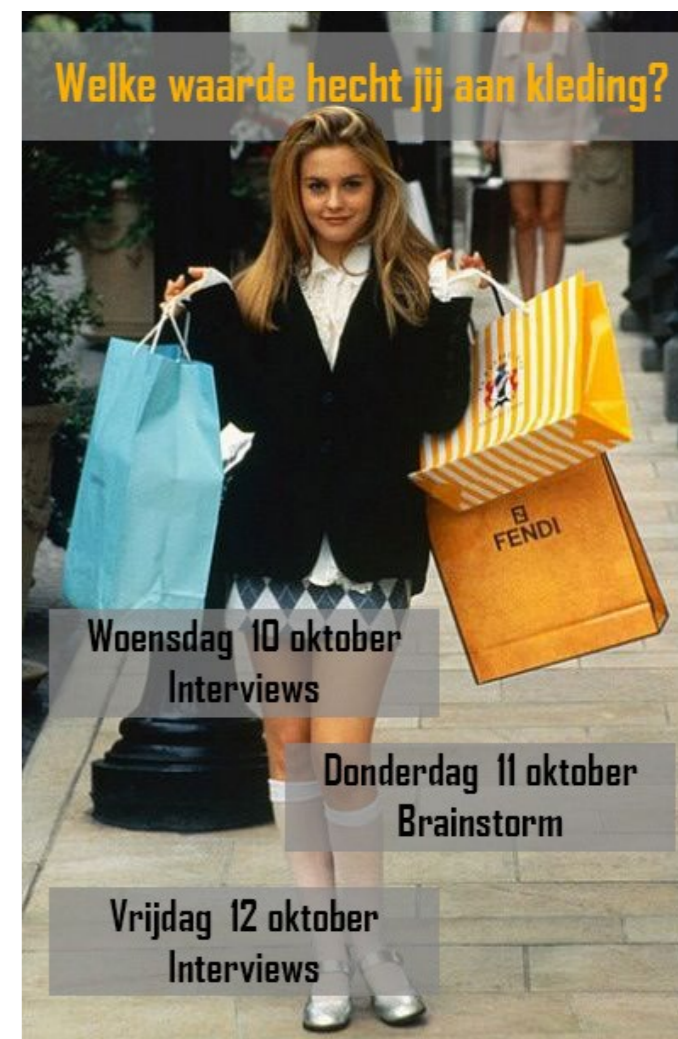


Figure 15. Facebook post for the participants on the Grijtland College.

Results

Since the codes of the interviews and diary study could be divided in the same categories, the insights will be presented together per category. The topics discussed in the studies were very alike, which makes that it would be more useful to combine the results in order to see if the different topics are related to each other. The participants of the interviews will be referred to as P1 to P22, the participants of the diary study will be referred to as P23 to P35.

Buying new clothes

When it comes to inspiration for buying new clothes and the latest trends, most participants see it in the stores, on the street or at school. Social media, YouTube, Instagram, fashion apps and Pinterest were also mentioned in the answers. Most participants simply went to the shop, saw clothes they recognized from other people or social media and decided then if they also liked this trend. Some participants mentioned that they didn't want to follow all the trends, because they didn't want to look like everyone else. They mentioned that it was embarrassing to wear exactly the same as someone else.

P31: "Most of the time, I see different versions of an item in multiple stores, after which I conclude that it should be a trend then."

P29: "I'm not really consciously checking trends, but you obviously see it in the shops and at the people around you."

P22: "I do look if I like the trend, I'm not only going to join a trend to be cool."

The participants mentioned five reasons to buy new clothes: their clothes got too small, their clothes got damaged, they needed new clothes for the changing seasons (see Figure

16), they didn't like the style of their clothes anymore and mostly bought clothes as a recreational activity because they were a day out with friends.

P1: "Well, I mostly like my clothes for two months, and after that I don't wear it anymore."

P26: "Sometimes I go shopping with friends, and other times I really need something."

P27: "Mostly when I'm having a daytrip and I see something nice in the shops we pass."

P35: "I mostly don't buy clothes because I really need it. If I buy something new it's because I like it, or I happen to pass it by."

The participants were very aware that they sometimes bought clothes, to wear maybe once and then throw it away.

P2: "Assume you have a prom, you can then buy a dress at the Primark, so you can wear it once. Yeah, you can see it as disposable clothes."

At last, multiple participants mentioned that their mother buys them new clothes.

P21: "My mother always brings me random stuff from Utrecht."

P17: "My mother often buys me new clothes."

These results indicate that most participants are not aware of the impact of their shopping behavior. Shopping is seen as a fun activity, in which most clothes bought are part of the fast fashion trends. Parents stimulate this behavior by acting in the same way: buying new clothes without a cause.



Figure 16. Needing new clothes for the changing season.

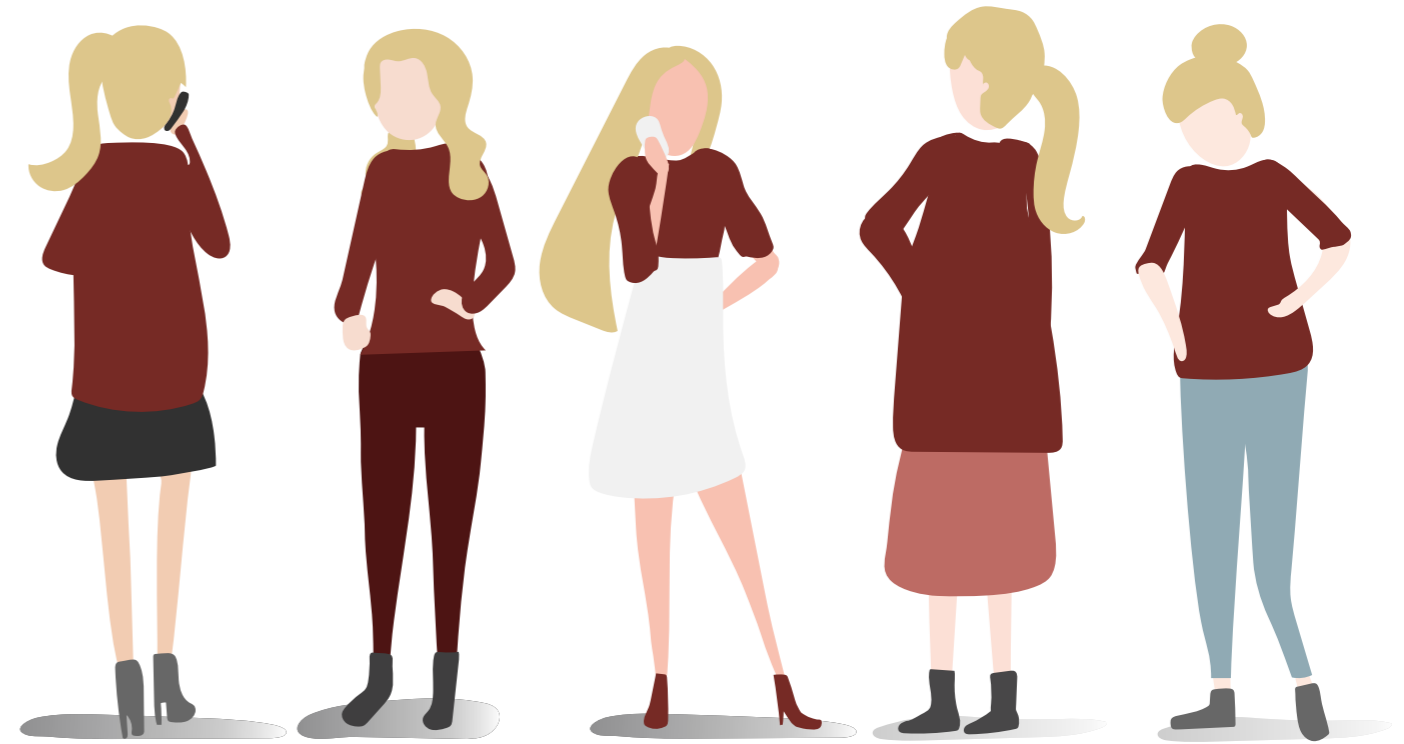


Figure 17. Participants preferred clothes that are easy to combine in multiple outfits.

Wearing clothes

After the clothes have been bought, the participants had five different reasons why they liked to wear particular items:

The clothes were easy to match with the rest of their outfit and could be used on multiple occasions (see Figure 17).

P25: "I really like this white blouse, because it can be combined with everything."

P26: "I can use it for school, for the church, for parties, it can actually be used for everything."

The clothes were very comfortable.

P28: "This shirt is my favorite at the moment, it's a bit oversized, but it's super comfortable."

P1: "I like it so much because it's super comfortable, it doesn't look very nice furthermore."

They felt beautiful in the clothes, which made them feel good.

P9: "If I feel confident in my clothes, I wear it more often."

P8: "Because I have the feeling I look good, I feel good."

They had good memories with the clothes

P33: "This dress has a nice memory, I performed in it in a dance show, with a beautiful modern dance."

P11: "I like it because of the memories I have with it from last year."

They liked the message of the clothes.

P23: "I really like the text on this T-shirt."

This makes it clear that clothes that make the participants feel good are worn most often, and are more likely to be repaired when they get damaged. Having memories or feeling connected with the message of the clothes was mentioned less often, but will probably play parts in this, as well. At last, some participants mentioned that the opinion of others also had an impact on the frequency they wore an item. When someone made a mean comment on their outfit, they were less likely to wear it more often.

Repairing clothes

A few participants mentioned that damaged clothes get repaired. Almost all of these participants said that someone else did it for them: their mother, grandma or a tailor. This is illustrated in Figure 18. From the 35 participants, only two mentioned that they were able to repair their clothes themselves. Nonetheless, all 35 participants indicated that they still would wear repaired clothes if it was done nicely.

The choice to repair or depended on five factors: the price or brand of the item, the location and size of the damage, how often they wore the item and the overall state of the item. The price or brand of an item was mentioned by almost all participants: if the repair costed as much as buying a new item, they would rather buy a new item. One girl mentioned that she would repair an item if it was from a brand, because that would mean that the overall quality was better and the repaired item would have a longer lifespan.

P3: "If it really is going to cost money, you can better just buy a new



Mom! I have a hole in my shirt!

Figure 18. When clothes get damaged, someone else does the repair.

onesie.”

P8: “Yeah, if you have a blouse of €80, and you’re able to repair it, I would.”

P10: “I’m more likely to repair jeans, because jeans are expensive.”

P11: “It depends on the price of the sweater. If it was from a specific brand, I would repair it.”

The location of the damage was said to be of importance because this would influence if the repair would hold for a longer period of time, and if the repair was seen by others. For jeans, this was especially an important issue, considering a lot of shops sell ripped jeans, so some damage could also be part of that trend.

P12: “If you make this with needle and thread, you sit on it all the time, so it will be damaged again in no time. And by then the hole will be bigger.”

P20: “It depends where the hole in the jeans is located, because you don’t want to walk around naked, having the feeling that everybody is checking you out.”

The size of the damage matters in a way that only small damages get repaired. Bigger holes were perceived as impossible to repair in a delicate manner.

P20: “It depends on the size of the hole, if it’s small you can repair it.”

P2: “If it’s a big hole or something got ripped off, I mostly think “yeah, maybe I should just throw it away”.”

Items were more likely to be repaired if it was one of the favorites or an item that was worn often. This was also an indication that not everything that gets thrown away because of damage gets replaced by a new item. If an item

was not worn enough to be repaired, it also was not worth spending money on a replacement.

P12: “Yeah, if it’s a really nice item and you wear it often, I would repair it, but otherwise I would just throw it away.”

P15: “But if I wasn’t wearing it that much anymore and it gets damaged, I rather just get rid of it.”

With the overall state of the item, the participants mentioned that they wouldn’t repair an item that got worn out on multiple spots. That would result in an item that would need new repairs one month after the first one.

P7: “I would not repair this, this just looks worn out.”

P12: “But if the item is really old, when you can see that it is worn out, I would throw it away.”

From these answers, we can conclude that the reason to start with a repair is a combination of motivators and ability, looking back at the Fogg model. From all the mentioned reasons to do a repair, it was clear that the participants did repairs because of financial reasons or because they really liked the item (product attachment). Environmental reasons or practicing of skills were not considered. When talking about repairs, four requirements on the looks of the repair were mentioned: the repair should be invisible or should add something beautiful to the item, the repair should be consistent throughout the whole item and the color of the repair should match the item. These conclusions are illustrated in the following quotes:

P10: “Yeah, if it will stay visible, I wouldn’t want to wear it anymore, but if it’s done neatly I wouldn’t care about it.”

P1: “Make it visible and nice, or hide the repairs.”

P11: “If you do it on both sides of the shirt, exactly the same, I would still wear it.”

P18: “If you repeat it a few times it could be nice, if it’s on multiple places on the shirt.”

P22: “This color difference is too much, I would choose another color.”

Besides these four requirements, the participants mentioned that the use of a patch was possible, if the image of the patch was trendy.

Sustainable fashion

During the interviews it came across that most participants had no knowledge on sustainable fashion. They had seen an obligatory documentary in their first year of high school, of which they mostly remembered the child labor in third world countries. When being asked if they still bought clothes from stores where they knew that child labor was used, most participants answered “yes” (see Figure 19).

P14: “When you enter the Primark, where you know it is not produced in a fair way, but the clothes are so nice and super cheap. So in the end you simply have to buy it.”

P1: “If I walk through the store I don’t think about the working conditions.”

There were a few participants who said that they tried to avoid buying clothes made in China and Bangladesh after they saw the documentary. It was also mentioned that

buying sustainable clothes was difficult, because companies were very vague about this. Overpriced brands use third world countries as well, and sustainable clothes appear to be expensive.

P13: “But if you look at expensive brands like Dior or Prada, the clothes are made in the same factories.”

P16: “You simply don’t know for sure if it’s made in a sustainable way.”

P19: “The companies that focus on making sustainable clothes are still very expensive.”

Besides not buying at brands that have their focus on sustainable fashion, most participants also did not go to the thrift shop. They indicated that their mother sometimes bought products in the thrift shop, but they did not go there themselves.

P5: “We actually never go to a thrift shop.”

P17: “My mom sometimes goes there and I join her now and then, but I never buy something there.”

The participants did said that they brought their own old clothes to thrift shops, textile containers or younger people in their family. Only a few mentioned that they themselves received old clothes from other people.



Figure 19. Wanting to take care of the world, but still shopping at Primark.

Relation between the codes

After this first coding session, another round of coding was done to create participant profiles. With these results the overlap of codes between the participants was analyzed. The codes that had a correlation are visualized in Figure 20. The green circles pointing out clusters are used later in this analysis for the creation of three participant groups. There were 72 significant correlations with $p < 0,05$, from these correlations the ones with a code mentioned by two persons or less were excluded, which resulted in 53 correlations. From these, there were 18 correlations that were used to draw conclusions about the participants, these correlations are described in this chapter. These were also the correlations that made it possible to distinguish different participant groups within the target group. This is described later on in the conclusion.

Damaged clothes are brought to the thrift shop and only buys sustainable in sale. This correlation suggests that people do want to be sustainable, as long as it doesn't cost money. This is based on the effort that is put in going to the thrift shop and the will to buy sustainable clothes, but that the price of clothes apparently plays an important role.

Shops every week and I would never wear a patch, in combination with the correlation between *shops every week* and *goes recreational shopping.* This correlations point out that the participants that have a frequent shopping scheme do not go shopping because they need something, but because they're having "a day out". It also points out that these participants are picky about the aesthetics of their outfits, patches do not fit in their style.

I don't repair clothes and I feel good by looking good. This correlation suggests that people don't think they can look good with repaired clothes on, considering people want to feel good in their clothes.

Repairs should be consequent and mom repairs, in combination with *repairs should be consequent* and *I still wear repaired clothes,* and the correlation of *repairs should be consequent* and *buys in shop.* From the first correlation it is not clear if one is a result of the other, but it could suggest that the participants let their mom repair their clothes, because they want it to look consequent. The second correlation points out that as long that the repair looks consequent the participants are willing to wear it. The last correlation could imply that participants want their repairs to be consequent, because it makes the clothes look like the clothes in the shop. This could also suggest that when shops sell clothes with irregularities, people would mind irregular repairs less.

Buys in shop and doesn't care where clothes are made. This correlation points out that participants that go to regular clothing shops, do not care about sustainable fashion.

I still wear repaired clothes and damaged clothes are thrown away. This relation indicate that the participants did give repaired

clothes another (a better) value than damaged clothes.

Seams can be repaired and *I repair small damages,* in combination with *seams can be repaired* and *zippers can be repaired.* The combination of these codes indicates that some participants did repair small damages on their clothes, with specific examples of damage that could be repaired: seams and zippers.

Worn out clothes are thrown away and *doesn't go to the thrift shop* in combination with *worn out clothes are thrown away* and *expensive clothes get repaired.* The combination of these correlations indicates a group participants that gives value to the cost price of their clothes, and as soon as the clothes start to look untidy, it gets thrown away.

Location of damage is important and *expensive clothes get repaired,* in combination with *location of damage is important* and *I only repair favorite items.* These correlations suggest that the participants were willing to repair clothes, but had some requirements on the clothes.

Buying because it got too small and *I only repair favorite items,* in combination with *buying because it got too small* and *fast fashion shopper.* This correlations suggest that damaged clothes are not a specific reason for the participants to buy new clothes. Despite the fact that participants only repair favorite items, they buy new clothes because their clothes got too small, not because it got damaged. This also appears from the fast fashion shoppers, who buy clothes to stay up-to-date with the latest fashion trends.

Sale doesn't matter and *fast fashion shopper.* This correlation indicates a group of participants that buys new clothes, because they want to stay up-to-date with the trends, and it doesn't matter to them if this costs money.

Mom buys me clothes and *I wear what I like.* This correlation seems to be a bit contradictory, considering they actually wear what their mom likes, but it could also be seen as people that do not wear the latest fashion trends. They wear the clothes that match their own style. This statement matches a bit with the correlation of *mom buys me clothes* and *old clothes go to other people.* From this correlation it could be suggested that the clothes bought by mom don't lose their value after time, they're still good enough to be given to other people. It's not part of a fast fashion trend.

No responsibility in the shop and *still buys at Primark.* In this correlation the second code is simply an illustration of the first code, that makes it a bit more explicit.

Repair with patches is possible and *sale does matter.* This correlation points out that there is a group of participants that are on a budget, or mind the money spend on clothes, and (maybe therefore) don't mind repairing their clothes.

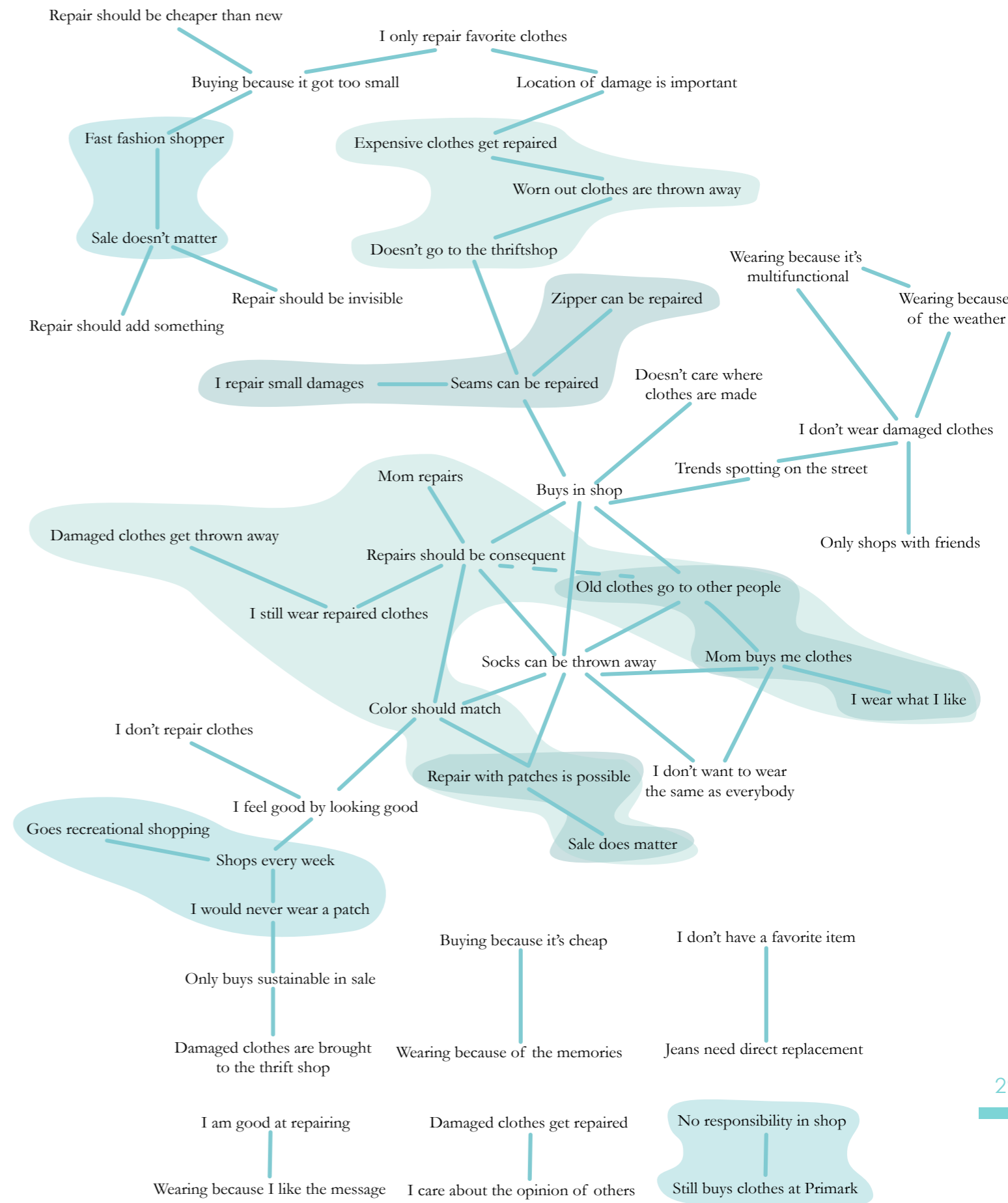


Figure 20. Visualization of correlations between interview codes and the clusters created within these correlations.

Conclusions from the interviews

From these results there are three groups of participants that can be distinguished, the “no responsibility” participants, the “mom repairs” participants and the “I do repairs myself” participants. These groups are visualized in Figure 21.

These groups are created by clustering the participants that said the same codes. As can be seen, some codes appeared in multiple clusters (“Repairs only favorite clothes” for example). In the groups not all participants said all codes, a code was included if at least 60% of the participants in that group had mentioned it.

From these participants, the groups “no responsibility” and “mom repairs” are the far majority. Most teenagers are not aware of the environmental impact of their behavior. Moreover, the people that are aware of the consequences, do not act in a responsible manner when buying clothes. Repairing clothes is not seen as an environmental friendly act, but it is considered as a cheap solution to wear favorite items for a longer period of time. Buying new clothes is mostly seen as a recreational activity, used to stay up to date with new trends. This is in line with the reason to wear particular items: teenagers aim to feel good by looking

good, and wearing the latest fashion is an easy way to do that. Besides the look of their clothes, comfort also appears to be an important factor in wearing clothes. Most participants would consider repairing their clothes if it was a very comfortable item that they wear regularly.

All these results are in line with the literature review, and points to the fact that there needs to be a solution that makes youngsters aware of the consequence of their behavior. The effect of the textile industry is too big to be ignored, and the new generation needs to get familiar with this problem. It is essential to introduce them with sustainable fashion, and the easiest way to do this, is by using fashion aspects they value: comfortable clothes that look trendy and unique, are affordable and make them feel confident.

From the distinguished participants group, the “mom repairs” participants will probably be the most interesting group to focus on. This group is open to wear repairs, but want it to be as effortless and good-looking as possible, one of the reasons why mom repairs. This attitude indicates that the participants experience a threshold to do the repairs themselves, but that they do understand the usefulness.

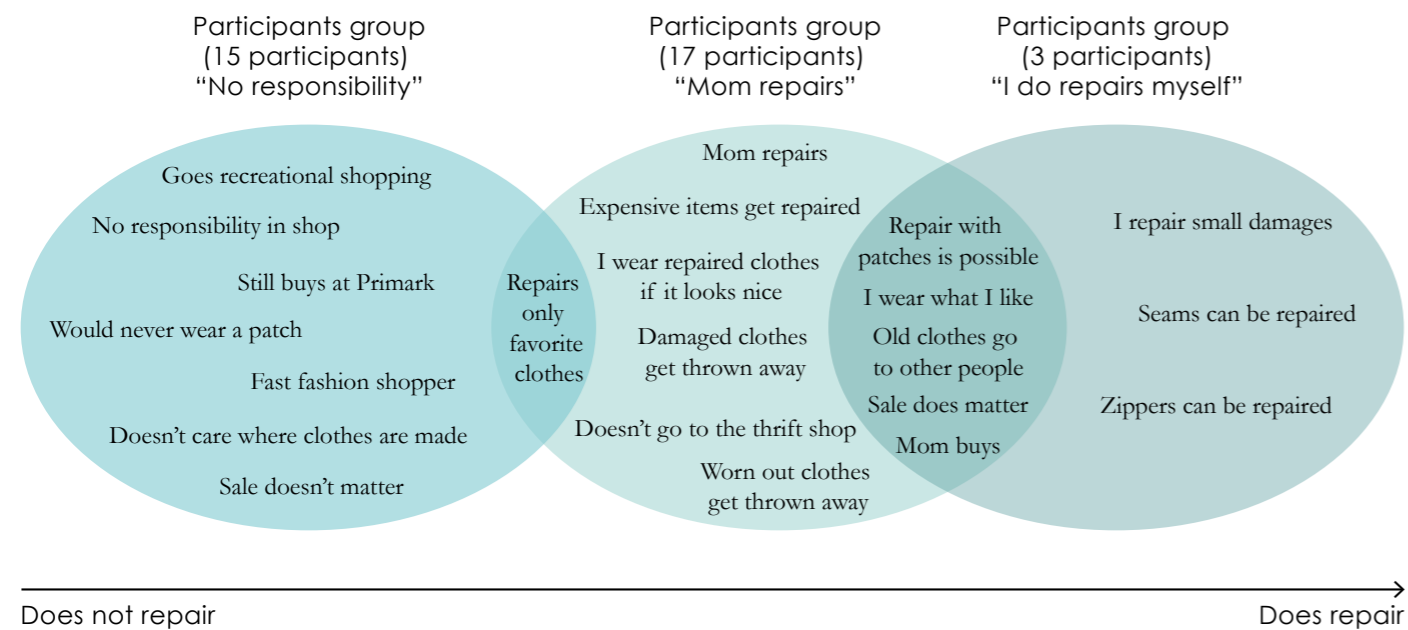


Figure 21. Participant groups.

With the results of the interviews, it is possible to fill out the Hassenzahl model for the use case of clothes repairs by teenagers. This can be seen in Figure 22. This model makes it clear that the product should enhance repair in a way that makes it invisible, beautiful and easy. This will stimulate the confidence of the user, which will lead to pleasure. It is also possible with these results to fill out the Fogg behavior model, which can be seen in Table 3.

In this model the motivators and triggers were mentioned in the interview as situations that were already there. However, very few of the participants really repaired their own clothes, which means these motivators and triggers are not enough. The ability was mentioned as a wish from the participants. These are not abilities they already have, but they do said they need these skills in order to feel confident enough to repair their own clothes. The product mostly needs to provide these abilities that were wished for, and create motivators that do stimulate to start with a repair.

| The Fogg model for repairing clothes by teens | |
|---|--|
| Motivators | Wanting to wear (expensive or favorite) clothes again. Avoiding child labor. |
| Ability | Invisible repair. Creating long lasting repairs. |
| Triggers | Damage is visible. Clothes cannot be worn anymore. Comments from other people on the damage in your clothes. |

Table 3. The Fogg model for repairing clothes by teenagers

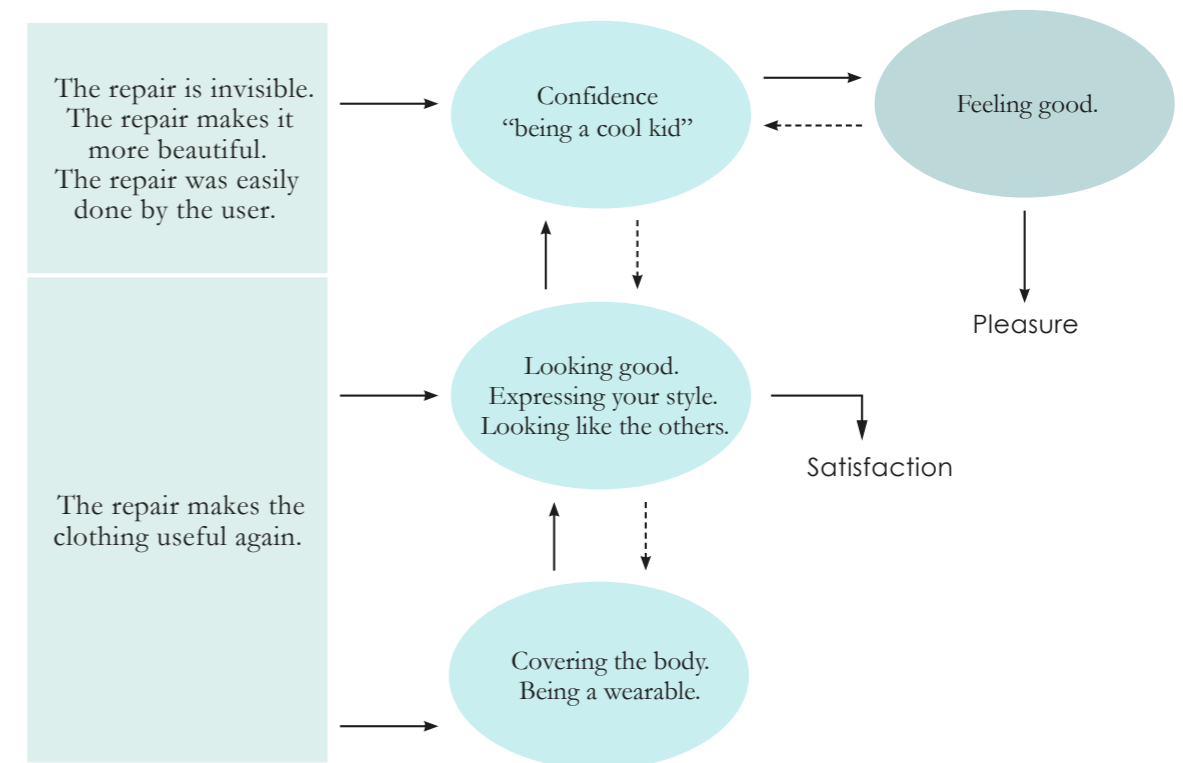


Figure 22. Hassenzahl model filled in for repairing clothes by teenagers

List of requirements and wishes

From the gained insights, a list of requirements was created. This list is divided in three parts: the economic aspects, the psychological aspects and the skill requirements of the concept. This is related to the fun, skills and money timeline mentioned in the chapter “Creating a pleasant first time experience”. While the money is only of importance later on in the timeline, there is an economical requirement: the repair should be cheaper than a new item. This requirement is set because it was mentioned by multiple participants in the interviews. It’s a motivator for the participants. Furthermore, the Fogg model can be mostly seen in the skill requirements. The ability and triggers of the model are translated into what outcome the user expects from using the concept. The motivator “wanting to wear (expensive of favorite) clothes again” can be seen in the skill requirements. “Avoiding child labor” is not a requirement in this concept, considering child labor is not linked to the concept so there is no avoidance needed.

Psychological aspects:

- ▶ The concept should have a low threshold to try for the first time.
- ▶ The concept should stimulate to do the repair self, and not leave it to the mother.
- ▶ The concept should make the user feel confident.

Skill requirements:

- ▶ The concept should make it easy for teenagers to repair or adjust their clothes, onto a condition where they would wear the clothes again.
- ▶ The concept should make it possible to create invisible or beautiful repairs.
- ▶ The concept should make it possible to create long lasting repairs.

Economic requirements:

- ▶ The repair should be cheaper than a new item.

Besides the hard requirements for the concept, the participants mentioned preferences. These are listed below in the list of wishes:

- ▶ The concept should make it possible to stay up-to-date with the new trends.
- ▶ The concept should be implemented on the short-term.
- ▶ The concept should make sustainable fashion more transparent.
- ▶ The concept should feel as a recreational activity.
- ▶ The concept should support the fashion style of the user.
- ▶ The concept should create awareness on the environmental impact of the textile industry

Concepts

With the gained insights from the in-depth interviews a brainstorm was done with five people on how to give value to clothes, how people can learn new skills, how people can share clothes, how old clothes can be reused, how people can join new trends and different methods to advertise clothes. The results of this brainstorm can be seen in Appendix E. From this brainstorm four different concepts were created, these are illustrated in this chapter.

In this chapter the first generation of concepts will be presented with their unique selling points. The chapter ends with a concept choice.

Concept 1

The first concept is illustrated in Figure 23. The concept consists of a “do it yourself” (DIY) kit that will be created with new fashion trends or new collections. In an ideal situation this kit would be produced by the big fashion stores like H&M and Zara, and be displayed next to the related fashion trend items. The kit will include materials that make it possible for the user to alter old clothes into the new fashion trend. This creates the possibility for the consumer to choose between buying new clothes or buying the kit, when interested in the trend. The kit will include accessories like jewelry or bags, different kind of patches, clothing patterns, haberdashery matching the trend and a link to a website with instruction videos and blogs on sustainable fashion. The website will be illustrating the different possibilities with the content of the kit, explain how to use the patterns and have videos with the basics of clothing repair. Furthermore, the website contains information on sustainable fashion, the environmental impact of the textile industry and practical tips and tricks on what the user can do about this. A kit will cost between €15 and €20.

Advantages:

It will stimulate repairing clothes as well as buying less new clothes. There will be a low threshold to buy this if it is linked to the new collections of big fashion companies.

Disadvantages:

Having a collaboration with big fashion companies will be difficult to establish. This makes short-term implementation difficult. It also gives a complex situation in which the aim of the project is to make a statement against fast fashion, while selling the product at fast fashion stores. It would support them.

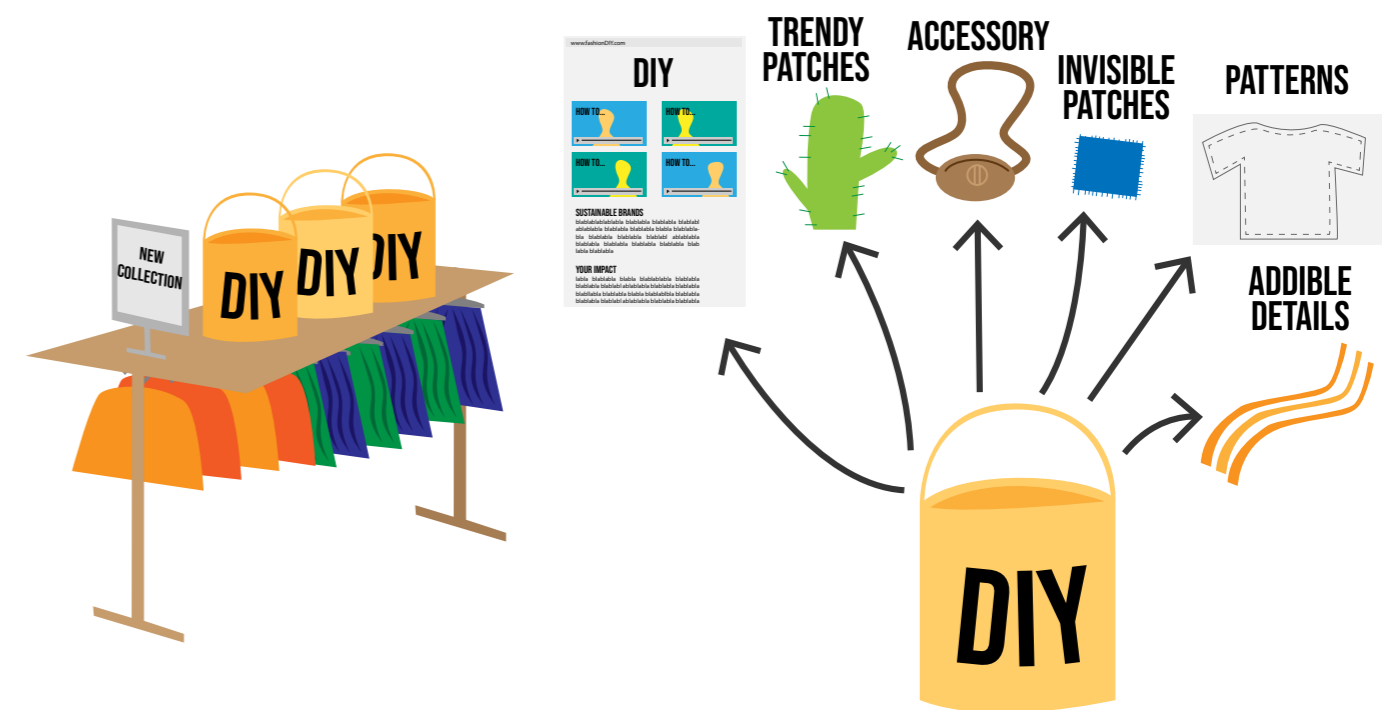


Figure 23. Concept 1.

Concept 2

The second concept is illustrated in Figure 24. The concept could be described as a rebranded repair café. It would be a place for teenagers where they can have a break during a day out, have a snack with something to drink. The place should have the same atmosphere as the Starbucks or the Coffee Company. Besides a drink, the place also offers rental clothes and a crafting table where it's possible to get help with repairing and adjusting clothes. Customers get a subscription in which they pay €20 each month to get access to a collection of rental clothing items that gets updated with every new trend. Customers need to have a subscription or buy a drink to get access to the crafting table. There will be tools and materials to adjust the brought in clothes, and when someone feels insecure about the usage of such a tool, it's possible to ask for help. There won't be someone who does it all for you, it is not a tailor service. The customer needs to participate and learn something during the repairs.

Advantages:

The concept can be part of the recreational shopping experience, which gives it more value for teenagers. Furthermore serves the concept two purposes: learning teenagers how to repair and alter their old clothes, but also offering an environmental friendly way to still wear new clothes.

Disadvantages:

The concept is basically a complete new company that needs a building and employees. That makes it difficult to implement in the short-term in the market.



Figure 24. Concept 2.

Concept 3

The third concept can be seen in Figure 25. This will be a collection of different crafting kits that can be sold in clothing stores as well as stores with household products or crafting supplies. The collection will include different subjects like creating a waistline in a shirt, replace zippers, alter the waistline of a pants or how to repair damaged clothing. The kit includes written down and illustrated instructions, crafting tools, materials in different colors and if needed patterns. The product could be compared to the already existing crafting kits for children on the market for simple projects like creating your own sock puppet or crocket hats. The kits will cost about €5.

Advantages:

The product line could be in a very wide range of shops, which makes it independent from the fashion stores and easier to launch on the market. It will also be possible to keep the cost price down, which makes a low threshold to try the product. The fact that the concept will be a collection makes it possible to expand it throughout the years, if there appears to be a quest for a specific technique.

Disadvantages:

A kit like this will more likely appeals to customers who were already looking for ways to adjust or repair clothes, and will make it easier for them. This means that a very big group of teenagers will never get into contact with the concept. Besides this, the concept does not provide a solution for the urge to buy new clothes to be part of a new fast fashion trend.



Figure 25. Concept 3.

Concept 4

The last concept can be seen in Figure 26. This concept is a service in which the customers gets access to different crafting materials by subscribing on the website. This makes that the concept is not bound to already existing stores. The service introduces the user to adjusting and repairing clothes in three steps. First, the user receives simple repairing tools like sewing materials, different patches, measuring tape, scissors and multiple color threads. When the user gets the hang of the basics, a sewing machine will be available. Hereafter the user gets access to different patterns as a reference for adjusting clothes or to create his own clothes. The timespan between these steps depends of course on the request of the user, but it is guessed that it takes a month before the user is ready to receive a rental sewing machine. The website gives the customer access to the service, provides instruction videos and have a place where users can ask for help with their projects. There will be blogs on sustainable fashion brands and the environmental impact of fashion. The service will most likely cost €4 per month.

Advantages:

The service will be available online, which makes it extremely easy to enroll. It makes it accessible for teenagers to own a sewing machine.

Disadvantages:

This concept will also appeal to customers who already wanted to repair and adjust their clothes, missing a big group of teenagers that will not get in contact with the concept. It will not provide a solution for the urge to buy new clothes as well.

SUBSCRIBE NOW!

THE PACKAGE DEAL
In this deal you get the chance to get familiar with creating your own fashion in a very easy way. Subscribe and get access to all the lessons, materials and learn new skills step by step.

SUSTAINABLE BRANDS
Stella McCartney writes on her website that 'eco' shouldn't be a word 'that immediately conjures up images of oatmeal-coloured fashion or garments that are oversized or lacking in any sort of luxury or beauty, detailing or desirability'. Of course, any stereotype can be hard to banish but to help change your mind, here are some of our favourite sustainable fashion brands that produce high-quality, eco-friendly collections. Enjoy shopping with a clear conscience.

ENVIRONMENTAL IMPACT
The fashion industry has a disastrous impact on the environment. In fact, it is the second largest polluter in the world, just after the oil industry. And the environmental damage is increasing as the industry grows.

However, there are solutions and alternatives to mitigate these problems. The first step lies in building awareness and willingness to change.

WHERE IT'S MADE
So, unless you're a 19-year-old with a closet full of American Apparel items, it's very rare to see the

LEARNING STEP BY STEP:



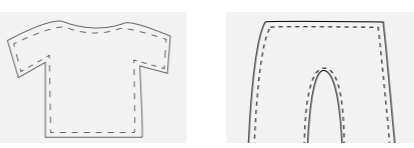
1.  **BASIC SUPPLIES (INCLUDING PATCHES)**
2.  **YOUR OWN SEWING MACHINE**
3.  **PATTERNS**

Figure 26. Concept 4.

Concept choice

These concepts were discussed with a group of three teenage girls who would be part of the target group. They were asked if they liked the concepts, what their favorite was, if they would change something and if they agreed on the stated price. From this discussion it appeared that the girls liked concept 2 the most. They would recommend to keep it simple, just a coffee bar, and would like a possibility to buy the rental clothes in case they still really liked it after a month. They agreed on all the stated prices for the concepts, but thought that teenagers weren't very likely to look up a service like concept 4 online. When asked which DIY kit they liked the most, there was no unanimous answer. Concept 3 was preferred by the girls that indicated that they often needed to shorten pants, or needed to alter their clothes in another way. They saw it a cheap alternative of the tailor shop. The girls did indicate that they still would want to have instruction videos with this concept, besides the written instructions. Concept 1 was described as a concept they would more likely try without having a direct motive (like needed for concept 3). Especially the possibility to create clothes that matches a new trend was seen as a big advantage of this concept. They indicated that they would probably first ask this kit as present, to try it out, because they did not know what was inside. If they liked it after the first try, they would want to buy it themselves.

With the information of these girls, we look back at the literature used to define a good concept. When choosing which concept to develop, it is important to keep the confidence, economic and skills aspects in mind, mentioned at the list or requirements. These elements all needs to be present in the concept to create a success (see Figure 28).

These elements combined with the timeline of fun, skills and economical rewards as discussed in the literature review should create a successful concept. When looking

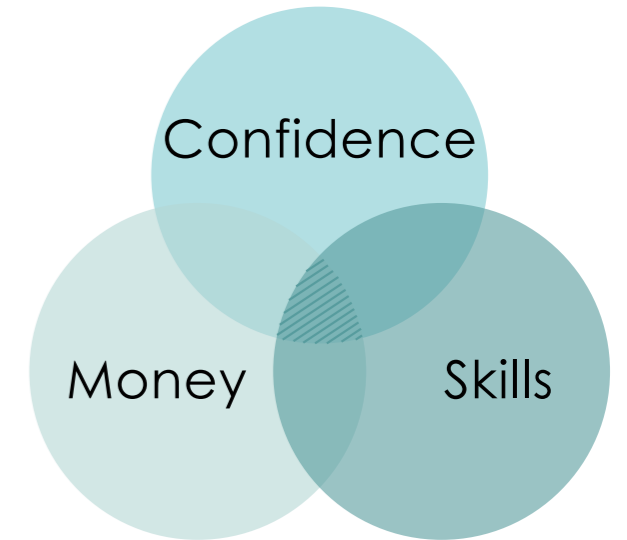


Figure 28. Venn diagram of confidence, money and skills

at the created concepts, concept 1 and 2 fit best with the wishes and in the fun, skills, money timeline. In order to make the choice structured, a Harris Profile (Harris, 1961) was created, as seen in Figure 27. In this profile the stated wishes from the chapter "List of requirements and wishes" are used. Here we can also see that concept 1 and 2 are tilting the most to the positive side. These are the concepts that have most focus on motivating teenagers by having a high fun factor, or making it possible to stay trendy. These were also the concepts that were most likely to be found by teenagers who were not looking for clothing repair products on before hand. With these two corresponding conclusions, it seems logical to go on with concept 1 and 2. By combining these concepts, the user experience will touch upon fun, skills and economical aspects throughout the usage.

| | Concept 1 | | | | Concept 2 | | | | Concept 3 | | | | Concept 4 | | | |
|-----------------------------------|-----------|----|---|---|-----------|----|---|---|-----------|----|---|---|-----------|----|---|---|
| | -2 | -1 | 1 | 2 | -2 | -1 | 1 | 2 | -2 | -1 | 1 | 2 | -2 | -1 | 1 | 2 |
| Staying up-to-date with trends | | | | | | | | | | | | | | | | |
| Short-term implementation | | | | | | | | | | | | | | | | |
| Transparent sustainable fashion | | | | | | | | | | | | | | | | |
| Recreational activity | | | | | | | | | | | | | | | | |
| Support fashion style | | | | | | | | | | | | | | | | |
| Awareness of environmental impact | | | | | | | | | | | | | | | | |

Figure 27. Harris Profile of the four concepts.

Chosen concept

The concept created out of this combination can be seen in Figure 29. The division of timeline elements in this concept can be seen in Table 4.

| Division of fun, skills, economic timeline | |
|--|---|
| Fun | Having a day out and going to the café with friends. Creating you own fashion with the kit. |
| Skills | Learn from people in the café. Learn by doing. Learn from the online videos. |
| Economic | Create new outfits with the kit. Being able to repair damaged clothes instead of buying new. |

Table 4. Division of fun, skills and economic timeline.

The division of the three elements of the Fogg model can be seen in Table 5.

| Division of elements in the Fogg model | |
|--|---|
| Motivators | Wearing old (boring) clothes again. Wearing damaged clothes again. Not needing to buy new clothes. Design own clothes according to the fashion trends. |
| Ability | Practicing with repair. Practicing with adjustments. Professional help with difficulties. |
| Triggers | Damaged clothes. New fashion trends. Coming across the repair café on a day out. Coming across the website when reading blogs. |

Table 5. Division of concept elements in Fogg model.

The concept would still have a repair café element, but this would be only on Saturday, considering most girls go shopping on Saturday and it would not be profitable to have an extra person working there every day. This crafting table is linked to the website which features blogposts and

instruction videos. The main focus of this videos is to inform and teach specific skills, but of course the videos also should be fun enough to keep watching.

The DIY kit that is created with every new fashion trend is sold online and in the café, and includes tools to repair and upgrade clothes. The website will also launch videos on possible crafts that could be done with the DIY kit. In the café access to the repair table is granted after buying a drink.

The kit still costs between €15 and €20 (which will depend on the tools and materials in the kit). In this set-up the café is an easy way to step in for teenagers and get to know the basics of sewing and repairing. By offering a kit they can take home, they are able to keep on practicing themselves, get better at it, and start creating their own designs.

In this concept the repair café would not be a new café especially built for this purpose, but an already existing place that is willing to offer space for the crafting table. The advantage of this is the possibility to implement the concept on the short-term, and that it's an easy way to test if the concept could be successful without big investments. If, after launching this concept, it appears that the Saturday is not enough and there is a demand for more, it still is possible to grow.

Another change compared to the original concept 2 is the absence of rental clothes. This is because the girls who reviewed the concept indicated that they were not likely to rent everyday clothes and probably wanted to buy it at the end of the month anyway. The rental clothes also make it more difficult to have a concept that is only open once a week.

The new collection DIY kit was chosen because this kit addresses the fast fashion demand by giving teenagers a choice. Furthermore, it is the kit that still provides a fun factor later on in the timeline, because it allow the user to design her own fashion. By using this kit, the concept combines all the aspects of basic clothing repair to fast fashion demand. At last, this DIY kit was most likely to be noticed by teenagers who are not specifically interested in fashion design yet.



Figure 29. Combination of concept 1 and 2.

Creating the concept content

The table

When deciding which products and tools should be available at the crafting table, it is important to keep in mind how this should be an extension on the DIY kits. It should offer something that isn't achievable by the kit. The first things that need to be present are the expertise of clothing repair and tailoring, and a sewing machine, considering most teenage girls without sewing experience don't have one themselves. Furthermore the table needs to be prepared to repair all kinds of clothing. This results in the need for multiple colors of threads, pieces of fabric, elastic and repair patches. These materials require the presence of an iron. To create the possibility to upgrade clothing at the crafting table, there should be a collection of addible details like ribbons, buttons, pockets or pieces of decorative fabric. An example of the table can be seen in Figure 30.

The website

The website has multiple functions in the concept: attracting, informing and inspiring people. To attract and inform people the site should have daily blogposts that are about trending topics, new fashion trends, show the importance of sustainable fashion and give insight in sustainable brands. The website should have a video section with instruction videos about repairing techniques and the usage of the DIY kits. The webshop with the DIY kits needs to be inspiring, by showing examples of how the product could be used and looks that could be created within the fashion trend. These examples should convince people to buy the kit, but also should be useful

for those who need a little inspiration when using the kit. Furthermore, the website needs an information page on the crafting table to indicate when and where it is located. It is decided to name the website notafashionblog.nl with the title of "This is not a fashion blog". This name aims to be funny and give an indication that the website is more than only posts about the latest fashion trends. The website can be seen in Figure 31.

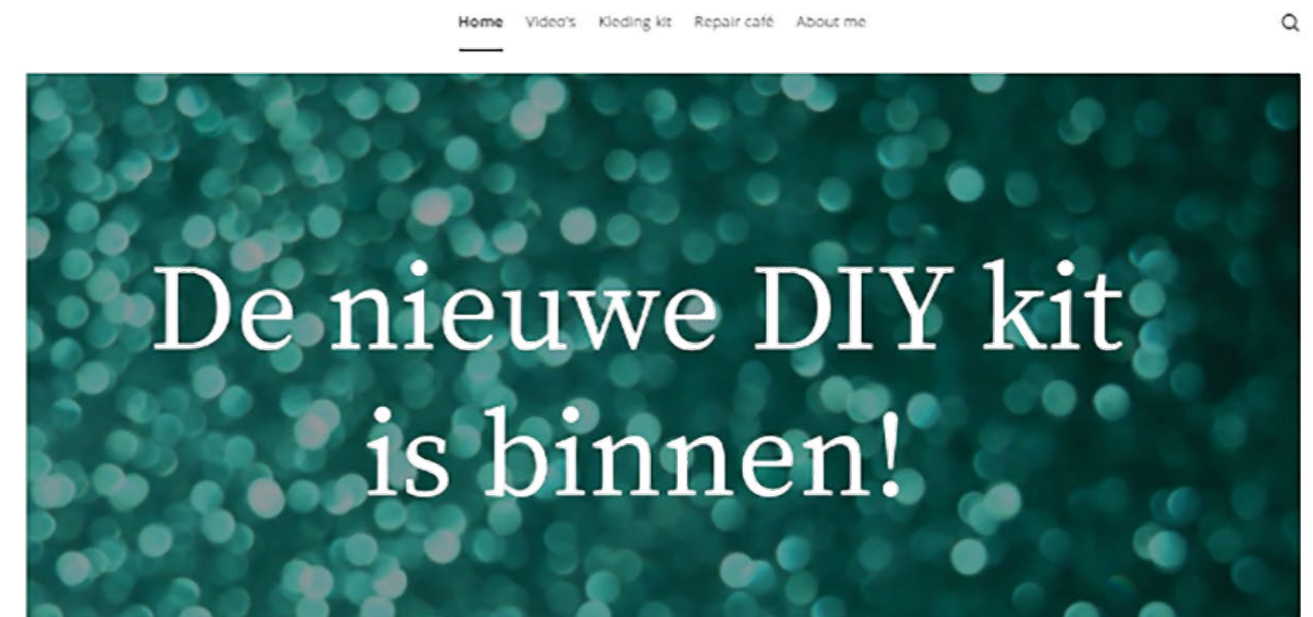
The DIY kit

For the content of the DIY kits a combination is chosen of simple sewing tools, small addible details that can be sewn on the clothes, products that could be used to repair clothing, buttons and an accessory that makes it easier to style the outfit. The simple sewing tools should be universal, making it possible to use them on all kinds of projects. The small addible details and accessory have the function of upgrading an outfit in order to make it suit a fashion trend. These components are chosen based on the products that are often seen within the trend and the level of effort it takes to sew it on to clothing. Preferably it should be possible to sew without a sewing machine. The products that could be used to repair clothing and buttons have the purpose of making small repairs possible. It should include a few patches and repair cloth. For the amount of buttons it should be possible to repair a blouse, which on average has five to seven buttons. This makes that the kit includes seven buttons. The DIY kits and examples can be seen in Figure 32 to Figure 36.



Figure 30. The crafting table in De Delf.

This is not a fashion blog



Sustainable fashion 6 januari 2019

Sustainable BN'ers

Als je net nieuw bent in de fair fashion wereld lijkt deze nog best klein. Je kent niet zoveel mensen die ook willen stoppen met fast fashion, en de eerlijke kledingmerken liggen niet voor het oprapen. Gelukkig is dat slechts schijn, want stiekem zijn er wel meer mensen die hier al jarenlang actief in zijn. [...]

— VERDER LEZEN

MEEST RECENTE BERICHTEN

- Sustainable BN'ers
- Sustainable fashion voornemens
- De zeven leukste sustainable fashion vloggers van YouTube
- De vijf beste documentaires over de kledingindustrie
- Drie simpele projecten om de naaimachine onder de knie te krijgen

CATEGORIËN

- DIY
- Kleding reparatie
- Repairkit
- Sustainable fashion

ARCHIEF Maand selecteren ▼

Figure 31. The "This is not a fashion blog" website



Figure 32. The denim DIY kit.



Figure 34. The lace DIY kit.



Figure 33. The glitter DIY kit.



Figure 35. An example of an addible ribbon.



Figure 36. An example of a lace ribbon and the collar.

Questionnaire

With a clear concept the next step in the project is to evaluate this idea. In order to create user input a prototype was created of the concept. This was done by crafting the different DIY kits, creating a website called notafashionblog.nl and setting up a crafting table at a coffeehouse, as seen in Figure 30. With these elements an online survey was done with 28 girls with the age between 15 and 25 years old. The median age in this group was 19 years. It is admitted that this does not completely stroke with the target group of the concept, but it was decided that this small age difference would still mean that the respondents could give useful insights on the concept. The respondents were informed that the official target group was slightly younger, and were asked to keep this in mind when filling out the questionnaire. The questions in the questionnaire had six categories: the crafting table, the website, the DIY glitter kit, the DIY denim kit, the DIY lace kit and the packaging of the DIY kits. The answers of the survey were analyzed in SPSS. When discussing the results, the questions on the DIY kits are reviewed in one paragraph to create a better overview of the preferences in a DIY kit.

The crafting table

On the question what the respondent would do when seeing a crafting table on a day out with friends, 57% says they would take a look out of curiosity. 35,7% indicates they would only talk about it with their friends, 3,6% says they would go there immediately with something that needs to be repaired and 3,6% says they would do nothing. On the question what happens if the table shows up frequently, 53,6% says to keep it in mind, 35,7% says they would look in their closet for damaged clothes and 10,7% indicates they would look in their closet for clothes they've gotten bored of (see Figure 37). When rating on a scale of 1 to 10 if they would make use of this concept, the respondents give a 6,36 on average, with the median of 6,5. When rating on a scale of 1 to 10 if they would pay for this service the respondents give a 6,71 as average with the median of 7. From these results it can be concluded that there is an interest in the crafting table. The respondents would take a look and were willing to make use of it when being informed of its presence.

Notafashionblog.nl

To get insight in the opinion of respondents about a website linked to this concept, they were asked if they wanted to take a look at the website and if they normally follow fashion blogs. From the respondents 60,7% indicated that they would be curious for the website, 10,7% said they would be already browsing for it when being told, to end with 28,9% that did not want to look at the website. From the respondents that indicated they were not interested at looking on the website, more than half of the group also indicated that they never looked at fashion blogs, which could explain why they were not interested. From this information it is concluded that a website is a very approachable manner to involve people in the project, and that the respondents would be willing to take a look on the website.

The DIY kits

For all the DIY kits, the questionnaire the respondents were asked to rate on a scale of 1 to 10 on the subjects of:

- ▶ Their ability to use the kit.
- ▶ Their knowledge of the content of the kit.
- ▶ Buying the kit instead of buying a new t-shirt.
- ▶ Getting familiar with needle and thread thanks to the kit.
- ▶ Grading the kit in general.

Other questions included if they missed specific products or wanted to change something in the kit, which part they wanted to test for themselves and what they were willing to pay for it. The last question of the survey asked if the respondents were interested in learning specific skills with the kits.

On the first question, if the respondent thought he was able to manage the kit, a 6,54 (glitter kit), a 6,96 (denim kit) and 6,92 (lace kit) was indicated on average. The answers were all correlated to each other, so it could be said that the respondents did not see a difference in difficulty between the kits. That the respondents did not fully think they could work with the product could be seen in the answers about missing elements too, where multiple respondents asked for instructions or more examples.

The question if the respondents thought they would use the kit scored a 4,25 (glitter), a 4,64 (denim) and 5,03 (lace) on average. This seem to be fairly low results. When being asked if it could be a replacement of buying a new shirt the

results drop to 3,79 (glitter), 4,21 (denim) and 4,57 (lace) on average. These answers were also correlated to each other, which indicates that buying a DIY kit is not perceived as an alternative for buying new clothes. It does not matter if the kit is related to a specific fashion trend. When grading the DIY kits they on average receive a 6,5 (glitter), 6,64 (denim) and a 6,61 (lace). These grades are all correlated to each other, which implies that the respondents did not have a specific preference for one of the kits.

Looking at these results, it appears that the respondents graded this part of the concept rather low. It was indicated that they mostly missed instructions, examples or inspiration of how to use the kit. Some respondents suggested that they would like to have more own input when altering their clothes by having more colors or bigger pieces of fabric for example. The respondents did pointed out that they liked the ribbons, pockets, patches and the denim collar. The question about learning specific skills in the DIY kit revealed that most respondents were interested in this. 17 people indicated they would like to learn how to repair a



Figure 37. In total 46,4% of the participants indicated they would look in their closet for clothes to take to the crafting table.

tear, and 11 people indicated they wanted to be able to create a waistline, shorten pants or alter a waistband. At last, 10 people indicated they would like to be able to alter the neckline of a shirt.

As a conclusion from these results an iteration should be done on the content of the DIY kits. With this alteration there should be thought of the guidelines with the kit, the input of the user and the possibility to learn a tailoring skill.

The packaging

For the packaging (as seen in Figure 38, Figure 39 and Figure 40) the respondents were asked to rate it on a five star rating system, to indicate what they would do with the packaging after receiving it and what other packaging they would like.

The current packaging got 3,54 stars from 5 on average. 42,9% of the respondents thought they could use it again as a giftbag, 35,7% would keep the content in the bag and store it like that, 17,9% would take the content out of it and would keep the bag somewhere else, 3,6% would throw the bag away. When given alternatives to the respondents, 39,3% says they would still want the same bag, 35,7% indicates they would like a box and 10,7% says they would like a bag with a different design. 14,2% was divided over the options of a briefcase, a tube or a cardboard lunch bag.

As a conclusion from these results it is not a priority to change the packaging, but it could be recommended to think about the option of using a box as packaging material. Mostly because this would make it easier to store the products in it, considering it gives a better overview of the content when being opened.



Figure 38. Packaging of the denim kit.



Figure 39. Packaging of the glitter kit.



Figure 40. Packaging of the lace kit.

Iteration on the concept

From the results of the questionnaire some guidelines are made for an iteration on the concept. As described, the results indicate that the crafting table and the website are being appreciated within the concept. For the DIY kit it is concluded that respondents would like more instructions and inspiration, the option to have their own input and the possibility to learn a tailoring skill. Furthermore, it is suggested to take a look at the packaging.

With these improvement options we take a look at the purpose of the project, to see if it still strokes. The possibility to have their own input (by giving bigger pieces of fabric for example), does not seem to fit with the intended target group and the objective to create a first time clothes repairing experience. Expanding the concept for people with more experience in sewing and repairing is outside the scope of this design project. This is why it's decided to not continue with this iteration.

The possibility to learn a tailoring skill on the other hand would be a nice extension of the concept. Being known as "the IKEA effect" (Norton et al., 2012) self-made products increase in value. This would mean that the user would have more product attachment with the clothes they tailor. This would also be enforced by the result of having perfect fitting clothes. Furthermore, learning how to tailor clothes

would increase the skills in repairing clothes, considering this is very close related to each other. It is thought that in the iteration of the concept, the DIY kit could be divided between a basic kit and some extension sets. The basic kit would focus on the sewing tools and small clothing repairs, considering 61% of the participants indicated they were interested in learning how to repair a tear. The extension sets would include the products that are linked to a fashion trend and make it possible to upgrade clothes. In this division, the extension sets would not include sewing tools anymore and each set would be linked to a specific tailoring skill. These skills would include altering the leg length of pants, altering the sleeve length and altering a waistline. These alterations are chosen for now, because they are described as the most common fitting problems for women (Yoo et al., 1999). This new contents are made visual in Figure 41.

With this iterations in the concept, the division of the fun, skills, money timeline would stay the same, just as the contents of the Fogg model.

The prototype of this iteration on the concept can be seen in Figure 42 to Figure 53. The instructions can also be seen in Appendix F.

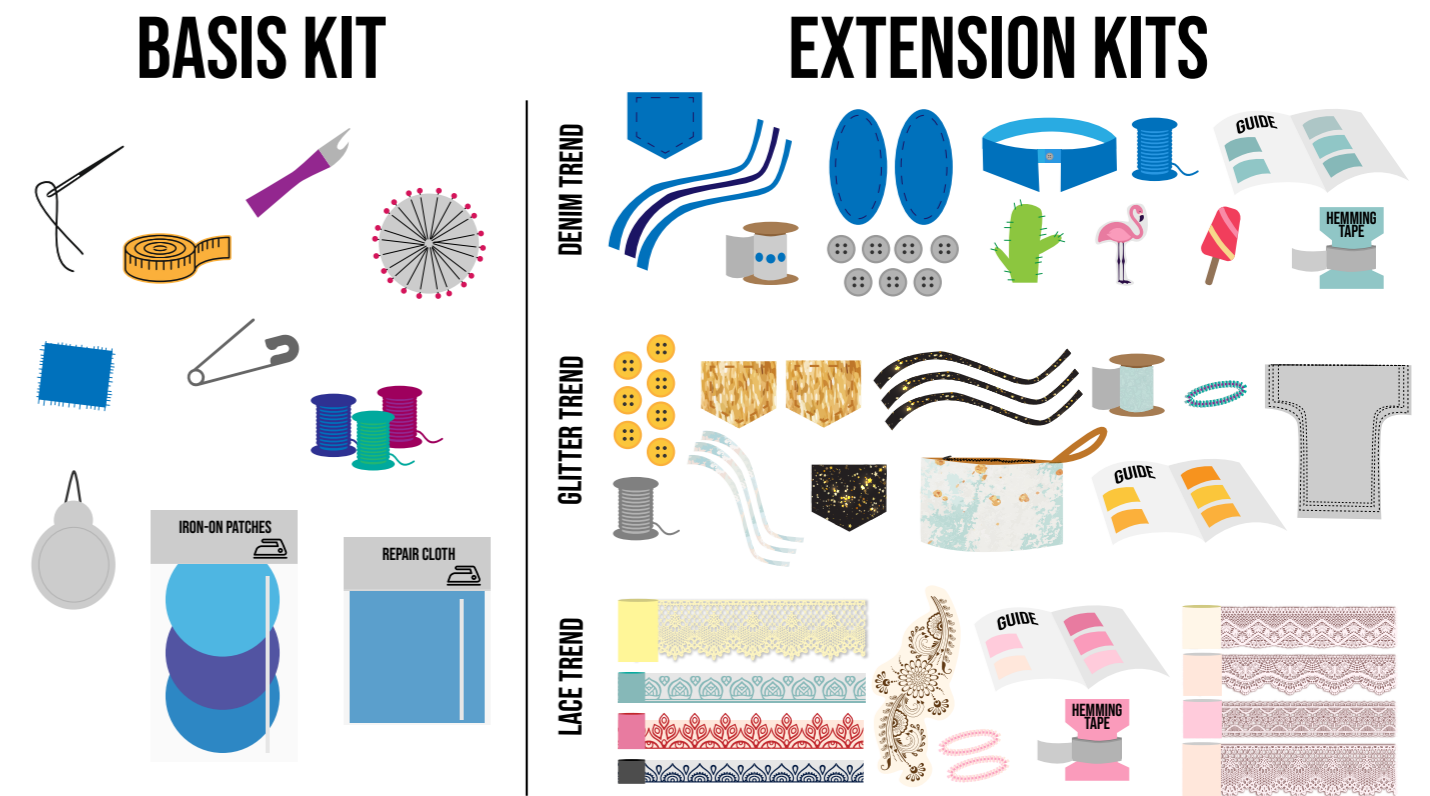


Figure 41. New contents of the DIY kit.

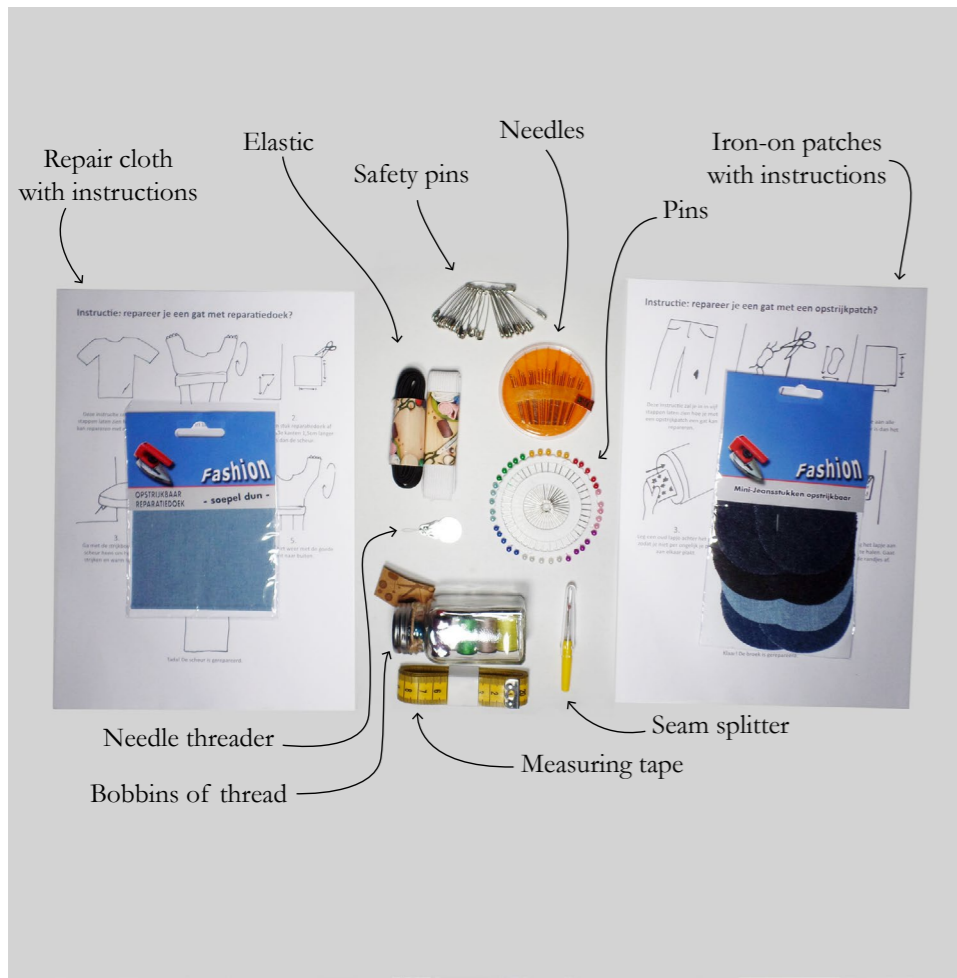


Figure 42. Basic repair set.



Figure 43. Basic repair set bag.



Figure 44. Basic repair set in bag.

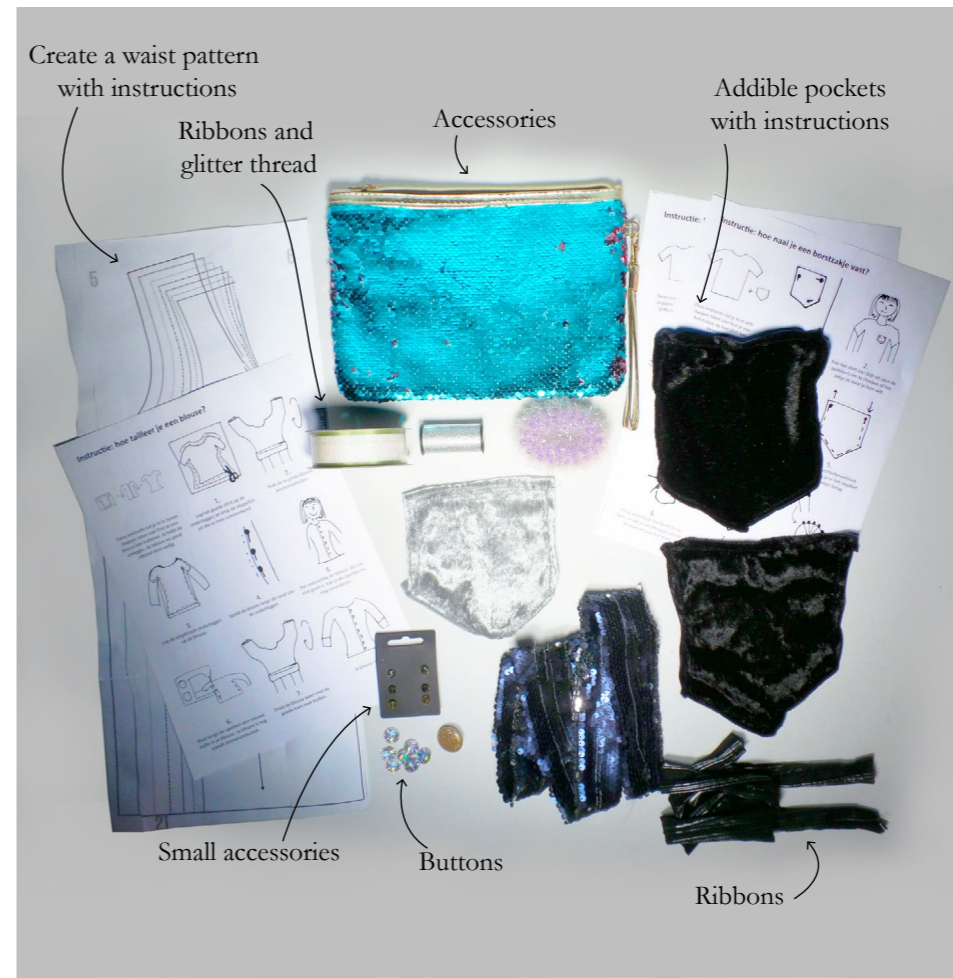


Figure 48. Glitter extension kit.



Figure 49. Glitter kit bag.

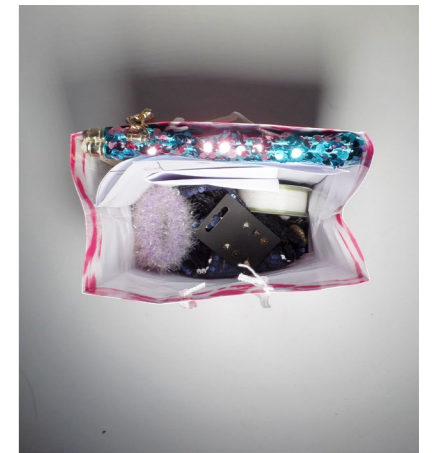


Figure 50. Glitter kit in bag.



Figure 45. Denim extension kit.



Figure 46. Denim kit bag.



Figure 47. Denim kit in bag.



Figure 51. Lace extension kit.



Figure 52. Lace kit bag.

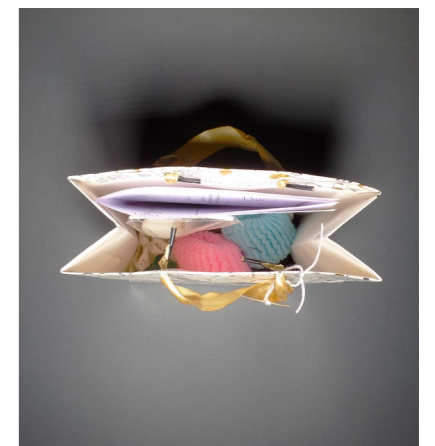


Figure 53. Lace kit in bag.

The iteration of the concept has been processed in a new prototype, as can be seen in the last chapter. With this new prototype a new concept test was planned. This time a test where the participants would try the product in order to give feedback.

Method

The concept test was done at the Laurens Lyceum in Rotterdam. At this school the students have the possibility to do a “fashion design” elective. The concept test could be done by 13 students in a lecture of this course. Because the elective is only for the first years, all the participants were at the age of 12. The girls were asked to bring old clothes, but didn't do that by miscommunication. They were provided with a bag of old clothes they could choose from. Considering the test was part of their normal fashion design course, all the girls participated in the test at the same time in one classroom. The test was a combination of a questionnaire and observations while the girls were working with the prototype. The questionnaire was added to ask if the participants liked specific parts of the kits and what they thought of their tasks. It included questions on the difficulty of the task and their opinion of the results.

Procedure

The test started with a questionnaire on the basic kit and one of the extension kits. This questionnaire can be seen in Appendix G. These were displayed in the classroom as seen in Figure 54, while the girls could see and feel the contents. The questions were on the following subjects:

- ▶ Knowledge of the tools in the basic kit.
- ▶ Being able to use the tools from the basic kit and the extension kit.
- ▶ The usefulness of the basic kit.
- ▶ Wanting the use the extension kit.
- ▶ Preferences within the extension kit.
- ▶ Being prepared to pay a certain price for these kits.
- ▶ Rating the kits in general.

After answering these first questions, the participants were asked to take a piece of clothing and one item of the kit they wanted to use. They were seated in groups on different crafting tables in the classroom. The girls had twenty minutes to work on their project as seen in Figure 55, before they needed to start cleaning up. Afterwards, there were a few questions on their opinion about the project and their results. These included:

- ▶ Their opinion on the state of their project.
- ▶ The difficulty of the task.
- ▶ Their opinion on the end result of their crafting.
- ▶ Trying something else from the kits.

Because the students were provided with laptops on school, they were also asked to take a look on the website and answer a few questions about this.

In this chapter a concept test will be described. A second iteration will be designed with the results of the test.

Analysis

These questions included:

- ▶ Their opinion on the written blogs.
- ▶ Their thoughts on the discussed subjects.
- ▶ Their opinion on the videos on the website.
- ▶ Their interest in the website.
- ▶ Rating the website in general.

In total the results of this questionnaire and the observations during the test should give a overview of this concept.

While doing the concept test, it became clear that the results of the questionnaire could not be taken seriously. The participants thought that answering the questionnaire with only positive results would provide the project with a good final grade, which made that they would rate everything with “fantastic”. They indicated on the questionnaire that performing the tasks was easy, while most participants were clearly struggling to work with needle and thread. Because of this reason, only the observations during the test will be used in the analysis.



Figure 54. Set up of the concept test at the Laurens Lyceum.



Figure 55. Participants working on their project during the concept test.

The participants really enjoyed looking through the big pile of old clothes in order to find some treasures. They took a look at every item and discussed with each other what they could make out of it. Choosing the items to use from the kit was also a fun activity, just like designing how to apply the items on the clothes. From there on, the task got harder. A few participants used the pins to attach items on the clothes, and thought they were finished. When being explained they needed to attach it with needle and thread the participants became a bit insecure, they did not know how to begin (see Figure 56). First they struggled to open the box of needles, after which they didn't know how to thread a needle. The next step, tying a knot to begin, was a hassle too. Multiple participants needed help with this.

When the first steps were done, most participants thought they could handle the rest of the work by themselves. This seemed to be a bit overestimation when the end results were showed. A lot of results fell apart or had both sides of the shirt sewn together. The participants laced the items instead of sewing them, which made that they were very easy to take apart. From the results it could be concluded that the participants had no experience or whatsoever with sewing. They did not know how to start or how to sew.

From the end results (seen in Figure 58), there was only one

participant that wanted to take the piece of clothing home. However, there were four girls that indicated they would like to try more from the kit if there was more time. The test also revealed that the participants used more addible details (like pockets and ribbons) than thought of when making the kits. When designing their projects, multiple items were used on one piece of clothing. This indicates that extension kits should include more items in order to give girls the possibilities to create a complete design.

A last comment from the participants was some critique on the accessories in the kits. The glitter bag was really liked by all of the participants, but they did not like the hairbands and thought that the denim and lace kit missed a good accessory.

Besides these more obvious observations, there are multiple facets that are evenly important for the results, but less explicit. These are the social aspects, the appearance of the participants, the verbal behavior and gestures, the physical behavior and gestures, personal space, the human traffic and potential people that stood out of the group. These elements will also be discussed in this chapter.

Looking at the social aspects during the concept test, the first thing to notify is that all the 13 participants were together in



Figure 56. "Do you know where to begin?".

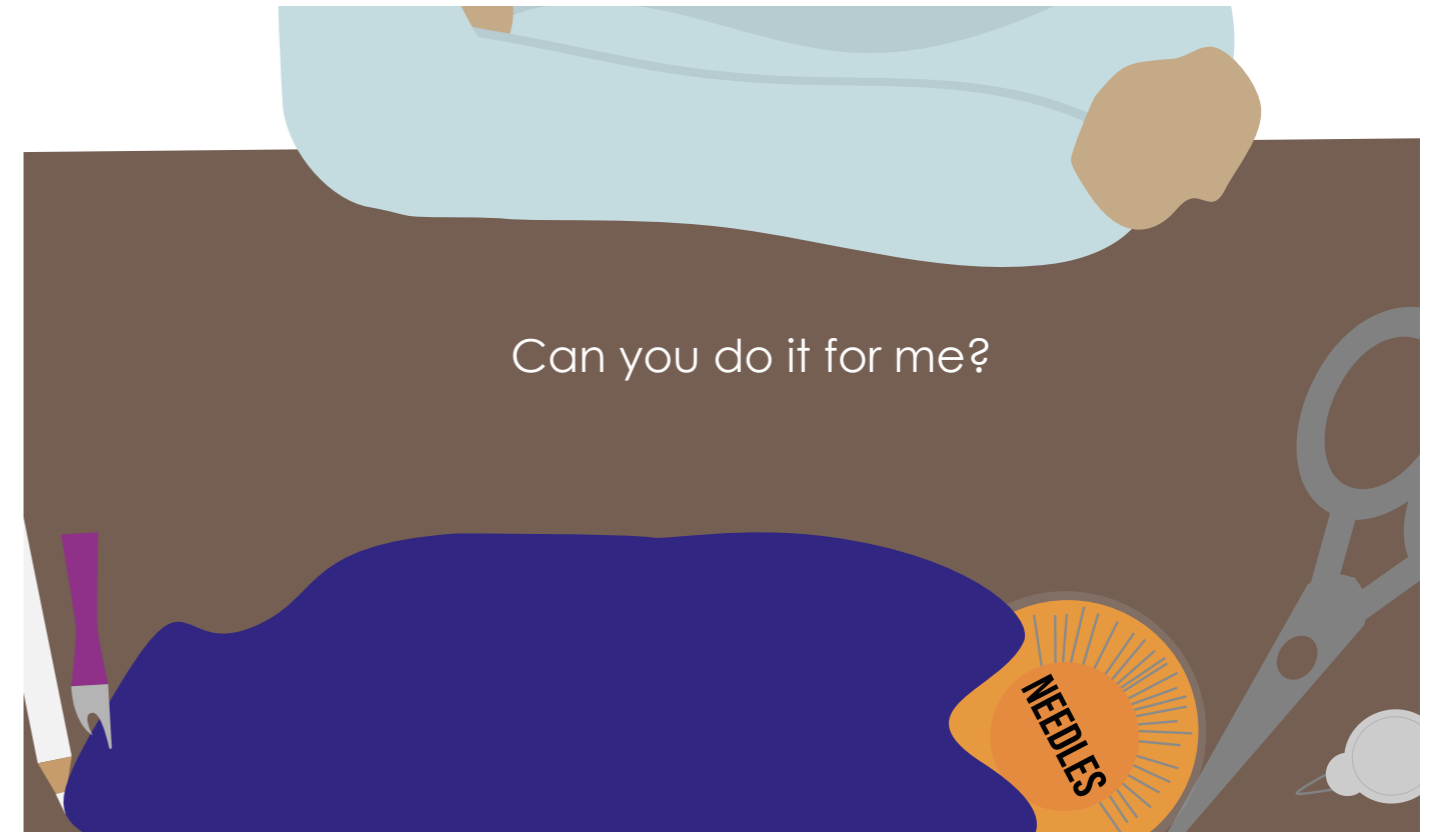


Figure 57. Asking if someone else can do it, after giving up on their task.

one classroom during the concept test. This makes that there was a lot of interaction between all the participants, they had an influence on each other. Participants helped other participants, but they also had an influence on the opinion of other participants. This was reflected in their choices on which clothes to adjust, which pieces of the kit they wanted to use and if they wanted to wear the clothes. When one participant just finished working with one certain ribbon, it immediately got claimed by someone else that had seen her busy and also wanted to use it because of that. Due to this interaction between the participants, we will not review which products have been used most. It probably will not give an accurate representation of the preference of the participants. The social interaction between participants had an influence on the answers of the questionnaire too. They discussed what they had filled in on the questions, which resulted in multiple questionnaires with exactly the same answers. This is a second reason why answers of the questionnaire are not taken into account during the analysis.

The appearance of the participants is included in this analysis. The participants were all dressed in the same simple clothes, there were no people with specific outstanding fashion choices. This was of importance within the test, because it could determine whether they liked the extension kits or not. Considering all participants wore mainstream clothing, there was no peer pressure and not a specific opinion on the content of the kits.

The verbal behavior of the participants was calm when

entering the test. Of course, the participants were exiting to do something new, but there was no shouting in the classroom. Most participants sounded confused on the situation, they talked to each other on what to expect. After the first explanation they became more calm, and discussed with friends about their opinion on the different kits. At this point, the participants had a big influence on each other. They discussed which kit they liked best, what they could do with the content and with which one they wanted to work. All participants did sound very confident about their own opinion, it was expected that they all felt like they could express themselves without being afraid of judgmental friends. Later-on in the test, the first questions on how to do certain tasks for their project were asked. This is where some participants started to raise their voice to gain attention, in order to get help. When getting the attention they needed, the participants became calm again. Not all participants did this, at least seven to eight simply asked other participants what to do or raised their hand to ask for help. Meanwhile the participants did have loud conversation on the difficulty of the project and missing certain tools (for example the shortage of scissors). This behavior can also be seen as a lack of responsibility. By seeking for confirmation on the difficulty of task and pointing to the tools, it felt like it was not the fault of the participants if they were not able to do the task. Interesting in this point of the test was when the participants did not know how to do something. For example, when a participant had trouble to tie a knot in the thread. They instantly gave up (see Figure 57). The participants did not try to do it themselves, they expected



Figure 58. Collection of the results of the concept test.

that someone else would help them and do it for them. When finishing their piece of clothing, the participants were very loudly, which would be because they were proud they finished it. When being told they also needed to sew the elements together, instead of attaching it only with pins, the participants got a bit disappointed and became more quiet again. At the end of the test, the conversations got more loudly because the girls wanted to show each other the end results. They needed to check if they answered the whole questionnaire, which resulted in confusion, because they discovered there were questions about the website. After the chaos of finding a laptop they could use to take a look, the participants became enthusiastic while discussing what they saw. Afterwards, the participants were allowed to go. They didn't went all at one, so there was quiet some noise for the participants that still wanted to work on their clothing. It was too loud for them to ask questions during this phase, which could have led to unfinished projects.

The physical behavior of the participants was very alike with the verbal behavior. The participants stayed very calm during the test, except for the moments they did not know what to do anymore. This had one exception: during the test one of the participants pinned a pin through the skin of her finger to scare the other participants. This created a small chaos because the participants wanted to see what was happening. When everybody was positioned back in the place where they were working, the girl took out the pin herself and the chaos was gone. Just to be clear: there was no blood, the girl was not really harmed. Furthermore, when looking at the interaction between the participants, most participants sat down with a group of friends they entered the classroom with. They had conversations and interaction within this group, and did not interfere with the other participants in the test. One notable finding in this group was the lack of phones. There were no mobile phones at all during the test, so the participants could not discuss the clothes with other people or look up how to tackle the issues they encountered.

The personal space during the test was very limited. The participants decided they wanted to sit together in groups of four to five, but not all tables were big enough for this purpose. This resulted in participants that were sitting very close to each other. Considering the participants

were probably friends, otherwise they wouldn't want to sit together so badly, this was not conceived as a problem. It did make it extremely easy to lose stuff on the table, because everything was laying in top of each other. This resulted in some frustrations about losing scissors, certain colored threads or the needle threader. The lack of space could possibly made it more difficult for the participants to do certain tasks during the test.

When talking about the human traffic during the test, we look at the way the participants moved through the classroom. All participants came in at once when starting. They immediately chose a table to sit at with their friends, and the only time during the test they left that table was to choose a piece of clothing and something to work with. Leaving the classroom did not went that smooth. Two participants had to leave early because of another course. After they went, other participants also wanted to leave the test. When walking away, they had to come back to finish the questionnaire and clean up their workspace. This created the chaos of people walking back and forth through the classroom. The chaos made that the last remaining participants also wanted to leave, and bungled their project.

At last we make an analysis of people that stood out in the group. As mentioned before, there was one participant that tried to scare the other participants by having a pin in her finger. This was someone who in general tried to get more attention. She shouted through the room if the door could be open, while not wanting to stand up herself to do it. She was complaining very loudly that she could not sew too. When talking to her, she appeared to be quite interesting, considering she said to understand sewing machines (because her grandma taught her that), but she really did not know how to handle needle and thread. This participant was an excellent example of someone who does like to design and create, but really does not want to put effort in it when needed. She felt the need to brag about her intentions, but when effort was needed, she wouldn't do the actions to realize it. While the other participants did not acted out this way, it is felt as if more people liked the designing part, but did not want to put effort in it furthermore. They all thought of sewing as being a hassle.

Conclusion for iteration

Looking at the analysis of this concept test, there are a few conclusions that are important in this research:

- ▶ Participants really loved the designing process of upgrading clothes.
- ▶ Participants had no knowledge on working with needle and thread.
- ▶ Participants needed more addible details (like pockets or ribbons) to finish their designs.
- ▶ Participants did not like the accessories in the denim and lace kit.
- ▶ Participants gave up on trying easily, they need more motivation to just start with a task and see where it ends.
- ▶ Participants liked showing their designs and results to each other. This might be an opportunity to explore in the concept. It could also help as being inspiration or motivation to work on the project.
- ▶ One of the problems during the test was losing the tools within the pile of clothes. Participants need more organization within their tools to concentrate on the project.

These are all directions that can be used in an iteration in the concept. First, it would be interesting to add an element that enhances the design project of the girls. It could be something that makes it more fun, or something that makes it easier to think of multiple designs.

Second, the girls need an element that makes sewing easier or makes it possible to learn it step by step (see Figure 59). Despite the possibility to look for options where the items from the kit can be attached without sewing, sewing should still be part of this concept. The project is about introducing teenage girls to repairing and adjusting clothes, which makes that they need to learn the first steps in sewing. Excluding this from the concept would be a step in the wrong direction for these goals.

Third, the participants lacked motivation to put effort in their work, but they did like showing each other the results. These two can be combined by creating a place on the website where girls can upload pictures of their crafts. It would create a place for inspiration and motivation.

Fourth, the participants needed a bit more structure in their work. Tools got lost many times, which makes it difficult to stay focused on the project. It would be interesting to create a packaging for the concept in which this structure is given, and tools can be organized during working on a project.

At last, the extension kits need other accessories and more addible details to make it possible to use multiple elements on one piece of clothing. These are small adjustments on the kits that do not need to have a new design.

Conclusion for testing

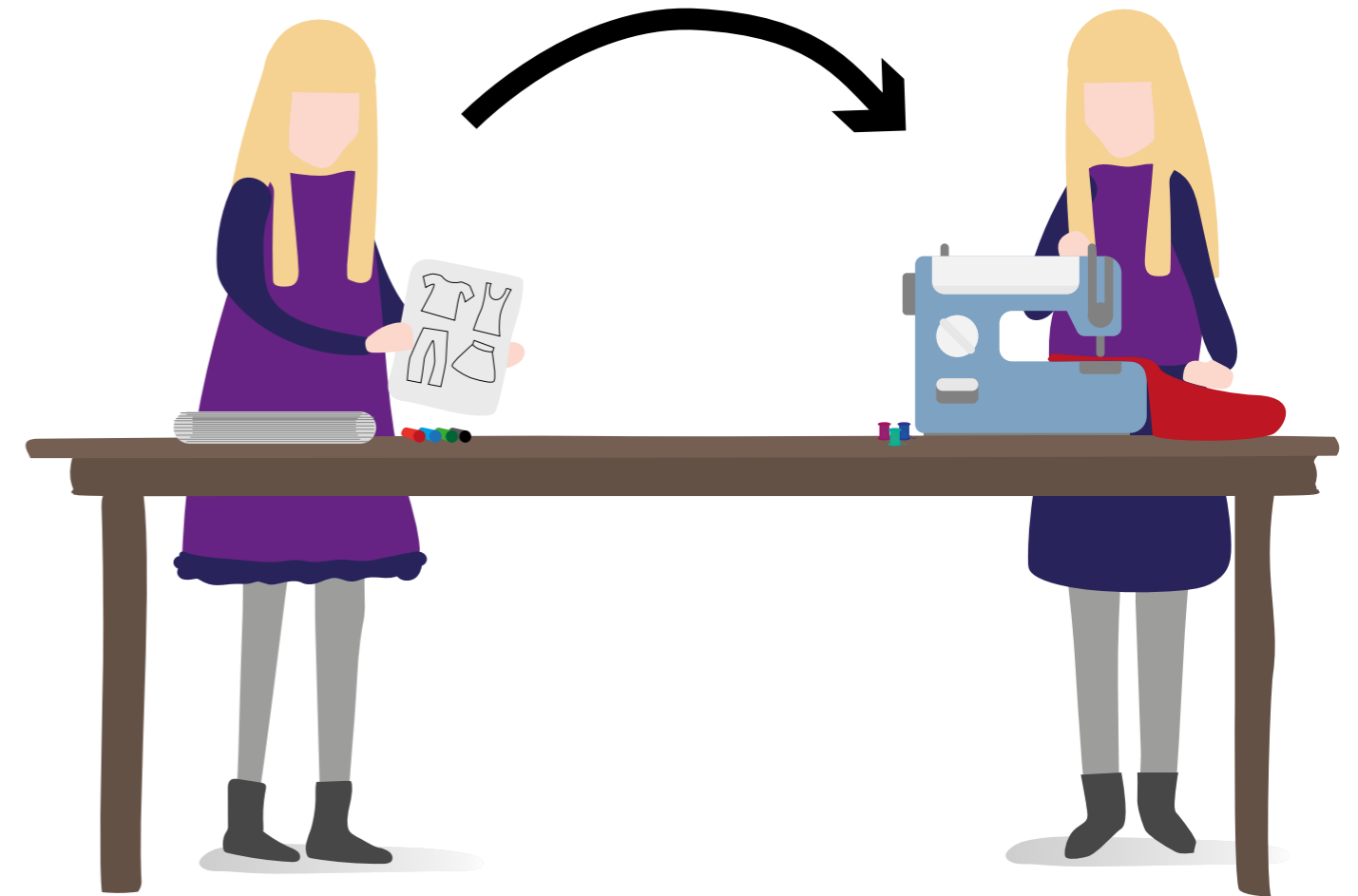


Figure 60. Shifting the focus from design to repairing in the next concept test.

From this first concept test, there are some conclusions on how to handle the second concept test as well. These would be guidelines to create a less biased test:

- ▶ Decline the social interaction between the participants. This can be done best by having smaller groups doing the test, for example only two or three participants at the same time.
- ▶ Don't do the work for them. If a participant gives up, encourage her to first think and try for herself. She can do it, but needs a little motivation.
- ▶ Make sure the participants have enough workspace. Even though they like sitting close to each other, they need to be able to lay out their stuff.
- ▶ Have a clear end of the test. Tell them to stop working on the project, make sure they all have answered the whole questionnaire and let them clean up their workplace. Then they are allowed to leave the classroom.
- ▶ Explain to the participants that if they do not know

something, they first ask a friend and if that doesn't work they have to raise their hands. No screaming through the classroom.

- ▶ For the next test it would be more interesting to put the focus on repairing and sewing (see Figure 60). Making a design is clearly fun for the participants, so no need to repeat this test.
- ▶ Explain that the results of the questionnaire do not have influence on the final mark of the project. It is only used to make the concept better.
- ▶ Something that can be considered, is giving the participants access to a laptop during the test. This would simulate the normal situation in which they use kit at home and have the ability to look up information when using it. Most teenagers tend to directly google something when they have struggles, it could help to give them the possibility to do so during the test.

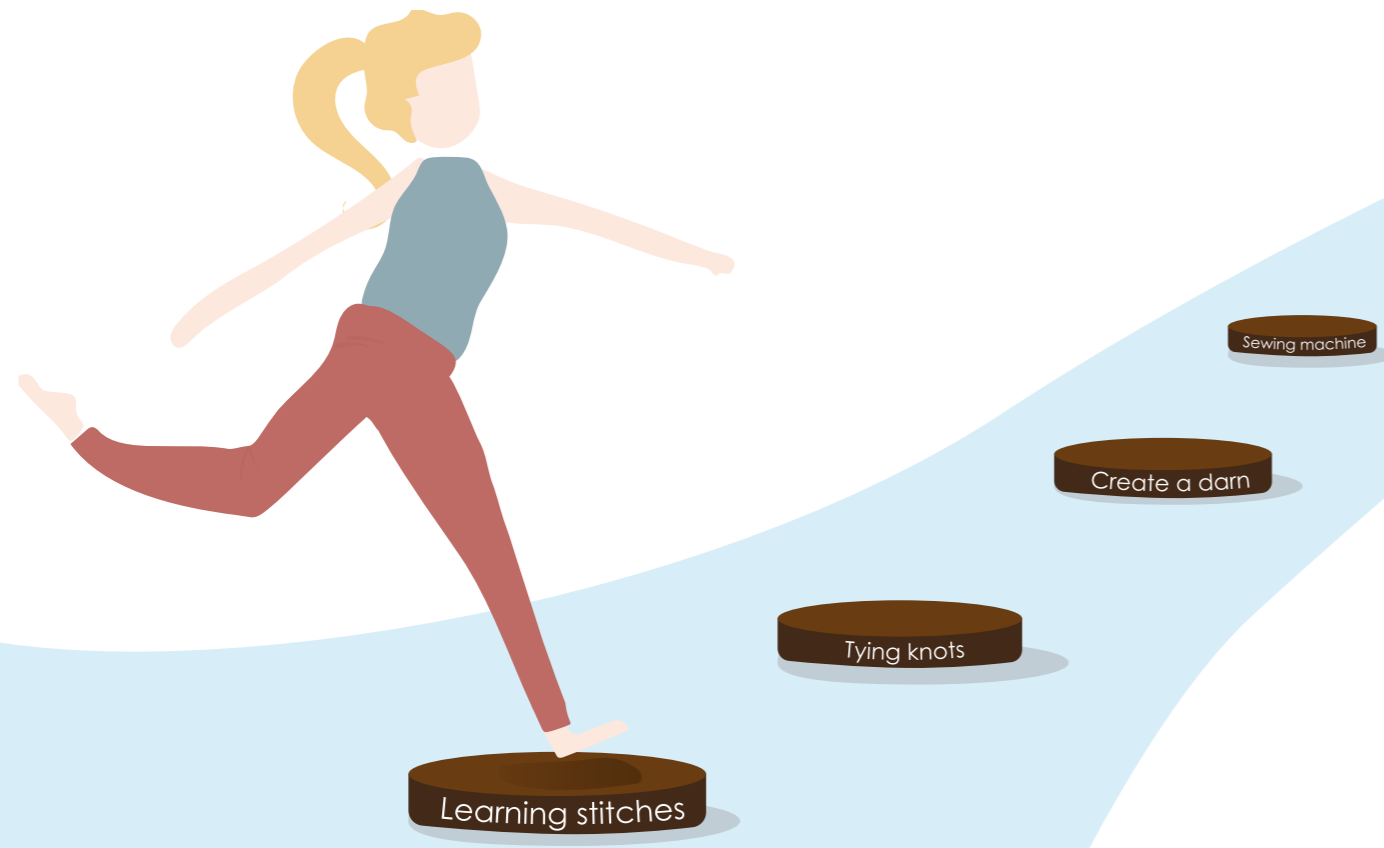


Figure 59. Learning step by step.

Iteration on the concept

As a result from the conclusions of the concept test, a second iteration is done on the concept.

The participants struggled with sewing the clothes. This is why the basic kit is extended with an instruction on different types of stitches, an example piece with the different stitches and a piece of felt to practice. This last piece has drawn dots as a guideline for the stitches of the user. It's meant to encourage the user to first practice sewing before moving on to the real work. It is part of the step by step learning. A last addition to this sewing support is a small see-through ruler with little holes in it. It is meant to be a guideline that indicates where to stitch. In the result of the concept test, multiple items fell apart because it included stitches of 5 cm. This ruler should make this a bit easier. These extensions are illustrated in Figure 61. Apart from this step by step learning, an embroidery hoop is added to make the sewing more simple.

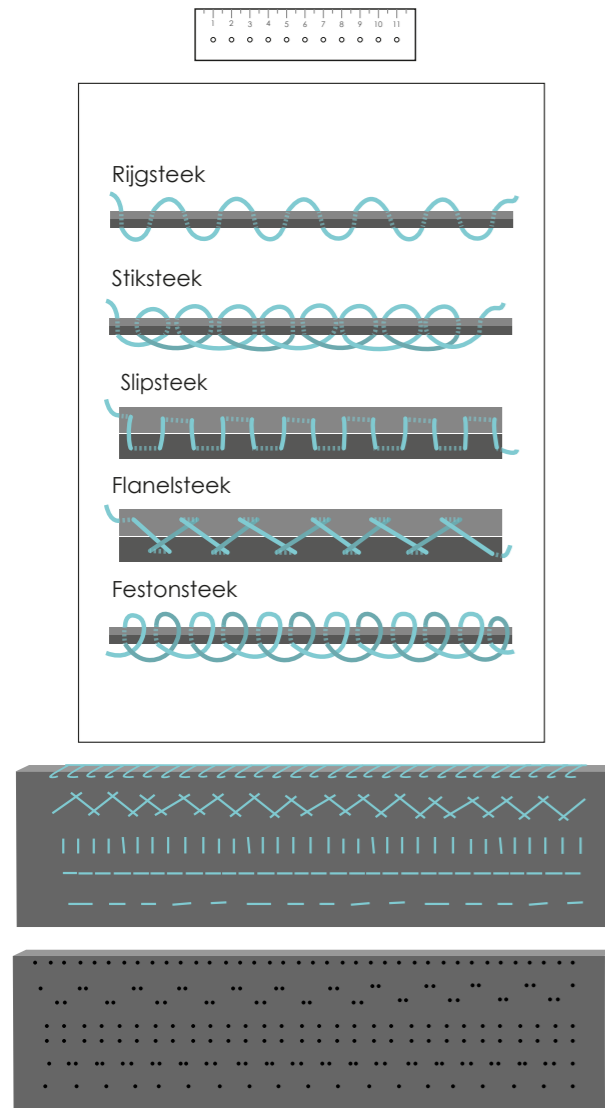


Figure 61. Iteration to learn sewing step by step.

To reduce the chaos within the crafting process, the contents of the basic kit are being organized in a new packaging. A booklet is adjusted in order to contain scissors, needles, pins, a thimble, bobbins with thread, a seam splitter, a textile pencil, measuring tape and safety pins. By keeping all these tools together and making it easier to store them for the user, it is expected that the tools won't get lost anymore during the crafting. The booklet is illustrated in Figure 62. Apart from this booklet a pincushion is added to make it easy to store the pins while working.



Figure 62. A booklet to reduce chaos.

To enhance the creative process of the participants, an online lookbook is added to the concept. It will be featured on the website. Girls can take a look for inspiration or send their own pictures to show that they have made. All pictures include clothes that are adjusted with the DIY kits. Besides this lookbook, a small fashion design sketchbook is suggested to add to the concept. It would be part of the basic kit. It includes pages with illustrated clothing items in which the participants can design their adjustments. These two concept iterations are illustrated in Figure 63 and Figure 64.

At last the accessories in the denim and lace extension kits are being replaced with something more comparable with the accessories of the glitter extension kit.

All the iterations are adopted in the prototype, as can be seen in Figure 65 to Figure 70.



Figure 63. An online lookbook.

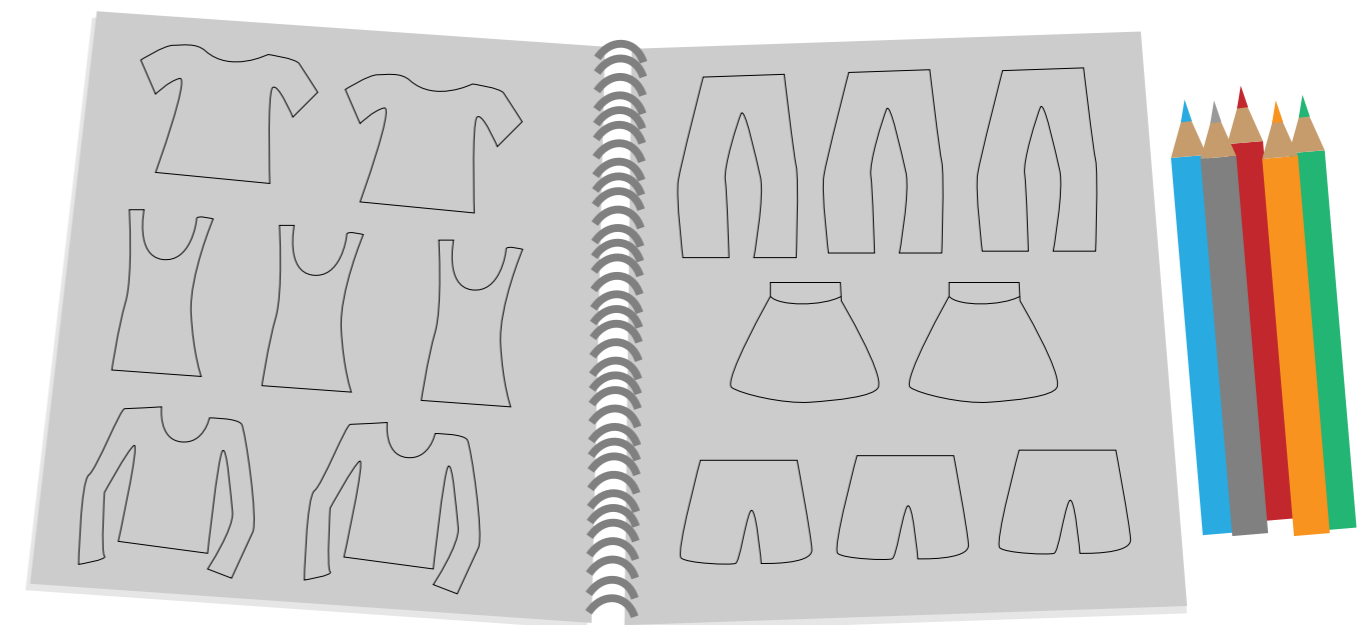


Figure 64. Iteration to enhance fashion designing.



Figure 65. Iteration of learning to sew in the prototype.



Figure 67. The basic kit in a booklet packaging.

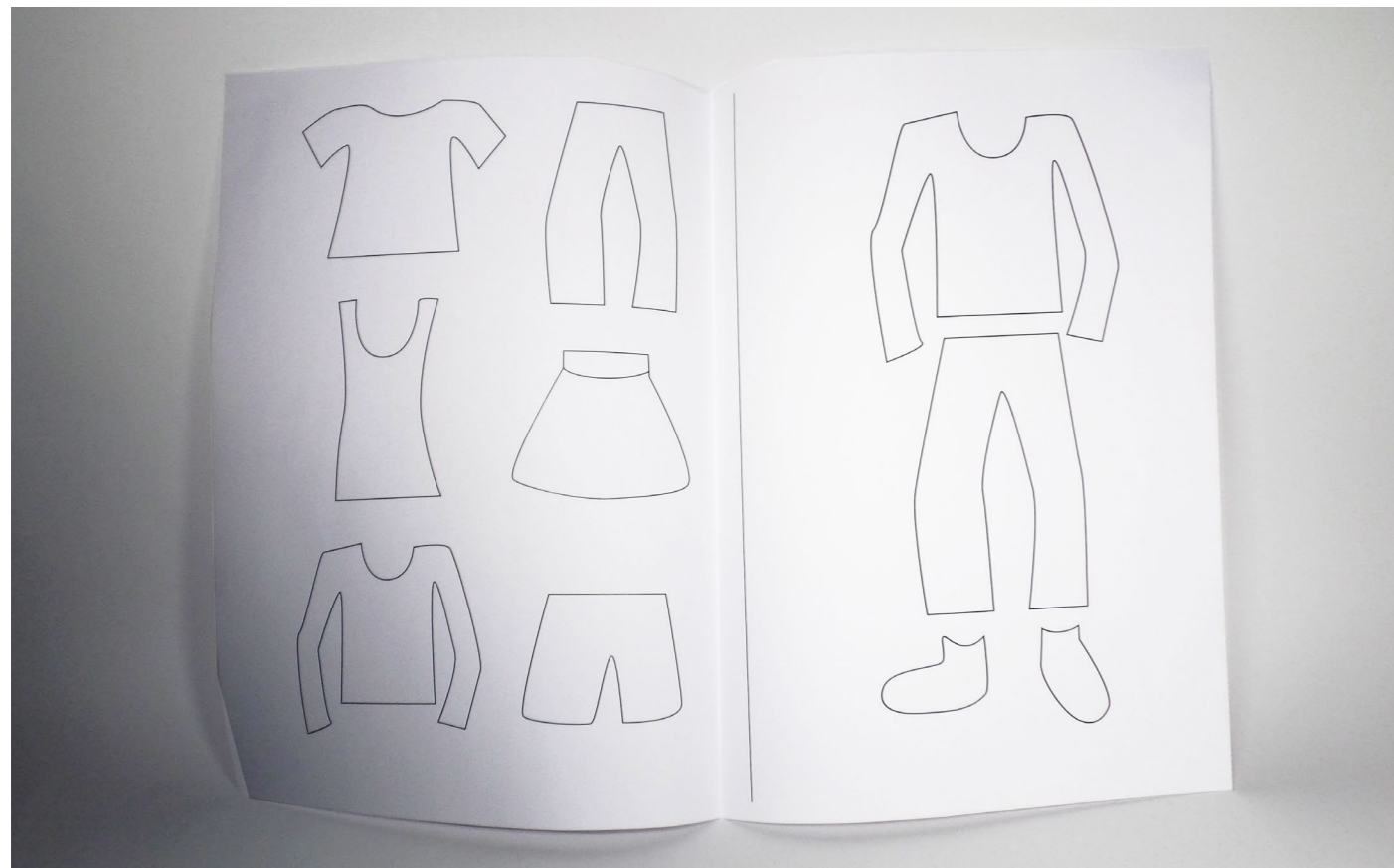


Figure 66. A fashion design booklet in the prototype.



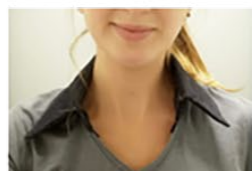
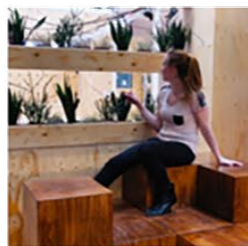
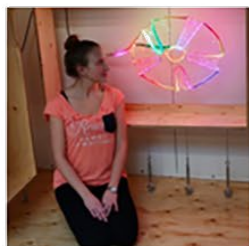
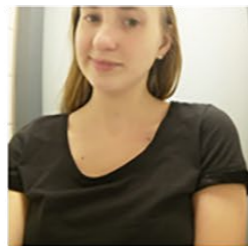
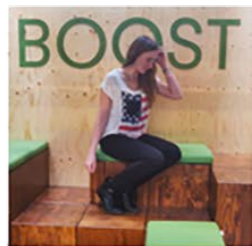
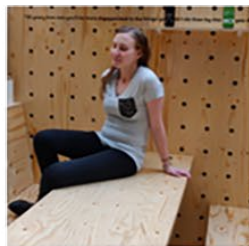
Figure 68. The basic kit in a booklet packaging.

This is not a fashion blog

Home Video's Kleding kit **Lookbook** Repair café About me

Lookbook

Check ons lookbook voor inspiratie! Heb jij iets gemaakt dat er sowieso ook in moet? Stuur een foto naar info@notafashionblog.nl!



MEEST RECENTE BERICHTEN

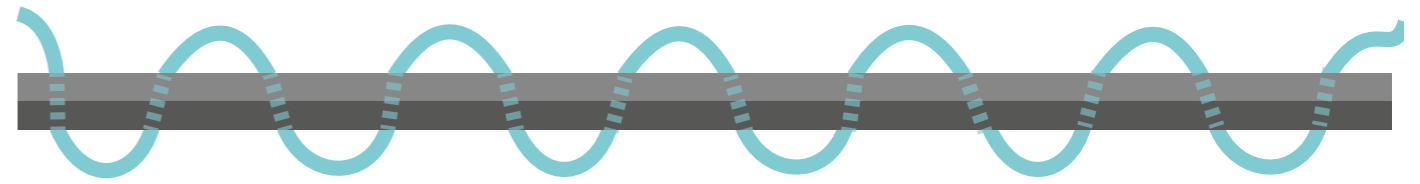
- Het lookbook staat online!
- Verschillen tussen naalden
- Sustainable katoen
- Moderne borduurkunstwerkjes
- Repareren met de slipsteek

CATEGORIEËN

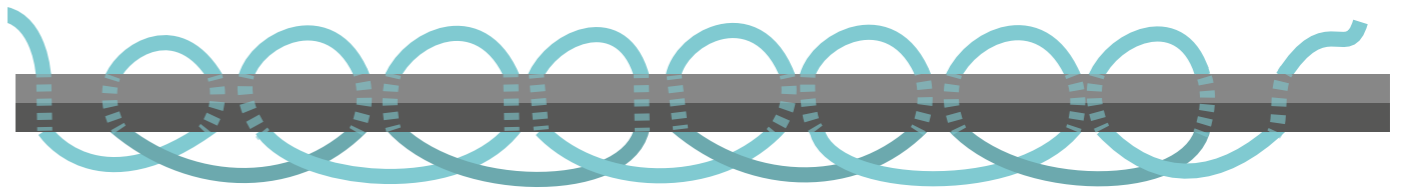
- DIY
- Kleding reparatie
- Repairkit
- Sustainable fashion

ARCHIEF

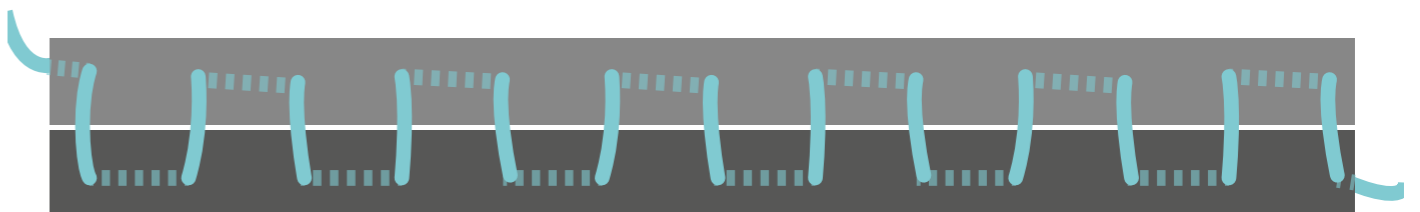
Running stitch



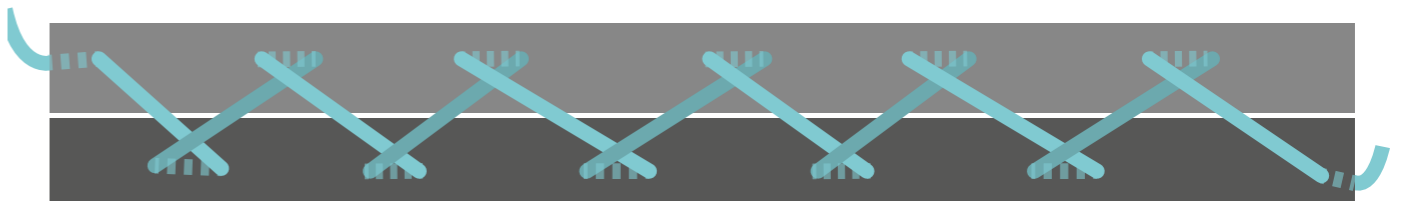
Backstitch



Slip stitch



Herringbone stitch



Blanket stitch

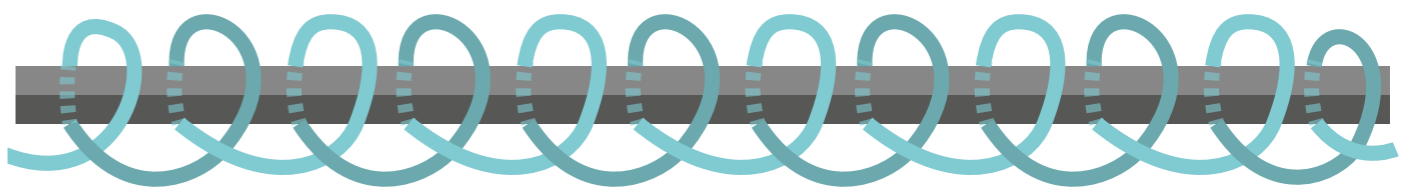


Figure 69. The lookbook on the "This is not a fashion blog" website.

Figure 70. Instruction of multiple stitches.

Iteration 3

With the last iteration and guidelines for a better concept test, a new concept test was scheduled. The test had a focus on sewing and clothing repair, considering the positive results on designing during the first concept test.

Method

The concept test was done at De Meerwaarde in Barneveld. The test was integrated in a cultural and artistic education course. The participants were informed about the test and picked up in pairs of two from their other courses. In total 10 participants joined the concept test, all teenage girls with an age between 12 and 14 years. The median and mean age was 13 years old. Like the first concept, a bag full of old clothes was provided to the participants. Considering the focus on clothing repair, all the clothes in bag had small damages that needed to be repaired. The test was a combination of observations and a structured interview. In this interview the participants were asked about their opinion on the tasks and what difficulty they had experienced. Normally, this would be a questionnaire, but the first concept test pointed out that the participants were not honest when filling this out. The main research questions for this concept test are:

- ▶ Is it useful to practice stitches before going on with the real work?
- ▶ How do the participants like repairing clothes?
- ▶ Do they find the repair difficult?

Procedure

The participants joined the test in pairs of two, the set-up can be seen in Figure 71. They were taken from their normal classes with permission of the school. It started with some general questions on their opinion of the repair kit, all questions can be found in Appendix H. The questions touched upon having the content of the kit, knowing what to do with it and rating it on a scale of one to seven.

After these first questions, the participants were requested to take a look at the stitches instructions and the example given. They had to choose a stitch to practice. Afterwards, the participants were asked how they liked this exercise and if it was as easy or difficult as they had expected.

After this first practice, the participants were introduced to a piece of damaged clothing. The damage was shown and the participants were told that this clothing item is too important to be thrown away. Then they were instructed to repair the item. Within this task they were provided with all the equipment of the basic repair kit and they were allowed to use the laptop to look up extra information. The latter would make it a more realistic situation, considering the participants would normally use the kit at home and also have access to internet for more information. During this repair the participants were encouraged to ask questions to each other, or look answers up themselves. If something was really too difficult or didn't work out, the interviewer could step in. After finishing the repair, the participants were asked some final questions on the exercise: if they liked doing the repair, the difficulty of the repair, the end result of the repair and if practicing the stitches on beforehand has helped them.

With this last exercise the concept test was finished. The participants were asked for comments on the concept, and brought back to their classes.

Analysis

During this test the questions were asked by the interviewer in order to get more realistic answers. This started of being a bit difficult because most participants were very shy and did not say a lot, but it went better throughout the test. From the moment the participants started working with their hands, they felt more confident and started talking. This is why the answers on the questions asked can be used for the analysis this time. These answers will be discussed after the analysis of the observations.

Within the test all the participants were quite surprised they really had to make something. They all thought it only included answering questions. This gave a funny effect every time they were told to really pick up the needle and thread. The participants discussed with their partner what they had to do, and tended to ask the interviewer if they really had to do the task. When getting a little push in the right direction (by suggesting the first step for example) the participants knew how to start and were able to go on from that point. This curve in motivation was present multiple times in the testing. It could be seen during the first stitching practice and during the repair of a clothing item. All participants started of with "I don't think I can do it" or "I'm too clumsy for this", while most ended up being pretty content with the end result. From the ten participants, there was only one that indicated that the sewing went terrible. This curve in motivation also went very parallel with the smoothness in the task. All participants had troubles with getting the thread in the needle and tying a knot. Most participants were not familiar with a needle threader. When this start was done, the sewing itself went quite easy. Only at the end of the task the curves diverged: all participants had trouble with tying a knot at the end of the thread, but

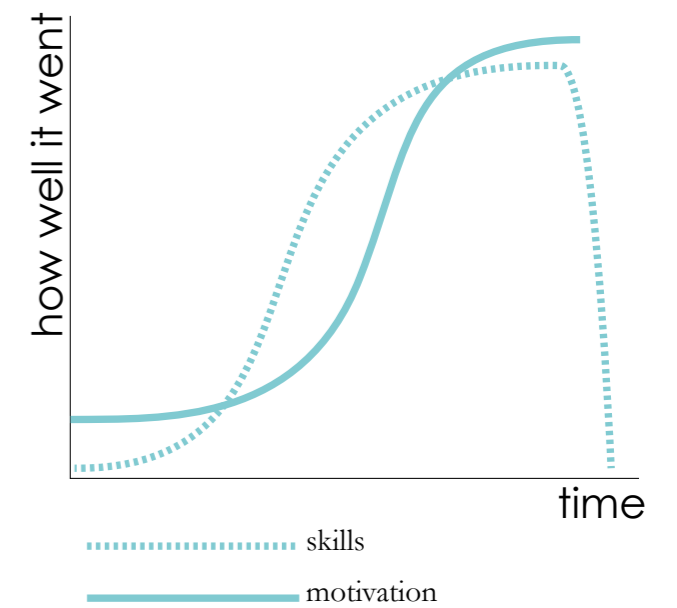


Figure 72. The motivation vs skills curve.

at this point the confidence did not drop anymore. These curves are illustrated in Figure 72. From these curves it can be concluded that motivation and skills are closely related to each other, most participants a little confidence in their skills before starting off. Once the participants felt good about their work, the end result was not very important anymore, which can be seen in the division of confidence and skills at the end of the task.

In the first task the participants could choose themselves which stitch they wanted to try. The first task is illustrated with Figure 74. Most chose the running stitch, which is a pretty safe choice. It's the stitch everybody has learned



Figure 71. The test set-up at De Meerwaarde.

at primary school. One participant did not even choose from the stitches instructions, but said she still knew how to do a specific stitch. This stitch appeared to be the running stitch. Another participants said she wanted to try the blanket stitch, but the end result was a running stitch. All the other stitching techniques were tried once. These also gave good results, while being a bit harder. When the participants were asked which stitches they did not understand from the instructions, the blanket stitch and backstitch were mentioned most often. It is thought that these look the hardest because of the overlap in lines in the instruction illustrations. It could be a recommendation to take a second look at these illustrations to make them a bit more structured.

By first practicing a stitch the participants were more confident when starting with the real repair. Some participants still needed to get a hint on how to start, but most started right away with discussing which color and stitch to use. This conversation was interesting because it came clear that the participants did not know how to choose a stitch. One of the participants said:

“We should use the slip stitch, this skirt has the same texture as the lines in this illustration.”

Which did not really make sense with the illustration, but did indicate how uninformed they were on this choice. The concept does not include a roadmap on how to start or what to use in which situation, so this could be an iteration for the final concept.

The participants divided tasks when starting repairing the damage. Usually the first person gave away the “difficult” tasks, like tying the knots, which automatically meant that she herself had to do the other tasks. Most participants held the piece of clothes in their hands with the both of them while one sew it, this can be seen in Figure 75. There was

one couple that did the repair with an embroidery hoop, as seen in Figure 76. This would probably be because they asked the function of the hoop and it was demonstrated for them. The other couples did not have this demonstration. Most of the participants got an instruction of how to tie a knot after the first stitching practice, because they all were not able to tie off their work. This still did not work out in the repair task. Almost all the participants still had struggles with finishing the work or needed a little direction before tying off. The participants themselves did indicate they thought the stitching practice had been useful before starting off with the real work.

The results of the clothing repair can be seen in Figure 77 to Figure 79. As can be seen, it was pretty rough. The stitches were a bit big, placed too far away from each other and weren’t always pulled tight. It did look better than the stitches from the first concept test. In this comparison, it could be concluded that practicing the stitches on forehand helps to make the sewing better. The participants themselves were in general neutral on the end result. They were content with it, but did not see it as beautiful.

The participants were told that they could use the laptop to look information on how to do it, but there were no participants that really did use the laptop (see Figure 73). They mostly asked questions to their partner or to the interviewer, or they tried to gain answers from the instruction forms given with the repair kit. The participants were also informed that they could use the ruler to draw where to stitch, but they did that neither. This was a bit contradictory to the first stitching practice task, where all the participants made use of the dots on the cloth.

Like at the first concept test, we will discuss the analysis of the less explicit findings of the observations, to begin with the social aspects. In this test the participants were tested in couples of two, these mostly were two friends



Figure 74. Participants practicing stitches.



Figure 75. Participants holding the clothing with the two of them, while one sews.



Figure 76. Participants doing the repair with an embroidery hoop.



Figure 73. The participants did not make use of the laptop for information.



Figure 77. *A repair in a white dress.*

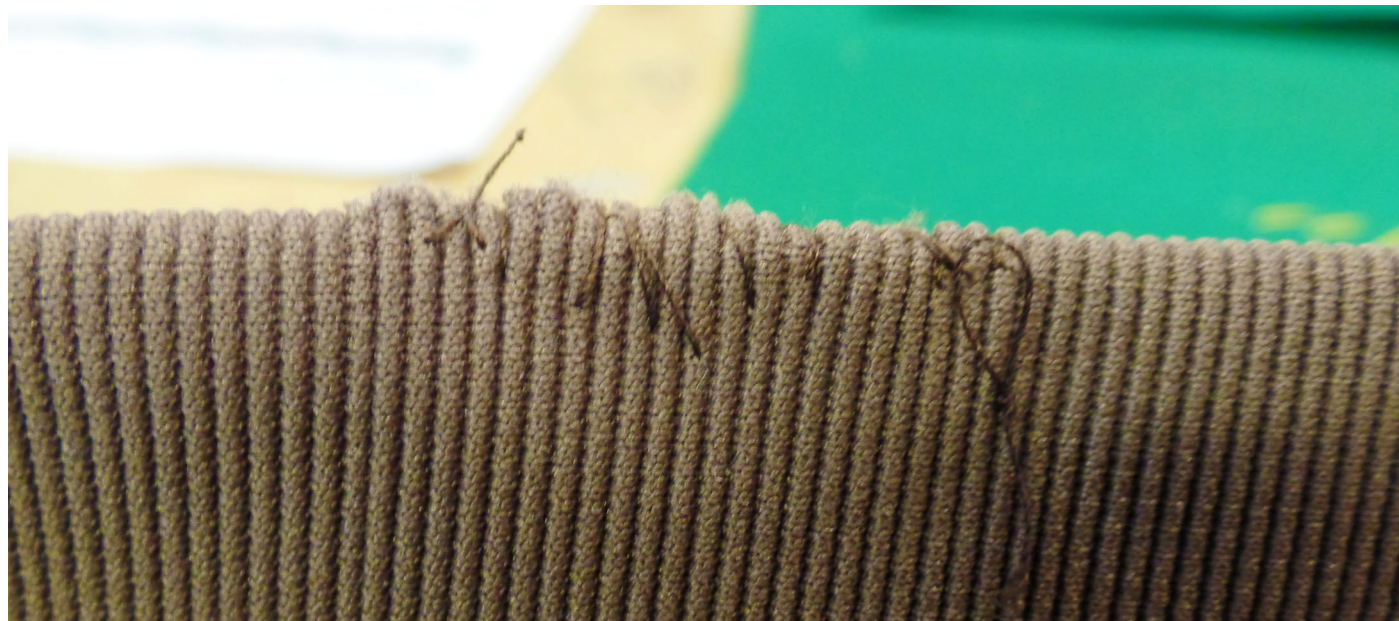


Figure 78. *A repair in a brown skirt.*



Figure 79. *A repair in a red shirt.*

who volunteered together to do the test. This made that the participants felt very confident together and liked working together. They had some chitchat during the sewing and looked at each other's work. There were some other people working on their own projects in the same room as the test, but these stayed out of the test and had no contact with the participants. Interesting to see was that the participants did comment on the good qualities of their partner (for example being good at threading a needle), but only mentioned the bad aspects of their own work. This gives an indication that they found it difficult to see their own qualities while working.

The appearance of the participants was quite neutral. There were no participants with extreme outfits, it was all mainstream high school fashion. Compared to the first concept test, these participants wore more make-up. This could indicate that these participants were more concerned with their appearance, which makes them probably more concerned about the looks of a repair in their clothes.

The verbal behavior and gestures of the participants were very calm during the test. As mentioned before, most participants started off shy, which made them very quiet. When the participants started talking, they mostly started a conversation with their partner. Because there were only two people working at the same time, the participants were able to ask their questions directly. This saved a lot of screaming and chaos compared to the first concept test. It also resulted in more questions, because there was no threshold. The participants needed to be pushed to think a bit longer on the question together before given an answer.

During the test, the physical behavior and gestures of the participants were very calm as well. There was no need to attract extra attention, so the participants acted naturally and did not make extreme moves. When working on the repair, it was notable that the participants made very big movements. They used a long string of thread and used their whole arm to pull this thread through the textile. It made the work a bit more clumsy and indicated that the participants still needed to practice the sewing to gain control over the thread.

During this test, the participants had a lot of personal space. The test was positioned on a table of 1x2m, which gave each participant a square meter to work on. The difference with the first concept test became immediately visible: the work looked more organized. No tools got lost during the work.

Considering there were only two people walking at the same time, there was very little human traffic. The only people walking during the test were other students that came to work on their own project in the classroom. This had no effect on the participants. To create a clear end of

the test, the participants were told they were done with the questions and were asked for any comments on the test. Afterwards they were guided back to their classroom. This set-up made the participants more relaxed while working on the task. They did not feel rushed, so they took their time to finish of their work in the way they wanted it to look. This could possibly be one of the factors why the sewing of this concept test looked better than the end results of the first test.

Within the group of participants there were two girls that stood out. The first participants began the test by telling her experience in fashion design. She said she used to make clothes when she was younger and could work with a sewing machine. These statements made the expectations higher for the results of the participant, but when working it appeared that she was not very skilled with needle and thread. She indicated that she had trouble with tying knots and the repair looked very alike to the repairs of the other participants. She did mention that she was better with the sewing machine than with needle and thread. The other participant that stood out, was the quite opposite. She started the test by telling how clumsy she was, and repeated this statement multiple times in the test. She gave up all tasks before even trying and needed to be motivated at every step. In the end, her results were not that bad, she only took a bit longer to get there.

At last, we discuss the results from the interview questions. To begin with, all participants indicated they never repaired clothes. They did say that they had sewing tools at home, because their mom owned them. Most said to be familiar with the tools in the basic kit, but when being asked a bit further it appeared that most people did not know the embroidery hoop and the iron-on repair cloth. Two participants indicated they did not know thimbles. The participants on average would spend €17,35 on the basic kit. When practicing the stitches in the first task all participants indicated it went well to their opinion. Six of the ten said it was easier than they expected it to be. One participant said that it could have been easier because the cloth was made out of felt and it was hard to push the needle through this. It could be recommended to use an embroidery fabric for the stitches practice. When asking some questions after the repairing task, it is interesting to notice the difference in answers. In general the participants did indicate the task went well, but they were not super content with the end result. They were also neutral on the difficulty of the test. The combination of these answers could point out that the participants did not have high expectations of doing the repair from the beginning. This could result in them being content on how the task went, and feeling neutral on the results. For the project, this outcome is positive. As long as the participants feel good about their repair skills and are not disappointed by the end result, they stay motivated to keep on practicing.

Conclusions for iteration

To create a guideline for the third iteration, the conclusions from these analysis are summed up:

- ▶ Participants lack motivation when starting with a project. When they have kicked off, the participants start liking the activity and are motivated to keep on going.
- ▶ The participants were tended to stay in their comfort zone when trying the stitches, while it would be useful to learn new techniques.
- ▶ The participants did not know how to start with a repair and how to choose which stitches can be used for which damage.
- ▶ Tying knots and tying off the work was really difficult for all the participants. This made it extra difficult for them to start a task.
- ▶ Threading the needle was found difficult as well, most participants did not know how to use a needle threader.
- ▶ Practicing the stitches on forehand improved the sewing results.
- ▶ The stitches that were perceived as difficult from the instructions had a lot of overlapping lines. These illustrations need to be revised to make it more clear.
- ▶ The laptop and ruler were not used by any participant during the test.
- ▶ The participants liked working with the two of them, and cheered each other on by pointing out the qualities of their work.
- ▶ There is a sweet spot between being not available for questions and discouraging the participants in continuing with their work, and being able to answer all their questions resulting in discouraging the participants to think for themselves. Their should be information and help available, but the participants should be stimulated to first try solving their problems on their own.
- ▶ The participants had a struggles in having control over the thread, which should come with more practice.
- ▶ Creating enough workspace for the participants worked for getting their work process more organized.
- ▶ By having a clear end of the test the participants did not feel rushed when working. This created better result in their sewing work.
- ▶ All participants felt like practicing stitching helped them to get better results with the clothing repair.
- ▶ It was hard to push the needle through the felt for practicing the stitches. It could be helpful to replace this by an embroidery cloth.
- ▶ When starting the repair, most participants probably did not have high expectations for themselves. This can be positive because it prevents them to be disappointed with the results during the first time of the learning process.

With these conclusions a few design directions are chosen to go on with. The first one is creating a low threshold to kick off a project. The participants needed a little push at the start and had struggles with deciding where to begin, and which tools or techniques they needed in this specific project. The concept needs an iteration that limits this struggle.

The concept should also encourage the user to try something new. Instead of doing a stitch they already know, it is more useful to learn a new one. Inviting the user to learn something new in order to create a beautiful result, could help them to step outside their comfort zone. A first step would be to revise the stitches that were indicated as difficult, to make the threshold lower to try these. Practicing stitches was useful for the result of the repair, the participants had this feeling too. It should be encouraged to use this same method at home as well. It does was mentioned that the stitches cloth needed to be replaced by a textile that is easier to penetrate with a needle.

Threading the needle and tying knots gave a lot of trouble, most users are not skilled in these tasks and need a little help. The concept needs an iteration that focuses on learning the users these specific abilities. This will help to lower the threshold in starting a new project as well, considering these were the first problems the participants encountered.

The ruler with directions for stitches was not used at all, so it can be excluded from the concept. In the concept test, the laptop was also not used to look up information. This indicated that information needed during the repair should not be provided on the website, but included as hardcopy information in the concept.

Having the participants sewing together worked very well. It can be considered to encourage users to use the concept together with a friend, in order to mimic this situation. It worked as a motivation for them, and it could be a little help in seeing their own qualities.

Iterations in the concept

With the given design directions, a third iteration is done on the concept. The design iterations could be combined into one expansion of the concept. A step-by-step flowchart in the basic repair kit that guides the user through the process. This makes the task that seemed to be too big to grasp in the first place manageable for the user. This will be the a source of motivation, considering the flowchart will tell the user where to start and what could be the end result. It will also be a guide in which stitch to use and which technique to practice before starting a certain repair. It encourages the user to use a new technique when they have tried the other one multiple times, and explains that different problems require different solutions. To guide the user through tying knots and threading the needle, the chart will have a step-by-step instruction on how to do this. There will be examples of thick multicolored ropes included with these instructions. A first version of this flowchart can be seen in Figure 81.

Besides this iteration, the stitches instructions have been revised. The change can be seen in Figure 80.

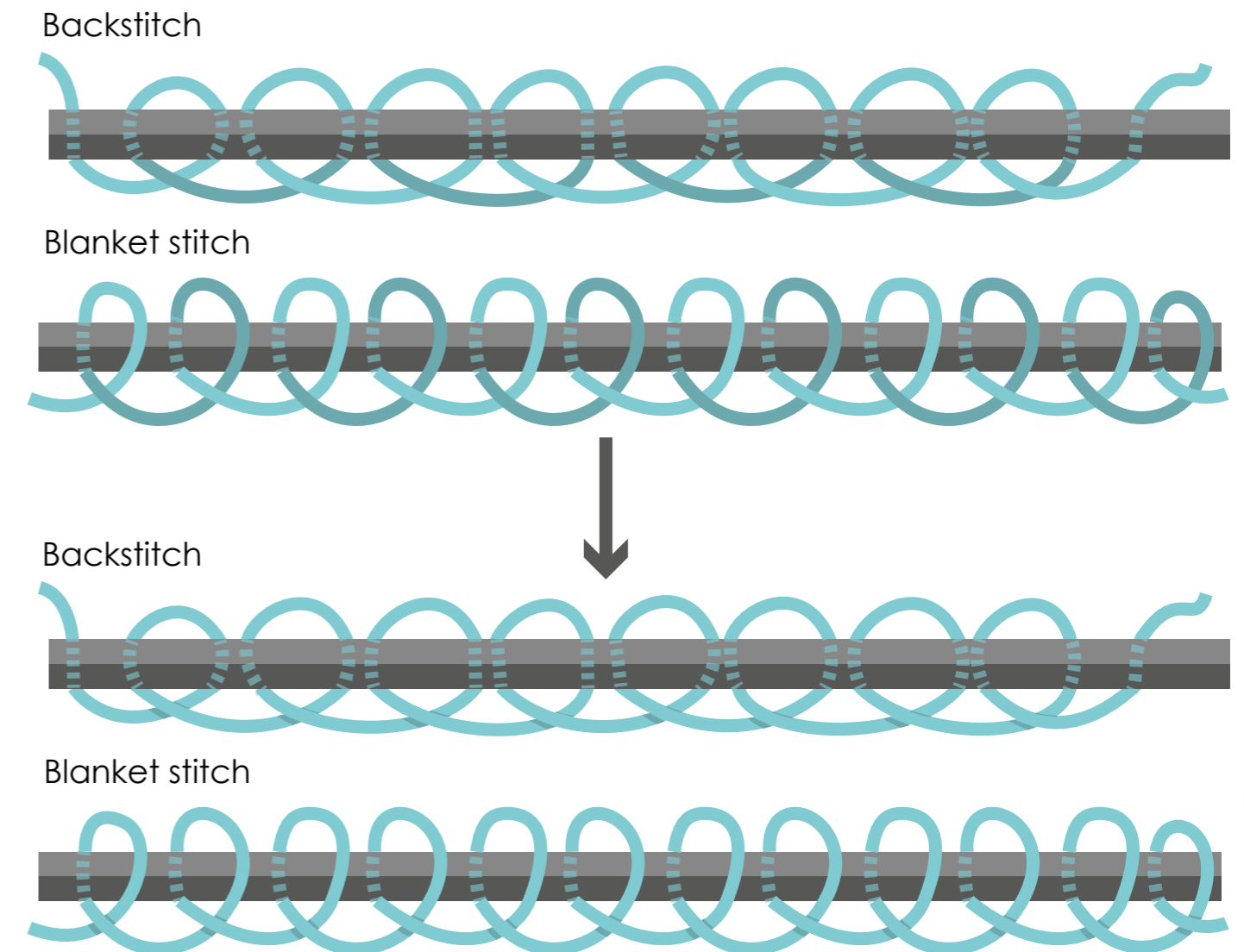


Figure 80. Changes in the stitches instructions.

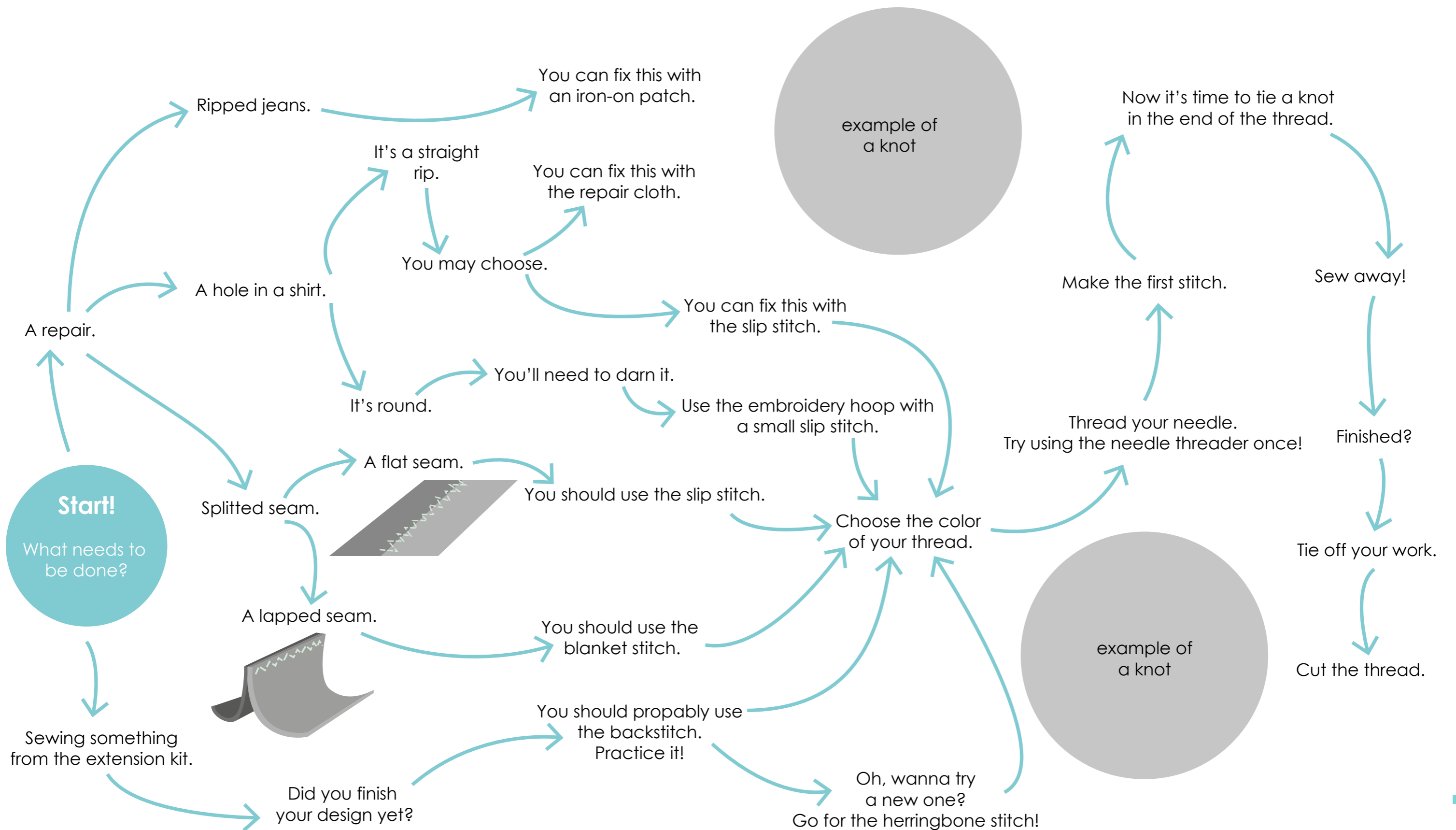


Figure 81. A first version of the flowchart added to the concept.

The design goal

After three iterations the concept has reached its final stage. As described throughout this report it consists of four elements: the weekly crafting table, the website, the basic repair kit and the extension kits, these are illustrated in Figure 83 to Figure 89. The design goal “lowering the threshold for teenagers to repair their own clothes” has been fulfilled by the concept.

The weekly crafting table has offered teenagers a space where they can make use of the expertise of other and have access to a sewing machine. It makes it possible to combine a day out with clothing repair, which definitely will have a positive effect on lowering the threshold.

The notafashionblog.nl will make it easy for the user to gain information on sustainable fashion and repairing techniques. It will also give information on the crafting table and the repair kits, which will make these accessible. Besides these communicational purposes, the website is an important platform for the target group, because teenagers acknowledge a product way sooner when it can be found online. This is related to the active online life of Generation Z (Funnelback, 2017).

The basic repair kit offers the tools that the user will need to repair their clothes. It includes basic sewing gear, repair patches and cloth, instructions, design papers to draw on, stitches practice gear and the flowchart which will guide the user through the process. All these content together will make it easier to start with a project and give the user the possibility to practice before going on with the real work, which results in a lower threshold to repair own clothes for the user.

At last, the extension kits offer accessories, patches, sewable add-ons, instructions, buttons, ribbons, special threads and one technique to adjust the clothes. This part of the content focuses on making it fun to learn how to sew and adjust clothes, and making it possible to stay up-to-date with the trends without buying new clothes. This all plays part in lowering the threshold to repair own clothes.

The Fogg model

With this final concept, we look back at the literature. An important goal was to create motivators and ability with this project. Table 6 shows that the combination of all four elements gives five motivators, four abilities and two extra triggers. The factors as defined by Ackermann (2018) are integrated in this table, to give an overview of the diversity in the motivators, ability and triggers. This table illustrates how the concept aims to change the behavior of the user by the combination of the multiple part of the concept.

The Hassenzahl model

Another model used in the literature, was the Hassenzahl model. With this model the user experience can be analyzed. Earlier on in this report the model was completed on the general subject of clothing repair. With the final concept, it is possible to fill in a specified model for this. It can be seen in Figure 82. From this model we see that the possibility to design own clothes, express an own style, gain a new skill, and look good in your clothes creates confidence for the user. This will create a pleasant user experience, which results in loyal users who are motivated to use the product more often.

At last, the final concept is created. In this chapter the concept is presented and discussed according to the theories used in the literature.

| Division of elements of the final concept in the Fogg model | | | |
|---|-----------------------------------|---|--|
| Motivators | Basic repair kit | Wearing damaged clothes again. | Functionality |
| | Basic repair kit Extension kit | Not needing to buy new clothes. | Financial |
| | Extension kit | Being able to design own clothes. | Pleasure, aesthetics and fitting with the personality of the participant |
| | Extension kit | Wearing old (boring) clothes again. | Functionality |
| | Crafting table | Having a day out, crafting with friends. | Pleasure |
| Ability | Basic repair kit | Practicing with stitches. | Knowledge and skills |
| | Basic repair kit | Basic repair and sewing tools. | Lack of tools |
| | Website | Instructions and background information. | Knowledge and skills |
| | Crafting table | Professional help with difficulties. | Knowledge and skills |
| Triggers | Crafting table | Coming across the repair café on a day out. | Appearance |
| | Website | Coming across the website when reading blogs. | Appearance |
| | | Damaged clothes. | Appearance |
| | | New fashion trends. | Social triggers |

Table 6. Division of elements of the final concept in the Fogg model

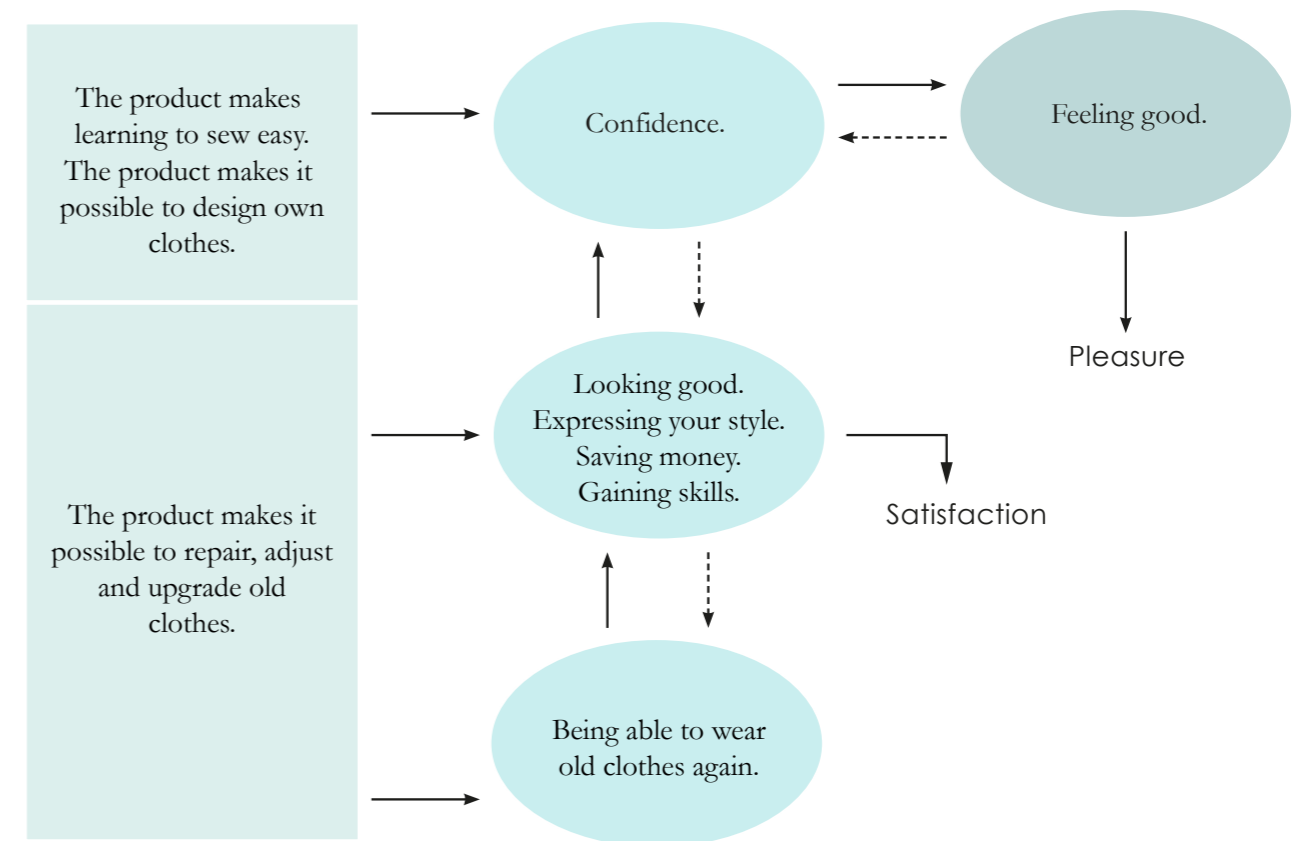


Figure 82. The Hassenzahl model filled in for the final concept.



Figure 83. An example of the crafting table in the final concept.



Figure 84. An example of the crafting table in the final concept.

This is not a fashion blog

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De nieuwe DIY kit is binnen!



- MEEST RECENTE BERICHTEN
- Het project van Granny's Finest
 - Stylish kledingpatches
 - Statements tegen fast fashion
 - Het lookbook staat online!
 - Verschillen tussen naalden

- CATEGORIËN
- DIY
 - Kleding reparatie
 - Repairkit
 - Sustainable fashion

ARCHIEF 

Sustainable fashion 23 januari 2019

Het project van Granny's Finest

Sinds 2011 bestaat dit mooie initiatief al: eerlijk gemaakte kleding door ouderen in Nederland. Met breiclubjes door heel het land stimuleert Granny's Finest ouderen om lekker bezig te blijven en nieuwe contacten op te doen. image source De ontwerpen van de kledingstukken worden door verschillende designers ingebracht, die zelf niet de tijd of skills hebben [...]

— VERDER LEZEN

Figure 85. The notafashionblog.nl website in the final concept.



Figure 86. The basic repair kit in the final concept.



Figure 88. The lace extension kit in the final concept.



Figure 87. The glitter extension kit in the final concept.



Figure 89. The denim extension kit in the final concept.

List of requirements and wishes

After the target group research, a list of requirements and a list of wishes was made. This list will be discussed with the final concept, to illustrate if the project was successful.

The concept should have a low threshold to try for the first time.

As described in the beginning paragraph of this chapter, the product has multiple facets that create a low threshold for the user.

The concept should stimulate to do the repair self, and not leave it to the mother.

The product gives the user the possibility to practice sewing, gain information on the importance of repair and step-by-step guides the user through the repair. The crafting table makes it possible to ask help, if needed. All these elements stimulate the user to do the repair herself.

The concept should make the user feel confident.

This requirement is checked off by the filled in Hassenzahl model of Figure 82. This model illustrates how the product results in confidence.

The concept should make it easy for teenagers to repair or adjust their clothes, onto a condition where they would wear the clothes again.

The product provides the needed tools, knowledge, help, instructions and examples to make a good repair.

The concept should make it possible to create invisible or beautiful repairs.

The product includes tools to completely hide a repair (the patches for example), but also tools that make it possible to upgrade the repair (ribbons and multiple colored threads).

The concept should make it possible to create long lasting repairs.

With all the offered tools and knowledge, it is possible to create a good long lasting repair.

The repair should be cheaper than a new item.

The basic repair kit will cost €15, the extension kit that can be used for multiple clothing items will cost €20. Access to the crafting table will come with a small fee of €4. This both is cheaper than a new fashion item.

The list of wishes was as followed:

The concept should make it possible to stay up-to-date with the new trends.

With the extension kits, the user is stimulated to upgrade her own old clothes according to the new fashion trends.

The concept should be implemented on the short-term.

The website of the concept is already online and updated regularly. The weekly crafting table could, in theory, be already implemented. To get this going, multiple cafés should be contacted to ask if they're interested. There should be a register of volunteers who would like to help a day at the table. All in all, the first weekly crafting tables could probably start within three months. To sell the basic kit and the extension kits, there should be a production line, which takes a bit longer.

The concept should make sustainable fashion more transparent.

With notafashionblog.nl the user gets informed on sustainable fashion. The blogs on this website should make it more transparent.

The concept should feel as a recreational activity.

Within the concept mostly the website, crafting table and extension kits aim to feel as recreational activity. The website could be part of being online and reading interesting articles. The crafting table is part of a day out with friends, and the extension kits creates a designing activity in which the user gets to be creative.

The concept should support the fashion style of the user.

The user is free to design what she wants with the concept. This makes that it supports her own fashion style.

The concept should create awareness on the environmental impact of the textile industry.

The concept follows the motivation, knowledge, skills timeline by Partanen-Hertell et al. (1999), discussed in the literature review. As discussed before motivation is one of the key elements of the concept. Knowledge is given by the website, which informs the user on the consequences of the textile industry. It contains blogs on interesting documentaries to watch, YouTube channels with more information and it gives some information itself on the impact and what the reader can do about this herself. Skills will be trained with the DIY kits with which the user is able to practice. This in total creates awareness.

Klerenjong

Now the concept is completed, it's time to put a label on it. After a short brainstorm it's decided to name the overall concept "Klerenjong", which is Dutch for "clothing teen", but has a small pun as well by sounding like "klerejong", which means something like "bloody kid" and is mostly used jokingly in conversations.

By calling the concept Klerenjong, it's easy to give all elements a matching name. The crafting table is named "Klerenmaat", which could be translated to "Clothing buddy" but also refers to the Dutch word for clothing size.

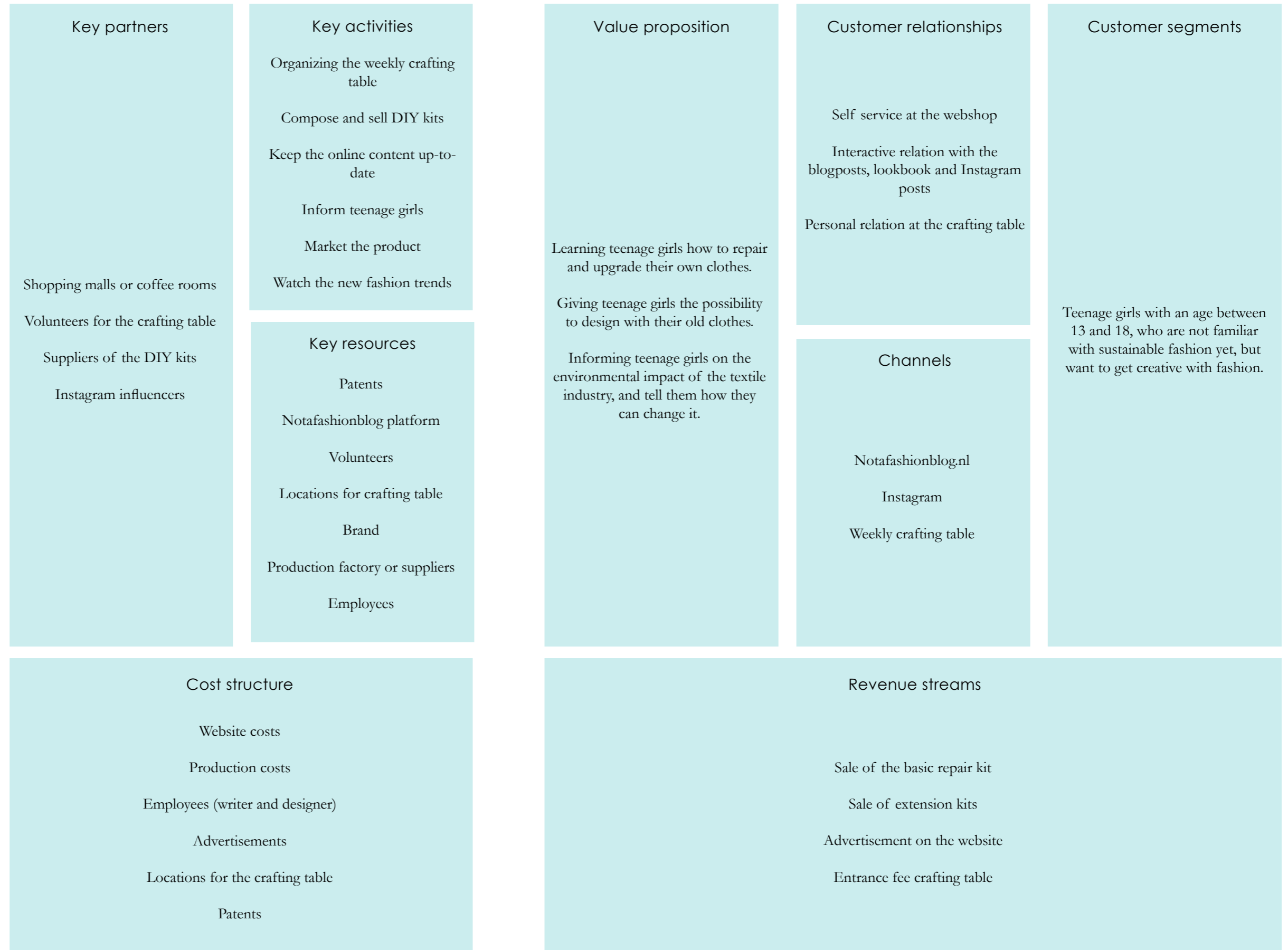
The basic repair kit is named "Klerenmaker", meaning "tailor". It stands for the possibility to repair and tailor the clothes with this kit.

The extension kit is named "Klerenstijl", which translates to clothing style. This name refers to the possibility to design with the kit and create your own style with old clothes. It also fits the kit because every kit is connected to a specific clothing style, which are the new collections they are designed with.

Business plan

Business model

With the final concept created, it is time to make a business plan. To describe how Klerenjong would operate, a business model canvas is filled out.



In this chapter the business model, marketing strategy, product image, launch strategy of the product are designed and presented.

To determine the possible success of this business model, a cashflow is calculated. First the production price of the Klerenmaker and the Klerenstijl are calculated. These can be seen in Table 7 and Table 8. The prices used in this table are estimations based on prices seen on big wholesale websites like globalsources.com.

With these production costs it is possible to calculate a cashflow of the company, it can be seen in Table 9. In this cashflow a few assumptions are made:

- ▶ The company starts with two part-time employees. A content writer for the website and the marketing, and a designer who creates the DIY kits and does the financial administration.
- ▶ After two years another employee is welcomed to the company because of the growth in sales and locations for the crafting table.
- ▶ The weekly crafting table is staffed by volunteers. This assumption is made based on the voluntary repair cafés that already exist.
- ▶ The sales of the basic repair kit and the extension kits are based on 0,5% of the 602.369 teenage girls between the age of 13 and 18 in the Netherlands (CBS, 2018). After year one, the sales rise with 10% each year.
- ▶ The amount of visitors of the weekly crafting table is set on ten people per day per table for the first year. It is expected that after one year, the crafting table will gain more visitors. From there on the second year it is estimated to have 15 visitors per day, the years after are set on 20 visitors per day.
- ▶ The costs of the location of the crafting table is based on trading pitch concessions prices of several municipalities.
- ▶ The costs of the advertisement is 10% of the yearly revenues.
- ▶ The revenues of advertisements on the website are based on an assumption of 1000 visitors each month in the second year (from there on the amount of visitors will grow).

In this cashflow it can be seen that from year 3 the company will make its first profit. From year 4 the company's cumulative cashflow gets positive. For a starting company it's very common to have the first profits after year two, considering building a customer base costs time. With this information in mind, the company can be described as successful based on the cashflow.

Within this business plan, three models can be recognized: a subscription based model (on the crafting table), an advertisement model (on the website) and a razor blade model (on the DIY kits). This razor blade model is visualized in Figure 90. The Klerenmaker kit is the basis, needed to be able to use the Klerenstijl kits. The Klerenstijl kits are being updated and can be bought again and again by the users.

| Production price of Klerenmaker | |
|---------------------------------|-----------------|
| Content | Cost price in € |
| Basic sewing tools | 3,5 |
| Repair patches | 0,9 |
| Repair cloth | 1 |
| Embroidery hoop | 1 |
| Stitches practice | 1 |
| Instructions | 0,2 |
| Flowchart | 0,5 |
| Packaging | 0,25 |
| Total | €8,35 |

Table 7. Production price calculation of basic repair kit.

| Production price of Klerenstijl | |
|---------------------------------|-----------------|
| Content | Cost price in € |
| Big ribbons | 2,75 |
| Pockets | 2 |
| Small ribbons | 0,6 |
| Buttons | 0,5 |
| Accessories | 3 |
| Hemming tape | 1 |
| Instructions | 0,2 |
| Packaging | 0,25 |
| Total | €10,3 |

Table 8. Production price calculation of extension kit.



Figure 90. Razor blade model.

| Cashflow calculation of Klerenjong | | | | | |
|--|----------------|----------------|----------------|----------------|-----------------|
| | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| 1. Selling price Klerenmaker | 15 | 15 | 15 | 15 | 15 |
| 2. Expected sales Klerenmaker | 1000 | 1100 | 1210 | 1331 | 1464,1 |
| 3. Selling price Klerenstijl | 20 | 20 | 20 | 20 | 20 |
| 4. Expected sales Klerenstijl | 2000 | 2200 | 2420 | 2662 | 2928,2 |
| 5. Entrance fee Klerenmaat | 4 | 4 | 4 | 4 | 4 |
| 6. Visitors | 2600 | 7800 | 20000 | 30000 | 40000 |
| 7. Advertisement on website | 0 | 1000 | 1500 | 2000 | 2500 |
| 8. Revenues | 65400 | 92700 | 148050 | 195205 | 243025,5 |
| 9. Production cost per Klerenmaker | 8,35 | 8,35 | 8,35 | 8,35 | 8,35 |
| 10. Total production costs Klerenmaker | 8350 | 9185 | 10103,5 | 11113,85 | 12225,235 |
| 11. Production costs per Klerenstijl | 10,3 | 10,3 | 10,3 | 10,3 | 10,3 |
| 12. Total production costs Klerenstijl | 20600 | 22660 | 24926 | 27418,6 | 30160,46 |
| 13. Website costs | 15 | 15 | 15 | 15 | 15 |
| 14. Employee costs | 50.000 | 50.000 | 70.000 | 70.000 | 70.000 |
| 15. Klerenmaat location | 400 | 400 | 400 | 400 | 400 |
| 16. Amount of locations | 5 | 10 | 20 | 30 | 40 |
| 17. Total Klerenmaat costs | 2000 | 4000 | 8000 | 12000 | 16000 |
| 18. Advertisements costs | 6540 | 9270 | 14805 | 19520,5 | 24302,55 |
| 19. Expenses | 87.505 | 95.130 | 127.850 | 140.068 | 152.703 |
| 20. Profit before taks | -22.105 | -2.430 | 20.201 | 55.137 | 90.322 |
| 21. Tax rate 40% | -8842 | -972 | 8080,2 | 22054,82 | 36128,902 |
| 22. After tax profit | -13.263 | -1.458 | 12.120 | 33.082 | 54.193 |
| 23. Cash Flow | -13.263 | -1.458 | 12.120 | 33.082 | 54.193 |
| 24. Cum. Cash Flow | -13.263 | -14.721 | -2.601 | 30.482 | 84.675 |

Table 9. Cashflow calculation of Klerenjong.

4C's analysis

In order to create a brand positioning for the Klerenjong brand, a four C's analysis is done in which the competitors, company, consumer and context is discussed. Several of these aspects have already been generally described throughout the report. With the final concept specified, a new analysis is recommended to be able to create a fitted market position.

Competitors

For the competition of Klerenjong we look at multiple levels, these are illustrated in Figure 91 from a lecture of Hultink (2018). In the product form competition Klerenjong had no direct competition. There are no other brands that offer trendy DIY kits to repair clothes in combination with a weekly crafting table. The closest thing would be the monthly repair cafés organized by volunteers, but these would have a better fit in the product category competition. Trendy repair patches are included in this category as well. These are offered by several companies, Levi's for example. Still, the complete concept of Klerenjong has no direct competition in the product category. Looking at the generic competition more products are found that are filling the same need as Klerenjong. Basic clothing repair kits available at household stores or crafting stores would normally be used to repair damaged clothes. Fast fashion companies offer a cheap solution to damaged clothes by replacing the item, and at last we can not forget simply giving the

damaged item to your mother or a tailor who repairs it for you. At last, in the budget competition we could include buying a new accessory or a crafting kit for some other creative activities. These would be related by the need for a new look, creating a fashion style or wanting to be creative in your spare time. It could be bought for the same amount of money, but does not solve the problem as Klerenjong would have.

Company

The resources of Klerenjong as described in the business plan canvas are patents, the This is not a fashion blog platform, crafting table volunteers, locations for crafting table, the Klerenjong brand, the production factory or suppliers, designer and a content writer. These resources give the capabilities to offer information on sustainable fashion and fashion trends to other people. It also makes it possible to give people the possibility to craft with their own clothes, and get help with this. The core competences of Klerenjong would be offering a trendy and sustainable solution to damaged clothes, which leads them to the sustainable competitive advantage of being unique in this market. Klerenjong offers the possibility to design your own clothes and feel confident in the results, while being cheaper than buying new clothes. In total this should lead to a superior advantage in which Klerenjong has a market share.

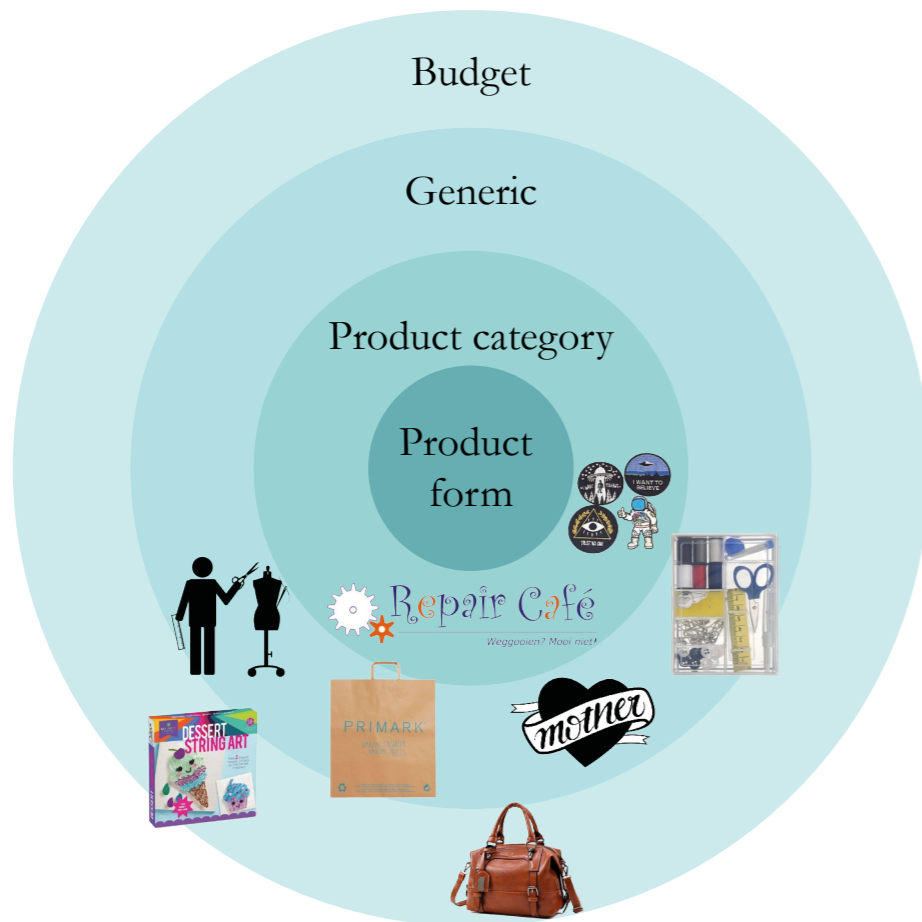


Figure 91. Scope of different types of competition (Hultink, 2018).

Consumer

When designing the product, the project specified itself to Dutch teenage girls with an age between 13 and 18, but this is a very broad group. From the research during the design process it became clear that the product should focus on teenage girls who are not familiar with sustainable fashion yet, want to design with their old clothes and want to learn

how to sew and repair. This are girls who are interested in fashion and love crafting, but simply are not familiar with this sustainable world yet. The description can also be seen in the target group of the business model canvas. A collage is created to create a guide with this target group, it can be seen in Figure 92.



Figure 92. Target group collage.

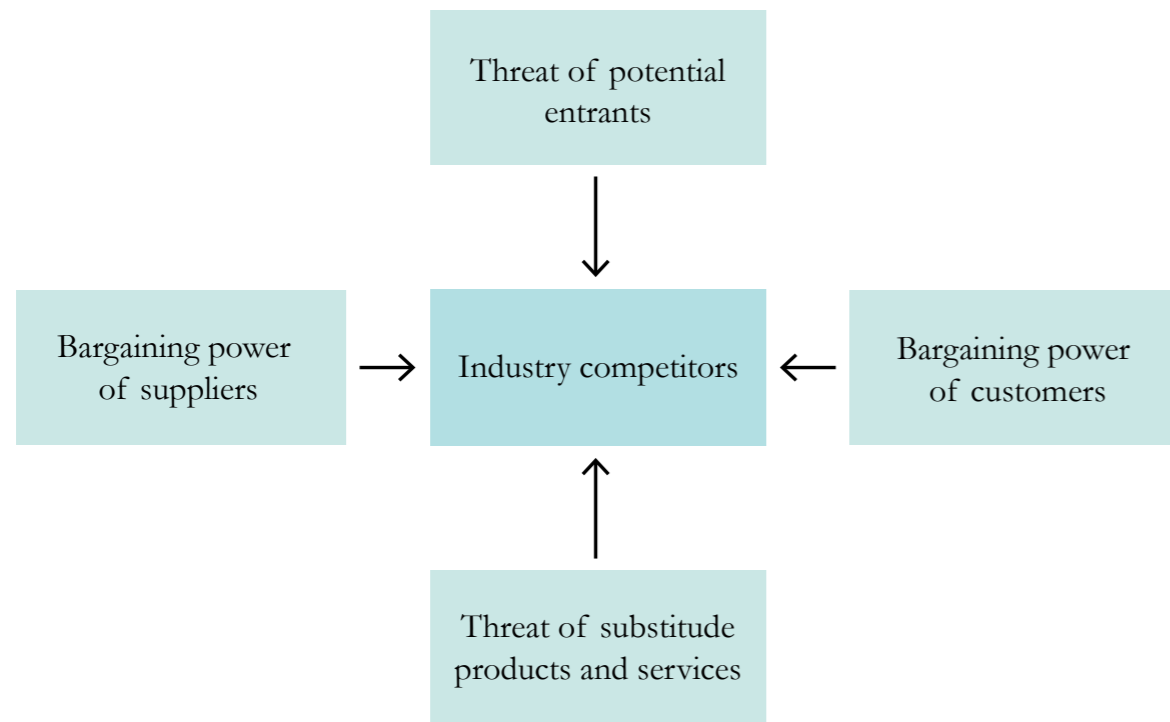


Figure 93. Porter's five forces model (Porter, 1979).

Context

For the context the chapter "Trend analysis" already gave a good framework of trends that could affect the context for Klerenjong. These were co-creation between brand and consumer, personalization, creating an experience, influencers on social media, having impact, gamification, servitization and the sharing economy. Besides these trends, we also take a look at the Porter's five forces (Porter, 1979), for the concept. This includes bargaining power of suppliers, threat of potential entrants, bargaining power of customers, threat of substitute products or services and industry competitors. This model can be seen in Figure 93.

As the industry competitors already have been discussed in this chapter, it can be said that Klerenjong has no personal rivalries. Looking at the generic competition, there are many fashion brands with a great deal of differentiation, but the market growth is high which gives Klerenjong a good position. There are not a lot of repair cafés, and these are not aiming at teenagers as target group. There is some rivalry at the basic repair kits, these are sold by a mature market with lack of product differentiation. When positioning the product, this market would be more difficult to gain a share in.

The power of buyers is high because a large percentage of the sales revenues depends on them, only the advertisement

income does not need buyers. On the other hand, there are not many alternatives and this target group can spend a relative big part of their income on clothes or hobby products. This makes the threshold to spend the money on a product like Klerenjong lower.

The threat of potential entrants would be high for the DIY kits. It is not a difficult or expensive product to mimic, and can be easily done by companies that already sell clothes. The crafting table however is harder to mimic. Setting up an event takes more effort. It could be done by fashion brands as well, but the requirement of tailors or volunteers creates a bigger barrier.

The threat of substitute products or services is high for Klerenjong. As discussed with the competition, there are several alternatives for the Klerenjong products: buying new clothes, having a basic sewing kit or let the tailor deal with the damage. The brand Klerenjong should gain brand resonance to counteract on these threats.

The power of the supplier at Klerenjong is low. The DIY kits consist of products that are not very difficult to produce. Although Klerenjong does not produce them themselves, it would be easy to switch from supplier when needed. This also gives the position to negotiate with multiple suppliers to create a good cost price.

Stakeholders

In this business model there are several stakeholders involved. These stakeholder are illustrated in the stakeholders map seen in Figure 94, to create a simple overview of all groups that have an influence on the company. Some of the mentioned stakeholders do not have a direct influence on Klerenjong, but might notice some changes on the long term. An example are fashion designers, who on the long term could expect a bigger market for timeless clothing and slow fashion.

The next steps within the business plan is creating a brand and marketing plan. For the creation of a brand a few stakeholders are important to keep in mind: the teenage girls and parents. Further on in the process we also need to involve the crafting table locations, volunteers and influencers, because they will be part of the marketing plan.

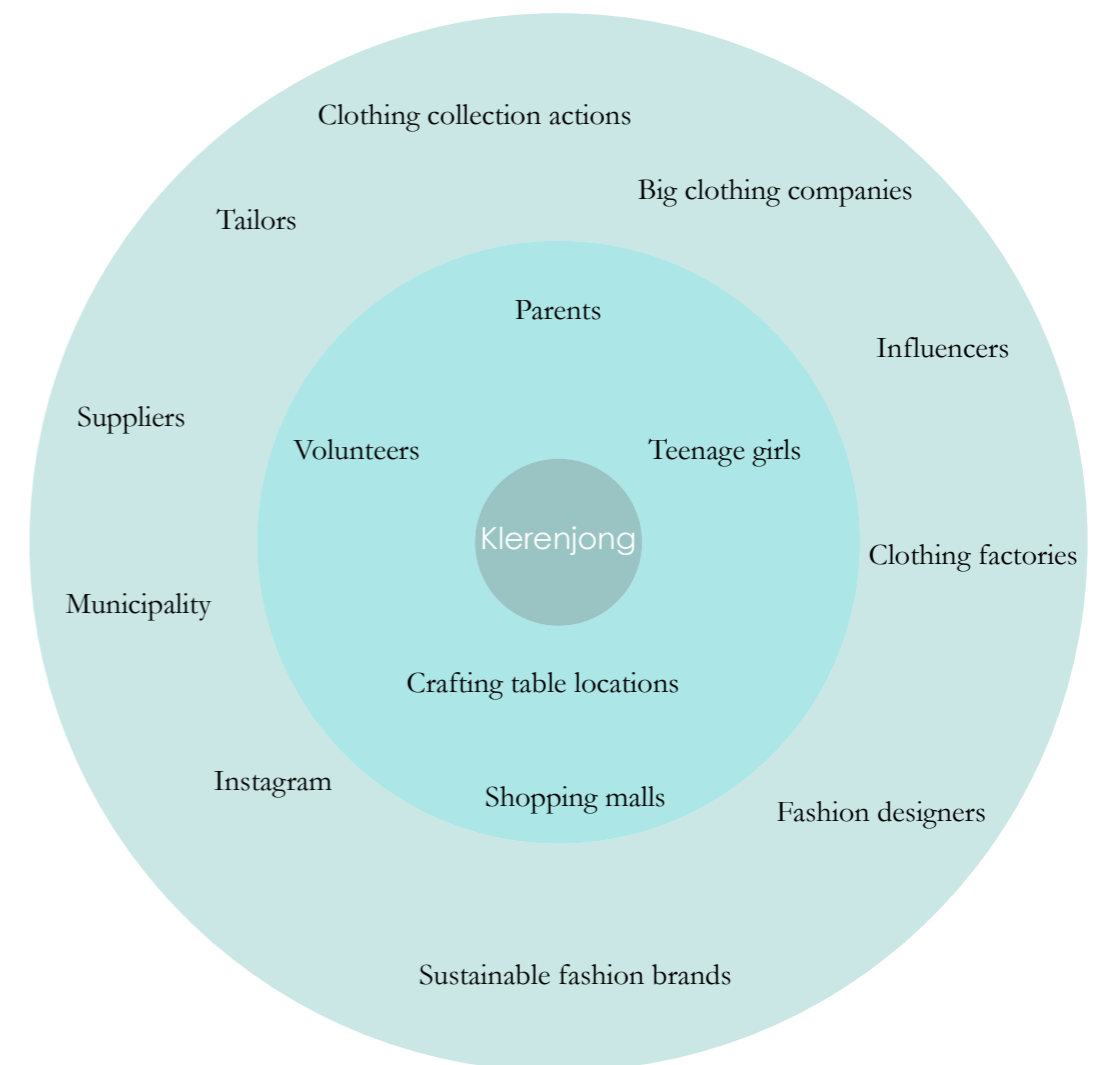


Figure 94. Stakeholders map.

Brand planning models

In order to create a successful marketing plan, the method of Keller (2012) is being used. In this method three brand planning models are being combined in order to integrate the brand in a marketing program. The combination of these brand planning models can be seen in Figure 95, illustrated as in the book by Keller.

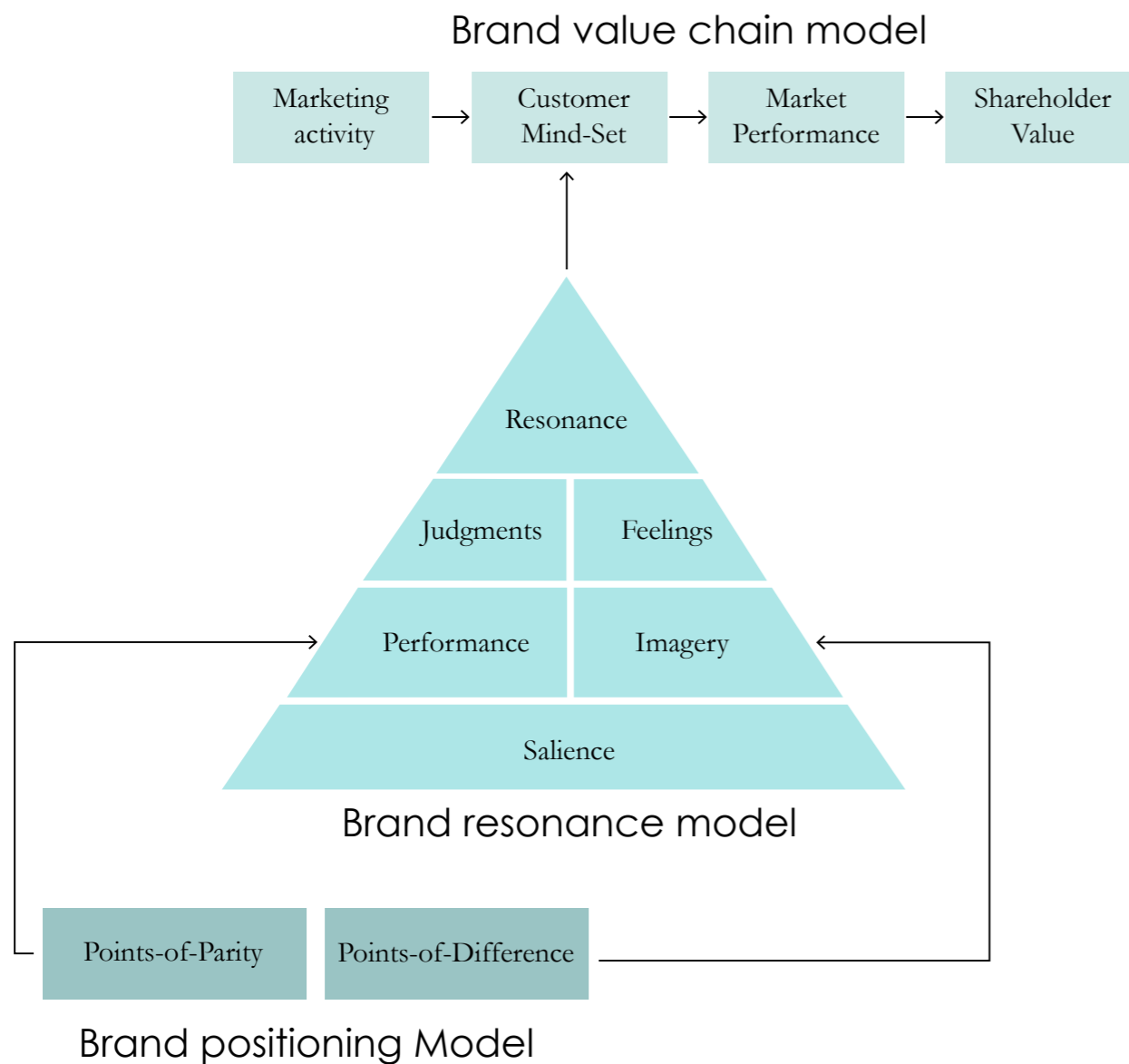


Figure 95. Combination of brand planning models according to Keller (2012).

Brand positioning model



Figure 96. Placing Klerenjong within the market of buying a new fashion item.

As seen in Figure 95 the brand positioning model consists of Point-of-Parity (POPs) and Points-of-Difference (PODs). With these points a brand mantra can be defined, to reflect the “heart and soul” of a brand (Keller, 2012). We first need to define the indirect competition before being able to place our own product in the market. The complete concept of Klerenjong could be placed with the basic sewing sets that are sold in several shops, but it can also be compared with buying a new clothing item. Because the concept is part of a sustainable fashion movement and should make teenagers aware of their own shopping behavior it is chosen to place the product between competition that sells new clothing items. This is illustrated in Figure 96.

Within this competition, there are some POPs with the concept. These are summed up below:

- ▶ The possibility to create new outfits.
- ▶ The possibility to join the latest fashion trends.
- ▶ The possibility to create your own style or be part of a group.
- ▶ Having a day out with friends.

Of course there are also a few PODs with this product category:

- ▶ Designing own fashion items.
- ▶ Cheaper than a new clothing item.
- ▶ Keeping favorite clothing items even longer.
- ▶ Better for environment by not stimulating the textile industry.
- ▶ Learning new skills.

With these POPs and PODs we can create a brand mantra. Looking at existing mantras there seems to be a combination of an emotional modifier, descriptive modifier and brand function (Keller, 2012). This combination can be used for Klerenjong. The mantra is chosen as followed:

Emotional modifier: **creative**

Descriptive modifier: **sustainable**

Brand function: **fashion**

This in total gives the mantra of
“creative sustainable fashion”.

Brand resonance model

From the brand positioning model we move on to the brand resonance model. As could be seen in Figure 95 this model consists of the salience, performance, imagery, judgments, feelings and resonance of the brand. With the outcome of the model we can focus on the customer mind-set. Because the concept tests indicated that the participants especially liked the fashion design part of the concept, it is decided to built the brand around this aspect. The sustainability aspect will be communicated via packaging and might be mentioned here and there to inform parents, but this will not be the main focus of the branding.

Salience

The salience is what the brand is known for and stands for. It answers the “who are you” question. With the just made mantra in mind, the brand should be seen as a replacement for buying new clothes. It should be linked to shopping and new trends. This makes that the salience of Klerenjong is thought of as “sustainable, trendy, fashion, developing skills, creativity”. When a brand already exists, the salience also consists of the visible elements that define the brand, but considering the brand elements of Klerenjong have yet to be designed, this can not be described in the brand resonance model.

Performance

The performance and imagery answers the “what are you” question. This is where the PODs and POPs are used. The performance describes how well the product or service meets customers’ more functional needs (Keller, 2012). For the products of Klerenjong, this can be summed up as:

- ▶ Great personal service at the Klerenmaat.
- ▶ Completed set of basic sewing gear.
- ▶ Extensive set of design tools.
- ▶ Easy understandable instructions and guidelines.
- ▶ Trendy to see.
- ▶ Look as good as new.

Imagery

While the performance describes the functional needs of the customer, the imagery takes care of the psychological and social needs. This description includes an user profile that could function as someone in whom the target group recognizes themselves. Furthermore it includes purchase and usage situations, personality and values, and history, heritage and experiences (if present). For Klerenjong the latter does not apply, but we can say that the imagery would be a teenage fashionista, that buys the Klerenstijl every new fashion season. She feels good by being able to personalise her own clothes. She uses the Klerenmaker when clothes get damaged and asks help at a Klerenmaat when she needs help with learning a new skill. The imagery should focus on being trendy.

Judgments

The judgments and feelings answer the question “What about you?”. Judgments are the consumers’ personal opinion of the brand. With already existing brands, this is usually the outcome of a consumer questionnaire in which the user indicate their thoughts on several attributes. Now that we’re still building the brand we can indicate which attributes we’re aiming for with the marketing. This would be an easy product that makes it possible to create beautiful results, design your own style and use favorite items even longer. Up-to-date contents and interesting and informative subjects on the blog. Customers consider buying the products as an alternative of buying a new clothing item.

Feelings

The brand feelings are the customers’ emotional responses and reactions to the brand. For Klerenjong this would be feeling cool and trendy while wearing your self-made clothes. Having self-respect, confidence and looking good. This especially relates back to the results from the Hassenzahl model in which confidence was the final outcome of the product.

Resonance

The final block of the brand resonance model answers the “What about you and me” question. It defines the relation between the user and the brand. Again, we can only describe the relation we’re aiming for, this would be consumer loyalty and consumer attachment. Users that like the brand, who keep buying and using the products. This would be established by the customer being reminded of Klerenjong with every new fashion trend, and the user feeling confident when wearing their own results.

In Figure 97 an illustration can be seen of the filled in brand resonance model.

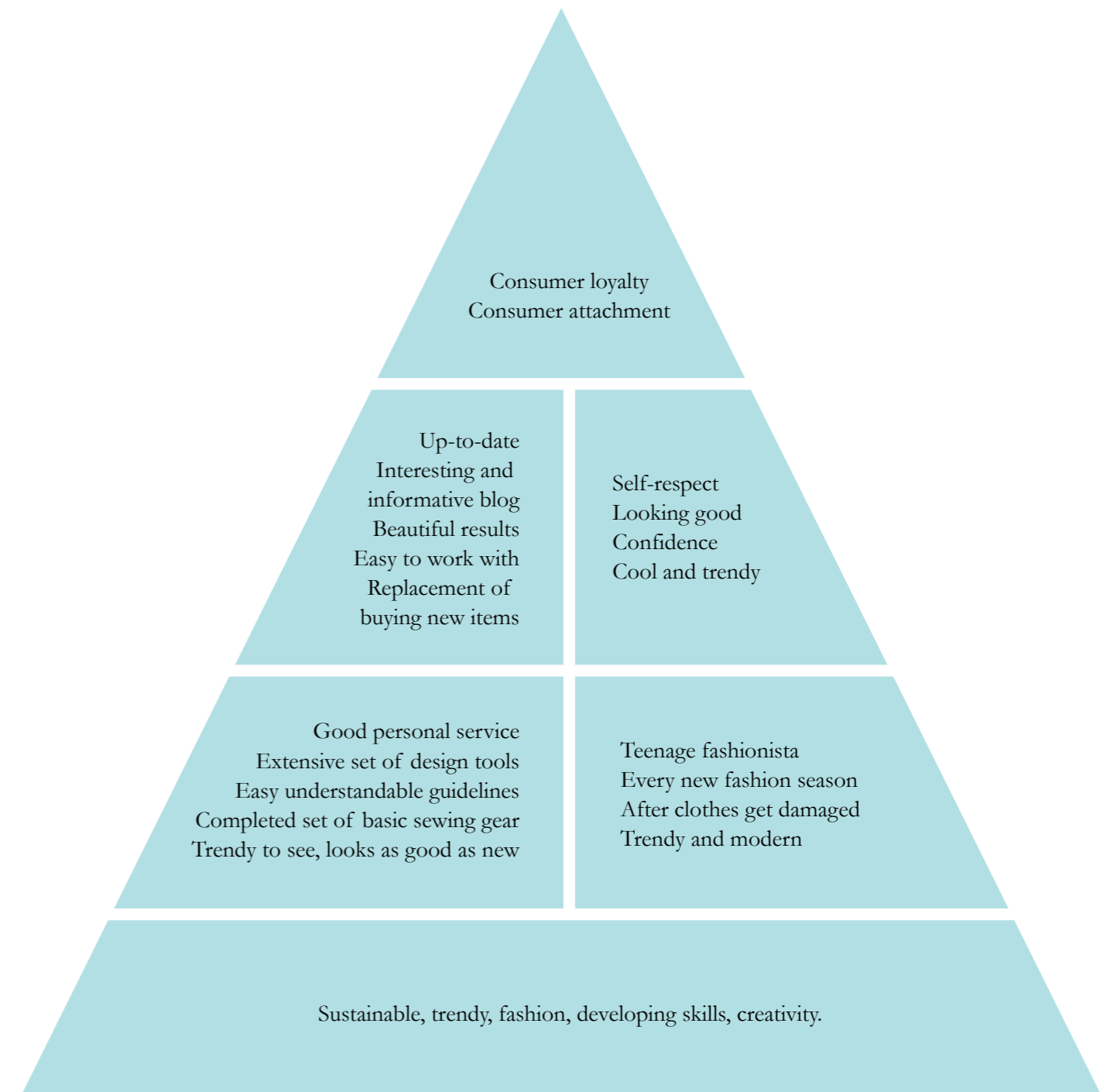


Figure 97. Brand resonance model filled in.

Brand value chain model

As seen in Figure 95 does the brand resonance model end in the customer mind-set of the brand value chain model. In this figure the multiplier have not been illustrated, these are a program quality multiplier, a market place multiplier and an investor sentiment multiplier. These will be discussed in this chapter to paint the complete picture of the brand value chain.

Marketing Program Investment

The first stage is the Marketing Program Investment. As could be seen in the chapter “Cashflow”, 10% of the revenues will be invested in the marketing of the product. In the first year this will be €6540. It is not a lot of money, but when invested wisely, it could help reaching a big group of people. With the current algorithms on social media it will be possible to advertise only to the target group, enlarging the possibility of interest. It will also be important to work with influencers to reach the target group. Within the brand strategy it would be most beneficial to work with professional crafters or fashion designers as influencers. Another channel could be flyers at the art room of high schools, or flyers at crafting clubs. The crafting table needs to be announced as well, which could be done by posters in the shopping mall of the crafting table location.

Furthermore, the money is not needed for research and design of the product, considering this is already done.

Program Quality Multiplier

The marketing program multiplier depends on the clarity, relevance, distinctiveness and consistency of the program. For this multiplier it is important to focus on “learning fashion design, creating your own style” aspect of the brand in all marketing. This becomes extra relevant when the marketing is targeting specifically girls who are already interested in crafting and designing. Considering the chosen competition of the regular fashion industry, the marketing message is distinctive. There are not that many companies where you can design your own clothes.

Customer Mind-Set

The customer mind-set can be described by the 5 A's: brand awareness, brand associations, brand attitudes, brand attachment and brand activity (Keller, 2012). These five dimensions are related to the brand resonance model, and would result in the customer thinking of your brand when thinking of the product category as illustrated in Figure 98. In the creation of the Klerenjong brand, it is aimed for creating an easy recognizable brand, that is recognized for



Figure 98. Being recognized within the product category by the customer.

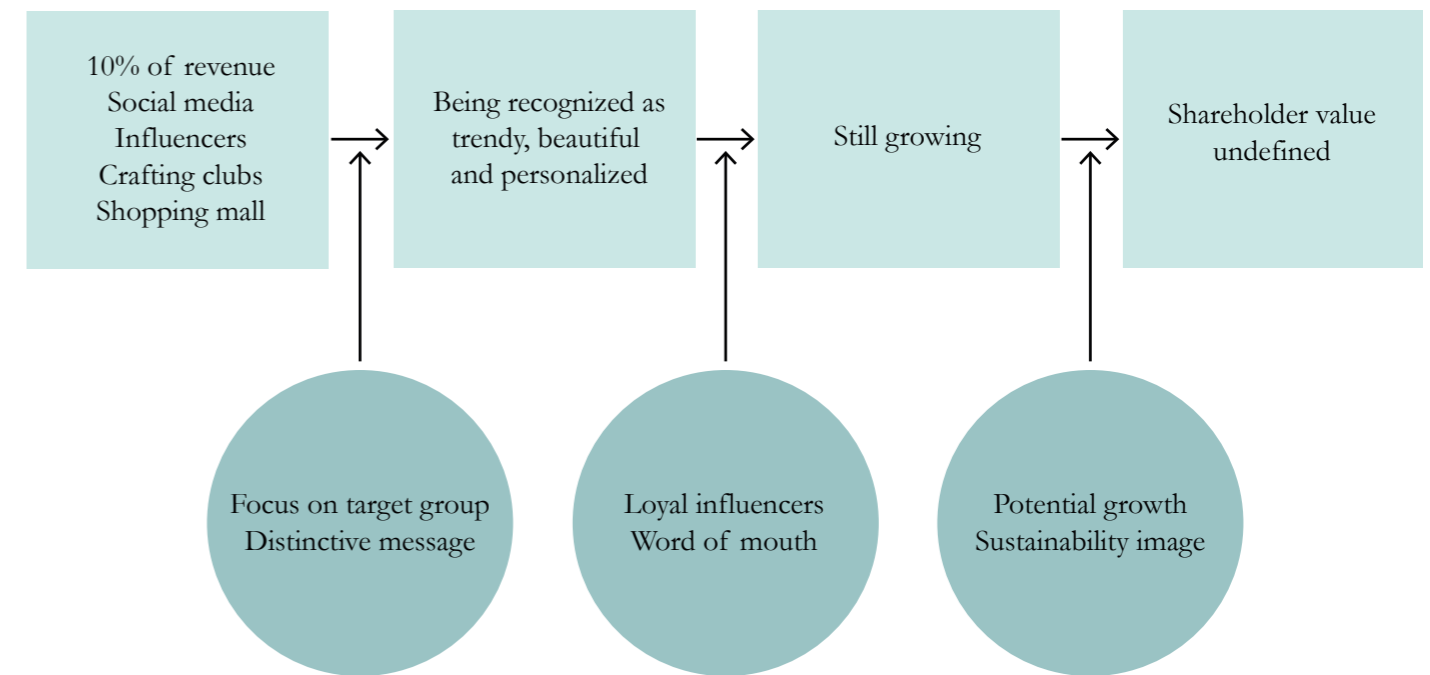


Figure 99. Brand value chain model filled in.

being trendy and helping to create beautiful personalized clothes. Users check the new collection with every fashion season and exchange tips and tricks of the possibilities with the Klerenstijl kits with each other.

Market Place Multiplier

The customer mind-set can be influenced by competitive superiority, channel and other intermediary support and customer size and profile (Keller, 2012). Within the fashion market, there surely will be a lot of competitive superiority, but this can not be established on beforehand. The marketing was aiming to target multiple channels like Instagram and Youtube. When working with loyal influencers who mention the brand regularly, this will work as a multiplier. The customer size and profile is hard to tell as well, but this specific target group is being known for sharing and recommending products with peers. Teenagers tend to have an active social life, which will help spreading the word about Klerenjong.

Market Performance

The market performance consists of price premiums and elasticities, market share, expansion success, cost structure and profitability (Keller, 2012). Considering Klerenjong is a new brand, it scores very low on these dimensions. It is thought to make loss in the first two years, which makes

changes in the prices unadvised. The market share has to grow before being able to do a brand expansion. It will not be possible to lower the marketing investment because the brand resonance needs to grow in the first years to create loyal customers.

Investor Sentiment Multiplier

For investor a brand can be interesting based on market dynamics, growth potential, risk profile and brand contribution (Keller, 2012). For Klerenjong there can not be said yet what the market dynamics will be, but with the growing demand for sustainable products and the stability within the fashion industry there is a lot of potential growth. The sustainability aspect of Klerenjong will work in favor of the brand contribution in general, since more and more companies need to go sustainable in order to keep their customers.

Shareholder Value

The sum of all discussed factors will result in the shareholder value. This is indicated in the stock price, the price/earnings multiple and the overall market capitalization (Keller, 2012). Dimensions that can not be determined yet.

The complete filled in brand value chain model can be seen in Figure 99.

Brand elements

Now the brand identity is established, it's time to design the brand elements. For Klerenjong this means a logo, symbol and slogan needs to be created. Aiming for a modern and trendy brand, the elements should go for a minimal clean design. The symbol should convey fashion, recycling and designing. Several ideas for the symbol can be seen in Figure 100. From these designs it was decided to go on with the "recycle hat", considering it expressed the fashionable recycling the most. It was noted that this symbol did look a little bit like an UFO or an egg, after which a mouth was added to make the design more explicit. In Appendix I several designs of this symbol can be seen.

After the creation of the symbol a logo needed to be made with the name Klerenjong. A font was needed that expressed some creativity, but didn't look childish at the same time. With the sketched serif font this goal was met.

With the logo and symbol, the only thing left is a slogan. The slogan is thought to say something on creating your own style, maybe be a little stubborn to be in line with the

word "klerejong" and convey the urge to design something yourself. At the same time it could be interesting to have the slogan match This is not a fashion blog, in order to create a strong connection between the website and the brand. With several options in mind a choice needed to be made between:

"One of a kind."

Which could also refer to a Dutch pun in which kind means child, related to "jong" in Klerenjong. The other option was

"This is not a regular fashion."

Which combines a reference to fashion with doing something in your own way, and suits the Klerenjong brand very good as well.

The latter slogan was chosen to match the website and the brand mantra. The combination of logo, symbol and slogan can be seen in Figure 101.

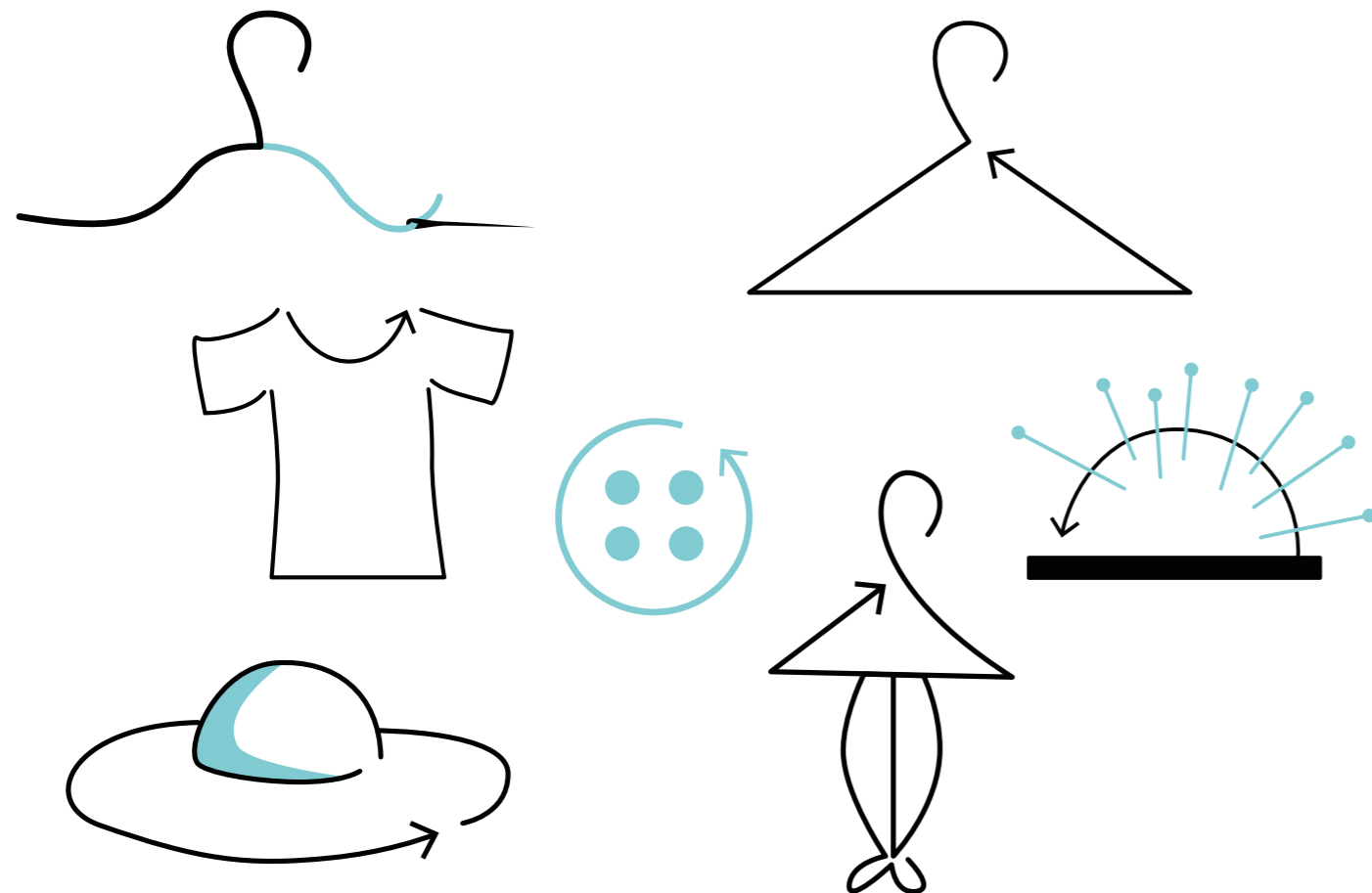


Figure 100. Several ideas for the symbol of Klerenjong.



Figure 101. Logo, symbol and slogan of Klerenjong.

Marketing strategy

With a defined brand, a marketing plan can be made. First the goals of this marketing should be specified. Considering Klerenjong is a starting company, it needs to create brand awareness. Only with brand awareness it is useful to expand the marketing goals to rise the sales. This makes that in the first years the marketing goals would be to create name awareness at the target group, blog visitors, parents of teenage girls and volunteers for the crafting table. The parents are included because the first target group research indicated that mothers often buy clothes for their daughters. By targeting this group as well, chances are that mothers take Klerenjong into account when looking for expansions of their child's wardrobe. This in total gives Klerenjong four goals, which are illustrated in Figure 102.

In order to specify these goals, they need to be verifiable. For creating brand awareness under teenage girls this means that the amount of sold items by people with the age between 13 and 18 years old increases, the number of crafting table visitors with an age between 13 and 18 increases, the use of #klerenjong, #klerenmaat, #klerenmaker or #klerenstijl

on Instagram and the amount of Instagram followers rises.

Creating brand awareness under website visitors could be verified by rising number in the website statistics, the amount of referencing links to the website and the Google search engine performances.

Creating brand awareness under the parents of teenage girls could be measured by the amount of customers and crafting table visitors with an age above 33 years. It could also be checked at rising numbers in the website visitors of 33 years and older.

At last, creating brand awareness under volunteers for the crafting table. The crafting table will depend on people who like to help there, so this needs to be communicated. The effectiveness of this communication can be measured with the amount of volunteer registrations, emails with questions on the crafting table and positive reactions by crafting clubs.

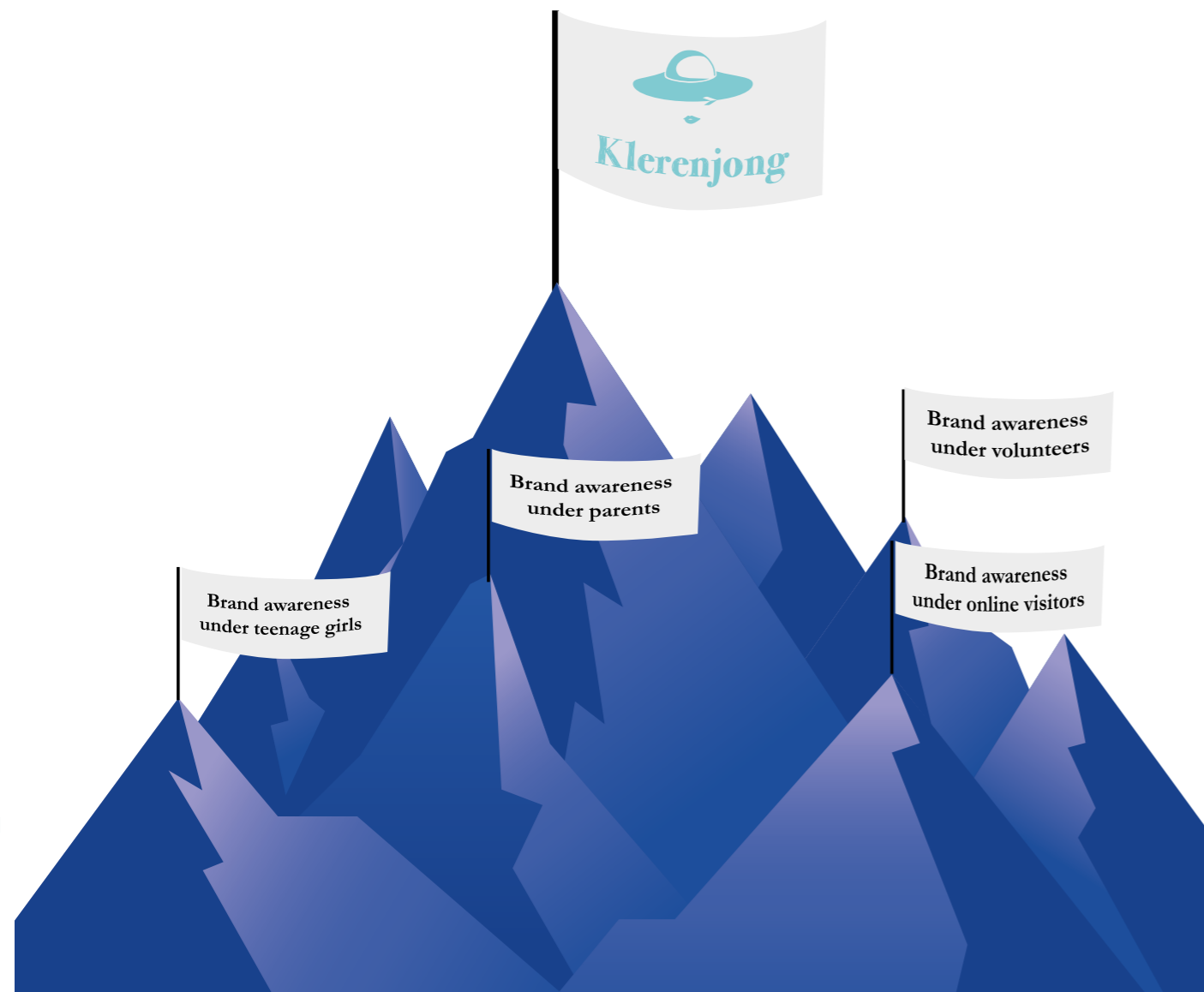


Figure 102. Marketing goals illustrated.

Marketing plan

Having specified that the marketing goals will be focused on increasing the brand awareness, several methods can be used to establish this goal. These will be discussed in the following paragraphs.



Using social media as advertisement platform.

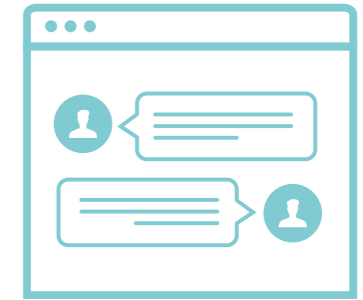
Social media will be the main marketing platform, by using advertisements, an active Instagram and Facebook account and making use of Instagram influencers. There will be two types of advertisements: those on Instagram who are aimed at teenage girls, focusing on the fashion design aspect of the product, and those on Facebook who are aimed at the parents, focusing on the sustainability and learning skills aspects. Both accounts should be active and discuss up-to-date topics and blogposts in order to create a convincing company. At last, it is important for Klerenjong to work with influencers, people who have many teenage followers on social media. By asking YouTubers and Instagrammers to post about the Klerenjong product, teenage girls will take the brand more serious and have more brand resonance. When embracing influencers, it is important to choose people who normally post about sustainability, lifestyle or crafting. This creates a credible image of the Klerenjong brand, which is needed in increasing the brand awareness.



Optimize the blog articles for the Google search engine.

To create an increasing organic visitors flow to the notafashionsblog.nl website, it is important to write articles that easily can be found via search engines. These search engines depend on several aspects: the posting frequency, the usage of clear descriptions and blogpost titles, and the amount of other sites linking to your website (backlinks). There are multiple plugins available on the internet that help with creating a well written article, these must be used when writing blogposts. Having backlinks can be a bit manipulated by linking to other articles or websites in

blogposts, linking to the website on several social media and forums, and having a backlink in the email signature. Furthermore, working with influencers creates the opportunity to ask them to create a link to the website. It would also be possible to offer other websites a DIY kit in exchange for a review on their website.



Advertise on themed forums for parents and crafting amateurs.

Advertisements aimed at parents and volunteers should make use of more platforms than only social media. There are multiple forums that discuss topics on parenthood or needlework that can be used for more communication on the Klerenjong brand. The advertisements should focus on the sustainability and skill learning aspects of the product, and invite the audience to visit a crafting table to get to know the brand. It has to be possible to sign up or email to register as volunteer from the advertisement, but the advertisement should mostly focus on having the audience take a look at the crafting table. This has a lower threshold and gives the possibility to discuss the possibilities in a face to face conversation.



Advertise via crafting clubs and high schools.

At last, it could be useful to advertise to the target group at places where they already come to work with their hands: crafting clubs and art rooms in high schools. Often these places have a rack of flyers on related events, it would be fruitful to create flyers about the crafting table events. Flyers about the Klerenmaker and Klerenstijl product most likely will not be appreciated by high schools, but the Klerenmaat fits with the other promoted materials in art rooms. Girls who normally go to crafting clubs and see the flyer over there, are presumably more interested in going to other crafting events as well. This makes them the perfect target group for the crafting table.

With this marketing strategy it is possible to create a guideline for Klerenjong. Figure 103 shows which steps need to be taken to reach the desired situation with the Klerenjong brand.

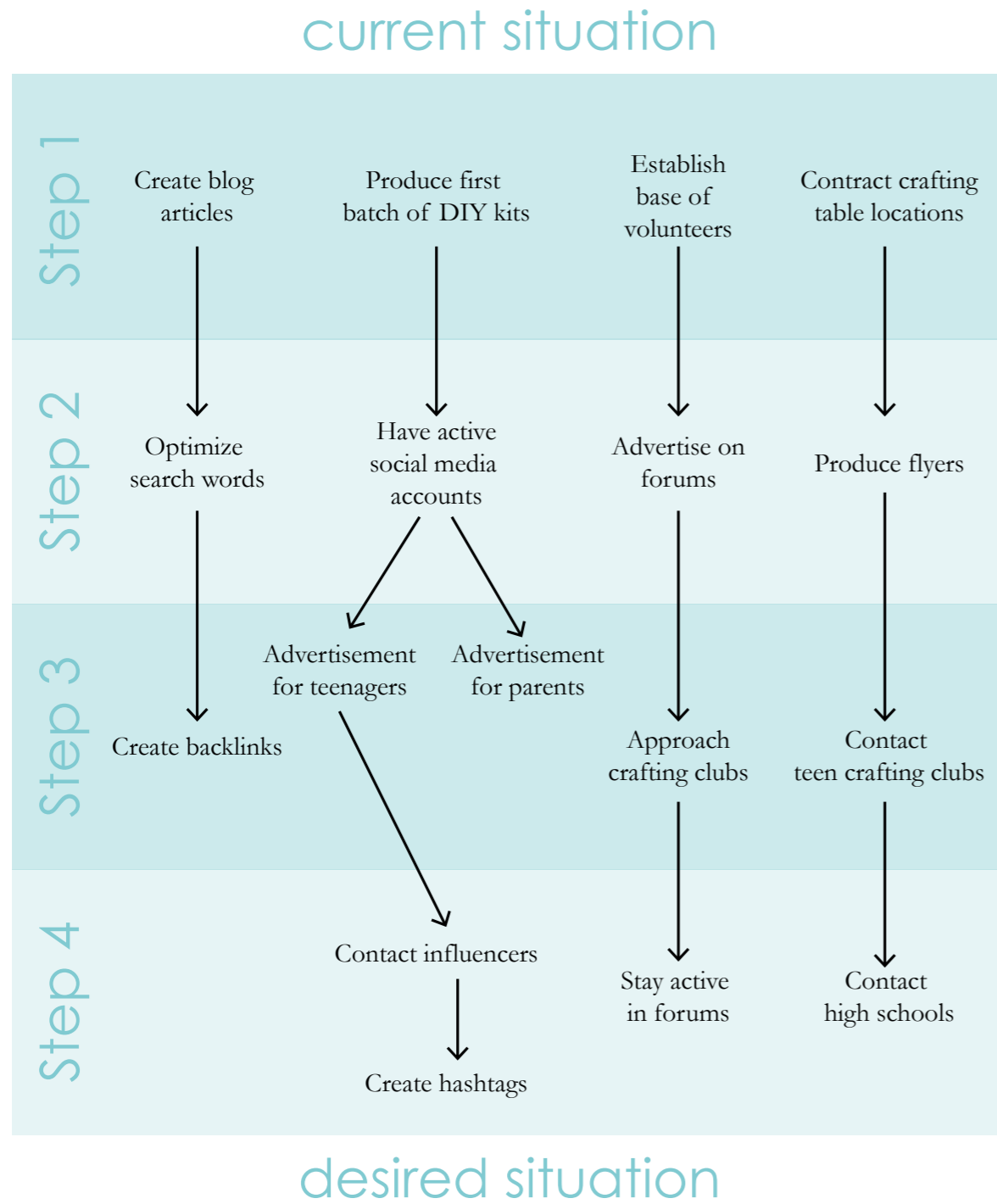


Figure 103. Step-by-step guide to create the Klerenjong brand.

Marketing content

To create a starting point for the marketing of Klerenjong, three example advertisements are made. These would be advertisements that are used on the social media. Two of them are aimed at the teenage girls, these can be seen in Figure 104 and Figure 105. One focuses more on the skill learning part which makes it better fitting for the parents, this can be seen in Figure 106.

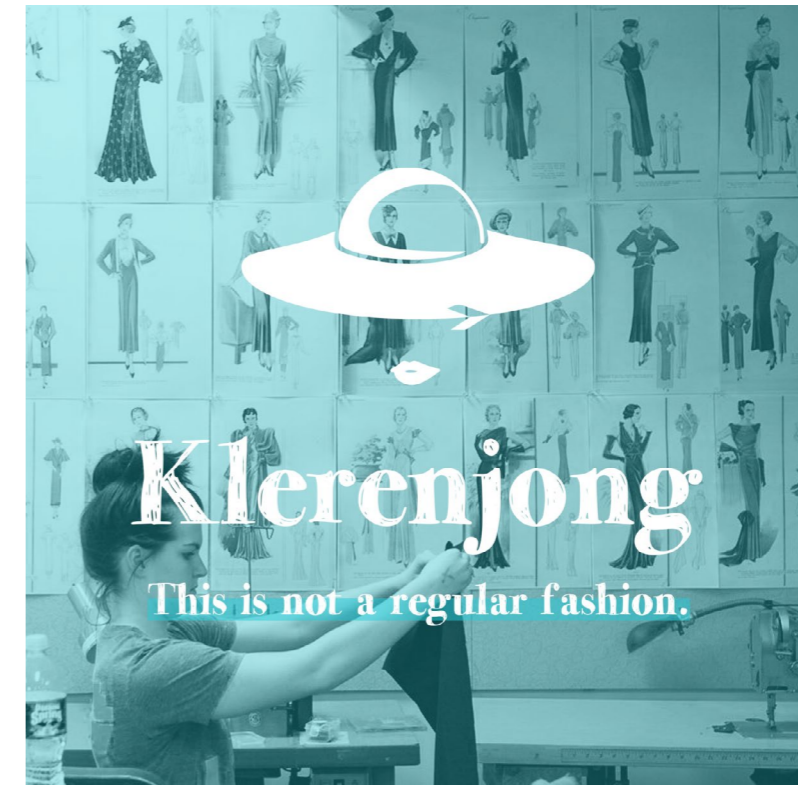


Figure 104. Example advertisement aimed at teenage girls.

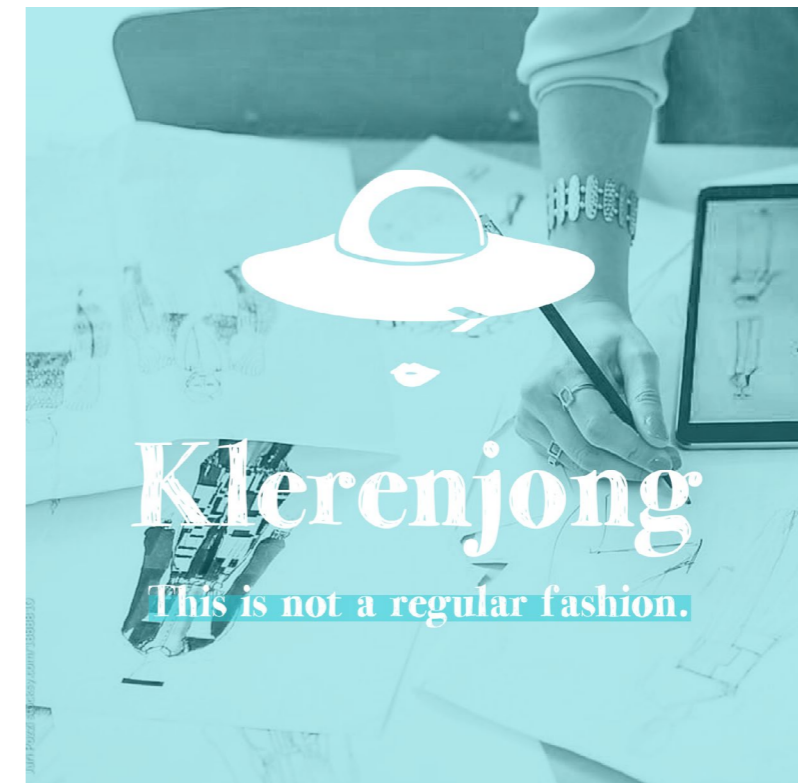


Figure 105. Example advertisement aimed at teenage girls.



Figure 106. *Example advertisement aimed at parents.*

In this marketing content the logo, symbol and slogan of Klerenjong are the center point. This would be because the advertisement focuses on the brand awareness, the audience should get familiar with the brand elements of Klerenjong. The advertisement should generate curiosity for the brand and invite the audience to take a further look

on the Klerenjong profile. It's not the main goal to express the quality or unique selling points of the Klerenjong products. The image in the background should convey fashion, designing and sustainability, so the audience gets an idea of what the brand stands for. In Appendix J other considered options for this advertisement can be seen.

Conclusions and recommendations

This last chapter gives an overview of the results of the project, discusses these and gives recommendations for future research on the subject.

General research conclusions

When answering the question “How to lower the threshold for teenagers to repair their own clothes?” we start with rephrasing this question. The goal of the project was to extend the lifespan of clothing items of teenagers. The literature review revealed that only repairing clothes was not going to help reaching this goal: teenagers have multiple reasons why they throw old clothes away. They mostly use clothes to express themselves and be part of a social group. With the changes they go through in puberty and the fast developing fashion trends, teenagers feel the urge to adjust their wardrobe every once in a while. It differs per person how often this happens, from the interviewed participants some indicated they felt the need to buy new clothes every month, others said once a year. With this information the first subquestion “Why do teenagers buy new clothes?” is answered. These conclusions make that the goal of the project needs to be rephrased to “lowering the threshold for teenagers to repair and upgrade their own clothes”.

The research further on in the project gave a few general conclusions on this research question. To begin with, the interviewed participants showed a lack of responsibility. They were aware of certain consequences in the textile industry, like child labor, which they did not want to support. Nevertheless, when being in a clothing store, these resolutions were not thought of. Participants still bought clothes at stores with bad reputations, of which they were fully aware of the working conditions in the factories. This indicated that the participants lacked a motivation to work on their own buying behavior, and this motivation needs to concern them. In the final product in this project, the motivation is focused on the ability to design and personalize own clothes. When purely looking at the research question, other motivations would be possible as well. This answers the third subquestion “How can you motivate teenagers to repair their own clothes?”.

Another aspect of lowering the threshold for teenagers is expanding their knowledge and helping them develop crafting skills. The second subquestion “Which skills do teenagers have when it comes to repairing clothes?” is answered during the concept tests. It appears that the skill level of all participants is very low, they still need to learn how to work with needle and thread. Expanding knowledge on the subject of sustainable fashion should be done along their current lifestyle: on the internet through social media, vloggers and bloggers. Within the project, these aspects were tackled with a blog and by adding the possibility to practice multiple stitches within the DIY kit. The concept test indicated that participants expected all instructions to be included in the offline DIY kit. None of the participants looked up information online when they had started their project. As a result, the last iteration included a flowchart that helped participants through the process without having to look up external information.

In total the research question can be answered with:

Teenagers experience a lower threshold to repair and upgrade their own clothes by informing them on sustainable fashion, guiding them through the learning curve of needlework and giving them a personal motivation to start the project.

Procedure conclusions

During the project multiple tests were done involving teenage girls. During these tests several findings related to working with this target group were found. One of the first conclusions was how easy chaos is created. When working with teenagers the test needed to be very structured in order to avoid shouting through the rooms and panic of the participants. Two techniques can be recommended: first, keep the testing groups small. Make sure there is guidance for the participants so there is no need to shout for attendance. Second, give the test a clear structure. Give the participants an introduction in the project, explain their tasks, let them know when to begin and most important: let them know when to finish. People walking away before the end of the test gives a chaotic environment for the participants who have not finished yet. It results in bungled work of those who are not finished yet.

A second conclusion is the need to make participants feel confident. Normally, teenage girls feel the urge to act the same as the other girls, hoping to fit in the social group. During a test, that is not very useful. Having small test groups can already help with this, but it is advised to partner participants with a friend during the test. This makes them feel more confident, which results in more extended answers on the questions. It stimulates discussion between the participants as well, which triggers them to give further explanation on their thoughts.

Third, participants need to be informed on the goals of the test in order to get truthful answers. During the concept tests participants thought that their answers directly would be reflected in the final grade of the project. By informing them that the project has the goal to find mistakes in the design, it is thought to gain more useful answers that reflect the true status of the product.

At last, the concept tests indicated that participants needed to be encouraged throughout the process to go on with the project. Teenagers gave up easily when something was more difficult than expected or when they did not know what the next step was in their crafting work. During a test, this could result in unfinished work or extension of the needed time. A solution could be to guide them through the whole process, keep them focused at each step. Other options would be to show an instruction that demonstrates the whole process in a few minutes or have a written out step-by-step guide of the project.

Discussion

At the end of the project, several steps in the process can be discussed. We begin with the literature review. From this review it appeared that teenagers have several reasons to buy new clothes, but damage is not one of them. Still, the project was continued. The focus shifted to creating a pleasant first time experience and the project expanded to making it possible for teenagers to upgrade their own clothes. Further on in the project this appeared to be a good choice, the participants were interested in personalizing and designing their own clothes. The repairing disappeared a little to the background of the project, gaining sewing skills by having fun with fashion design got the new focus. Within this project, that was a shift that could be made, but looking purely from a business perspective it would not be logical to go on with something that is not supported by the literature.

In the literature review multiple models were used to create guidelines in the concept design, the Fogg behavior model and the Hassenzahl model. The use of both these models could have been a bit confusing, still it was chosen intentionally. The Fogg behavior model helps in predicted consumer behavior and thus makes it possible to design a product that triggers product care. The Hassenzahl model describes a successful user experience of a product. It focuses on which parts of a product give satisfaction and pleasure. In this research, the Hassenzahl model can be seen as an interpretation of the motivation in the Fogg model. By creating a pleasant user experience, the user will feel motivated to use the product more often.

After the first concept was made, an online questionnaire was done with 28 girls with the age between 15 and 25 years old. Having a questionnaire with only 28 girls is not a lot of respondents. Normally it is advised to have at least 50 respondents before looking at the results. It also appeared that not all respondents fitted into the target group, which would be with an age between 13 and 18 years old. As mentioned in the report it was decided that this small age difference would still mean that the respondents could give useful insights on the concept. The respondents were informed that the official target group was slightly younger, and were asked to keep this in mind when filling out the questionnaire. As a result of this questionnaire the concept had an iteration which included adding tailoring to the DIY kits. The iteration had products to adjust the waist of a shirt or length of a pants. However, when doing the concept tests later on in the project, the target group appeared to be having difficulties with simple sewing tasks. Threading a needle and tying knots seemed to be a real hassle and sewing a simple pocket occurred to be difficult for these participants. From this iteration and the reactions on the real work, it can be concluded that the results of the first online questionnaire are not that representative as thought in the first place.



Figure 107. *Do iterations matter when the initial concept is garbage?*

After the online questionnaire was analyzed, it appeared to be positive on the idea of having a weekly crafting table. From there on the crafting table was included in the concept, and was not tested anymore in the concept tests. This was done because there were not enough resources and time in the project to do it all, but in a realistic perspective: a company should first have a few product tests before continuing with such an idea. This could simply be done by setting up a small crafting table in a busy shopping mall, and see how many people will stop and come by. An extra test should also be done to make sure people are prepared to pay for access on a crafting table. The results of this questionnaire bring up another point of discussion as well: while the results were not very positive on the DIY kits, the project still continued with this idea. There were several iterations, but in the end we need to face it: did we simply begin with a bad initial concept? This is illustrated in Figure 107. In that case, it is possible to have an endless stream of iterations, but it never will be a good product. Within this project, it can be discussed if the iterations on the Klerenmaker and Klerenstijl kit were unnecessary, they should not be included in the concept at all if you ask the respondents. However, for the learning process of a teenage girl that needs to get familiar with sewing techniques and clothing repair, the concept should include something they can take home to practice. During the last product test, the reactions of the participants were positive. They liked working with the kits and wanted to try more. This could be an indication that by evolving the concept throughout the project, the DIY kits did become a good addition to the concept and the iterations were successful.

After the first concept iteration, the website was launched: <http://notafashionblog.nl>. The aim was to create multiple posts every week and see how many visitors would take a look on the website. An Instagram account was linked to get attraction and redirect people to the website. Because writing the content was just a side project during the graduation, the content of the blogposts was not of high quality. There was no time to create super inventive new ideas, which did not benefit the website. When posting frequently and creating multiple Instagram posts on this, the website had between five to ten visitors per day on average. The Instagram had 180 followers, whom included a lot of companies. Looking at the statistics of the website and Instagram, only a small section appeared to be in the target group. Both mediums had mostly male visitors and less than a quarter was in the target age. These results indicate that the blog was not a successful part of the concept. Nevertheless, there are multiple other sustainable fashion blogs available which are successful. The combination of little time, no professional writer and no advertisements for the website should be taken into account when discussing the results of This is not a fashion blog. It is thought that if the blog would have these resources, the number of visitors within the target group would rise.

Another point of discussion within the project are the concept tests on the high schools. In the first concept tests the participants were slightly younger than the original target group. During this test it was notable that many of the participants did not know how to work with needle and thread, and were a bit clumsy when working with

their hands. This was taken into account with the product iteration following that test. It could have been useful to do the same test with participants that were a bit older. It is thought that user of 16 years old have more skills than user of 12. A child in this age is still growing and developing on multiple levels, subtle maneuvering of the hands is one of these skills. This makes it possible that the results of concept test are not completely representative for the real users of the product. During the second concept test on a high school, the participants were a bit older, but did not specify their interest in the subject of fashion design. Considering the product is aiming for girls who already like fashion, crafting and want to design, the answers on these participants will differ a bit of those of the official target group as well. The target group will more likely express a bigger interest in the product, and probably have a bigger motivation to use the product.

After all the iterations in project, the Klerenjong product is finished. It can be discussed that the final product is not very innovative: repair cafés, fashion blogs and repair kits already exist. However, using this products with teenagers as target group with the purpose to teach them how to adjust their own clothes is a new concept. As mentioned in the chapter “4C’s analysis” there are no competitors with this concept on the market, combining repairing with new fashion trends is innovative. Furthermore, the complete concept of Klerenjong could also be described as system design. It goes far beyond only selling a product, it is about creating a new system in which the behavior of the target group is changed. Teaching the user new skills, learning them about sustainability with the purpose to change their buying, recycling and product care behavior. This in total makes that the Klerenjong product indeed is innovative.

At last, we discuss the target group. With the current developments in society which try to break the traditional gender roles, the Klerenjong product raises a question: why is it aimed at girls? What would have been different when being aimed at boys? During the literature review, information was found on the buying behavior of multiple groups. Teenage girls appeared to be above average, which gave the reason to focus on them in this project. When the project would have included boys, the crafting table would have stayed the same, but the website and DIY kits should have been adjusted. The website currently writes about subject which will mostly interest girls. It has blogposts on products that are marketing for girls and most blogs that link to other sustainable fashion bloggers or vloggers, refer to platforms for girls. The DIY kits should be extended to fashion trends in the male fashion stores. Of course, boys that do like the current product of Klerenjong are more than welcome to use the products.

Recommendations

In a design project with a strict deadline, there will always be things that could have done better. Those are the recommendations that are advised to everyone following on with this project. Within the research of the Klerenjong product some tests have options for improvement. As mentioned in the discussion, all the concept tests should be done with the specified target group. Teenage girls with an age between 13 and 18 years, who like fashion and crafting. It especially would be useful to do the tests with a more diverse age range. Girls from 16 and 17 have other opinions than 12 years olds.

Another part of the concept tests mentioned in the discussion is the testing of the crafting table. It is highly recommended to first see if it works to put a table in a shopping mall, before paying the trading pitch concessions for a whole year. In these tests it should be verified that customers are willing to pay for access on the crafting table.

A third recommendation on the concept tests, is verifying the last concept iteration. The added flowchart is thought to function as a guideline for the user during the crafting process, but this still needs to be validated. The test could be done by having a group of participants repairing a clothing item on their own, with the flowchart and no other help offered in this process.

The last recommendation concerning concept tests concerns the positioning in the market. The concept is aiming to be a replacement for buying new clothes. It would be useful to justify this brand positioning in the brand image of the user. This test could be done by placing the product in a fashion store and ask customers if they considered buying the product (and in what way) at the end of their store visit.

Within this project the motivation for the user was specified on fashion design. In other projects on the subject of clothing repair for teenagers, it could be recommended to do an extended research to the motivators for teenage girls. Although fashion design is a good direction, it could be interesting to look for a motivation that triggers a bigger target group. The concept tests showed that working together with a friend worked good as well, so this might be useable as a motivator in a product.

The last recommendation given would be a bit broader than only this design project: while targeting the textile industry is a good start, there are multiple other approaches that can help getting sustainable. There needs to be more research on what is needed for the next generation to become sustainable. Generation Z is grown up in a whole new standard of living, which makes that new solutions are needed to cut down the energy, water and CO₂ usage. People do not like to give up their comfort for something that does not affect them directly and personally. It is a challenge to create a solution for this problem for generation Z.

Reflection

At last, we end the project with a reflection. As seen in the project brief in Appendix K, three learning goals were stated at the beginning of the project. Now, twenty weeks later, it is possible to reflect on these goals to see if they were reached. The first goal stated was learning how to do good target group research with teenagers. During this project I did multiple tests, and while the first one was still a bit scary, the results were sufficient. In the second test I got the hang of it, and noticed how I could improve the interaction between me and the participants. In the last test I feel like I got the best results and I felt most confident during the test. In other words: I do feel like I got better with the target group research, and looking back on the project I think I did a good job.

A second goal was designing a brand and appealing marketing strategy for this specific target group. In the project, I had less time than expected for designing the brand. Because the concept tests took longer, this last part of the design process was squeezed into a timeframe of three weeks. It was manageable, but not my best work. For now I think it still would be a good brand positioning and marketing strategy, but when I would have more time, I would like to create something more extensive. Social media marketing is a good solution when working with a small budget, but I could have been a bit more creative to be honest.

The last goal was getting better at sustainable design. Not only focusing on the goal of the project, but also creating a sustainable product in terms of production. Within the project I have to admit I did not look at this goal anymore. I did not describe the whole production of the final concept, and therefore did not specify how to create this product in a sustainable matter. It would be easy to blame this on the shortage of time, but in the end it should have been higher on my priority list.

Besides the set learning goals, there were other moments in the design project I would like to reflect on. One of those is the brainstorm after the analysis in order to create the first concepts. During my studies at the TU Delft, brainstorming always have been a stumbling block for me. I do not have the patience to spend more than a week on creating ideas. From there on I just choose and go on with the project. While knowing this is one of my weaknesses as a designer, I still feel like I did the exact same thing again in this graduation project. I organized a brainstorm with several people, this was a bit difficult so they were no designers.

The results were useable, but not great and in the end I simply decided to go with the four best options and move on with the project. As mentioned in the discussion: do iterations make sense when the initial idea is bad? Looking back on the project, it might have been more interesting to do only two iterations and spend longer on generating ideas.

Another difficulty perceived in the project were the consequences of doing a project on your own. On the one hand decisions were made quicker, because there only was one opinion and no discussion needed. On the other hand, it does could be hard to make a final decision without other opinions. When choosing from multiple options it is nice to have someone checking your choice, or confirming you're doing the right thing. It also brings more responsibility when doing it on your own, because you and only you are responsible if this outcome sucks. This pressure made me a bit insecure at some decisions, which resulted in making a decision with remaining doubts in the project. That is one of the reasons why I would like my next project to be with a group again, if I have the opportunity.

During the project there were, of course, aspects that went good as well. I created a planning at the beginning of project, that needed to be adjusted after the first weeks. From there on, it was easy to stick to the plan. On forehand I did not thought it was possible to do three iterations in a project on my own, but later on it turned out to be just fine. I did not experience a lot of stress and managed to stay on scheme with 40 hours a week. There was one point in the project where I was not as positive anymore: the contact with the target group went very difficult. I could not get in contact with them and the high schools I contacted did not want to collaborate. When these problems were fixed, the spirits became high again and the project went on without any trouble.

At last I want to mention that when I began with the project, I especially did not look forward to doing the literature review. Earlier on in my studies the literature review was certainly not my favorite part of the project, and doing a literature research of three fulltime weeks seemed to be hard. However, when having started, it appeared to be more pleasant than expected. I did not struggle with the review at all. I used a new referencing tool this time, Mendeley, and discovered which way of reading and writing worked best for me. For future projects I will keep this in mind, literature review does not have to be horrible.

- Ackermann, L., Mugge, R., & Schoormans, J. (2018). Consumers' perspective on product care: An exploratory study of motivators, ability factors, and triggers. *Journal of Cleaner Production*, 183, 380–391. <https://doi.org/10.1016/j.jclepro.2018.02.099>
- Adidas America Inc. (2018). Create with MiAdidas. Retrieved from <https://www.adidas.com/us/customize>
- Albert, D., Chein, J., & Steinberg, L. (2013). The Teenage Brain: Peer Influences on Adolescent Decision Making. *Current Directions in Psychological Science*, 22(2), 114–120. <https://doi.org/10.1177/0963721412471347>
- Ayub, M. (2018). Millennials vs Generation Z. Retrieved from <https://www.tremr.com/mansoor-ayub/millennials-vs-generation-z>
- Billeter, D., Kalra, A., & Loewenstein, G. (2011). Underpredicting Learning after Initial Experience with a Product. *Journal of Consumer Research*, 37(5), 723–736. <https://doi.org/10.1086/655862>
- Birtwistle, G., & Moore, C. M. (2007). Fashion clothing - Where does it all end up? *International Journal of Retail and Distribution Management*, 35(3), 210–216. <https://doi.org/10.1108/09590550710735068>
- Boothroyd, G., & Alting, L. (1992). Design for Assembly and Disassembly. *CIRP Annals - Manufacturing Technology*, 41(2), 625–636. [https://doi.org/10.1016/S0007-8506\(07\)63249-1](https://doi.org/10.1016/S0007-8506(07)63249-1)
- CBS. (2018). Bevolking; geslacht, leeftijd en burgerlijke staat, 1 januari. Retrieved January 24, 2019, from <https://statline.cbs.nl/StatWeb/publication/?VW=T&DM=SLNL&PA=7461BEV&D1=0&D2=a&D3=1-27,101-105,121-123,131&D4=l&HD=110621-1139&HDR=T,G3,G1&STB=G2>
- Cooper, T. (2005). Slower Consumption, Reflections on Product Life Spans and the “ Throwaway Society .” *Journal of Industrial Ecology*, 9(1), 51–67.
- Design Council UK. (2005). The Design Process: What is the Double Diamond? Retrieved from <https://www.designcouncil.org.uk/news-opinion/design-process-what-double-diamond>
- Evans, J. S. B. T. (2008). Dual-Processing Accounts of Reasoning, Judgment, and Social Cognition. <https://doi.org/10.1146/annurev.psych.59.103006.093629>
- Eventbrite. (2017). The Experience Movement : How millennials are bridging cultural and political divides offline.
- Extend Limits. (2018). Trend: Gamification. Retrieved from <https://www.extendlimits.nl/nl/trends/industrie/gamification>
- Fazio, R. H., & Zanna, P. (1981). Direct experience and attitude-behaviour consistency. *Advances in Experimental Social Psychology*, 14, 161–202. [https://doi.org/10.1016/S0065-2601\(08\)60372-X](https://doi.org/10.1016/S0065-2601(08)60372-X)
- Fisher, T., Cooper, T., Woodward, S., Hiller, A., & Goworek, H. (2008). Public Understanding of Sustainable Clothing: A report to the Department for Environment, Food and Rural Affairs. London. Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/148422/148422.pdf
- Fitts, P. M. (1964). Perceptual-Motor Skill Learning. *Categories of Human Learning* (Vol. 49). ACADEMIC PRESS INC. <https://doi.org/10.1016/B978-1-4832-3145-7.50016-9>
- Fogg, B. (2009). A behavior model for persuasive design. *Proceedings of the 4th International Conference on Persuasive Technology - Persuasive '09*, 1. <https://doi.org/10.1145/1541948.1541999>
- Forbes Communications Council. (2018). 12 Ways To Market To Generation Z. Retrieved from <https://www.forbes.com/sites/forbescommunicationscouncil/2018/08/29/12-ways-to-market-to-generation-z/#68a14c685d3b>
- Fromm, J. (2018). Why storyliving Brands Win With Gen Z. Retrieved from <https://www.forbes.com/sites/jefffromm/2018/06/14/why-storyliving-brands-win-with-gen-z/>
- Funnelback. (2017). How to attract and engage Gen Z, 10 Effective Digital Experiences Worth Talking About. Retrieved from <https://www.youtube.com/watch?v=gT77KpAWoYI>
- Gibson, C., & Stanes, E. (2011). Is green the new black? Exploring ethical fashion consumption. In *Ethical Consumption: A Critical Introduction* (pp. 169–185). London: Routledge.
- Goldston, N. J. (2017). What You Need To Know About Luxury Consumer Trends For 2018. Retrieved from <https://www.forbes.com/sites/njgoldston/2017/12/29/what-you-need-to-know-about-luxury-consumer-trends-for-2018/#33ed651c21eb>
- Goworek, H., Fisher, T., Cooper, T., Woodward, S., & Hiller, A. (2012). The sustainable clothing market: An evaluation of potential strategies for UK retailers. *International Journal of Retail and Distribution Management*, 40(12), 935–955. <https://doi.org/10.1108/09590551211274937>
- Greene, L. (2008). Teen takeover: Meet the new breed of young tycoons leading the way in fashion. Retrieved September 27, 2018, from <https://www.dailymail.co.uk/femail/article-1069381/Teen-takeover-Meet-new-breed-young-tycoons-leading-way-fashion.html>
- Hamilton, C., Dennis, R., & Baker, D. (2005). *Wasteful Consumption in Australia*. Canberra.
- Harris, J. S. (1961). New Product Profile Chart. *Chemical and Engineering News*, 17 April, 39(16), pp. 110–118.
- Hassenzahl, M. (2003). The thing and I: understanding the relationship between user and product. In M. Blythe, C. Overbeeke, A. F. Monk, & P. C. Wright (Eds.), *Funology: From usability to enjoyment* (pp. 31–42). Dordrecht: Kluwer Academic Publishers.
- Hassenzahl, M. (2004). The interplay of beauty, goodness, and usability in interactive products. *Human-Computer Interaction*, 19(4), 319–349. https://doi.org/10.1207/s15327051hci1904_2
- Hassenzahl, M. (2011). User Experience and Experience Design. *The Encyclopedia of Human Computer Interaction*, 2nd Ed., (January). Retrieved from http://www.interaction-design.org/encyclopedia/user_experience_and_experience_design.html
- Heiskanen, E., & Jalas, M. (2003). Can services lead to radical eco-efficiency improvements? - A review of the debate and evidence. *Corporate Social Responsibility and Environmental Management*, 10(4), 186–198. <https://doi.org/10.1002/csr.46>
- Huitt, W. (1997). Metacognition. *Educational Psychology Interactive*.
- Hultink, E. J. (2018). Brand and Product Commercialization. 4 C's Analyses.
- Hutton, D. G., & Baumeister, R. F. (1992). Self-Awareness and Attitude Change: Seeing Oneself on the Central Route to Persuasion. *PSPB*, 18(1), 68–75. <https://doi.org/10.1177/0002764213490695>
- International Energy Agency. (2016). Energy, Climate Change and Environment 2016 Insights, 133. <https://doi.org/10.1787/9789264266834-en>
- Keller, K. L. (2012). *Strategic Brand Management: Global Edition*. Pearson. <https://doi.org/10.4324/9780203483794>
- Keynote. (2008). Teenage fashionwear. Retrieved from <http://www.keynote.co.uk/kn2k1>
- Laitala, K. (2014). Consumers' clothing disposal behaviour - a synthesis of research results. *International Journal of Consumer Studies*, 38(5), 444–457. <https://doi.org/10.1111/ijcs.12088>
- Laitala, K., & Boks, C. (2012). Sustainable clothing design: use matters. *J. of Design Research*, 10(1/2), 121. <https://doi.org/10.1504/JDR.2012.046142>
- Langley, E., Durkacz, S., & Tanase, S. (2013). Clothing longevity and measuring active use, (August 2013), 1–11.

- Lapointe, L., Ramaprasad, J., & Vedel, I. (2014). Creating health awareness: A social media enabled collaboration. *Health and Technology*, 4(1), 43–57. <https://doi.org/10.1007/s12553-013-0068-1>
- Lee, M. (2003). *Fashion victim: our love-hate relation with dressing, shopping, and the cost of style*. New York: Broadway Books.
- Mangleburg, T. F., Doney, P. M., & Bristol, T. (2004). Shopping with friends and teens' susceptibility to peer influence. *Journal of Retailing*, 80(2), 101–116. <https://doi.org/10.1016/j.jretai.2004.04.005>
- Martin, C., & Bush, M. (2000). Do role models influence teenagers' purchase intentions and behavior? *Journal of Consumer Marketing*, 17(5), 441–453.
- MCafee, A., Dessain, V., & Sjöman, A. (2004). Zara: IT for Fast Fashion. *Harvard Business School Cases*, (August), 1.
- Miachon, N. (2018). Reaching Gen Z With Influencer Marketing: Four Trends For Success. Retrieved from <https://www.forbes.com/sites/forbescommunicationscouncil/2018/10/09/reaching-gen-z-with-influencer-marketing-four-trends-for-success/#499e99555050>
- Michaelidou, N., & Dibb, S. (2006). Product involvement: an application in clothing. *Journal of Consumer Behaviour*, 5, 442–453. <https://doi.org/10.1002/cb>
- Morgan, L. R., & Birtwistle, G. (2009). An investigation of young fashion consumers' disposal habits. *International Journal of Consumer Studies*, 33(2), 190–198. <https://doi.org/10.1111/j.1470-6431.2009.00756.x>
- Mugge, R. (2017). A Consumer's Perspective on the Circular Economy. In *Routledge Handbook of Sustainable Product Design* (pp. 396–412). Routledge.
- Mugge, R., Schoormans, J. P. L., & Schifferstein, H. N. J. (2005). Design strategies to postpone consumers' product replacement: the value of a strong person-product relationship. *The Design Journal*, 8(2), 38–48.
- Mugge, R., Schoormans, J. P. L., & Schifferstein, H. N. J. (2008). Product attachment: Design strategies to stimulate the emotional bonding to products. In *Product Experience* (pp. 425–440). London: Elsevier Ltd.
- Newlands, M. (2015). *The Sharing Economy: Why it Works and How to Join*. Retrieved from <https://www.forbes.com/sites/mnewlands/2015/07/17/the-sharing-economy-why-it-works-and-how-to-join/#1a4230f658e1>
- Niinimäki, K. (2009). Proactive Fashion Design for Sustainable Consumption. *The Nordic Textile Journal*, 60–69.
- Niinimäki, K. (2011). From Disposable to Sustainable: the Complex Interplay between Design and Consumption of Textiles and Clothing. Retrieved from <https://aaltodoc.aalto.fi/handle/123456789/13770>
- Niinimäki, K., & Hassi, L. (2011). Emerging design strategies in sustainable production and consumption of textiles and clothing. *Journal of Cleaner Production*, 19(16), 1876–1883. <https://doi.org/10.1016/j.jclepro.2011.04.020>
- Nike. (2018). NikeID. Retrieved from https://www.nike.com/nl/nl_nl/c/nikeid
- Nikki Gilliland. (2018). Lego to BMW: How brands have used co-creation to earn consumer trust. Retrieved from <https://econsultancy.com/lego-to-bmw-how-brands-have-used-co-creation-to-earn-consumer-trust/>
- Norton, M. I., Mochon, D., & Ariely, D. (2012). The IKEA effect: When labor leads to love. *Journal of Consumer Psychology*, 22(3), 453–460. <https://doi.org/10.1016/j.jcps.2011.08.002>
- OCSC. (2000). Report on the Second Session of the Oxford Commission on Sustainable Consumption. Oxford.
- Partala, T., & Saari, T. (2015). Understanding the most influential user experiences in successful and unsuccessful technology adoptions. *Computers in Human Behavior*, 53, 381–395. <https://doi.org/10.1016/j.chb.2015.07.012>
- Partanen-Hertell, M., Harju-Autti, P., Kreft-Burman, K., & Pemberton, D. (1999). Raising environmental awareness in the Baltic Sea area. *Finnish Environment Institute*, 327, 1–125.
- Phelan, H. (2016). Here's how you'll shop in 2026. Retrieved from <https://www.elle.com/fashion/shopping/a37872/the-future-of-fashion-retail/>
- Piacentini, M., & Mailer, G. (2004). Symbolic consumption in teenagers clothing choices. *Journal of Consumer Behaviour*, 3(3), 251–262. <https://doi.org/10.1002/cb.138>
- Porter, M. E. (1979). How competitive forces shape strategy. *Harvard Business Review*, 137–145.
- Poulter, S. (2008, November 25). The Primark effect: throwaway fashion that cannot be recycled now makes up 30 per cent of the waste in council tips. *Daily Mail*, p. 27.
- Pucillo, F., & Cascini, G. (2014). A framework for user experience, needs and affordances. *Design Studies*, 35(2), 160–179. <https://doi.org/10.1016/j.destud.2013.10.001>
- Rathmann, C. (2018). Impact of servitization on profitability. Retrieved from <https://industrytoday.com/article/impact-of-servitization-on-profitability/>
- Reyna, V. F., & Farley, F. (2006). Risk and Rationality in Adolescent Decision Making: Implications for Theory, Practice, and Public Policy. *Psychological Science in the Public Interest*, 7(1), 1–44. <https://doi.org/10.1111/j.1529>
- ROOSTER SAILING. (2018). Repair kit for neoprene products. Retrieved from https://www.roostersailing.com/pd/Repair-Kit-for-Neoprene-Products_106547.htm
- Shepherd, J., Brodin, H., Cave, C., Waugh, N., Price, A., & Gabbay, J. (2017). A New Textiles Economy: Redesigning Fashion's Future. *Ellen MacArthur Foundation*, 150. https://doi.org/10.1007/978-3-319-52311-8_1
- Simsekli, Y. (2015). An Implementation To Raise Environmental Awareness Of Elementary Education Students. *Procedia - Social and Behavioral Sciences*, 191, 222–226. <https://doi.org/10.1016/j.sbspro.2015.04.449>
- Trend Hunter. (2018). Personalization. Retrieved from <https://www.trendhunter.com/megatrend/personalization>
- Tukker, A. (2004). Eight Types of Product-service systems, 260, 246–260. <https://doi.org/10.1002/bse.414>
- Vex Inc. Latex Clothing. (2018). Latex Repair Kit. Retrieved from <https://vexclothing.com/products/latex-repair-kit>
- World Bank. (2017). *Euromonitor International Apparel & Footwear 2016 Edition* (volume sales trends 2005–2015). *World Development Indicators – GD*.
- WRAP. (2012). Valuing our clothes: The true cost of how we design, use and dispose of clothing in the UK. WRAP: Working Together for a World without Waste, 1–36.
- WRAP. (2015). *Sustainable Clothing Technical Report*. Banbury.
- WWF. (2003). Thirsty crops: Our food and clothes, eating up nature and wearing out the environment? *Living Waters*, 19, 1–20. Retrieved from www.panda.org/livingwaters
- Yakar, A., & Duman, B. (2017). The Effects of Affective Awareness-Based Instruction on Academic Achievement and Attitudes Towards Teaching Profession. *Eğitim Kuram ve Uygulama Araştırmaları Dergisi*, 3(3), 30–47. Retrieved from <http://dergipark.gov.tr/ekuat/issue/31101/337393>
- Yoo, S., Khan, S., & Rutherford-Black, C. (1999). Petite and tall-sized consumer segmentation: Comparison of fashion involvement, pre-purchase clothing satisfaction and clothing needs. *Journal of Fashion Marketing and Management*, 3(3), 219–235. <https://doi.org/10.1108/eb022562>

Appendix A

Hoe vaak koop je nieuwe kleding?

P1: Ik koop zeg maar 1x in de maand als ik iets nieuws nodig heb. Nou zit ik wel op twee sporten, en bij tennis heb ik elk jaar nieuwe schoenen nodig. Weet niet of dat onder kleding valt. En voor de rest krijg ik kleedgeld, en daar mag ik eigenlijk mee doen wat ik wil, maar ongeveer wel 1x in de maand iets denk ik.

P2: Ik koop ongeveer vier keer per jaar meerdere kledingstukken. En dan ben ik opzich wel voor de zomer en winter klaar.

P3: Ik heb een beetje hetzelfde, elk seizoen dat ik nieuwe kleding nodig heb. Je groeit er natuurlijk ook weer uit.

Wat is voor jou een reden om nieuwe kleding te kopen?

P1: Nou, ik heb meestal dat iets heel leuk vind voor twee maanden, en daarna doe ik het niet meer aan. Of ik het nog pas of niet, soms heb zoiets van “dit is nu helemaal uit, nu wil ik dat”. Dus dan koop ik wel nieuwe dingen ja.

P2: Ik heb ook wel een beetje hetzelfde, maar bij mij is het ook wel om de maat. Dan groei ik eruit, en soms vind het gewoon iets te kinderachtig worden ofzo.

P3: Ja, er komen de hele tijd nieuwe dingen, en als je er inderdaad uit groeit. Want op deze leeftijd, je groeit groeit groeit eruit, en soms is het ook gewoon omdat je het echt heel graag wilt.

Waar koop je nieuwe kleding?

P1: Ik ga meestal naar Amersfoort, langs het Sint Jorisplein, en dan ga ik langs de Pull&Bear, H&M, eigenlijk alles wat daar zit. En dan, als ik alles heb gehad en het was nog niks, dan ga ik gewoon naar Utrecht, of ik ga online.

P2: Ik ook daar een beetje in Amersfoort, en vooral ook in Spakenburg want daar woon ik in de buurt. Dan ga ik naar de freewear ofzo, dat is meestal wel waar ik heen ga.

P3: Ik ga meestal naar een outlet, dus met allemaal winkels, een designeroutlet. Zoals Bataviastad, daar ga ik vaak heen als ik nieuwe kleding nodig heb.

Zijn jullie ook bezig met wanneer er uitverkoop is?

P1: Er staat eigenlijk altijd wel iets met sale, of 20% korting. Het is natuurlijk wel fijn als er uitverkoop is, maar het is niet persé dat ik kijk dat er vandaag uitverkoop dus vandaag ga ik.

P2: Ik heb eigenlijk wel precies hetzelfde, als er uitverkoop is, is dat fijn, maar als het er niet is maakt dat niet echt heel veel uit.

P3: In de outlets is er sowieso vaak korting, dus dat helpt, maar ik kijk er nooit echt heel erg veel naar. Ik ga zowel voor de korting naar de outlet, als dat het gewoon fijn is dat er zoveel op 1 locatie zit. Soms helpt het met winkelen voor een bepaald seizoen, en ik ski ook, daarvoor kan je daar ook spullen kopen. Ik heb ook broers, die moeten ook de hele tijd kleding kopen, dus we gaan altijd met z'n allen naar de outlet en dan komen we met heel veel tassen terug.

Ben je wel eens bezig met waar je kleding gemaakt wordt?

P2: Een beetje wel want als het dan bijvoorbeeld uit China komt, let ik er wel op. Maar soms maakt het niet heel veel uit, maar ik let er wel op.

P1: Ik moet eerlijk zeggen, ik let er eigenlijk niet op. Ik heb wel met aardrijkskunde gezien waar het vandaan komt enzo, maar als ik dan door de winkel loop denk ik er niet bij “dit is zielig gemaakt”, dan denk ik “dit is een mooi kledingstuk, dit wil ik”.

P3: Het is meer nadat ik het koop dat dat ik denk “oh ja, dit zou wel eens

daar gemaakt kunnen zijn”.

P1: Het zit wel in je achterhoofd, maar je bent er niet mee bezig als je aan het winkelen bent. Ik ga bijvoorbeeld nog wel naar de Primark.

P3: Ik koop daar geen kleding, dat is een beetje dat de kwaliteit niet geweldig is, en als de kwaliteit niet geweldig denk ik ook “het zal wel daar gemaakt zijn”. Ik koop alleen basic dingen daar.

P2: Ik koop daar alleen van die leuke dingetjes, niet perse kleding, maar je hebt er gewoon leuke spulletjes. En stel je voor je hebt iets speciaal, zou ik dat daar nog kopen. Stel je hebt een gala, dan kan je daar een galajurk kopen die je een keer aan kan. Je zou het inderdaad kunnen zien als wegwerpkleding.

Wat is je favoriete kledingstuk en waarom?

P1: De megatrui van mijn vader, echt zo'n kerstrui. Hij doet hem eigenlijk nooit aan, maar ik wel, en dat vind ik heel chill. Dan doe ik gewoon een korte broek aan en hele lange sokken heb ik dan, en dan loop ik gewoon een beetje door mijn huis. Of mijn onesie. Omdat het super comfortabel is, het is niet dat ik er supergoed uit zie dan, maar niemand ziet mij dus ik kan lekker hierin rondlopen.

P2: Ik heb een soort van hetzelfde, een hele grote trui van device. Die doe ik aan als ik gewoon lekker op de bank ga zitten ofzo, of één van mijn onesies.

P3: Ik heb niet meteen iets waar ik aan moet denken, ik heb een hele fijne joggingbroek die ik elk weekend aan heb, maar dat is inderdaad ook gewoon omdat het comfortabel is. T-shirtjes zijn ook niet heel speciaal ofzo.

Wat doe je met kleding die kapot is gegaan?

P2: Meestal gooi ik dat meteen weg, maar als het echt te maken is ofzo en het gat niet echt heel groot is kan het op zich wel gemaakt worden. Maar dat doen we soms, maar soms ook weer niet. En als het niet kan, dan gaat het naar iemand. De kleding waar ik uitgegroeid ben, gaat naar iemand die kleiner is dan mij.

P1: Ik vind het sneller minder leuk omdat het dan kapot is, en als ik het minder leuk vind gaat het naar de buurmeisjes. Meestal is het dan nog niet kapot, maar ik weet niet wat zij ermee doen als het kapot is. Maar bij mij gaat er bijna nooit iets kapot.

P3: Als er iets kapot is bij mij kijkt mijn moeder altijd van “hoe lang heb je het al” en “draag je het nog vaak”. Want als je het niet meer vaak draagt, ja, dan kan je het beter weg doen. Tja, dan is het zonde om het te laten repareren, als je het toch niet gaat dragen.

P2: Als mijn favoriete kledingstuk [de onesie] kapot zou gaan, denk ik niet dat die nog verkocht wordt, dus dan zou ik hem nog wel proberen te maken. Maar ja, als er een heel groot gat in zit of iets is er af, dan denk ik “ja, misschien kan het ook wel weer weg”.

P1: Ik zit meer te denken “waar zit het”, want als het bijvoorbeeld in de capuchon zit dan haal ik die er gewoon af. Maar als het bijvoorbeeld groter dan 20cm is, dan wordt

t hem gewoon niet, tenzij je er een shirt onder wilt doen ofzo.

P3: Ja, een beetje hetzelfde. Hoe makkelijk is het ook te maken? Als het niet makkelijk te maken is, heeft het dan wel zin. Als het echt geld gaat kosten kan je beter kijken of een nieuwe onesie niet goedkoper is.

Repareer je wel eens zelf kleding die kapot is gegaan? Wat denk je dat je zelf nog wel en niet zou kunnen maken? (bv. Een knoop aannaaien, een gaatje dichten, een scheur repareren, een naad repareren, een zoom omnaaien, een rits repareren, de maat aanpassen, iets nieuws maken van oude kleding)

P1: Ja ik heb meestal mijn moeder, maar als ik bijvoorbeeld alleen thuis ben als het gebeurd dan leg ik er even heel snel een knoop in. Ligt eraan wat er aan de hand is. En anders zeg ik gewoon “Mam, kan je dit eventjes fixen”, en als dat niet kan, dan gaat het naar mijn oma en als mijn oma het niet kan fixen, dan wordt het hem niet.

P2: Nou mijn moeder zat vroeger wel in dat naaien en haken, dus ik heb het wel geleerd dus kan het ook wel. Maar als ik het zelf niet kan en het zijn allemaal verschillende kleurtjes enzo, dan zeg ik het tegen mijn moeder, en als zij het niet kan maken ook naar mijn oma. En anders heb ik pech als dat niet werkt.

P3: Ja, ik heb een beetje hetzelfde eigenlijk als zij.

Wat voor associaties heb je bij gerepareerde kleding?

P2: Het moet niet echt zichtbaar zijn ofzo, niet te zichtbaar. En het moet niet vloeken met de andere kleur.

P1: Ik heb meer zoiets van “of het is zichtbaar en wel leuk of je verbergt het gewoon”.

P3: Ja, inderdaad. Maar ik zou gerepareerde kleding niet minder snel aantrekken omdat het gerepareerd is ofzo.

P1: Bij mij ligt het eraan.

P2: Maar stel dat je iets repareert en je dan denkt dat het dan geen goeie stof meer is.

P1: Maar stel deze broek zou kapot gaan, en je dacht “oké ik fix het gewoon, ik plak er gewoon zo'n lapje stof over”. Maar dat was helemaal mislukt.

P3: Ja dan zou ik het niet aan doen, maar als het een goed stukje was, dan wel.

P2: Als ik het gewoon goed gerepareerd had, zou ik het nog steeds aantrekken, ook al is hij dat een beetje stuk, ik zou het nog steeds zien als mijn andere broeken die niet stuk zijn.

Zou je deze kleding nog aan willen? [plaatjes]

1.

P1: Ik niet

P3: Misschien als er een ander stofje achter zou zitten, maar die bloemetjes.

P2: Ja, met een ander stofje, gewoon blauw, dan misschien wel.

P3: Misschien als ze van die iron on strijk patches erop plakken, misschien dan nog wel. Ik heb van die leuke cactusdingen thuis, ja, als er een gat in mijn broek zou zitten, zou ik die er gewoon op plakken.

P1: Ik zou het niet dragen, maar puur niet vanwege de bloemetjes.

P2: Ik zou ook de bloemetjes niet willen.

2.

P1: Nou dat vind ik wel leuk, dit zit ook op drie plekken.

P3: Dit vind ik wel grappig eigenlijk.

3.

P2: Nee, want dit vloekt een beetje.

P3: Als ze andere kleuren hadden gekozen had ik het nog overwogen. Paars kan echt niet.

P1: Dit vind ik echt verschrikkelijk.

4.

P1: Nou dat vind ik nog best creatief.

P2: Ja!

5.

P1: Nee, nee het is een beetje raar gemaakt.

P2: Hier zie je echt van dat het gerepareerd is, of je moet een hele rare smaak hebben.

6.

P3: Nou misschien als het aan de andere kant ook zo is.

P1: Maar ik zou dit jasje sowieso niet dragen.

P3: Nee, maar ik vind wel dat ze het goed hebben doorgetrokken.

P1: Ja inderdaad, stel het was een witte jas ofzo, dan denk ik van wel.

7.

P2: Nou dat vind ik best leuk.

P1 + P3: Ja, best leuk.

8.

P2: Deze denk ik niet.

P1: Ik denk het ook niet.

P3: Ja ze kiezen altijd heel erg felle kleuren en dit is ook echt op rare plekken.

P2: Ik zou dit niet zomaar uit de kast pakken als ik denk aan wat ik vandaag aan zou trekken.

9.

P2: Als ze dat overal zouden doen..

P1: Of als het iets minder symmetrisch zou zijn, dan wel.

P3: Misschien is dit iets te veel.

P1: Ja, vind ik ook. Als je er 5, of 10 ofzo zou doen.

P2: Ja ik hoef niet zo'n hele wolk aan kruisjes op mijn broek.

10.

P2: Nee.

P1: Waarom is dat rondje daar? Als ze blauwe garen hadden gebruikt, had ik het waarschijnlijk eerder overwogen.

P3: Ja, een ander kleur draad.

11.

P3: Ik vind een patch wel leuk, alleen niet die.

P1: Voor jongere kinderen op zich wel.

P2: Voor kinderen van 8 of 10, maar niet voor onze leeftijd.

P3: Tenminste, ik zou geen schattig poesje op mijn broek willen hebben. Die cactuspatch die zou ik nog wel gebruiken, maar die zou ik ook niet achter plakken ofzo.

P1: Ja, dat vind ik nog best leuk, met een paar kleinere nog ergens anders, dan is het opzich wel grappig.

P2: Of je plakt één zo'n dingetje bijvoorbeeld hier op je trui ergens.

P3: Maar echt zo'n kat eigenlijk niet.

Zou je deze kleding nog proberen te redden of weg gooien? [plaatjes]

1.

P2: ik zag laatst op Instagram over hoe je dit kan maken met een draadje, en dan trek je en dan zie je er helemaal niks meer van. Ja, als ik dat kan leren dan zou ik het wel maken ja.

P3: Ja, die zag ik ook. Gewoon helemaal weg!

P1: Dus deze zou ik wel maken. En anders plak je er een lapje stof achter, en dan is het ook gefikst.

2.

P1: Is dat een broek? Dan vind ik het niet erg, want ik heb nu ook al broeken met gaten erin. Dan maak ik er gewoon nog meer scheuren in.

P2: Het zit aan de achterkant, dus dat weet ik niet.

P3: ik zou niet een scheur willen bij mijn achterwerk.

P1: Of gewoon weer een lapje stof erachter, blauw, dan kan het wel.

3.

P2: Die zou ik ook nog wel maken denk ik.

P1: Ik heb een tante die heel handig is, die zou dit wel kunnen.

P3: Maar je gaat het wel blijven zien. Het is wel op de mouw he.

P1: Of je doet het een beetje anders overal, en dan is het gewoon een soort stoer jackje.

P3: Ja, dan rol je de mouwen op, of je knipt ze af, dan heb je een T-shirt, als je dat kan.

4.

P1: Een naadje naai je gewoon opnieuw.

P2 en P3: ja, die kan je gewoon opnieuw naaien.

5.

P2: Ja ik weet niet of ik die zou kunnen maken.

P1: Ja want er zit ook een beetje kleur verschil in en die zit recht.

P3: Om daar nou zo'n grote lap stof op te plakken lijkt me niet echt ideaal.

P1: Dus die zou ik niet maken denk ik.

6.

P3: Die kan je gewoon zo verplaatsen en je ziet het niet echt.

P1: Maar wat nou als je niemand in je familie hebt die dat kan hè?

P2: Je kent vast wel mensen, kennissen ofzo, of je gaat naar een kledingmaker.

7.

P1: Kan je dan er niet gewoon weer terug in proppen?

P2: Terug duwen en dan een stofje ervoor.

P1: Ja en als je hem er niet meer terug in krijgt omdat het ergens blijft haken ofzo, ja dan niet. Dan gooi je hem weg.

8.

P2: Gewoon weggoaien.

P3: Maar wat nou als het je lekkerste sokken zijn?

P1: Dan leef je maar zonder.

P3: Ik had laatst een sloffen sok met twee gaten erin, en toen had ik een andere sok waarvan ik de tweede niet meer kon vinden. Die heb ik toen helemaal opgeknipt toen heb ik alle lapjes stof eronder genaaid. Hij is net als nieuw!

9.

P1: Ja nee dat kan niet.

P2: Nee een ladder kan je niet maken.

P3: Dat kan je niet fixen.

Wat is je favoriete kledingstuk en waarom? [+foto?]

P23: Dit is mijn leukste kledingstuk, hij zit heel lekker en ik vind de tekst leuk.

P24: Mijn nasa trui omdat die lekker warm is, en lekker zit :)

P25: Dit witte bloesje omdat het overal bij staat.

P26: mijn favoriete kledingstuk is een witte broek met scheuren, gaten en afgeraffelde pijpen, eigenlijk is dat al uit maar ik vind het zoooo'n leuke broek. Voor naar school, naar de kerk, naar feestjes eigenlijk gewoon overal leuk voor

P27: Ik heb 1 t-shirtje die ik heel leuk vind aangezien ik vind dat ie me goed staat en ik 'm voor €8 had gekocht. Hij is luchtig en daarom ook fijn voor het uitgaan. Ik kan 'm dus naar school aan maar ook naar een feestje. Met een hempje eronder :)

P28: Dit shirt is mijn favoriete kledingstuk op het moment, het is een vrij oversized model, en zit heerlijk comfortabel.

P29: Omdat ik het er leuk uit vind zien en het lekker losjes zit. En als het koud(er) is kan ik er een zwarte legging onder doen.

P30: Je kan het misschien niet goed zien maar het heeft twee touwtjes waarmee je een strikje kunt maken. En boven zit een wat strakkere elastiekbond

P31: Hey! Mijn favoriete kledingstuk is een paar knalgroene gympen. Ze zijn eigenlijk al helemaal versleten en hebben ook al een tiental wasbeurt en gehad, maar ik houd nog steeds enorm veel van ze. ik draag ze eigenlijk niet meer zo veel omdat het voetbed zo dun is geworden dat je bijna alles voelt waarop je loopt. het zijn mijn favorietjes omdat ze een felle kleur hebben, simpel zijn, ik heb heeeul veel leuke dingen met ze meegemaakt (voor zover dat kan met schoenen), ze zijn vrolijk en ze passen daarom echt bij mij

P32: Dit shirt omdat ik deze gekregen heb

P33: Dat was heel lang dit rokje omdat ik er zoveel mee kon combineren, maar hij wordt nu een beetje te kort dus ik kan hem niet meer aan. Nu is dit zeker mn favoriete item omdat het best wel uniek is, heel erg lekker zit en ik hem gewoon heel leuk vind. Maar dit is een jasje dus weet niet of dat telt? Als echt kledingstuk is dan toch deze mijn favoriete. Het is een jurkje tot ongeveer de knie met stippen. Hij zit losjes en heeft zulke uitlopende mouwen en hij loopt schuin af. Ik vind hem zo leuk omdat hij in bijna elk seizoen gedragen kan worden, hij heel chil zit. Verder houd ik zoiezo wel van jurkjes omdat je het gewoon aan kan doen en niet te veel moeite hoeft te doen voor het combineren. En tenslotte zit er een hele mooie herinnering aan vast, ik heb hierin opgetreden voor een dansshow met een hele mooie moderne dans.

P34: Mijn favoriete kledingstuk is denk ik mijn nieuwe trui. Hij zit comfortabel hij is basic maar heeft ook kleur dat het vrolijk maakt. Hij is ook nog erg warm

P35: Moeilijk te kiezen, ik heb heel veel leuke kleren. Maar mijn favoriet is waarschijnlijk mijn regenboog treat people with kindness shirt, het is merchandise van Harry Styles, special voor pride month ontworpen.

Appendix C

1. Repair should be invisible
2. Repair should be consistent
3. Repair should add something
4. Patch can be used
5. Embroidery flowers are stupid
6. Color of repair should match
7. Repaired clothes are still worn
8. I am able to repair
9. Damaged clothes are still worn with damage
10. State of the clothing matters
11. Small damages can be repaired
12. Location of damage matters
13. Favorite clothes get repaired
14. Damaged clothes get repaired
15. Quality is important
16. Expensive clothes get repaired
17. Brands are important
18. I have memories with my clothes
19. Feeling good by looking good
20. Comfortable is important
21. Repaired clothes are worn less
22. I do care about opinions
23. It is not my style
24. I don't do trends
25. I don't care about opinions
26. Spotting trends on YouTube
27. Spotting trends on the street
28. Spotting trends on Pinterest
29. Spotting trends in the shop
30. Only if I like the trend
31. Jeans with holes
32. Instagram as inspiration
33. Recreational shopping
34. Mom buys me new clothes
35. I buy because of the change of weather
36. Clothes get too small
37. Buying when clothes got damaged
38. We don't go to the thrift shop
39. Unused clothes in my closet
40. Throw-away fashion
41. The rush of new clothes
42. Short interest span
43. Damaged clothes are thrown away
44. Sale is nice, not necessary
45. Sale is important
46. The tailor repairs
47. Mom repairs
48. Grandma repairs
49. Thrift shop for vintage clothes
50. Old clothes are given away
51. Getting old clothes
52. Obligated documentary
53. Avoiding clothes from third world countries
54. Sustainable clothes are expensive
55. Sustainable clothes are difficult to recognize
56. No responsibility in shop
57. No knowledge on subject

Appendix D

1. Repaired clothes are still worn
2. I am able to repair
3. Damaged clothes are still worn with damage
4. Small damages can be repaired
5. Expensive clothes get repaired
6. I wear clothes because of an activity
7. I like the message of my cloths
8. I have memories with my clothes
9. I choose my clothes on the weather
10. Comfortable is important
11. Clothes should be easy to style
12. I don't do trends
13. I don't care about opinions
14. Spotting trends on YouTube
15. Spotting trends on the street
16. Spotting trends in the shop
17. Spotting on social media
18. Spotting on clothing apps
19. Jeans with holes
20. Instagram as inspiration
21. Recreational shopping
22. I buy because of the change of weather
23. Clothes get too small
24. Buying when clothes got damaged
25. Unused clothes in my closet
26. Short interest span
27. Damaged clothes are thrown away
28. Sale is important
29. The tailor repairs
30. Mom repairs
31. Grandma repairs
32. Thrift shop for vintage clothes
33. Reusing old clothes for new clothes
34. Getting old clothes
35. No knowledge on subject

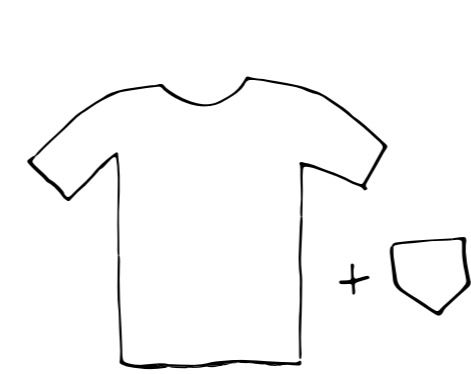
Appendix E

| Producten van waarde | Welke waarde |
|---------------------------|-------------------------------------|
| Ring van mijn oma | Emotionele waarde |
| Fiets | Ondersteunt mij met wat ik wil doen |
| Laptop | Kostbaar / staan bestanden op |
| Wii | Goed vermaak |
| Telefoon | Kostbaar / staan bestanden op |
| TV | Kostbaar |
| Geluidssysteem | Kostbaar |
| Geld | Kostbaar |
| Pizzarette | Goed vermaak |
| Inductie kookplaatjes | Kookt goed |
| Pinpas | Gemak |
| OV-chipkaart | Gemak |
| Telefoon | Technologie |
| Laptop | Plezier |
| Koptelefoon | Communicatie |
| Warm-water | Comfort |
| Jas | Niet kou vatten / gezondheid |
| Schoenen | Comfort |
| Bril | Levenskwaliteit |
| Nintendo Switch | Plezier |
| Magnetron | Gemak |
| Beamer | Plezier |
| Koelkast | Nuttig |
| Telefoon | Gebruik ik veel / kostbaar |
| TV | Gebruik ik veel / kostbaar |
| Ring | Emotionele waarde |
| Huissleutel | De lul als hij kwijt is |
| Beurs | De lul als hij kwijt is |
| Diploma's | |
| Dassen | Emotionele waarde |
| Herinneringen van vroeger | Emotionele waarde |
| Laptop | Werk/studie |
| Telefoon | Makkelijk connectie |
| Ring | Emotionele waarde |
| Boekenkast | Is mooi / bevat al mijn boeken |
| Koptelefoon | Gebruik ik veel |
| Backpack | Ondersteunt mij met wat ik wil doen |
| Gietijzerenpan | Ik houd van koken |
| Bed | Slapen |

| Oude kleding hergebruiken |
|---|
| Als lapjes om andere kleding te repareren |
| Ombouwen tot deken |
| Inleveren in een tweedehands winkel |
| Gebruiken als borduur ondergrond |
| Inleveren in kleding container |
| Verknippen tot poetsdoekjes |
| Ombouwen tot iets nieuws |
| Weggeven aan een kleiner persoon |
| Nieuwe dingen leren |
| Door trial and fail |
| Van klein naar groot |
| Van een vriendin |
| In een workshop |
| In een handleiding |
| Op school / in een les |
| Uit een boek |
| Met een spel |
| Van video's |
| Trainen / oefenen |
| Kleding adverteren |
| Kortingsacties in warenhuizen |
| Marketingstunt |
| Flyers in je postbus |
| Billboards |
| TV |
| Youtube, Instagram en Facebook |
| Influencers en BN'ers |
| Bushokjes |
| Posters |
| Kleding delen |
| Via social media vragen wie het wil gebruiken |
| Kleding huur bedrijf |
| Swap evenementen, feestjes, websites en apps |
| Door het door te geven |
| Digitale kledingkasten |
| Meedoen met de nieuwste trends |
| Door alleen van accessoires te wisselen |
| Met één outfit die je altijd draagt |
| Heel veel geld hebben |
| Door het te photoshoppen |
| Nieuwe kopen in een fast fashion winkel |
| Door het zelf te maken |
| Door het te krijgen |

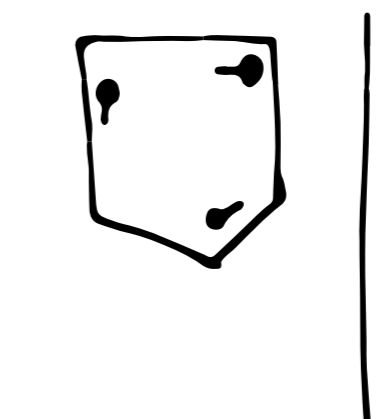
Instructie: hoe naai je een borstzakje vast?

| Kostbaar en kleding | Vermaak en kleding | Gemak en kleding | Comfort en kleding | Levens kwaliteit en kleding | Zelfexpressie en kleding |
|--|------------------------------------|--|------------------------------------|--|--|
| Repareerbaarheid | Kinky kleding | Spijkerbroek met fluffy binnenkant | Makkelijk aan te doen wanneer brak | Kniepads voor werkkleding | Je kan de kleur van je kleding veranderen door was temp. |
| Dure kleding heeft meer waarde, is moeilijker te vervangen en gaan mensen voorzichtiger mee om | Lichtjes op je shirt | Waterdichte kleding | Elastische kleding | Ontzichtbare zweetplekken | Niet lelijke afritsbreken |
| Repareren goedkoper dan nieuw | Game shirt | Telefoon past in kleding | NFC tag in kleding voor ov /... | Anti zakkenrollers kleding | Schoenen met ingebouwde sokken |
| “fairphone” kleding | Shirt met grapje / mopje | Slaapzak in de vorm van kleding | Meer zakken! | Noodfluitjes | Team shirts |
| | Schoenen met wielletjes / lichtjes | Buidelzakken | Warme kleding | Gaas onder je oksels | Material science, temperatuur afhankelijk uiterlijk van je shirt |
| | Raadsel op je onderbroek | Vrouwenbroeken met zakken | Pantoffelsokken met bolletjes | Steunkousen | Laten zien dat je ergens geweest bent |
| | | Broek variant van crocs | Bewegingsvrijheid | Scheen beschermers | Clubkleding |
| | | Aanpasbaar aan de situatie (afritsbroek) | Arbeidscomfort | Technologie in kleding (GPS) | Updateable kleding (kameleon kleding) |
| | | Spullen kunnen hangen aan kleding | Mouwen kunnen opstropen | Beschermende comfortabele kleding (zoals motorkleding) | Aanpasbare tekst op je kleding (door technologie) |
| | | | Koele regenkleding | Sleutel detector | Groepsgevoel door kleding |
| | | | Ademende kleding | Teletubby kleding | |
| | | | | CO meter in kleding | |
| | | | | Broek met slot (kuisheidsgordel met vingerscan) | |
| | | | | Kameleon kleding | |

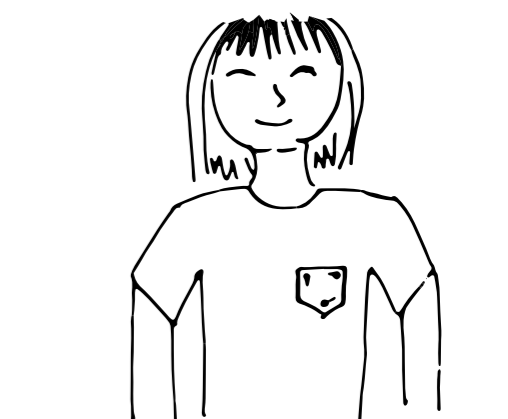


Deze instructie zal je in acht stappen laten zien hoe je een borstzakje op een shirt kan bevestigen.

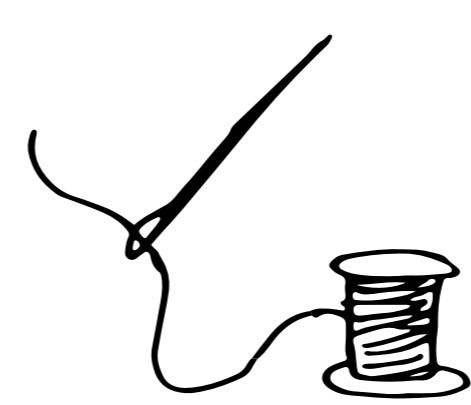
1. Speld het zakje vast op het shirt.



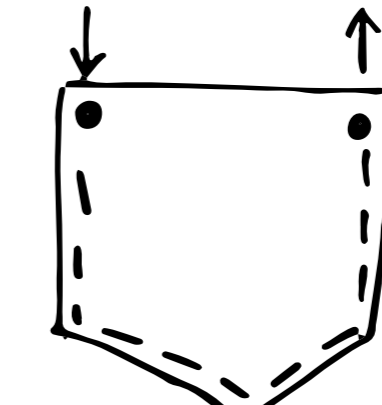
2. Trek het shirt aan (kijk uit voor de spelden!) om te checken of het zakje zit waar je hem wilt.



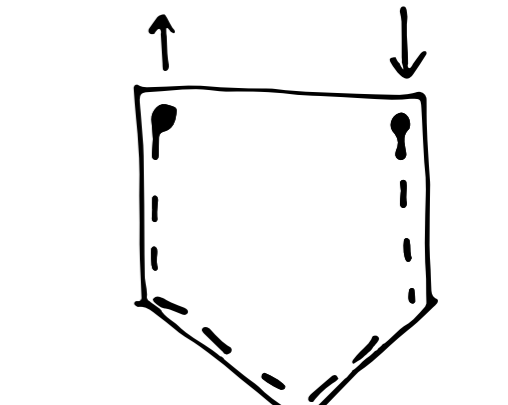
3. Pak een naald en draad dat in de kleur van het zakje matcht.




4. Begin nu van binnenuit in de linkerbovenhoek van het zakje met steekjes langs de rand.



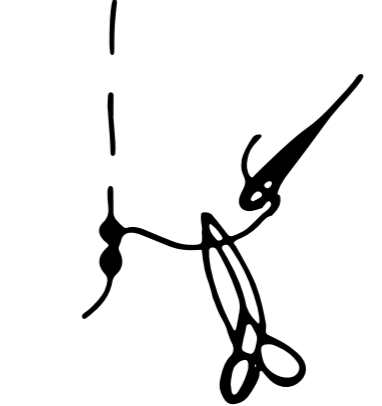
5. Als je bij de rechterbovenhoek bent beland, ga je in het negatief van je steekjes terug.



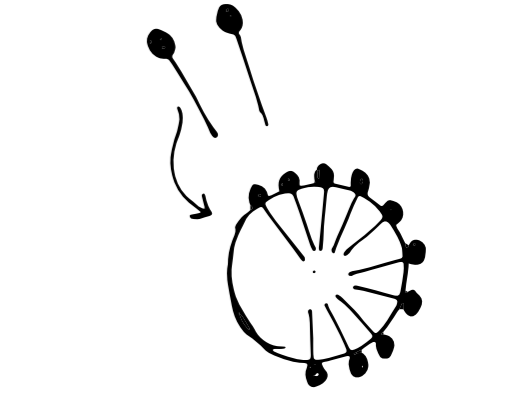
6. Als je weer bij je startpunt terug bent, maak je een knoopje aan de binnenkant van het shirt.



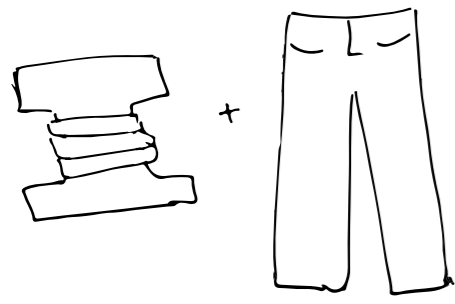
7. Knip de draad af.



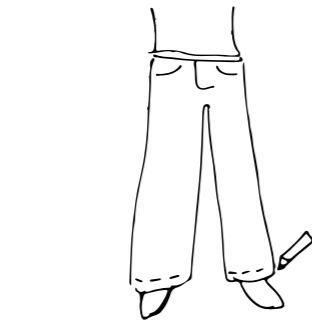
8. Je shirt is af! Vergeet niet de naalden eruit te halen.



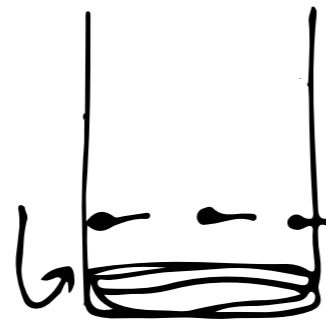
Instructie: hoe kort je een broek in?



Deze instructie zal je in in tien stappen laten zien hoe je een broek inkort.



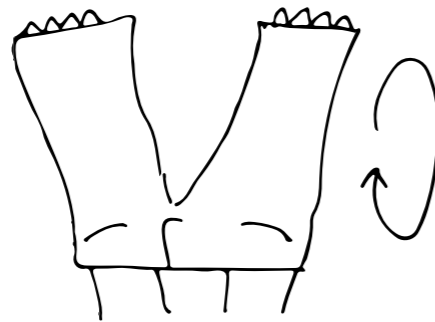
1. Trek de broek aan en teken waar de omslag moet komen.



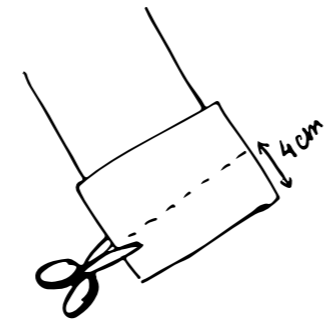
2. Vouw nu de omslag naar binnen en speld het vast.



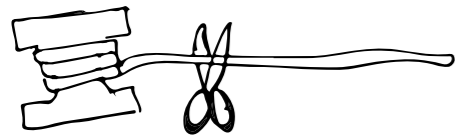
3. Check of dit de goede lengte is.



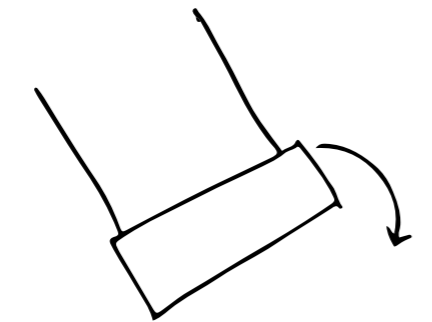
4. Trek de broek binnenstebuiten.



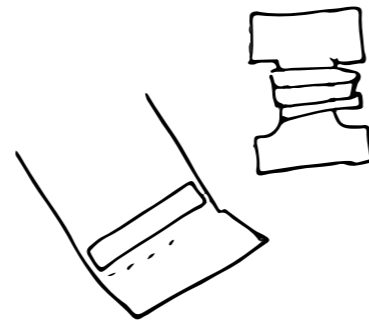
5. Knip de broek vanaf 4cm van de omslag af.



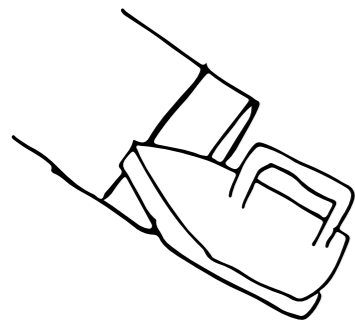
6. Knip een stuk van de zoomband af.



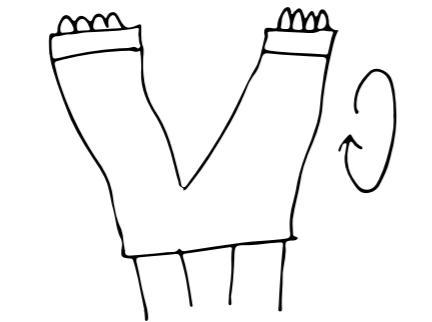
7. Sla de omslag naar beneden.



8. Plak de zoomband op de broek vlak boven de nieuwe vouwlijn.



9. Vouw de omslag weer dubbel en strijk de zoomband vast.

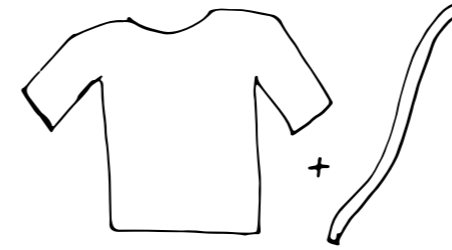


10. Draai de broek weer met de goede kant naar buiten.

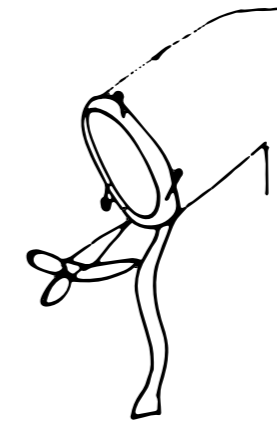


Tada! Je broek is ingekort.

Instructie: hoe naai je een glitterlint vast?



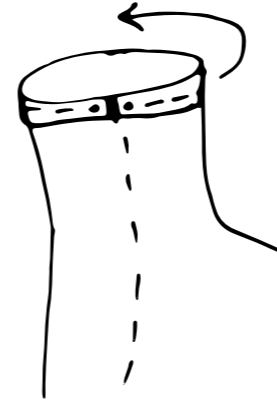
Deze instructie zal je in zes stappen laten zien hoe je een glitterlint op een shirt kan bevestigen.



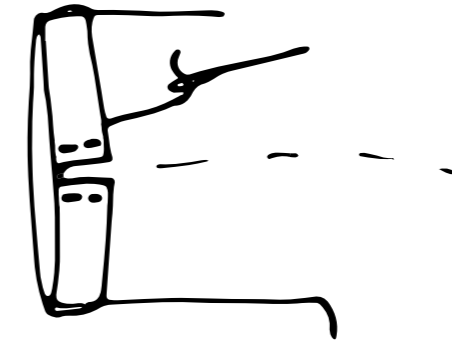
1. Speld het lint vast langs de rand van je mouw en knip het resterende deel af.



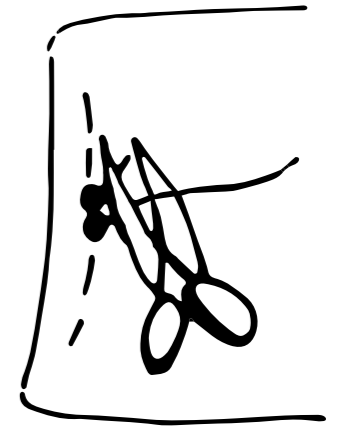
2. Pak een naald en draad dat matcht in de kleur van het lint.



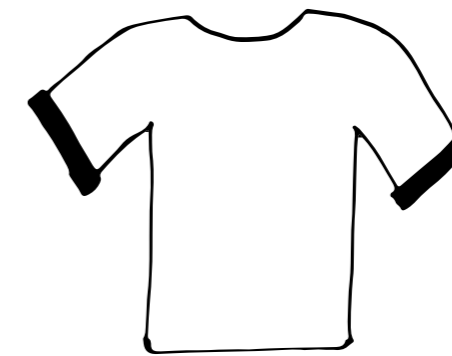
3. Begin nu van binnenuit aan de onderkant van je mouw (waar de naad zit). Maak kleine steekjes het hele mouwtje rond.



4. Als de de mouw rond ben, naai je in een paar steekjes de uiteindes van het lint nog goed vast.

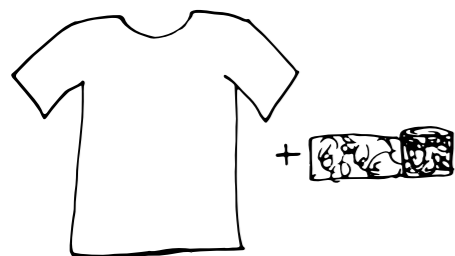


5. Maak een knoopje aan de binnenkant van de mouw en knip het draad af.

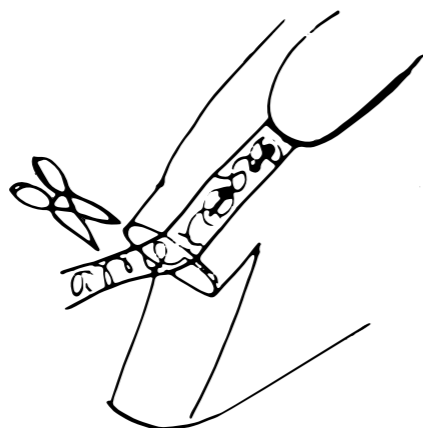


6. Als je klaar bent met de eerste mouw, herhaal je de stappen voor de tweede mouw. Daarna is je shirt af.

Instructie: hoe naai je een kanten lint vast?



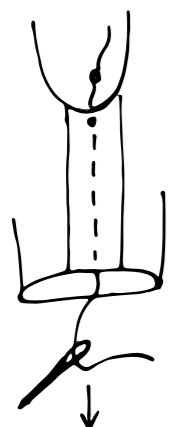
Deze instructie zal je in vijf stappen laten zien hoe je een kanten lint op een shirt kan bevestigen.



1. Speld het lint vast op het shirt langs de naad die over schouder loopt. Knip het resterende stuk af.



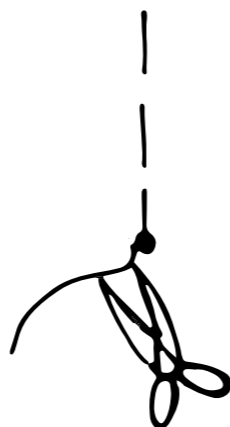
2. Pak een naald en draad dat matcht in de kleur van het lint.



3. Maak een knoopje in de draad en begin van binnenuit met de draad bij de halslijn. Ga met steekjes richting het armgat.

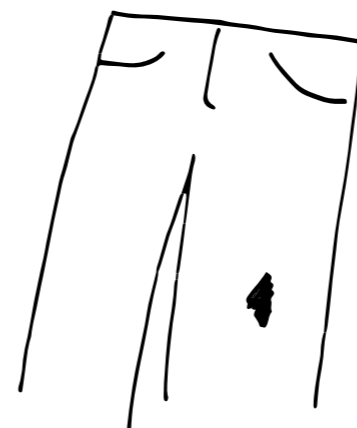


4. Bij het armgat aangekomen maar je aan de binnenkant een knoopje in de draad.

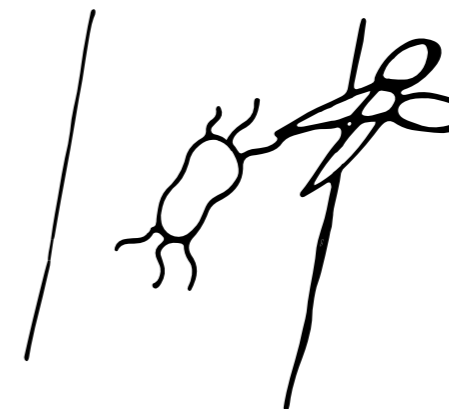


5. Knip het draad af. Herhaal nu deze stappen aan de andere kant van het shirt om het symmetrisch te maken.

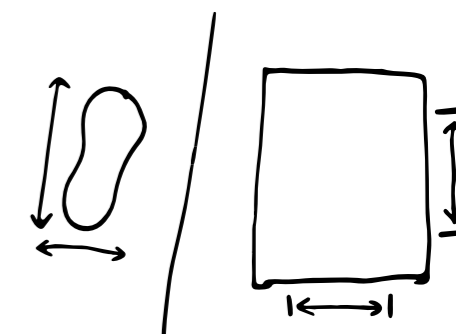
Instructie: repareer je een gat met een opstrijkpatch?



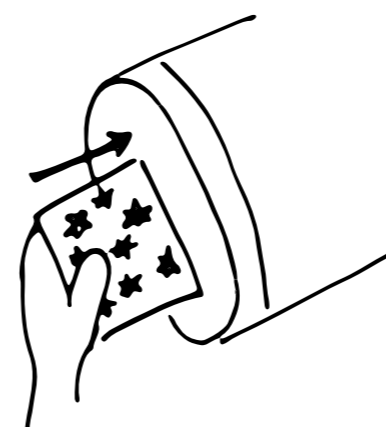
Deze instructie zal je in vijf stappen laten zien hoe je met een opstrijkpatch een gat kan repareren.



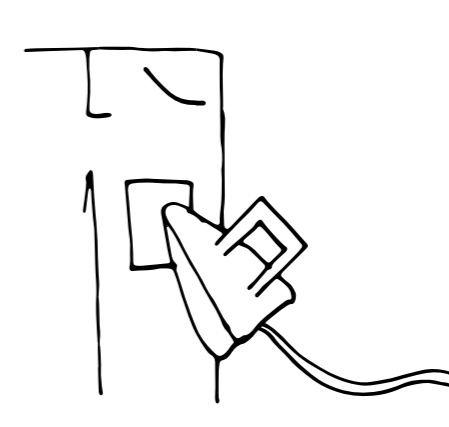
1. Knip de losse draadjes van het gat.



2. Zoek een patch die aan alle kanten 1,5cm langer is dan het gat.



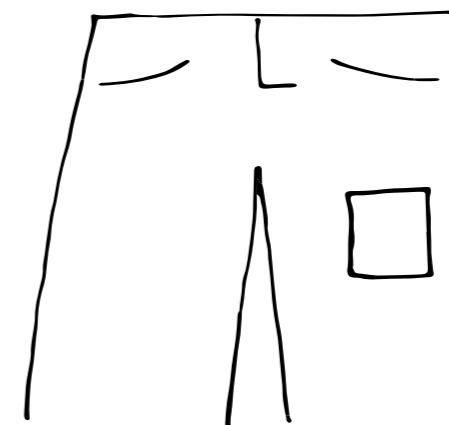
3. Leg een oud lapje achter het gat zodat je niet per ongelijk je pijp aan elkaar plakt.



4. Leg nu de patch op het gat en ga er 20 seconden met een warme strijkbout overheen.

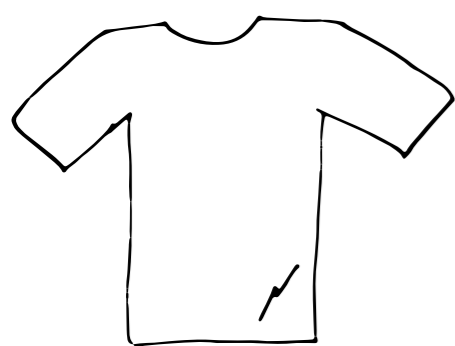


5. Probeer voorzichtig het lapje aan de binnenkant los te halen. Gaat dit niet, knip je de randjes af.

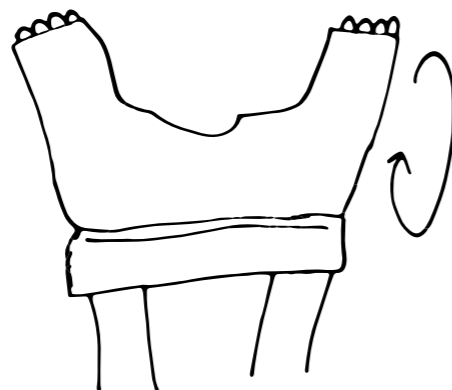


Klaar! De broek is gerepareerd.

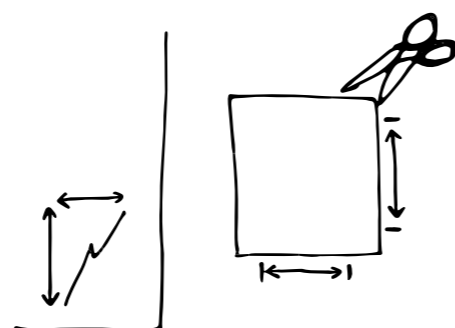
Instructie: repareer je een gat met reparatiedoek?



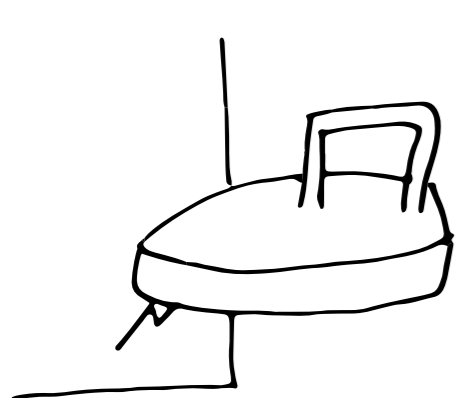
Deze instructie zal je in in vijf stappen laten zien hoe je een gat kan repareren met reparatiedoek.



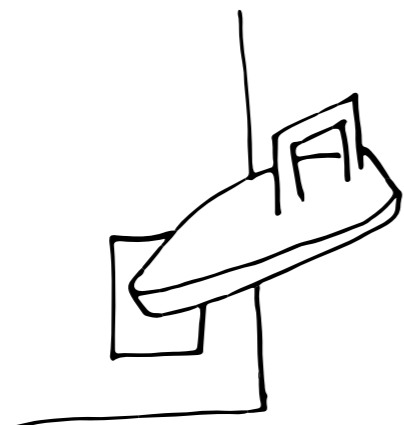
1. Trek het shirt binnenstebuiten.



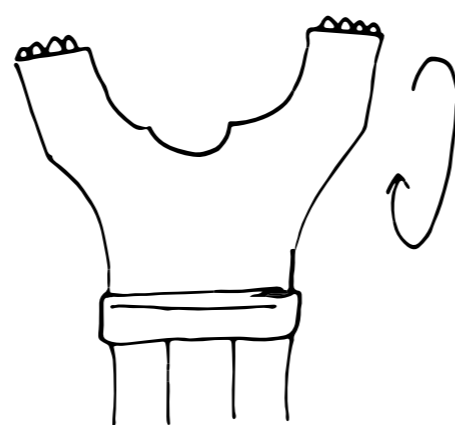
2. Knip een stuk reparatiedoek af dat aan alle kanten 1,5cm langer is dan de scheur.



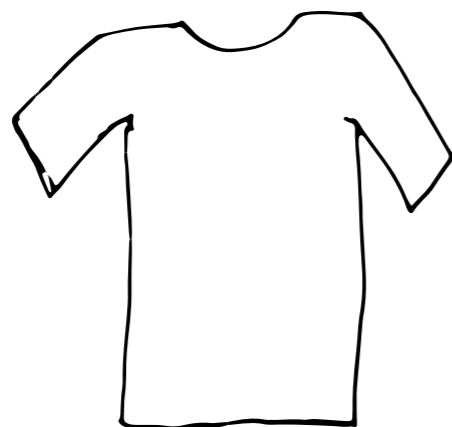
3. Ga met de strijkbout over de scheur heen om het glad te strijken en warm te maken.



4. Leg het stuk reparatiedoek op de scheur en ga er 20 seconden met de strijkbout overheen.



5. Trek het shirt weer met de goede kant naar buiten.



Tada! De scheur is gerepareerd.

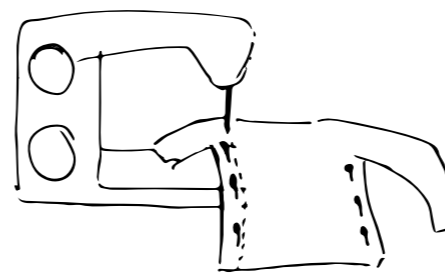
Instructie: hoe tailleer je een blouse?



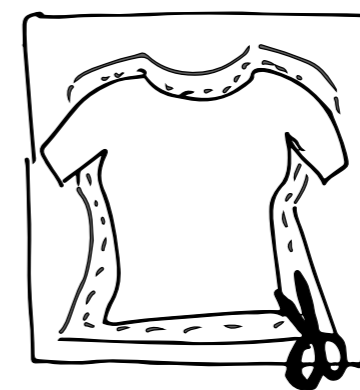
Deze instructie zal je in in zeven stappen laten zien hoe je een blouse kan taileren. Je hebt de onderlegger, de blouse en goed zittend shirt nodig.



3. Leg de uitgeknipte onderlegger op de blouse.



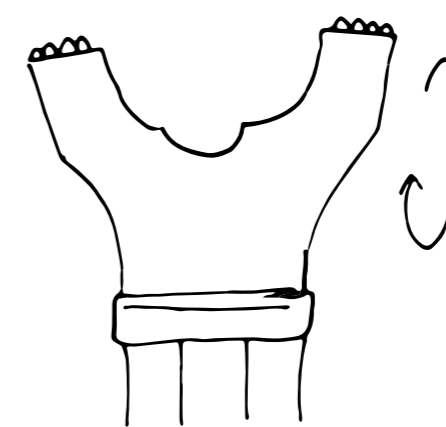
6. Naai langs de spelden een nieuwe taille in je blouse. Je blouse is nog steeds binnenstebuiten.



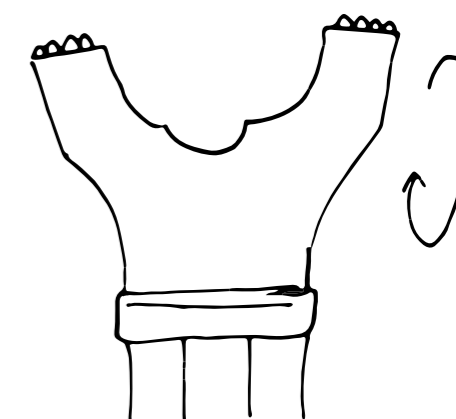
1. Leg het goede shirt op de onderlegger, en knip de stippellijn uit die er mee overeenkomt.



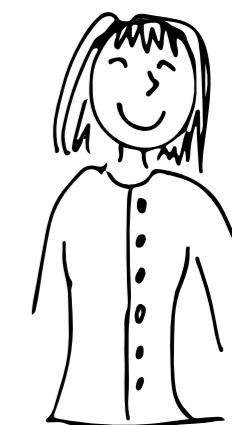
4. Speld de blouse langs de rand van de onderlegger.



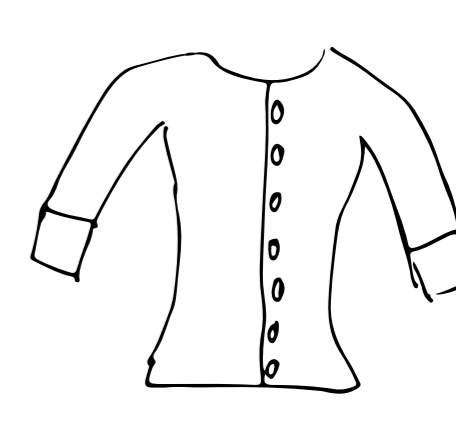
7. Draai de blouse weer met de goede kant naar buiten.



2. Trek de te grote blouse binnenstebuiten.



5. Pas voorzichtig de blouse. Als het niet goed is, kan je de spelden nu nog veranderen.



Je blouse is af!

Appendix G

Algemene vragen

Wat je is naam?

Wat is je leeftijd?

Basis repareerkit

Neem eens een kijkje in de basis repareerkit.
Zijn dit spullen die je al hebt?

Weet je wat alles is in het pakket?

Denk je dat dit pakket handig is?

Thema repareerkit

Neem eens een kijkje in een thema repareerkit.

Welk thema heb je?

O Glitters O Denim O Kant

Weet je wat je kan doen met alles in het pakket?

Zou je dit pakket willen gebruiken?

Wat vind je het leukste van het pakket?

Aan de slag!

Kies een onderdeel dat je wel wilt uitproberen.

Wat heb je gekozen?

Klaar met uitproberen?

Hoe vond je het gaan?

slecht neutraal fantastisch

Hoe makkelijk vond je het?

moeilijk neutraal makkelijk

De website

Neem eens een kijkje op notafashionblog.nl.

Wat vind je van de blogs?

Wat vind je van de besproken onderwerpen?

Wat vind je van de filmpjes?

Zou je vaker op de site willen kijken?

O Ja O Nee

Repareer je zelf wel eens kleding?

O Ja O Nee O Soms

Heb je zelf oude kleding meegenomen?

O Ja O Nee

Hoeveel zou je willen betalen voor dit pakket?

€ _____

Hoe zou jij dit pakket beoordelen?

slecht neutraal fantastisch

Wat vind je het stomste van het pakket?

Hoeveel zou je willen betalen voor dit pakket?

€ _____

Hoe zou jij dit pakket beoordelen?

slecht neutraal fantastisch

Waarom heb je dit gekozen?

Wat vind je van het eindresultaat?

lelijk neutraal supergaaf

Zou je nog iets willen proberen, en wat dan?

Hoe interessant vind je de website?

saai neutraal interessant

Wat vind je in het algemeen van de site?

stom neutraal supergaaf

General questions

What is your name?

What is your age?

Basis repair kit

Take a look at the basic repair kit.

Are these products you already have?

Do you know what everything is?

Do you think this kit is useful?

Themed repair kit

Take a look at the themed repair kit.

Which theme do you have?

O Glitters O Denim O Lace

Do you know the function of everything in the kit?

Would you want to use this kit?

What do you like most of the kit?

Let's get to work!

Choose a part you would like to try.

What did you choose?

Done with your project?

How did it went?

bad neutral fantastic

How easy did it went?

difficult neutral easy

The website

Take a look at notafashionblog.nl.

What do you think of the blogs?

What do you think of the discussed subjects?

What do you think of the videos?

Would you like to use this website more often?

O Yes O No

Do you repair your own clothes?

O Yes O No O Sometimes

Have you brought old clothes with you?

O Yes O No

What would you be prepared to pay for this kit?

€ _____

How would you rate this kit?

bad neutral fantastic

What don't you like of the kit?

What would you be prepared to pay for this kit?

€ _____

How would you rate this kit?

bad neutral fantastic

Why did you choose this?

What do you think of the end result?

ugly neutral beautiful

Would you like to try something else? And what would that be?

How interesting do you rate this website?

boring neutral interesting

What is your overall opinion on the website?

stupid neutral amazing

Appendix H

Algemene vragen

Wat je is naam?

Wat is je leeftijd?

Repareer je zelf wel eens kleding?

O Ja O Nee O Soms

Heb je zelf oude kleding meegenomen?

O Ja O Nee

Repareerkit

Neem eens een kijkje in de basis reparatiekit.

Zijn dit spullen die je al hebt?

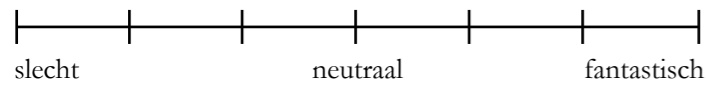
Weet je wat alles is in het pakket?

Denk je dat dit pakket handig is?

Hoeveel zou je willen betalen voor dit pakket?

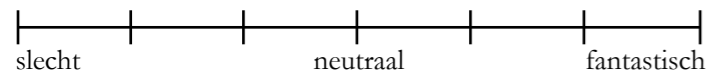
€

Hoe zou jij dit pakket beoordelen?

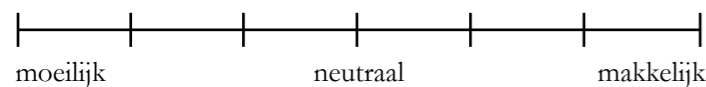


Klaar met repareren?

Hoe vond je het gaan?



Hoe makkelijk vond je het?



Steken oefenen

Er zit een uitleg bij met verschillende steken.

Snap je alle steken?

Welke steek heb je geprobeerd?

Hoe vond je het oefenen gaan?

Had je het moeilijker of makkelijker verwacht?

Heb je verder nog opmerkingen of vragen?

Met het invullen van deze vragenlijst geef toestemming aan Sarah Veldhuizen om de resultaten te gebruiken voor haar studie.

General questions

What is your name?

What is your age?

Do you repair your own clothes?

O Yes O No O Sometimes

Have you brought old clothes with you?

O Yes O No

Repair kit

Take a look at the basic repair kit.

Do you have any of these products?

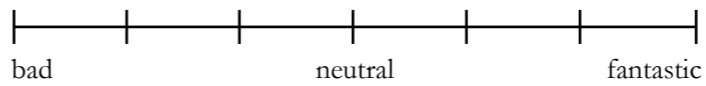
Do you know the function of everything in this kit?

Do you think this kit is useful?

How much would you be prepared to pay for this kit?

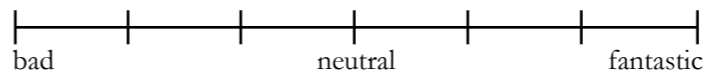
€

How would you rate this kit in general?

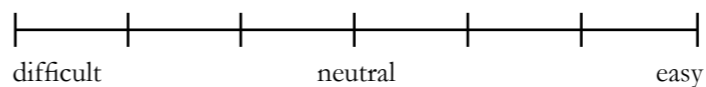


Done with the repair?

How did it went?



How easy did it went?



Practicing stitches

There is an instruction with multiple stitches.

Do you understand all the stitches?

Which stitch did you try?

How did it went?

Was it more easy or more difficult than expected?

Do you have any other comments or suggestions?

With filling out this questionnaire you give permission to Sarah Veldhuizen to use the results for her study.



Klerenjong



Klerenjong



Klerenjong



Klerenjong



Klerenjong



Klerenjong



Klerenjong



Klerenjong

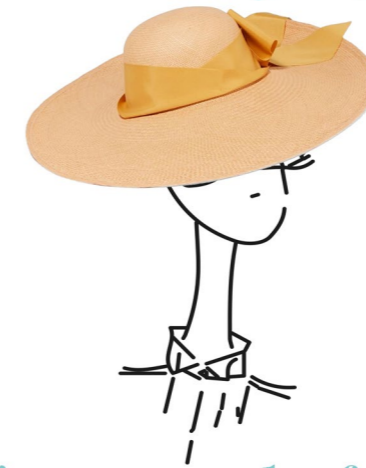


Klerenjong



Klerenjong

Klerenjong



This is not a regular fashion.



Klerenjong

This is not a regular fashion.



Klerenjong

This is not a regular fashion.



Klerenjong

This is not a regular fashion.



Klerenjong

This is not a regular fashion.



Klerenjong

This is not a regular fashion.

