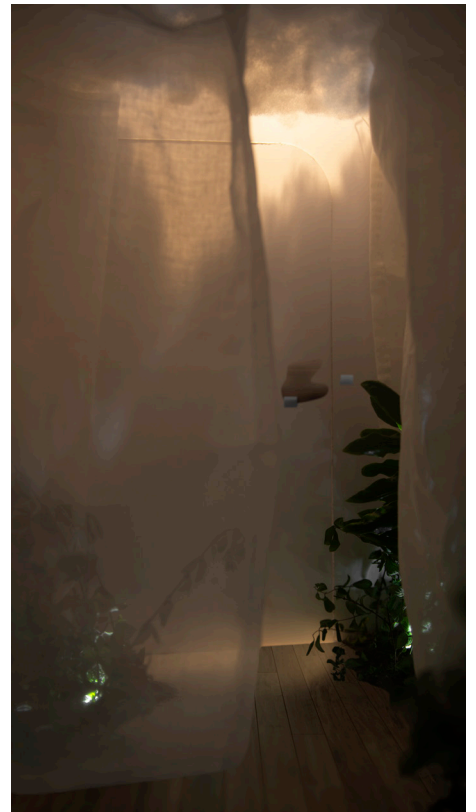
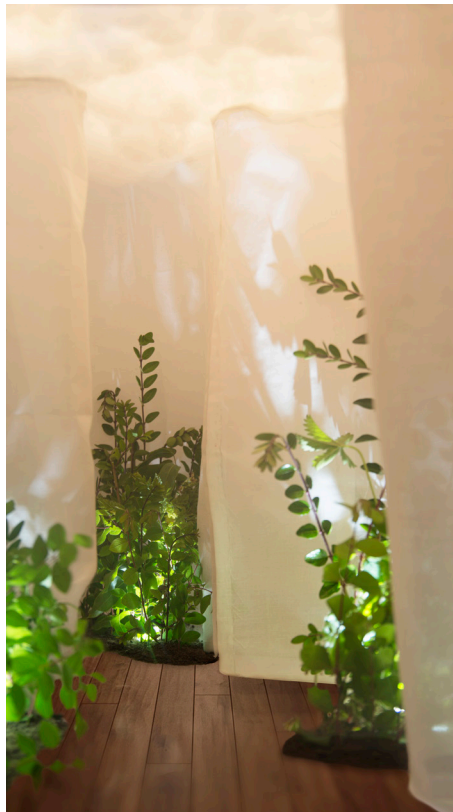


# DESIGN FOR MOOD RESILIENCE

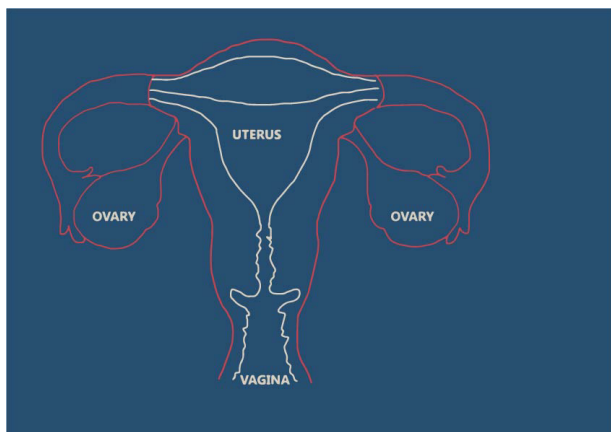
How to stimulate menstruating female university students to practise resilience-focused mood-regulation strategies through design



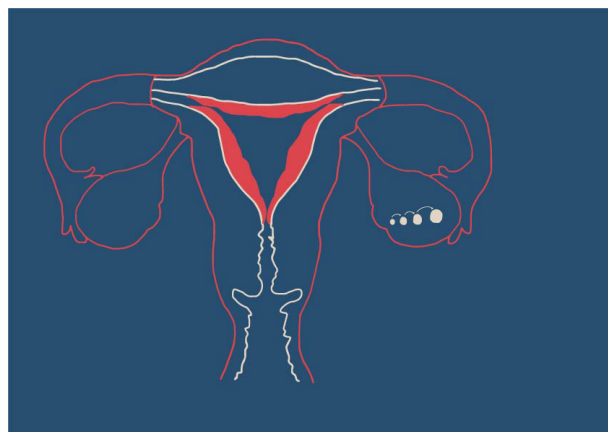
**Wies Kruisdijk**  
**4378164**

Design for Interaction  
Pieter Desmet  
Gert Pasman  
27-06-2019

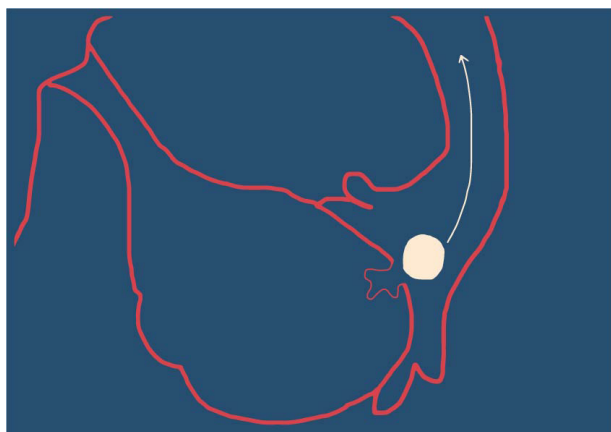
# MENSTRUATION FOR DUMMIES



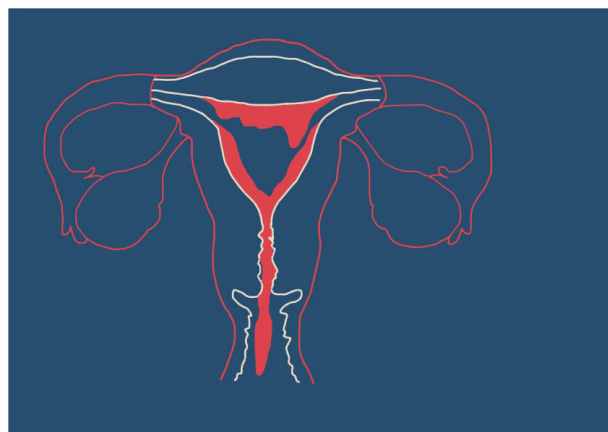
Female reproductive system



The uterus wall thickens while eggs in the ovaries mature



Ovulation: mature egg is released from the ovary



Menstruation: egg has not been fertilized, the thickened lining of the uterus breaks down

Each month, usually starting between the ages of twelve and fourteen up until their fifties, women go through a menstrual cycle which prepares the body for pregnancy. Most months, however, women do not get pregnant, this is when menstruation happens.

A woman has two ovaries, both containing a lot of eggs. During the menstrual cycle, the hormones oestrogen and progesterone make the eggs mature. The same hormones serve to make the lining of the uterus thick and spongy, providing a soft environment for the egg to land in case of pregnancy. This lining,

like almost everything else in the body, exists of tissue and blood.

Around the sixteenth day of the menstrual cycle, the ovaries are told by the hormones to release a matured egg. This is known as ovulation. Once the egg has left the ovary, it travels towards the uterus. If the egg is not fertilized, the uterus has no need for the thick and spongy lining, so the body breaks it down, causing the blood and tissue to flow out of the body through the vagina, in other words: menstruation.



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# EXECUTIVE SUMMARY

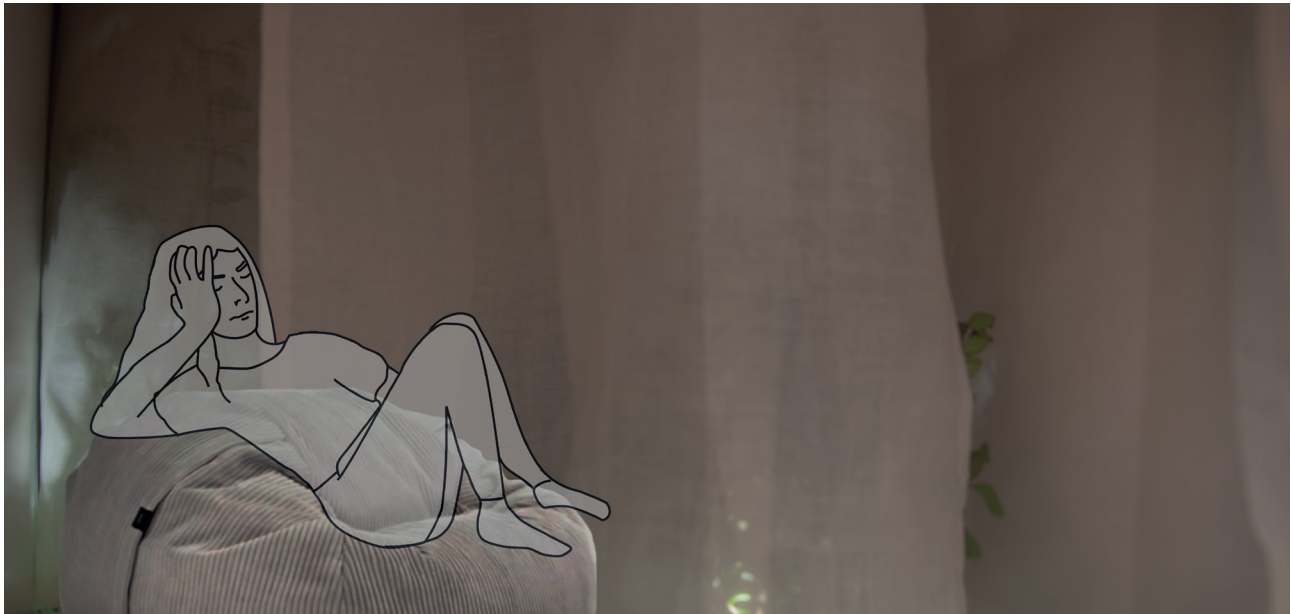


figure 1: embracing mood in Mood Booth

The goal of this report is to study the way in which female university students (aged 18 to 25) deal with their moods during their menstruation, and to use this information to design a product to help them deal with their negative moods in a healthy way, by using resilience-focused mood-regulation strategies.

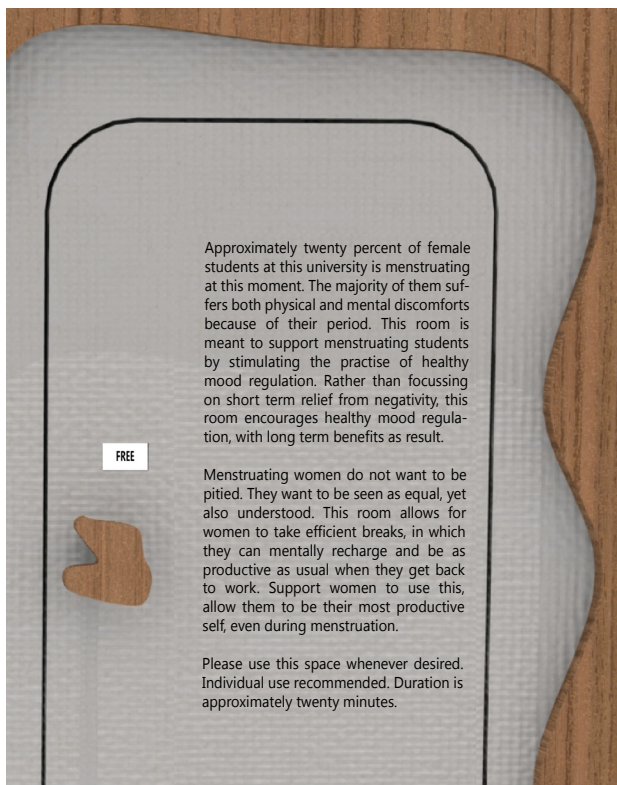


figure 2: text on Mood Booth

Literature research and the field study conducted in this project show that menstruation is very negatively experienced by women, regardless of how heavy their menstruation is experienced.

Their moods are mostly influenced by pain and the inconvenience of bleeding, while the study also showed that the biggest obstacle in daily life is the fluctuating moods caused by hormones. These fluctuations exist in personal patterns, but no literature nor this project's field study shows universal patterns in mood fluctuations.

The most practised mood strategies are rest, withdraw and repress. The study shows that female students do not want to show weakness, they want to work as well as they normally do at university and take painkillers to do so. They ignore all other struggles which tends to exhaust them, resulting in a lack of energy when they arrive home. This is when they finally rest and withdraw, as desired.

This project presents the product 'Mood Booth' as a solution to these problems. The Mood Booth is a room, centrally placed in every university, for menstruating students to withdraw in. The room is designed for these students to perform a ritual in. This ritual is based on the two resilience-focused mood-regulation strategies most valuable to most



figure 3: detaching of mood in Mood Booth

menstruating women: embrace (embracing and accepting moods) and detach (distinguish between self and mood and engagement in mindfulness). The design of the Mood Booth's interior (figure 1 and 3) stimulates the practise of these two mood regulation strategies in a twenty-minute ritual, which is guided by light changes. A visit to the Mood Booth should result into a more positive mood, a calmer state of mind and more strength on the long-term to benefit both the academic performance and the quality of personal time during menstruation.

The outside of the Mood Booth (figure 2 and 4) is a statement, through both location and through the message on the front of the Mood Booth, against the stigma attached to menstruation.

The Mood Booth aims to improve moods and does so by stimulating resilience-focused mood-regulation strategies, which answers closely to the design brief. The Mood Booth is also created to answer to the issues found in the research, while also tackling the stigma around menstruation.

The Mood Booth is a very public statement within a university. The final test shows that male students are unaware of female students being on their period, which is unsurprising since female students tend to not use it as an excuse because they fear to look weak. The Mood Booth should serve as a conversation starter surrounding the topic of menstruation and help women (and men) to not see shame or weakness in menstruation.



figure 4: Mood Booth in the Industrial Design Engineering faculty at TU Delft



# INTRODUCTION



At universities, approximately 20% of all female students is menstruating at any given time. Many of them battling with both physical and psychological discomfort. 50 to 90% of all women suffer from primary dysmenorrhea during their menstruation, which means they suffer from pelvic and abdominal pain, otherwise known as menstrual cramps. The psychological discomfort menstruating women experience is even more complicated, many women experience a more negative mood, mood fluctuations, lack of concentration and so on.

Surrounded by my peers at Industrial Design Engineering at the Technical University of Delft, I have noticed that the main advice given (and practised) amongst female students regarding menstruation is to eat lots of chocolate and spend your evenings watching series in bed. It is quite unlikely that these activities are healthy coping mechanisms, since these are mainly relief-focused mood-regulation strategies (seek distraction and self-reward), which are known to only have a short-term effect on moods, as opposed to resilience-focused mood regulation strategies, which have long-term benefits and are therefore a healthier way of coping with menstruation.

The goal of this report is to study the way in which female university students deal with their mood during menstruation, and to use this information to design a product to help them deal with their negative moods in a healthy way, by using resilience-focused mood-regulation strategies.

In order to achieve this, first a literature study was done, followed by an extensive field study. The insights from these studies were used in the ideation process while throughout the ideation process and concept development the target group was often approached for additional insights or feedback.

This report exists of the consists of the following parts. Chapter one contains a literature study on the physical and psychological impact of menstruation on women, which is followed by an extensive field research in chapter 2. In chapter 3, the ideation phase is described. Chapter 4 explains the concept development. After the concept test in chapter 5, chapter 6 presents the final concept.



# DESIGN BRIEF



Around me at the university, I have noticed that the young women who study at TU Delft quite often talk about their period to their female peers. Every month female university students go through a period of three to seven days, in which many of these students have to cope with cramps, back pain, energy loss, mood swings and/or general discomfort, which often stems from primary dysmenorrhea (Orhan et al., 2018). The level of discomfort these young women experience is different for each individual, but during this time, they do not have much time for rest, because life goes on. This is why female university students' moods tend to be more negative around this time of the month.

Especially at this point in life, I have noticed that a lot of young women tend to cope with menstrual discomforts through strategies which give them instant relief (which tend to only suffice on a short term). From what I have seen and heard, eating chocolate and lying in bed watching series is the way many female university students cope with their menstrual discomfort after university hours, or it is the advice they get when struggling with their menstruation. It appears that the peak of primary dysmenorrhea, and thus menstrual discomfort, is in late adolescence and the early twenties (Unsal et al, 2010) and decreases with the increase of age, which means most university students are going through peak menstrual discomfort. I believe female university students could benefit highly from practising healthier mood regulation strategies, and being supported therein.

The proposition underlying this brief is that practising healthy and effective mood regulation can potentially help female university students to more easily keep up with their responsibilities. This, in turn, could help them to stay positive, but the main benefit is for them to get their work done more comfortably.

## Problem definition

Female university students tend to deal with their negative moods (Cohen et al., 1987, Bancroft, 1995) during menstruation in an unhealthy manner, namely by adopting relief-focused mood-regulation strategies (Cohen et al., 1987; Weingarten & Elston, 1990; Ruzicka, 2015; Hormes & Niemiec, 2017) that may provide short-term relief, but do not contribute to a healthy lifestyle as opposed to using resilience-focused mood-regulation strategies that have long-term benefits.

## Assignment

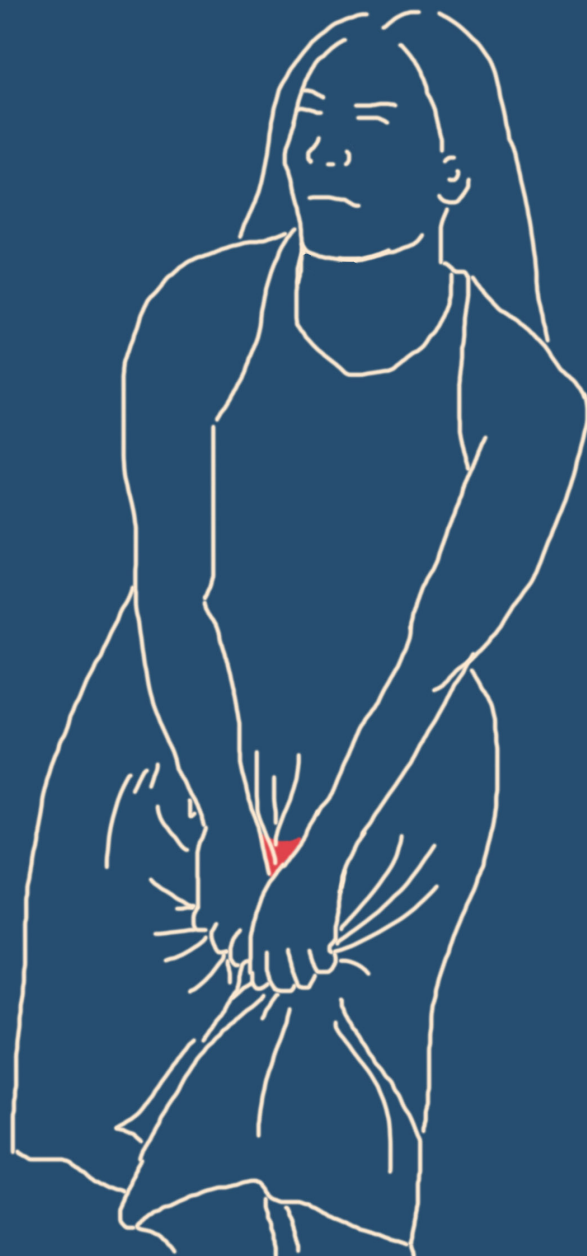
The goal is to study the way in which female university students deal with their mood during menstruation, and to use this information to design a product to help them deal with their negative moods in a healthy way, with the use of resilience-focused mood-regulation strategies.

Graduation brief can be found in appendix A.



# 1.

## IMPACT OF MENSTRUATION ON WOMEN'S LIVES





In order to understand how women deal with their menstruation and why, it is important to understand what they go through each month and how this affects their life. Menstruation brings along both physical and psychological issues. These are explored in this chapter.

### **1.1 PHYSICAL IMPACT OF MENSTRUATION ON LIFE**

Literature shows that the biggest physical complaints come from dysmenorrhea. Dysmenorrhea can be translated as a “difficult monthly flow”. The most common type is primary dysmenorrhea, which is menstrual pain that is not a symptom of an underlying gynaecological disorder. Primary dysmenorrhea is related to the normal process of menstruation, hence 50 to 90% of women suffer from primary dysmenorrheic menstrual pain each month (MedBroadcast, n.d.; Coco, 1999).

Primary dysmenorrhea is mainly lower abdominal or pelvic pain, more often referred to as painful menstrual cramps, which appear just before and/or during menstruation and usually lasts about 48 to 72 hours. However, this pain is often accompanied by other menstrual discomfort such as nausea, vomiting, diarrhoea, sweating, fatigue, headache and sleeping disorders (Orhan et al., 2018).

Joshi et al. (2015) found the most frequent dysmenorrheic complaints were irritability, leg cramps and abdominal pain. This study also found that dysmenorrhea has a significant effect on women's daily activities. Dysmenorrhea was found to lead to absenteeism, reduced physical activity, loss of concentration and poor social relationship, meaning that dysmenorrhea significantly influences a woman's quality of life during their menstruation. Studies by Habibi et al. (2015), Unsal et al. (2010) and Iacovides et al. (2014) agree that the physical discomforts caused

by dysmenorrhea have a significant impact on women's quality of life. This means that 50 to 90% of all women experience a lower life quality for a period of two to three days each month.

### **1.2 PSYCHOLOGICAL IMPACT OF MENSTRUATION ON LIFE**

The psych is said to be highly influenced by hormones. Some even believe that hormones influence women during menstruation so much, that their mood swings would make them unfit for certain jobs. For example, many men (mostly) believed Hillary Clinton to be unfit as president, because they believed her menstruation would have her make irrational decisions (Rutherford-Morrison, 2018). Needless to say, this is not true. However, surprisingly little evidence has been found of the effect of hormones on mood fluctuations. Oestrogen is a big player in mood regulation. It increases serotonin, it modifies the production of endorphins (the “feel-good” chemicals in the brain) and it protects nerves from damage. What these effects mean to an individual woman is impossible to predict, since thus far oestrogen's action are not fully understood by experts and researchers (Hitti, 2008).

The current believe is that oestrogen has a positive effect on mood, and the fluctuations of oestrogen levels during the menstrual cycle would cause a ‘rollercoaster of emotions’ (Hitti, 2008). However Chen, Cheng & Luo (2011) believe that oestrogen's impact varies and may depend on the individual's state and the situation. Various other studies on oestrogen's effect on mood during menstruation have also failed to find a relation between oestrogen and menstrual mood fluctuations. Schwartz et al. (2012) found that ovarian hormones only make a small contribution to daily mood, compared to stress and physical health. Romans et al. (2013) also found that hormones do not contribute to women's daily mood as much as





their physical health status, perceived stress and social support do.

Other than through hormones, menstruation does have a proven impact on women's psychological state and thus their mood. Physical and psychological menstrual symptoms are strongly associated (Van Iersel et al., 2016). This is mainly because physical menstrual discomfort leads to interruptions in daily activities, such as going out with friends, fulfilling school and work obligations and physical activity, and these limitations lead to negative psychological outcomes regarding women's moods.

A study by Wu, Zhou & Huang (2014) shows that menstruation has a significant effect on women's emotions and thus the regulation thereof. They found, through self-reported reappraisal levels, that women made more efforts to regulate their emotions, but the regulation success rate was not higher than during the other phases. Similar to this, Romans et al. (2017) found that women feel more like crying just before and during their menstruation than in other phases, however they did not report actual differences in crying between the three phases.

Many other menstrual complaints have psychological effects. A highly influential aspect is the stigma surrounding menstruation. At best, menstruation is considered a necessary inconvenience that women must accept. At worst, however, it is seen as messy and disgusting. These negative discourses and codes of conduct regarding menstruation still limit women's open communication about menstruation and urge them to hide any visible evidence of their menstruation (Jackson, 2018). The pressure to hide menstruation and the belief that menstruation is negative also contributes to women feeling more shame about their body and bodily functions, which in

turn leads to a lower quality of life (Sveinsdóttir, 2018) and more negative self-image during the time of menstruation (Staničić & Jokić-Begić, 2010).

The neutral state of women also has a lot of effect on the influence of menstruation on their lives. Welz et al. (2016) show that success in coping is very sensitive to general anxiety levels in women. Women with lower anxiety tend to use more adaptive coping strategies, and are thus more successful in regulating their moods than women with high anxiety sensitivity. Women with higher anxiety are more likely to experience a worsening of mood, in particular regarding irritability.

It is not surprising that many women opt for less bleeding. A study by Nappi et al. (2016) found that from the 46% of women who used hormonal contraception, 71% used it both for birth control and non-contraceptive benefits, such as reduce of menstrual cramps and flow, and therefore improving the entire menstrual experience for most women. Nappi et al. also found that in France and Belgium, most women desired less frequent periods, with amenorrhoea (no periods at all) even scoring highest among these French and Belgian women. Unsurprisingly, many women consider bleeding unpleasant and maintain little affection towards their periods (ARPH, 2006).

Since the precise connection between women's psychological discomforts and hormones (oestrogen in particular) during menstruation remains unclear, it is very difficult to design for the root of the problem. However, issues as physical pain, limitations in daily life and the stigma around menstruation highly influence women's moods. By tackling these issues through design, some of the psychological discomforts could be softened or perhaps even eliminated.

by Rachel Grate

"What's the difference between a Woman with PMS and a Pit Bull?  
Lipstick." – [Jokes4Us.com](http://Jokes4Us.com)

This is for every woman who, whether assertively stating an opinion or adamantly disagreeing with someone or showing the least bit of emotion or... well, really doing anything at all, has been dismissed with a simple, "Looks like someone's on her period!"

### 1.3 THE VIEW ON MENSTRUATION

Media, culture and society have an extremely important role in how menstruation is seen and presented to us. The images on these two pages (figure 5) are only a glimpse of all that menstruation brings up in the world.

Let's start with the most extreme and by far the worst image on here: "Nepalese woman dies following banishment to 'menstruation hut'". The menstruation hut is a separate hut just outside the city or town where menstruating women are banned to. In some places, even pregnant women are placed in these huts.

In comparison to countries such as Nepal and India, it seems like western women cannot complain about their menstruation, but we can and will. In 2017 the first U.K. commercial for period pads in which the pads were tested with red liquid instead of blue liquid. Which means that up to 2017 every single period commercial has shown blue liquid on their advertisements, as to not make the viewers uncomfortable. Apparently even fake menstruation blood is (or has been) viewed as unhygienic and repulsive.

On the bottom of figure 5, a period dress by Manilla Luzon, a drag queen and contestant on RuPaul's Drag Race is shown. RuPaul's Drag Race is a quite progressive show where drag queens compete for the name of RuPaul's next drag superstar. However, Manilla's period dress, meant to support her (young) female fans in the stigma attached to menstruation, was in 'bad taste' according to RuPaul's production and was not to be presented in the show. This might not seem big, but it is yet another media show, refraining from acknowledging the existence of menstruation.

Menstruation is also quite expensive. Lee (2018) found that the estimated yearly expenses are around £128, other articles estimate the yearly expenses at £500. Period expenses are not only period pads and tampons. Painkillers and anticonception should also be taken into consideration. Depending on how heavy and long the menstruation and flow is, these costs will for most women will lie somewhere in between £128 and £500.

It is not surprising that period poverty is a big deal in some countries. Not being able to afford these products, is not being able to afford basic hygiene and not being able to live around the days of menstruation.

The image on the top right of figure 5 shows a part of the battle against the stigma. Many female artists try to normalise menstruation or create awareness on what women go through and how society in general ignores menstruation's existence.

Lastly, films and series tend not to include menstruation. This might be because the film industry is dominated by men.

The mention of menstruation by its actual name is in films and series already seen as radical. When it is mentioned, it is often only with regards to pregnancy or sexist jokes as shown in the image on top this page. These types of jokes, unfortunately, do not only exist in films and series. Most, if not all, women have been asked if they are on their period when stating something with an emotional tone (mostly if this tone is anger or frustration).

In conclusion, menstruation is often used as an excuse to dismiss women and is generally not honestly portrayed in media.

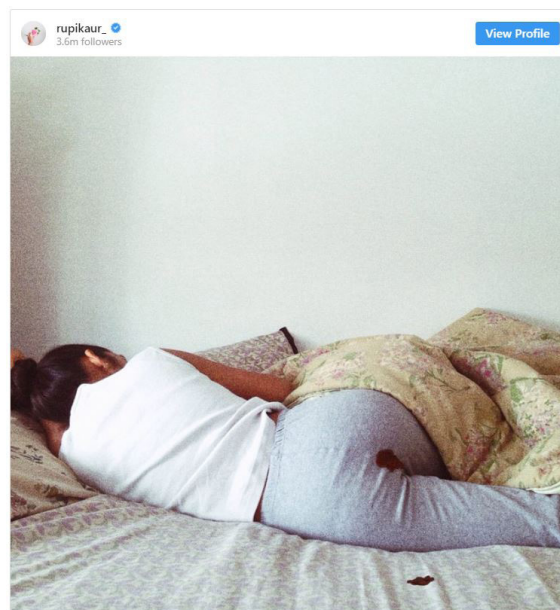
# Nepalese woman dies following banishment to 'menstruation hut'

*Banishing women to a separate hut is a centuries-old Hindu tradition that was officially banned in Nepal in 2005.*

4 Feb 2019



According to the ritual, women are undesirable and untouchable during their menses. [Chitraka/Reuters]



## PERIODS ARE NORMAL, SAYS FIRST U.K. COMMERCIAL TO USE RED LIQUID ON A PAD

BY STAV ZIV ON 10/19/17 AT 1:04 PM EDT

## Artist creates painting out of her own menstrual blood to start a conversation around period poverty

Ellen Scott Tuesday 13 Jun 2017 10:35 am



manilaluzon • Follow

As liquid audiences have grown used to seeing in feminine hygiene products. The ad's tagline is "periods are normal. Showing them should be



manilaluzon Ru said my ORIGINAL Curves & Swerves Runway look was in "bad taste" and production told me to wear my back up. I was really looking forward to wearing this gown that I think celebrates a perfectly normal human experience! Many of my fans are young women who may feel pressured by society to be embarrassed by periods. It's empowering to teach young women about their bodies, encourage them to celebrate them AND to question people who tell them not to! My goal with this look was to normalize menstruation by looking sick'ning even if I was on my period! Instead, I decided to wear the beautiful quilted dress you saw in the episode because it is not my show, it's Ru's. But because of Ru, I have my very own platform to speak for myself and show you all my

figure 5: collage of menstruation in media



#### 1.4 EXISTING PRODUCTS FOR MENSTRUATION AND MOOD REGULATION

When it comes to products for menstruation, most products are aimed at the physical discomfort rather than the psychological menstrual discomfort. The products that do exist for psychological discomfort are based on the 'analyse' strategy, a resilience-focused mood-regulation strategy. These products are, however, all the same: period tracking applications for phones. Figure 6 shows ten applications made for tracking fertility, menstruation and have possibilities to track mood and pain.

These ten apps are just ten from a sea of menstruation tracking apps. Products or services for other menstruation-related psychological discomforts are not to be found.

As for applications in the 'analyse' category, there are also a whole lot apps aimed at analysing moods in general. Most of these work in a similar way as the period trackers, the user is meant to manually fill in their mood in the application. Some of these apps ask the mood in a range of 'good' to 'bad', others ask specific emotions. Some of these also have the option to track menstruation.

In the other products that are based on resilience-focused mood-regulation strategies, most focus on 'detach' strategies, these are mainly focused on creating mindfulness.

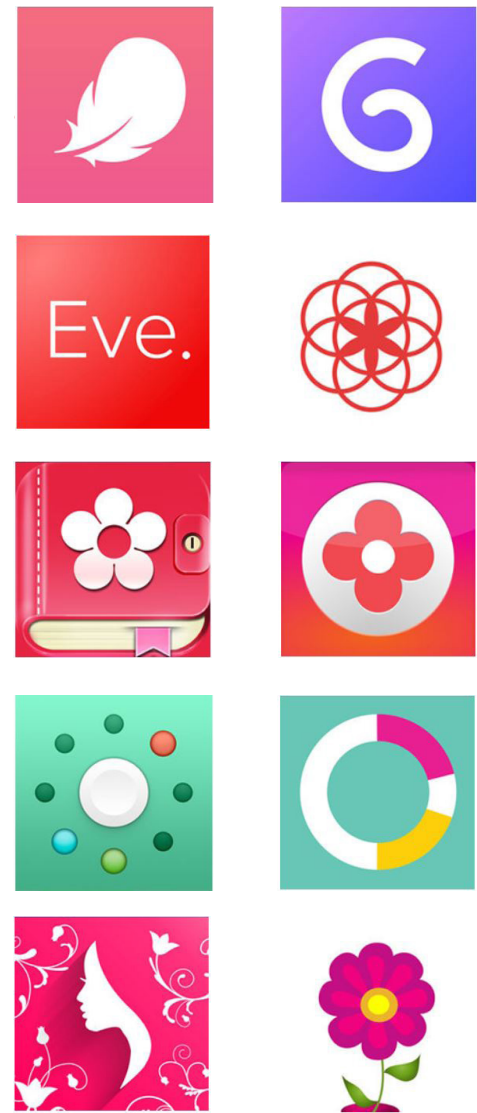


figure 6: period tracking applications

The ten products shown on the next page are products that support or stimulate resilience-focused mood-regulation strategies.

Figure 7 is a mindfulness journal which helps users focus on the good.

Figure 8 is an all-inclusive mandala colouring set, which lowers stress levels by engaging the creative part of the brain.

Figure 9 shows an essential oil diffuser which is meant to have a great impact on mood, body and wellness.

Figure 10 is a wireless sound machine, programmed with five fan sounds, four white noises and cone ocean, which helps blocking



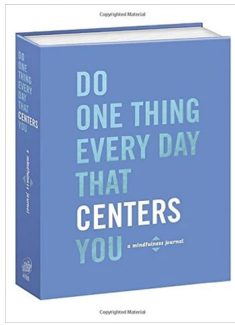


figure 7: mindfulness journal

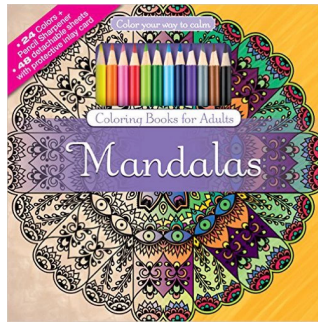


figure 8: adult colouring book set



figure 9: OliveTech essential oil diffuser



figure 10: LectroFan wireless sound machine



figure 11: meditation pillow



figure 12: Tibetan singing bole with modern add-ons



figure 13: T Spheres portable massagers



figure 14: Spire Mindfulness tracker



figure 15: third eye chakra tea

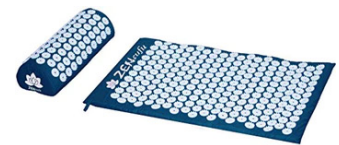


figure 16: acupressure set

out other (irritating) sounds. It also serves as Bluetooth speaker.

Figure 11 is a meditation pillow specifically designed to lift and straighten your spine.

Figure 12 is a Tibetan Singing Bowl: a traditional hand-painted five-inch bowl and a wooden mallet. This makes a sound through which it is easy to engage and center the mind.

Figure 13 are portable massagers. They can stimulate presser points and ease tired muscles.

Figure 14 is a mindfulness tracker which measures your breathing, provides feedback and gives a reminder to breathe when you most need it.

Figure 15 is a tea which heightens the mind and improves sense of presence. It is said to taste amazing.

Figure 16 is a flat mat containing thousands of tiny points which will press into the back and neck. This relaxes muscles, stimulates pressure points and relieves tension in mind and body.

These products are not aimed at menstruation, but they could be used for mood regulation (mostly 'detach' strategies) during one's menstruation. The products in this subchapter show that there is no need for applications which analysing menstruation or moods, which confirms my decision in the brief to not make an application. This project's product will be a new product in a not yet existing market.

# 2.

## STUDY: MOODS DURING MENSTRUATION



.....

The literature in the previous chapter contains a lot of information regarding menstruation and mood. However, none of these is based on Dutch female university students and some links between mood and menstruation remain unclear. This study explored the following research questions through four different methods.

- 1. What aspects of menstruation have most influence on female students' moods?**
- 2. What types of mood regulation do female university students practise most often?**
- 3. How do female university students experience their menstruation?**
- 4. What are the changes in their behaviour during menstruation?**
- 5. How do female university students cope with their menstruation in academic settings?**
- 6. What do female university students need when they are menstruating?**
- 7. How do women's moods fluctuate during the day when menstruating?**
- 8. What are the biggest obstacles in daily life when menstruating?**

These research questions require different methods to answer them, therefore four different methods have been used. An online questionnaire was shared to get many answers about what aspects of menstruation are generally seen as worst and how (and if) female students deal with these menstrual discomforts. Interviews were conducted to create a comfortable environment for female students to speak openly about their menstruation and thus get more in depth insights on how they experience their menstruation. A focus group was organised to get female students to think deeper about their menstruation and to relate to one another. Lastly, sensitizing booklets were handed to menstruating female

university students, for them to self-report on their mood during menstruation while they are experiencing it. Each of the method's results and conclusions will be presented separately, and are compared in the general conclusion and discussion.

Next to university students, some of the methods' participants are HBO students. These allow for a broader range of participants, while they experience a similar education type as university students. Hence, the HBO students are not suspected to influence the data negatively.

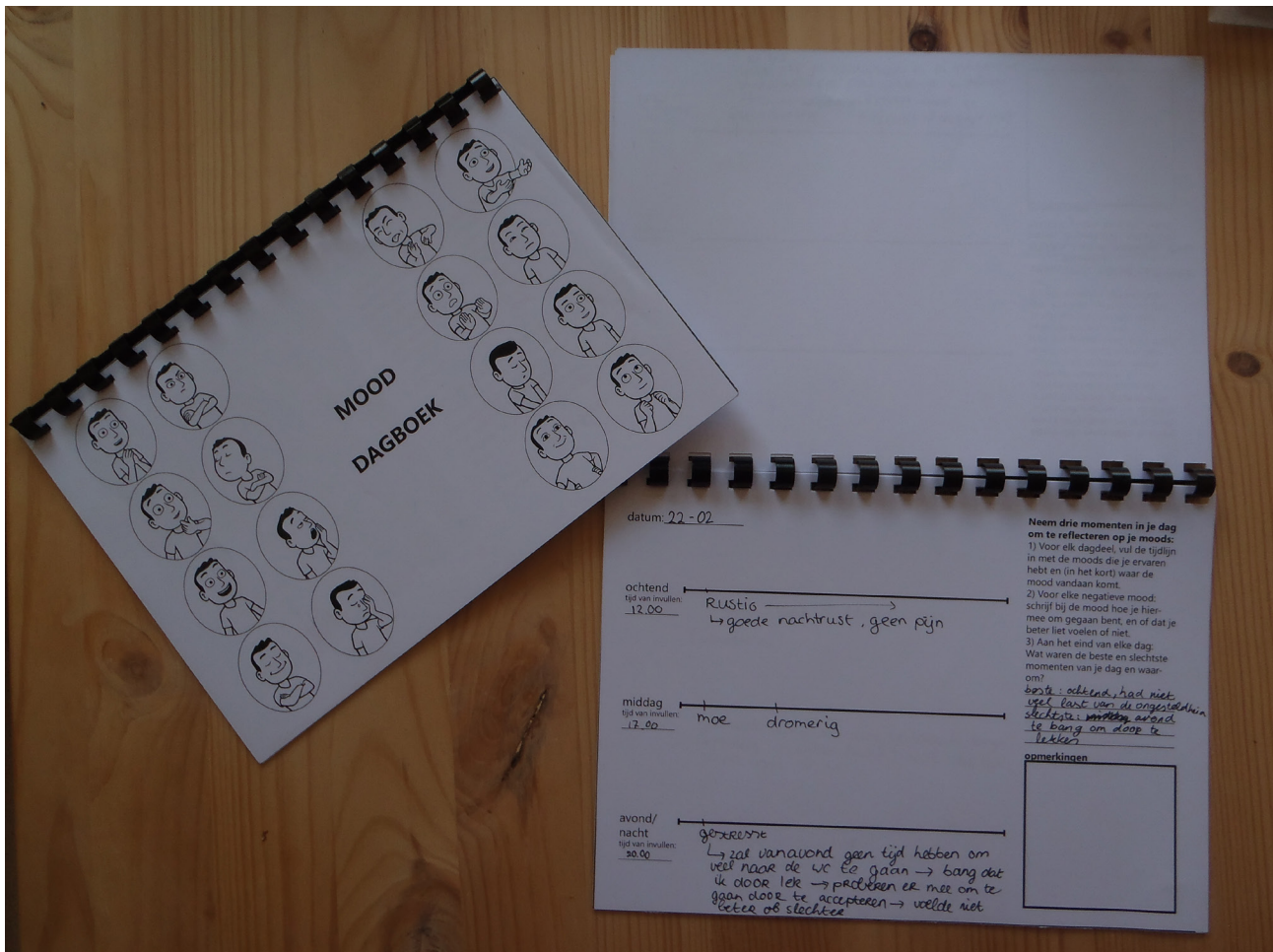


figure 17: sensitizing booklets

## 2.1 MENSTRUAL MOOD DIARY

Women might not always realise how their mood changes during their menstruation. Therefore, sensitizing booklets called 'menstrual mood diaries' (figure 17) were made to get an understanding and an overview of how female university students actually feel during their menstruation. The menstrual mood diaries were targeted to answer the following research questions:

- 2. What types of mood regulation do female university students practise most often?**
- 8. How do women's moods fluctuate during the day when menstruating?**
- 11. What are the biggest obstacles in daily life when menstruating?**

### Method

To get an understanding of how female university students feel during their menstruation, eight university students between the ages of 18 and 25 were asked to fill in a menstrual mood diary (appendix B1) during the days of their menstruation. These participants were recruited through personal network. In this booklet they were asked to take three moments in their days of menstruation to describe and reflect on their moods of the past couple of hours on a timeline. On this timeline they were asked to write down their moods, and for the negative ones what they did to improve them. At the end of the day, they were asked to write down their best and worst moment of the day.

To support the booklet users in defining their moods, the front page contained PrEmo images (Laurans & Desmet, 2017) and the first page of the booklet had eighteen moods as inspiration (Xue, Desmet & Fokkinga, 2019).



Table 1: practised mood regulation strategies:

	D1	D2	D3	D4	D5	D6	D7	done by:
<b>Seek distraction</b>	1	2					1	3
<b>Seek relaxation</b>	2	1						2
<b>Withdraw</b>	1	3			1	1		4
<b>Repress</b>		4	13	1	1	3	1	6
<b>Rest</b>		3	1	3	2	4	3	6
<b>Trivialise</b>		1						1
<b>Embrace</b>					1	1	2	3
<b>Analyse</b>						1		1
<b>Self-reward</b>						1		1
<b>Energise</b>							1	1

Table 2: causes of negative moods

	D1	D2	D3	D4	D5	D6	D7	TOTAL
<b>Hormones</b>	X	X		X	X	X	X	6
<b>Pain</b>	X	X	X	X			X	5
<b>Bleeding</b>		X					X	2
<b>Others</b>	X	X	X	X	X	X		6

## Results

All data can be found in appendix B2.

First of all, one of the seven participants did not fill in the booklet for the last days of her period, because she found it was too much effort.

Thus, for participant D5, there is only data from the first four days of her menstruation.

All seven participants described their moods as positive or content in general when they are not menstruation and all of them only used negative moods to describe their general mood during their menstruation.

Out of the twenty mood regulation strategies (Desmet, 2015), the participants only reported the use of ten of them (see table 1). 'Repress' and 'rest' strategies were practised by six of the participants, 'withdraw' by four participants. 'Embrace' and 'seek distraction' three times. Two participants practised 'seek relaxation'. Energise, self-reward, analyse and trivialise were each only practised by one of the participants to regulate a negative mood.

Out of all sixteen times the participants used 'rest' as a mood regulation strategy, the successfulness of the strategy was reported

seven times, of which one is unclear, one said it helped a bit and the other five times it was reported successful. For the other mood regulation strategies, the successfulness was not or barely reported.

All of the participants show mood fluctuations over short periods of time, but the origins of their moods came from four areas (see table 2). Six of the participants' moods were directly influenced by their menstruation. Five participants had negative moods caused by pain. Only two participants' had moods which were affected by the bleeding itself, they feared leaking. Six of the participants' moods were not only defined by their menstruation, but by daily occurrences as well.

Two participants' booklets show they experience their worst moods in the evening, one participants mainly had bad mornings, the other four participants show little pattern in when they feel worst.

For two participants, day 1 was their worst day. For three participants the second day was their worst. The other two participants has their worst days on day 3 and day 4 respectively.



## Conclusion

The menstrual mood diaries were used to answer the following research questions.

### 2. What types of mood regulation do female university students practise most often?

Mostly by **resting** and **repressing**. Most participants made sure they got enough sleep and took it slow when possible at times of negative moods, which often worked for them. The same participants also relied a lot on repressing the mood. By ignoring it, trying to forget it and just going on with the daily tasks and responsibilities. The successfulness of this strategy remains unclear.

Another way of dealing, which is not a mood regulation strategy, is by dealing with the core of the problem. For example, going to the toilet or wearing tight and dark clothes when afraid of leaking or taking pain medication when the menstrual pains act up.

Most of the participants tried a lot to improve their moods, but not many tried to maintain their positive moods and thus preventing the fluctuations towards the negative.

### 7. How do women's moods fluctuate during the day when menstruating?

**Randomly** for most. Women's moods are influenced by their pain, hormones and the obstacles they come across in their daily life without much of a pattern, except that most women experience their first days of menstruation as most negative.

### 8. What are the biggest obstacles in daily life when menstruating?

The biggest problems regarding menstruation are **pain** and **hormonal mood changes**. Many participants mentioned they are more easily triggered by small negativity and therefore emotions tend to take the overhand much more easily than usually. Life gets a bit harder during for students during menstruation, but nothing in life slows down with them.



## Discussion

There are some limitations on this method. The participants were asked to fill in the booklets on the days of their period only. Hereby dismissing the pain, discomfort and emotional fluctuations of the days before menstruating. By including the data of the days before menstruation, the data could have been richer, which would have resulted in a more complete overview of menstrual mood fluctuations and coping strategies.

Furthermore, it would have been more accurate if the participants had filled in the booklets on more than three points of the day. This, however, would have been too much to ask, and would not motivate the participants more to fill in the booklet.

There are also some participants who did not fill in the booklet every day on the day itself. Some did not feel like doing it, some forgot and one participant stopped filling in the booklet after day 4. This makes the data a bit less reliable, and for most it meant the data was less detailed.

The origin of women's moods might be important to take into account when designing to regulate moods better. Moods from pain are likely to be resolved by active pain relief (through pain medication, hot water bottles or yoga, for example), while moods by hormonal causes are more likely to benefit

from analysing, embracing and resting, since hormonal moods are less obvious in cause.

It is interesting to see that 'rest' and 'repress' strategies are most used. Since menstruation in general is a very clear case of having a lack of resources to meet the usual demands, resting seems like a good way to acquire new energy. Especially since participants often found it successful. However, it is important that while resting, the mind rests too.

The result of repressing has not been reported, however, this is not a strategy to enhance, since it is a relief-focused strategy and thus merely aimed at quick and short relief of the mood.

Some of the participants reported they went sporting and all of them felt accomplished or vigorous afterwards. This was not done in negative moods in particular, and has thus played an important factor in maintaining current moods. This shows the importance of preventing negative moods. Most of the participants came across a negative mood, dealt with it and so forth. Presumably, the overall mood during menstruation could be higher if women tried to regulate their positive moods in order to maintain them. This could possibly help women, or female university students in this case, to armour themselves against emotions taking the overhand.

## 2.2 QUESTIONNAIRE

In order to get some quantitative data, an online questionnaire was made. The results of the questionnaire were meant to answer the following research questions:

- 1. What aspects of menstruation have most influence on female students' moods?**
- 2. What types of mood regulation do female university students practise most often?**

### Method

An online questionnaire was sent out, through personal network and social media, to get an overview of what female students consider to influence their moods about menstruation most and what they do to regulate their moods.

The questionnaire was targeted to female university and HBO (higher professional education) students, between the ages of 18 and 25. The list of questions can be found in appendix C1.

### Results

The data can be found in appendix C2.

The questionnaire was filled in by 43 respondents. One respondent, however, only responded to question 1, 2, 8, 9 and 10. Of the 42 remaining respondents, 31 were university students and eleven were HBO students. 76% of the respondents use hormonal contraception. 71% of all respondents has their period once a month, 22% menstruates approximately once in three months, and 7% menstruates approximately once in six months.

The respondents were asked to rank which aspect of menstruation influences their mood most. Table 3 shows the results thereof.

Most respondents ranked pain as there number one mood disturber (17 out of 42), with bleeding as a close second (14 out of 42). Least respondents ranked bleeding last (4 out of 42), while most ranked sleeping disturbance last (26 out of 42). Sleeping disturbance was also least often ranked as most influential on mood (3 out of 42). Limitations in daily life was rated quite neutral, but more towards the less influential on mood side.

Table 3: effect of menstrual complaints on mood, ranking results.

	<b>Pain</b>	<b>Limitations</b>	<b>Bleeding</b>	<b>Sleeping</b>
<b>Ranked 1</b>	17	8	14	3
<b>Ranked 2</b>	10	1	13	5
<b>Ranked 3</b>	9	14	11	8
<b>Ranked 4</b>	6	6	4	26



From all 43 respondents, 40% said they do not try to improve their mood during their menstruation, while 60% said they did. The ones who do try to improve their mood, added what they did. All but one of their attempts to mood improvement fit in Desmet's (2015) twenty mood regulation strategies, as shown below in table 4.

Table 4: Mood regulation strategies

<b>Seek distraction</b>		<b>2</b>
<b>Self-reward</b>		<b>11</b>
Food	10	
<b>Vent</b>		<b>3</b>
<b>Repress</b>		<b>11</b>
Tranquilisers	10	
Hot water bottle	2	
<b>Seek relaxation</b>		<b>1</b>
Yoga	1	
<b>Seek refreshment</b>		<b>2</b>
Shower	2	
<b>Withdraw</b>		<b>1</b>
<b>Rest</b>		<b>6</b>
<b>Energise</b>		<b>2</b>
<b>Seek social support</b>		<b>2</b>
<b>Embrace</b>		<b>2</b>
Crying	1	
Allow	1	

Most respondents use relief-focused mood regulation strategies to improve their moods, some practise balance-focused strategies, and only two respondents practise resilience-focused strategies, by letting themselves cry a lot and allowing the bad mood. In this case, repressing seems to work, as it is repressing the pain to actively act on the

cause of the negative mood. Nine of the eleven respondents who repress their pain reported this helps improve their mood, the other two said it does not always help. Whereas six (out of ten) of the respondents ate food to cope (a self-reward strategy), reported that this strategy often does not work for any longer than that exact moment. This is six out eleven self-reward strategy users in total.

Most respondents who do balance-focused mood regulation strategies reported that it is successful in improving their moods (9 out of 11). The two who said it does not work, reported feeling guilty about not being productive. One of these respondents is incidentally also one of the respondents who practise the embrace strategy from the resilience-focused strategy. The other respondent reported that it works for her, because her type of embracing is by allowing herself to take it slow.

In total, 18 of the 26 respondents who practise a certain strategy to improve their mood says it works for them. Five of them reported it works temporarily or only at certain times. Three of the respondents reported it does not work for them. Worth to mention are two respondents who do not practise any strategy to improve their mood said it did not help to improve their mood. Others chose for the 'not applicable' option.





## Conclusion

The online questionnaire was used with the goal to answer the following research questions.

### 1. What aspects of menstruation have most influence on female students' moods?

Based on the results of the ranking question, it is fair to conclude that **pain** and the **bleeding** itself have the most effect on the respondents' moods. Disturbed sleeping has the least influence and the limitations in daily life did not score nearly as high as pain and bleeding either. This, however, does not mean that limitations in daily life and sleep disturbance does not affect the mood, it merely affects it less than pain and bleeding do.

### 2. What types of mood regulation do female university students practise most often?

The most practised mood regulation strategies are the ones that are **relief-focused**, **self-reward** and **repress** (of pain) in particular. The 'rest' strategy from the 'restore balance' category was only practised half as much as self-reward and repress, but the only other strategy to be mentioned over five times, while others were only mentioned up to three times. All of the users of the repress strategy reported this helps to improve their mood (for most always, for two sometimes). The self-reward strategy is not as often successful in improving their moods, it often only helps at the exact moment of practising it, but the mood will not last longer than that, which is usually the case in relief-focused mood regulation strategies. Lastly, the repress strategy works for most respondents, except for two where guilt about unproductivity negatively influences their mood. In general, 70% of the 26 respondents who apply mood regulation during their menstruation reported it to work for them.



## Discussion

First of all, no significant difference was found between the levels of education; university or HBO. Which signifies that including HBO students has indeed not affected the data. Further, no significant difference showed between menstruating and non-menstruating respondents and between respondents with a different menstruation frequency.

It is interesting that only one of the ten none hormonal contraception users said she does not try to regulate her mood. While 16 of the 32 hormonal contraception users do not. However, the other results show no difference in the type of discomfort they are experiencing. This brings out an important limitation of this questionnaire, the level of experienced discomfort and the level experienced mood changes (either fluctuation or overall more negative mood) was not asked, while this could have given more insight on the data.

The results from the mood rating question could have a double meaning. When respondents rate one high it could mean they suffer from that specific aspect most, which in turn has most influence on their mood. Or it could mean the aspect merely affects their mood most. However, the importance of the results was sought in the biggest mood influencer, no matter if this is also the most suffered one.

Repress in this case, however, does not mean repressing the mood itself but the pain as a cause of the mood. By actively taking away the cause of the mood, this type of

repressing might not serve as a relief-focused mood regulation strategy. Presumably, the respondents who mentioned the use of pain medication, do not use them with mood regulation as a goal. Therefore, the use of pain medication will not be something to focus on in this project. It is, however, important to take the effect of its use on women into account.

Resting was reported to be a successful mood regulation strategy, apart from two respondents who said they feel guilty after a while due to lack of productivity. This same issue seems to be a cause for self-reward's lack of success. If guilt as a result of a lack of productivity influences the mood so much, that explains why repressing the pain works well for mood improvement. When pain is repressed, the pain is eliminated (and ignored) and life can go on as usual. This would suggest that lack of productivity is an important and influential cause of negative moods during menstruation. This is in contrast with the results of question where 'limitations in daily life' was ranked low. As lack of productivity is similar to limitations in daily life. It is possible that pain and bleeding are seen as the causes of these limitations (and thus unproductivity) and are therefore ranked higher. This makes sense, as most respondents act on their biggest mood disturber (pain) by repressing it. The results do suggest that pain is only part of the cause of unproductivity, as some respondents maintain negative moods due to lack of productivity.



## 2.3 INTERVIEWS

Interviews were conducted to get more in depth insights in how female students experience and view their menstruation and to answer the following research questions:

- 3. How do female university students experience their menstruation?**
- 4. What are the changes in their behaviour during menstruation?**
- 5. How do female university students cope with their menstruation in academic settings?**
- 6. What do female university students need when they are menstruating?**

### Method

Ten interviews were conducted with female university and HBO students, aged 18 to 25. The interviewees were recruited through personal network and through answers of the last question of the questionnaire, wherein the women were asked if they would like to participate in a follow-up research. The interviews were only conducted with people I personally know, since previous literature shows that not all women are comfortable speaking about their menstruation, especially with people they do not know (Jackson, 2018; Sveinsdóttir, 2018).

All interviewees were asked the same questions (appendix D1), however, the follow-up questions were based on the interviews themselves, and were thus different for each interviewee. All interviews were held in a safe and familiar environment, to ensure the interviewee felt comfortable enough to speak openly about their menstruation.

### Results

All data can be found in appendix D2.

#### Complaints

On the days before menstruation, menstruation

seems to have a direct influence on the interviewee's moods. Five of the interviewees reported to feel sad the days before menstruation. Other reported complaints were them feeling overemotional (overly sad, easily frustrated and angered) (3 out of 10), crying more (2 out of 10), and non-psychological complaints: acne (3 out of 10) and sensitive breasts (2 out of 10).

During menstruation the interviewees mood was more influenced by the pain and discomfort caused by menstruation, such as menstrual cramps (7 out of 10), headaches (4 out of 10), lower back pain (3 out of 10) and a general feeling of being uncomfortable (3 out of 10).

Only three of the interviewees said their menstruation disturbs their daily life, of which all three said their social life suffered from it, while two found their academic life to suffer from it as well.

#### Mood regulation

The interviewees were asked to explain from the twenty mood regulation strategies (Desmet, 2015), which ones they practised more or less to improve their mood during their menstruation. Since some of the strategies can also be applicable to pain coping strategies, all interviewees also pointed out their pain coping strategies. The relation between pain and mood (Van Iersel et al., 2016) makes these strategies noteworthy. To soothe their pains and discomfort they made, seek relaxation (5 out of 10) and seek refreshment (4 out of 10) scored highest. Only two interviewees mentioned the 'repress' strategy, while the interview showed that 7 of the interviewees use tranquilisers to repress their pain.

One of the interviewees had a very light menstruation and said it did not affect her mood at all, so in her case the mood regulation strategies were the same as usual. Therefore the mood regulation strategies are rated x out



of 9 instead of 10. The actual mood strategies used, showed variety in the categories of 'seek relief', 'restore balance' and 'build resilience'. In the 'seek relief' category, self-reward scored highest (5 out of 9). In the 'restore balance' category, withdraw scored highest (5 out of 9) with rest (4 out of 9) as a close second. Rationalise (4 out of 9) and embrace (4 out of 9) scored highest in the 'build resilience' category.

Only five of the participants said there were strategies they practised less often or never when they are menstruating. Three of them did not (or could not) repress their feelings, two could not think positively as a result from self-pity, one did not detach from their feelings and one said she could not get herself to energise.

#### Other results

All interviewees were asked if they saw positive aspects in menstruation. Three of the interviewees immediately said there were none, but two of them still came up with a positive aspect. Seven of the interviewees said that knowing they were pregnant was most positive (7 out of 10), furthermore, only feeling healthy (3 out of 10) and fertile (2 out 10) were mentioned multiple times.

Five of the interviewees said they do not always (two of them never) realise that menstruation is the origin of their mood. One of them knew and two of them suspected that the realisation their mood is a result from menstruation would help them put the feeling in perspective.

Six of the interviewees said they do not feel shame for menstruation. The ones that did feel shame, mostly felt uncomfortable telling men about it. One feels like she needs to hide all evidence of her menstruation (pads and tampons) and two of them feel uncomfortable about using it as an excuse. This came mainly from the fact that others, mainly men, do not understand exactly where they are going through. As being sick is

more easily understood than suffering from their menstruation. One interviewee said she sometimes feels like she has to protect men from information about menstruation, because it might freak them out.

Seven interviewees said they allow themselves to take it slower during their menstruation. While two interviewees felt frustrated by having to take it slow, and one felt guilty for being unproductive.

Lastly, the interviewees were asked if they thought there were things they should do to improve their mood during menstruation, which they did not (yet) do. Two interviewees mentioned they should talk to others about their discomfort sooner. The other comments were all only mentioned once: maintaining positive moods to prevent getting into a negative one, do yoga, drink more water, take more time for self, seek more distraction in friends and analyse their menstruation more (track when next period is coming up).



## Conclusion

The interviews were conducted to answer the following research questions.

### 3. How do female university students experience their menstruation?

Generally, the interviewees were **negative**, **if not extremely negative**, about their menstruation. Even the interviewees with little complaints, could not come up with more than one positive aspect of menstruation.

### 4. What are the changes in their behaviour during menstruation?

Most interviewees said their menstruation did not disturb their daily life much. However, the need for rest that shows from the chosen mood regulations strategies suggests that their life in general might be a little **quieter** and **slower** during their menstruation.

### 5. How do female university students cope with their menstruation in academic settings?

All interviewees practised different pain coping strategies and/or mood regulation strategies than they when they are not menstruating. Most of their strategies work well, or at least do not influence their mood negatively. However, some interviewees were frustrated or felt guilty for some of their strategies, most specifically when allowing themselves to take it slow. Since the most practised mood regulation strategies are **withdraw**, **self-reward** (of which all but one interviewee said they allowed themselves to rest), **rest** and **embrace**, most

of the interviewee's behavioural changes show that they slow down during their menstruation. This is further highlighted by not one interviewee practising 'energise' as strategy.

### 6. What do female university students need when they are menstruating?

Most interviewees needed **rest** and **comfort** over all, but some did mention that isolation or **understanding** is equally important to them.





### Discussion

The interviewees practise a wide variety of mood regulation strategies, out of all three categories, for often similar complaints. As expected, they do rely least on strategies within the 'build resilience' category. A lot of interviewees saw a lot of importance in the strategies from the 'seek relief' strategy. It is not so surprising that the 'seek relief' strategies are valuable, because menstruation brings a lot of temporary complaints with it, and for some complaints, for example bad moods caused by pain, instant relief might be more valuable than building resilience towards the mood. However, the fact that many interviewees allowed themselves to take some space to embrace their mood, contrary to the interviewees who felt guilt and frustration for taking it slow, shows that some strategies from the 'build resilience' category have a lot of value in them. The combination of resting and embracing the mood could be very important. All interviewees were negative about their menstruation, and most of them take tranquilisers to soothe their pain. Pain, however, tries to show the body taking it slow is necessary. By taking tranquilisers, women ignore what their body is telling them in order to continue with their daily life (which also might explain why only a small amount of interviewees saw menstruation as something that disrupts their daily life). Embracing the feelings that come from menstruation by listening to the body and thus taking it slow might be an important finding towards a healthy way of dealing with menstruation.

Most of the interviewees do not track when their menstruation comes and are therefore often unaware of the relationship between their feelings and their menstruation. Awareness of the origin of feelings before menstruation through analysing, is likely to make rationalising and embracing one's feelings easier.

These interviews show that eliminating relief-focused mood-regulation strategies is not encouraged, the relief and balance-focused strategies are of great importance in mood during menstruation. These strategies are mainly of importance on the infamous mood fluctuations during menstruation. However, using more resilience-focused strategies is likely to improve the overall mood during menstruation.

An interesting finding was that most interviewees did see some positive aspects in their menstruation, although little. Most are happy to know they are not pregnant, and some others said they liked knowing their healthy and/or fertile. These positive aspects, although limited, could be enhanced to reduce the negative thoughts about menstruation.

Lastly, an important note is that in embracing a mood, there is a fine line between wallowing in self-pity and allowing oneself to take it slow. Self-pity can result in experiencing pain worse and more negative moods (Kennet, O'hagan & Meyerhoff, 2016).



## 2.4 FOCUS GROUP

Women can be very open about their menstruation with their friends. Through conversations with their friends they might realise some things they had not before. A focus group was set up to get answers to the following research questions:

- 3. How do female university students experience their menstruation?**
- 4. What are the changes in their behaviour during menstruation?**
- 5. How do female university students cope with their menstruation in academic settings?**
- 6. What do female university students need when they are menstruating?**

### Method

A focus group, existing of three female university students who are close friends was recruited and selected through personal network. They were led through a half hour long conversation which was meant to touch a couple of aspects (appendix E1) of menstruation.

Three participants:

	P1	P2	P3
Age	23	22	22
Study	DFI	IPD	IPD
Menstruation frequency	Once a month	Once a month	Once a month
Contraception	Pill	Pill	None
Currently menstruating	Yes (last day)	Yes (last days)	No



## Findings

According to the participants of the focus group, the most important, and thus disrupting, aspects of menstruation are the following. The data of the focus group is in appendix E2

### Toilet planning

Having to always bring pads and tampons when going out is one thing, but having to plan toilet breaks can be really inconvenient and at sometimes hard or near impossible. For example, when menstruating, it is hard to go for a hike that lasts a day, since it is not likely there will be enough toilets on the way, and thus no comfortable places to change pads or tampons.

### Fear of leaking

This tags on to the previous issue. When toilet breaks are hard to take, the fear of leaking gets bigger and makes women uncomfortable. This also influences how women clothe. When on their period, the participants liked dark clothing specifically, they would not wear a certain outfit because their potential leaking would show. This same issue arises in summer, when one would want to wear shorts. Both the leaking

and the possible visibility of pads under short shorts refrain women from wearing what they want when they want it.

### First days of period

On the first days of their period, the participants notice that their menstruation has effect on their moods.

### Lack of understanding

The lack of understanding is caused by different aspects. First of all, women are taught to hide their menstruation, and therefore the participants do not feel comfortable about others knowing they are on their period, or changing pads when others can hear it. This is mainly about men. Since women are taught to hide it, they acquire little knowledge about menstruation, and through that and them not experiencing menstruation at all, it is hard for them to comprehend what women go through each month.

Furthermore, what the participants mentioned they need, is patience and understanding during their menstruation.



## Conclusion

The focus group was conducted in order to answer the following research questions.

### 3. How do female university students experience their menstruation?

The participants experience their menstruation as **bothersome**, but **part of life**. They see a lot of inconvenience caused by menstruation, but they know it is an important bodily function and therefore accept its existence.

### 4. What are the changes in their behaviour during menstruation?

They like to be able to **plan** their days and thus be in control over their menstruation. They plan their days more, to know when they can go to the toilet and they change their clothing. They are **less motivated to be active** and the notice **less concentration**.

### 5. How do female university students cope with their menstruation in academic settings?

The participants **do not call in sick** when they are on their period. They try to get through the day as well as possible and subsequently, they try to rest as much as possible when they get home. They do not share their discomfort and possibly their lack of concentration as a cause of menstruation with (male) group members. In general, they have the attitude of 'life goes on, so should we'.

### 6. What do female university students need when they are menstruating?

**Patience and understanding.**

## Discussion

As for the focus group, it turned out that even though they gave a lot of information and came to different aspects of menstruation, but the data overall lacked some depth. Therefore, only one focus group was conducted. In interviews, more depth was acquired and thus further research was done through interviews instead. Since the focus group only existed of three women, this focus group only acquired some food for thought. There is too little data to compare, or draw actual conclusions from. The insights acquired through this focus group can be seen as additional data to the interviews.



## 2.5 GENERAL CONCLUSION

The goal of these four methods was to understand how female university students experience their menstruation and to explore how they try to deal with it, and thus find where they can improve their coping in order to handle their menstruation in a healthier manner. This was analysed through answering the research questions. The answers to them are the following.

### 1. What aspects of menstruation have most influence on female students' moods?

The questionnaire concluded that **pain** and the **bleeding** itself have the most effect on the respondents' moods. Disturbed sleeping has the least influence and the limitations in daily life did not score nearly as high as pain and bleeding either.

The menstrual mood diary suggests that **hormones** also have a big influence on women's moods, this was not part of the questionnaire. Therefore, it is not possible to compare these aspects. Presumably, all three of these aspects highly influence female students' moods.

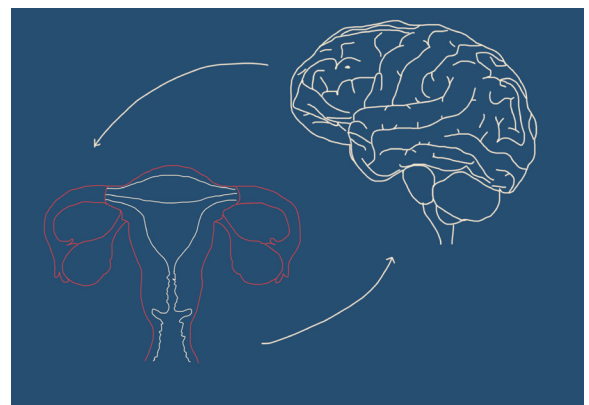
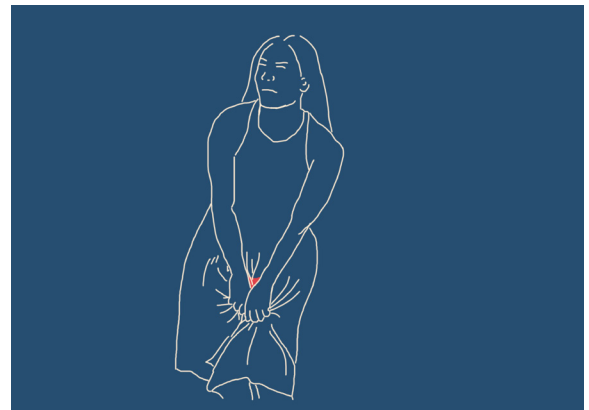
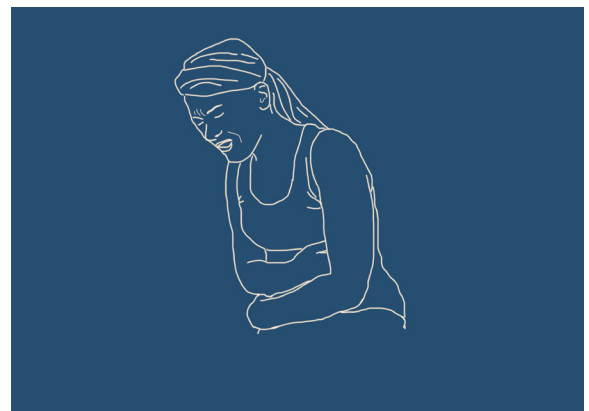


figure 18: pain, bleeding and hormones have most influence on mood

2. What types of mood regulation do female university students practise most often?

The questionnaire showed that most practised mood regulation strategies are the ones that are relief-focused; self-reward and repress (of pain) in particular. The 'rest' strategy from the 'restore balance' category was only practised half as much as self-reward and repress, but the only other strategy to be mentioned over three times.

From the interviews, it showed that 'self-reward', 'withdraw' were the mood regulation strategies most practised. With 'rest', 'rationalize' and 'embrace' following shortly after.

The menstrual mood diary found 'repress' and 'rest' are the mood regulation strategies most used, with 'withdraw' coming third.

The results from the interviews come from a question wherein the interviewees were directly asked which of the mood regulation strategies they practise more often during their menstruation. The mood regulation strategies from the questionnaire and menstrual mood booklet have been interpreted from the times the participants mentioned a type of mood regulation activity. Rest is the only type of mood regulation strategy that was often mentioned in all three the methods. This consistency shows that **'rest'** is an oft-practised mood regulation strategy. **'Self-reward'**, **'withdraw'** and **'repress'** were mentioned often in two of the three methods, which suggests they are often practised as well.

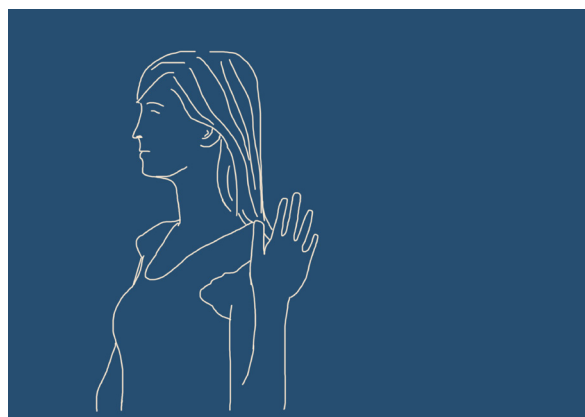
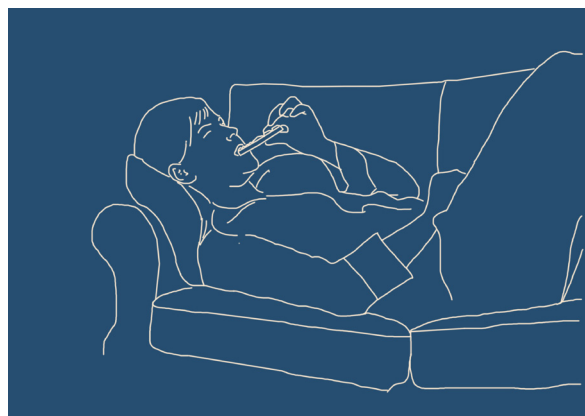


figure 19: rest, self-reward, withdraw and repress are the most oft-practised strategies

### 3. How do female university students experience their menstruation?

Generally, the interviewees were **negative**, if not extremely negative, about their menstruation. Even the interviewees with little complaints, could not come up with more than one positive aspect of menstruation. The focus group participants experience their menstruation as bothersome, but part of life. They see a lot of inconvenience caused by menstruation, but they know it is an important bodily function and therefore accept its existence.

In the menstrual mood booklets, not a single participant described their mood with a positive mood.

All three of these methods show that menstruation is viewed as a negative experience, which aligns with ARPH's (2006) study.

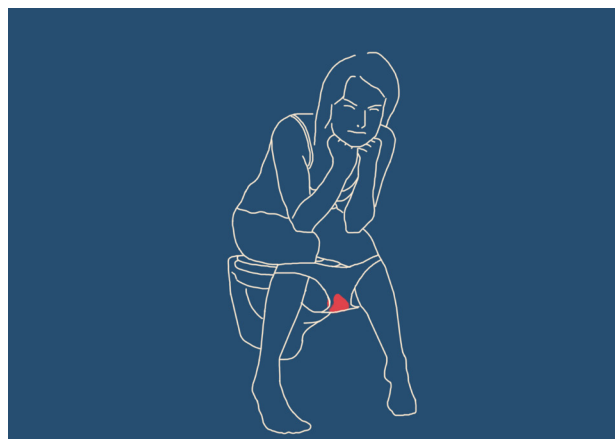


figure 20: negative view on menstruation

figure 21: students slow down during their menstruation



### 4. What are the changes in their behaviour during menstruation?

The focus group participants said they like to be able to plan their days and thus be in control over their menstruation. They plan their days more, to know when they can go to the toilet and they change their clothing. They are less motivated to be active and notice less concentration. These points have been mentioned in some interviews, however not enough to signify the worth of these comments.

The interviews did show that female students tend to slow down. They either try or are forced to slow down during their menstruation. This also shows in 'rest' being their most practised mood regulation strategy, in general.

Amongst these two methods, no clear similarity shows. However, since the interviews and the questionnaire show resting as an important factor. It is presumable that female students **slow down** a little during their menstruation.

.....

## 5. How do female university students cope with their menstruation in academic settings?

Most interviewees said their menstruation did not influence their academic life much, since they take that as priority. They make sure they do not take any extra academic demands, and try to rest as much as possible when they get home. Most of the interviewees would not mention they are on their period in a project group and definitely not to a professor or a coach. The focus group participants do not call in sick when they are on their period. They try to get through the day as well as possible and subsequently, they try to rest as much as possible when they get home. They do not share their discomfort and possibly their lack of concentration as a cause of menstruation with (male) group members. In general, they have the attitude of 'life goes on, so should we'. These two methods both show that female students take their **academic life as priority** and try to not let their menstruation influence it. **Taking painkillers and ignoring their struggles at university, to later rest a lot at home is their way of coping.**

## 6. What do female university students need when they are menstruating?

Most interviewees needed rest and comfort over all, but some did mention that isolation or understanding is equally important to them. The focus group showed a need of patience and understanding. Since three methods showed 'rest' as the an oft-practised mood regulation strategy, it suggests that **rest** and **comfort** are two highly valued needs during menstruation.

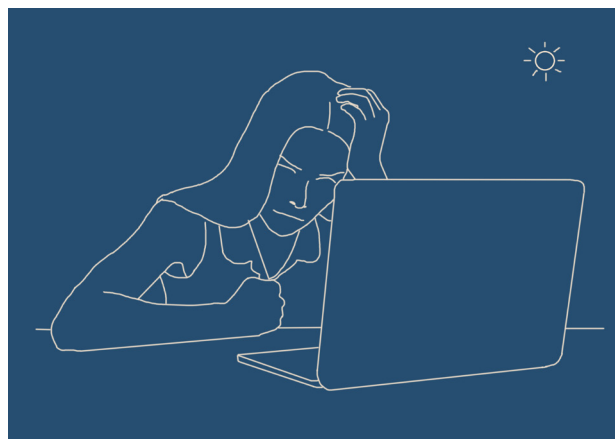


figure 22: working during the day, to collapse in the evening



figure 23: need for rest and comfort



.....

## 7. How do women's moods fluctuate during the day when menstruating?

The questionnaire showed that women's moods fluctuate randomly for most. Women's moods are influenced by their pain, hormones and the obstacles they come across in their daily life without much of a pattern, except that most women experience their first days of menstruation as most negative.

Most interviewees knew their own mood patterns when reflecting on it, but no clear differences were found amongst all interviewees. Some interviewees noticed being more emotional the days before their menstruation, but this only suggests that more women have this problem. It is unclear if this amount is significant.

The menstrual mood booklet could not point out specific times or causes for mood fluctuations for all participants.

This suggests that mood fluctuations are **personal** and **no patterns** seem to exist amongst female university students.

## 8. What are the biggest obstacles in daily life when menstruating?

The menstrual mood diary showed that the biggest problems regarding menstruation are pain and hormonal mood changes. Many participants mentioned they are more easily triggered by small negativity and therefore emotions tend to take the overhand much more easily than usually. Life gets a bit harder during for students during menstruation, but nothing in life slows down with them.

Most interviewees said their menstruation did not disturb their daily life much. The interviewees who experienced mood swings did mention that they found that most disturbing about their menstruation.

This suggests that the **hormonal mood fluctuations**, when experienced, are seen as most bothersome in menstruation.



figure 24: menstrual patterns are personal



figure 25: mood fluctuations



## 2.6 GENERAL DISCUSSION

The methods have a lot of difference which makes it difficult to compare the results. However, since most of the data is qualitative anyway, this research served to get insights to find a design space, and these conclusions serve a good basis for that purpose.

The focus group did not get the desired results, the interviews showed to be more beneficial to this project, as they acquired more depth and a wider variety of answers than the focus group did. Therefore only one focus group had been conducted. The results of the focus group do not weigh as much as those of the other methods. The focus group's results mainly serve to support the results of the other methods when they align.

Not only female university students, but women in general, view their menstruation as a negative experience. This is concluded from previous research (ARPH, 2016) and supported in this study. If female students experience anything positive about their menstruation it is only knowing they are healthy, fertile, but most of all, not pregnant. These are all positive aspects which only arise at the first moment of menstruation and thus the days after do not seem to have any positive aspect. Letting female students hold on to the positive aspects of menstruation could be an opportunity for mood improvement.

In the current practised strategies of female students, a clear focus on relief-focused and balance-focused strategies is visible. From the questionnaire 70% of the respondents said their strategies worked. From the interviews and menstrual mood diaries showed that not all of their strategies work, but it is important to not eliminate these strategies. Menstruation comes with short-term complaints and relief-focused or balance-focused strategy can help

the students in improving their mood on the short-term. However, to improve the underlying state of mind as a mood, practising resilience-focused mood regulation strategies, in addition to the current ones, is expected to be beneficial. The interviews showed that some of the students often do not realise their mood's origin is their hormones, and thus their menstruation. If they were able to analyse their feelings to be able to understand their hormones are causing this. This would help them to rationalise their emotions by putting them in perspective. Furthermore, embracing the moods could sometimes be helpful for the students. By accepting the mood and its consequences, they might feel less guilty for taking time to deal with the mood. Guilt about lack of productivity was recurring through all the methods. If students would allow themselves to take time for their mood, they could find that the resources will match their demands sooner.

This study suggests that understanding, rest and comfort are what students need during their menstruation. This combined with the mood regulation strategies that they are currently using and the ones they should use (resilience-focused mood-regulation strategies), shows that it is important for all female students to rest and allow themselves to rest during their menstruation. Many female students are wary of taking rest because of a lack of understanding from men, but other women as well. One interviewee pointed out that fellow students often do not understand her because she has an extremely heavy period. She said that everyone's period is different and therefore, contrary to popular belief, women amongst each other cannot bond as much over their menstruation. Since nobody can really comprehend what any menstruating woman goes through, nobody can understand what they need and why they need it either. If others would allow menstruating women to deal with



their menstruation without making them feel guilty or misunderstood, this could improve female students' moods during menstruation.

Currently, female students do take action to regulate their negative emotions during their menstruation, but they spend little time on trying to prevent or avoid negative ones. The menstrual booklets showed that doing sports made people feel accomplished and vigorous, the one who did this, only went sporting when they neutral or good and ended up feeling (even) better. This shows the importance of maintaining positive moods. The importance hereof is supported by the study of Tugade & Fredrickson (2007), who concluded that enhancing positive emotions yields important advantages in the coping process. This would thus be an opportunity for further exploration.

# 3.

## IDEATION





The conclusions of the literature and field research cover several design areas, and thus they cannot all be implemented in one design. Therefore, for the ideation phase, the focus is on the following design directions.

**Female university students all prioritise their university work over their own mental health.** There is a **need for rest** most of all, but also for **comfort** and **understanding from others**. The **view on menstruation is negative** amongst all participants and they tend to **not recognise the patterns of their own menstrual cycle**.

These design directions have formed the base for the ideation phase.

#### Design for resilience-focused mood regulation strategies

All but 'transform creatively' could be improvements to the current mood regulation. Embrace, analyse, rationalise and detach are the resilience-focused strategies that the participants mentioned, of which they also said they helped them.

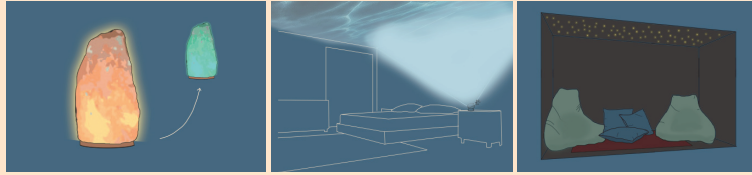
If motivated to practise these strategies, they will help to increase the students' resources. It is important to focus on increasing resources, rather than lowering demands, because the study made clear that lowering demands is generally not beneficial for the students' state of mind.

The goal for this ideation phase is to design a physical product that stimulates and encourages menstruating female university students to practise resilience-focused mood regulation strategies: rationalise, analyse, embrace and/or detach. Although, it is important not to neglect the relief and balance-focused strategies, since the study showed the short-term mood regulation strategies are equally as important as the resilience-focused strategies.



ideation

choose best ideas



mineral  
lamp

mindful  
atmosphere

mood  
booth

review with target group

choose best idea

mood booth

exterior

interior

ideation

ideation



black box  
with quotes



black box  
with  
explanation

review with target group

find desired exterior  
characteristics

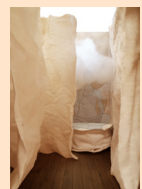
ideation



natural



semi-abstract  
natural



abstract  
natural

review with target group

find desired interior  
characteristics

combine ideas through  
iteration

figure 26: ideation process



### 3.1 IDEATION PROCESS

The image on the left (figure 26) shows the ideation and concept development process. First off, many ideas were generated through many methods from the Delft Design Guide (2013) brain storming, brain drawing & writing, analogies & metaphors, SCAMPER and detecting & resolving dilemmas. I generated approximately eighty ideas which I narrowed down to three ideas which had some potential. All ideas can be found in appendix F1.

The first idea was a **mineral lamp which changes colour a couple of days before one's menstruation** (figure 27), and thus both announcing the user's menstruation and serving as a reminder, so that the origin of mood fluctuations are more easily recognised. This product is meant to encourage the 'analyse' and 'rationalise' (resilience-focused) mood regulation strategies. After presenting this idea to six female university students, a couple features were added: the lamp should also announce the relief of 'having had the worst' of menstruation. Meaning that the lamp would slowly turn back to the original colour after the second day of menstruation. Secondly, the worst day of one's period should align with the day that the lamp is at its prettiest. Lastly, the lamp should have a feature to set it to the neutral state instantly, in the case of people coming over. An unsolved issue is that of irregular menstruation. This product would only be suitable for women with regular menstruation.

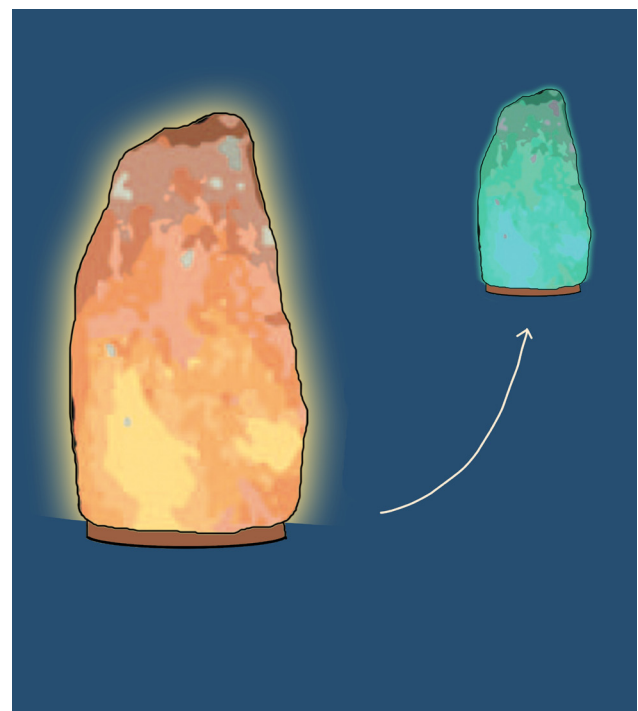


figure 27: idea 1 mineral lamp

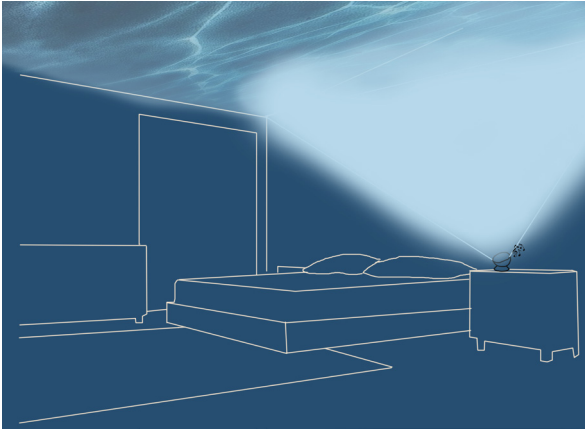


figure 28: idea 2 mindful atmosphere



figure 29: idea 3 mood booth

The second idea was an **ocean light with vocal mindfulness guide** (figure 28). This light is meant to create a calming atmosphere, the implemented vocal guide supports resting and taking a moment to get in touch with the body and mind. This product is meant to encourage the 'detach' (resilience focused) and 'rest' (balance-focused) mood regulation strategies. The feedback from the same six female university students was that they were not sure how motivated they would be to use it. They would not want to be forced to use it, but at the same time they did not feel likely to use it when they are not forced to do so. Other feedback from the students made it clear that the relation between the product and menstruation was not clear enough. This product was a lot less appreciated by the students than the other two. Therefore, this idea was eliminated.

The third idea was **a room in the university, for menstruating students to withdraw in** (figure 29). Both the interior and exterior of the room are unclear, but the goal of the room is to

create a space wherein menstruating students can come to, to take a short break. The room responds to female students' desire to continue as they normally would on their university work. This room would create the possibility of doing the work, but also taking care of the self. The room is meant to encourage the 'embrace' (resilience-focused) and 'rest' (balance-focused) mood regulation strategies, but has the potential to implement other strategies. Through the feedback from the six female university students, the options for this room varied. The options are the following:

1. A ritual within the room. Allows step by step use and gives the possibility to implement any desired mood regulation strategy.
2. Critical design. A room with a message, with the aim to increasing understanding around the topic of menstruation, mainly amongst men, but questioning the stigma in general as well.
3. Cry room. A room hidden somewhere in the university, for menstruating female students to withdraw to and cry in.



The mood regulation room answers more closely to the research of the previous chapters. It is aimed at university students specifically and it is a way of stimulating female students to practise resilience-focused strategies, without being intrusive. Since students will make the decision to visit the room, it will give them a sense of control. Lastly, and perhaps most importantly, the mood regulation room allows students to balance work and rest while being at university. When designed properly, it can help to keep balancing energy levels throughout the day, hereby reducing the need for isolation and rest in the evening. This way menstruation interferes less with students' personal and social life.

It is helpful to maintain production levels of female university students while still giving them the opportunity to practise resilience-focused mood regulation strategies. The mood regulation room could be designed to encourage several strategies, without forcing anyone to practising them, whereas the other two products could be either obtrusive or neglected.

The next chapter will explore the options of the mood regulation room. A new ideation process will start on this for both the interior and exterior of the room.

# 4.

## CONCEPT DEVELOPMENT: MOOD BOOTH







The Mood Booth, a room for menstruating university students to withdraw to, where they are stimulated to practise resilience-focused mood-regulation strategies, is thusfar a vague concept.

The previous chapter mentioned three possible uses of the concept: a ritual within the room, critical design, or a cry room. Appendix G contains the ideation process of the concept in which all three options are explored.

Throughout the ideation, it became clear that a room with a ritual is most beneficial to university students, since it can help them and support them to practise resilience-focused mood-regulation strategies, rather than just crying or only having a statement within the university. However, the focus on the ritual does not mean the statement, nor the crying, will be completely excluded from the Mood Booth.

This chapter explores the options for the Mood Booth, including the interior and exterior of the space, resulting into a final concept.



#### 4.1 DEVELOPMENT INTERIOR DESIGN OF THE MOOD BOOTH

Another ideation was done on the concept of the Mood Booth (appendix G). This time based on the practise of resilience-focused mood regulation strategies. This ideation was meant to find out how a room can encourages practising resilience-based strategies.

There are five resilience-focused mood regulation strategies: rationalise, analyse, transform creatively, embrace and detach. Of these five, embrace and detach strategies are most fitting to menstrual discomfort and most inspiring to design a room for.

In order to find out what kind of room could stimulate the practise of embrace and detach strategies, six female university students were interviewed. The general concept of the Mood Booth was explained to them, as well as what the embrace and detach strategies entail. They were asked in what kind of environment they could envision themselves practising these strategies best.

These interviews showed that most female students desired the following aspects in a room to embrace in: comfortable, warm, small, soft, cosy, dark, isolated, no distractions or clutter, dark/warm colours and they want to be alone. A room to detach in should contain the following aspects, according to the interviewed students: calming sounds, cooler colours, isolated, more light and natural elements.

Practising mindfulness is one of the ways to practise the detach strategy. To find out more about how this can be stimulated by a room, some literature research was done.

Human Spaces (2016) and Terrapin (2014) found that biophilic design is closely linked to the well-being of humans. The study by Human Spaces (2016) was

focused on well-being at work and stress-relief. They found that employees that had **nature views, accent colours, nature within the workspace, and light and spacious workspaces** reported higher levels of well-being and lower levels of stress than those who lacked these aspects in their workspace. Human Spaces also found that green, blue, brown and white **colours** had a significant impact on happiness in the workspace. Yellow, green and white had a significant impact on inspiring workers and creativity. Predominantly grey environments had a significant impact on feelings of stress.

This research suggests that natural light, natural elements (such as indoor plants) and the colours yellow, green, blue, brown and white could encourage people to practise detach strategies.

Terrapin (2014) studied the connection of different biophilic design elements to stress reduction, cognitive performance, and emotion mood and preference.

They found that a **visual connection with nature** lowers blood pressure and heart rate, improves mental engagement/attentiveness and has a positive impact on attitude and overall happiness. A **non-visual connection with nature** reduces systolic blood pressure and stress hormones, has a positive impact on cognitive performance and creates perceived improvements in mental health and tranquility.

**Presence of water** reduces stress, increses feelings of tranquility, lowers heart rate and blood pressure, improves concentration and memory restoration, enhances perception and psychological responsiveness, and creates positive emotional responses. **Material connection with nature** decreases diastolic blood preasure, improves creative performance and improved comfort. Lastly, **mystery** induces a strong pleasure response.

The study suggests that implemented these in the Mood Booth would stimulate mindfulness.

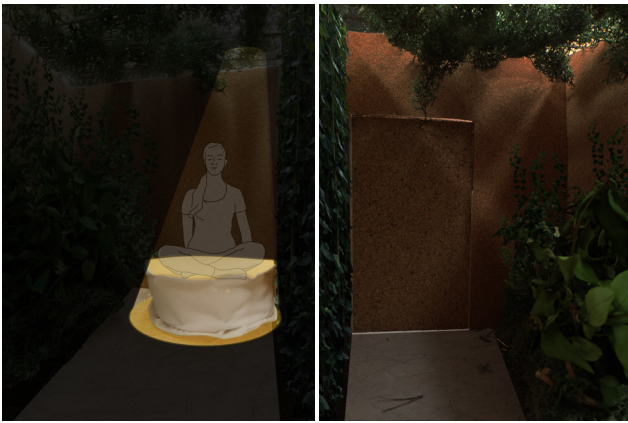


figure 30: option 1

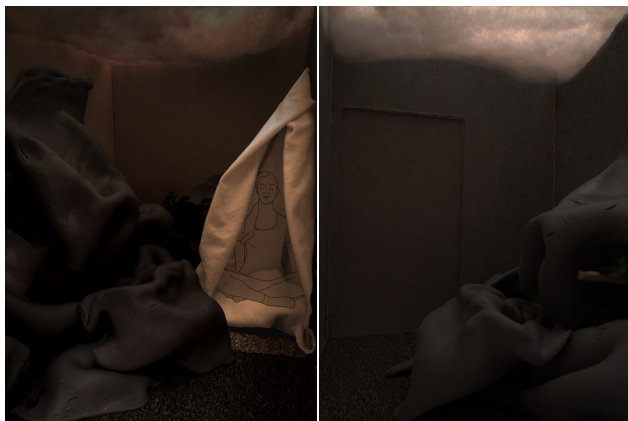


figure 31: option 2



figure 32: option 3

The interviews and literature research formed a basis for ideation of the interior of the Mood Booth. Ideation resulted in the concept of a ritual through the embrace and detach strategies guided by a change of lighting. A dark room to embrace in, which slowly turns brighter to practise detach strategies.

Ideation on the design of the room resulted in three variations of the concept. The variations were based on the expression of natural elements in a room.

**The first option** (figure 30) contains very literal natural elements, namely plants. It also has a

stone floor and cork walls and natural lighting coming through plants on the ceiling.

**The second option** (figure 31) is a more abstract expression of natural elements. It has abstractly shaped rocks, gravel as a floor and clouds as ceiling. This concept has a tipi instead of a pouf, since it fits the outdoor atmosphere more.

**The last option** (figure 32) has wind as its main natural element. The curtains are an indirect visualisation of the wind, the wind mainly serves as a non-visual connection with nature. Furthermore there is a wooden floor and ambient lighting from the ceiling.



These three variations were presented to seven female students. They were first shown images of the room in dark from two points of view and interviewed. Subsequently, the light room was shown to them (from two points of view as well). They were asked how they would feel and behave in each of the concepts, and what they experience as positive and negative in each concept.

The responses were quite similar. In the first concept, the interviewees were excited about the plants and felt the room was quite inspiring, but also cold and they would feel vulnerable. In the second concept some interviewees wanted to climb the rocks and found it intriguing. However they found it incoherent and thus not as calming as the other concepts. In the last concept, the comfort was positively received, but the general room was perceived as monotonous and boring.

These findings lead to six desired interior characteristics: **safe, comfortable, warm, private, inspiring** and **memorable**. Which could be achieved by providing a **soft, sheltered, organic** and somewhat **dynamic** environment in which **multiple senses** are triggered.

By combining the three concepts into one, and iterating on the look with these characteristics as starting point, a concept was created. The concept is shown in detail in subchapter 4.3.





figure 33: exterior idea 1



figure 34: exterior idea 2

## 4.2 DEVELOPMENT EXTERIOR DESIGN OF THE MOOD BOOTH

The exterior of the Mood Booth does not exist on its own, it goes along with the location. As for a location there are certain requirements. First of all, the Mood Booth is a room especially made for menstruating women, which resembles menstruation huts. Menstruation huts are places of seclusion and isolation for menstruating women, used by certain cultures in which menstruation is a great taboo. The menstruation huts have a very negative vibe and aim for the opposite of the Mood Booth's aim, therefore it is important that there is very little to no trace of resemblance between the Mood Booth and menstruation huts. For this reason, the Mood Booth cannot be in a secluded or isolated space. It needs to be central, noticeable and in sight, to support the

idea that menstruation does not need to be hidden. This concludes that in any university, the Mood Booth should be placed centrally and in sight in a common area of the university.

The main inspiration of the first ideation of the Mood Booth's appearance was museums. The booth can hardly exist without some explanation as to what it is. This led to ideation to the both the shape of the booth and the way of expressing the Mood Booth's message (appendix G).

From this ideation, two ideas were most interesting. One was a black cube, with a big text on the front, explaining why the booth exists (figure 33). The other idea was also a black cube, but with a slanted ceiling (figure 34). This idea used quotes from the research to express why the Mood Booth exists.



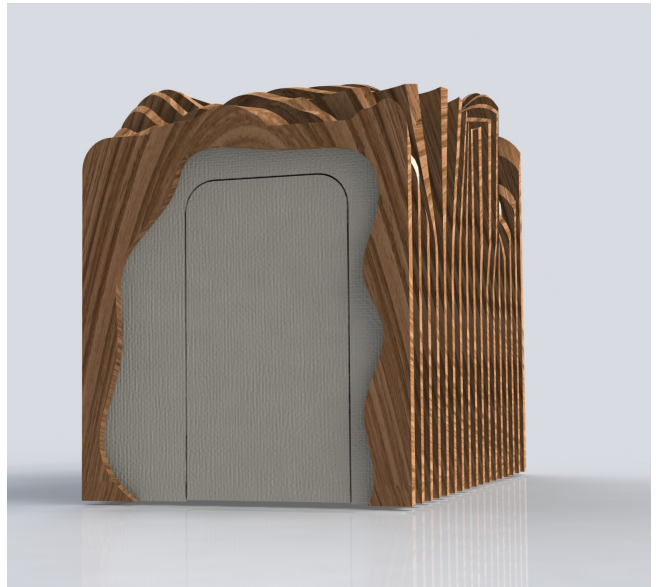


figure 35: exterior concept

These two ideas were presented to four female university students. Their opinion on these ideas was asked during a short interview. In the interviews it quickly became clear that these ideas were not inviting at all and gave off a much darker image than desired. The interviews showed that the design needs a clear message and purpose and it needs to be less dark and less heavy. This led to the following desired characteristics: inviting, intriguing and feminine. This suggests a need for warmer material and a more organic and approachable shape.

After another ideation session (appendix G), the most **inviting**, **intriguing** and **feminine** shape was chosen as concept idea (figure 35). The natural elements (wood and organic shapes) make the concept inviting, the vague shape of the wood frames and the mystery of the unknown on the inside works up the intrigue, while the organic features of the shape give a hint to femininity.



For the interior design the desired characteristics are: safe, comfortable, warm, private, inspiring and memorable. For the exterior design they are: inviting, intriguing and feminine.

The concept is meant to score high on these characteristics in order to be most suitable for menstruating students to practise resilience-based mood regulation strategies in, specifically embrace and detach strategies, accompanied by rest and withdrawal (balance-focused mood-regulation strategies).

The next two subchapters present the final concept. Both the interior and exterior were further developed, with meeting their desired characteristics as a goal.



figure 36: first phase

### 4.3 INTERIOR

The previous chapter explained that this concept is a combination of the positive aspects of the three concepts, iterated to fit the six characteristics: safe, comfortable, warm, private, inspiring and memorable. This chapter will explain why these aspects are chosen and which characteristics they fit. Figures 36, 37 and 38 show the light-guided ritual. The first phase lasts seven minutes, the second phase ten minutes and the last phase lasts until the user leaves. In the second phase there is also a breeze and bird sounds.

#### Plants

The plants in option 1 of the previous chapter, were described as inspiring by the interviewees.

This combined with the positive impact on well-being according to Terrapin (2014), make plants a good fit for inside the Mood Booth. By adding the lights underneath them, the plants create shades on the curtains. This way the inspiring aspect of the plants is enhanced and the experience is more memorable because it is more special.

#### Curtains

The curtains are meant to give a more comfortable atmosphere to the room. They are semi-seethrough to avoid feelings of unsafety in the space. The curtains are organically shaped to make small sheltered areas in the room, to enhance the feeling of safety. In two of these areas beanbags are placed. Figure 39 (page 56) shows an overview of the space.



figure 37: second phase

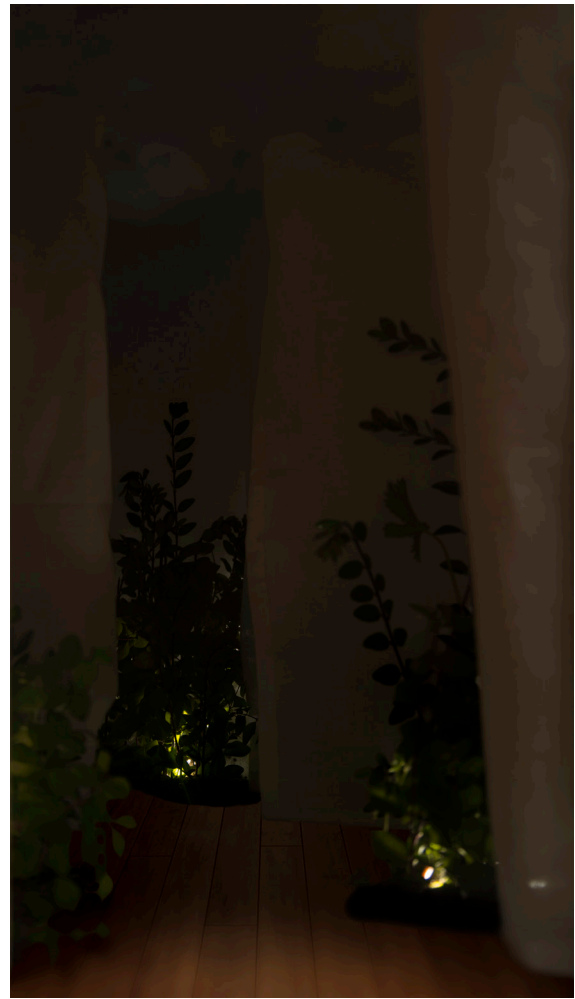


figure 38: last phase

### **Beanbags**

The beanbags are placed next to a wall, surrounded by curtains. One of the beanbags is a metre in diameter, the other 60 centimetres. Both beanbags have a fabric cover, which make them soft and thus comfortable and warm.

### **Floor**

The floor is made of dark warm coloured laminate flooring: brown oak. Laminate flooring is easy to keep clean, but is colder than carpet or example. The colour makes it feel warmer.

### **Ceiling**

The ceiling is a simulation of clouds. Clouds diffuse the light, which creates natural, ambient lighting in the second phase. This is preferred lighting for practising detach strategies.

### **Wallpaper**

Not much of the wall is actually exposed, but the walls are covered in white Soft Collection wallpaper (Artissan, 2017) with a small engraving. The top layer of the wallpaper always feel warm and has a little springiness. It is also chemically resistant and protected against bacteria and fungi.

### **Breeze**

During the second phase there is a breeze in the room. The breeze is a non visual connection with nature and gives a refreshing feeling. It is meant to help opening up for positivity.

### **Sounds**

To add an extra non visual connection with nature, sound was needed in the second

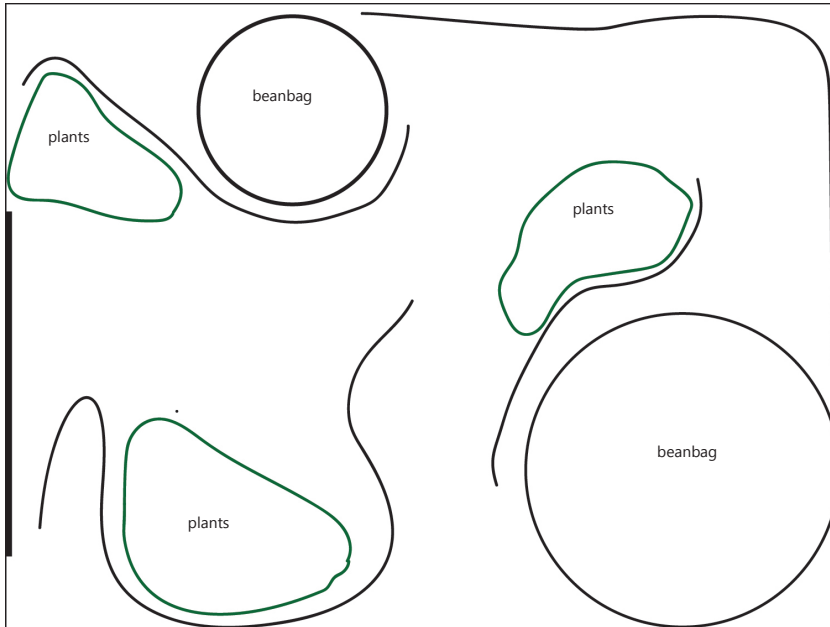


figure 39: overview of the interior



figure 40: view from a beanbag

phase. The sound of birds is most soothing and non disturbing. Rain or water sounds for example, could make the user want to go to the toilet, which is a more frequent need during menstruation.

### Light

The lighting is warm white to give a more warm and comfortable feeling to the room. The cycle is approximately twenty minutes long. This is a balance between not wanting to take a too long break and needing to take enough time to regulate the mood(s).

The beanbags are hidden behind the curtains to make users feel more safe while sitting on them, by not seeing the door. Because of the semi-seethrough curtains, the users will still be able to see the plants (figure 40). The inability to instantly see the beanbags, combined with the darkness it makes the room slightly mysterious, which induces a pleasure response, according to Terrapin (2014).





figure 41: exterior of the Mood Booth

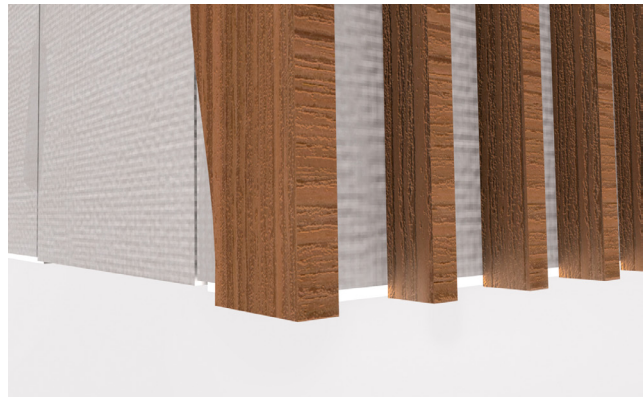


figure 42: detail of light on the bottom of the Mood Booth

#### 4.4 EXTERIOR

The general shape of the Mood Booth is a rectangular cube (figure 41). This supports the most efficient use of the room on the inside. The base of the Mood Booth is covered in white canvas-like wall-paper, which gives a natural and warm feeling to the exterior.

The frames are made of warm brown pine wood, since pine wood is one of the most sustainable woods. The shape of the frames are organic and ambiguous, to give the booth an intriguing and slightly feminine look.

The natural materials and organic shapes are meant to make the Mood Booth inviting.

Surrounding the bottom of the Mood Booth is a ledstrip which is build in the small cavity in the base of the room (figure 42). This light, along with the occupied/free sign on the door signals if the Mood Booth is in use or not. The light is on when the booth is free. This way, female students can see if the Mood Booth is in use from every angle.

.....

The text on the Mood Booth (figure 43) is meant to make clear what the function of the product is and why it is needed in universities. The text is both supposed to invite female students to use it and for all students to understand that the monthly occurrence of menstruation brings discomfort and it is not necessary to silently deal with this.

The location (figure 44) combined with the text on the Mood Booth should serve as a conversation starter, a way to make it possible to address menstruation in a normal way. When students are more aware of the existence of menstruation, it might be easier to take the step of talking about or to use it as an excuse when it is disturbing one's workflow or mood too much.

As mentioned before, this location is also chosen because it is central in a common area of the university. This way, rather than hiding the fact that women need to deal with the discomforts that come with their menstruation sometimes, it becomes a more open subject.

Ideally, it would help students understand the discomforts of menstruation better and project groups can keep it in mind when they notice one of their group members paying a visit to the Mood Booth.

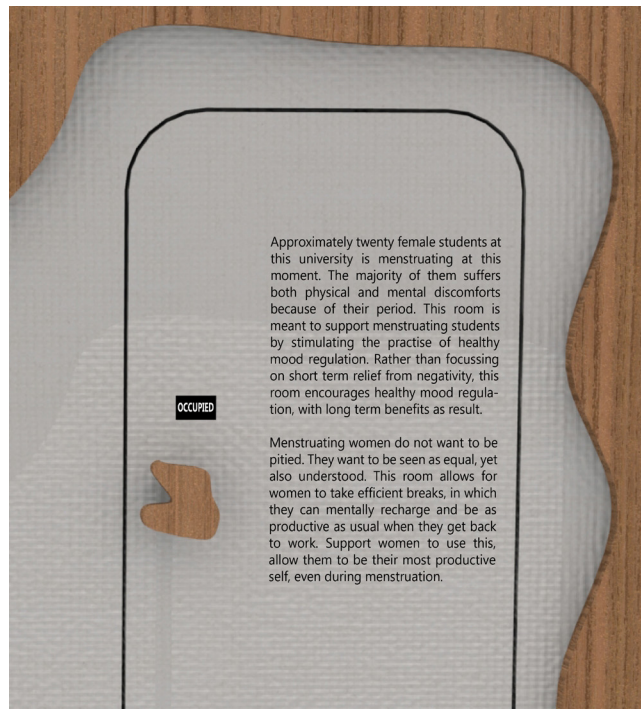


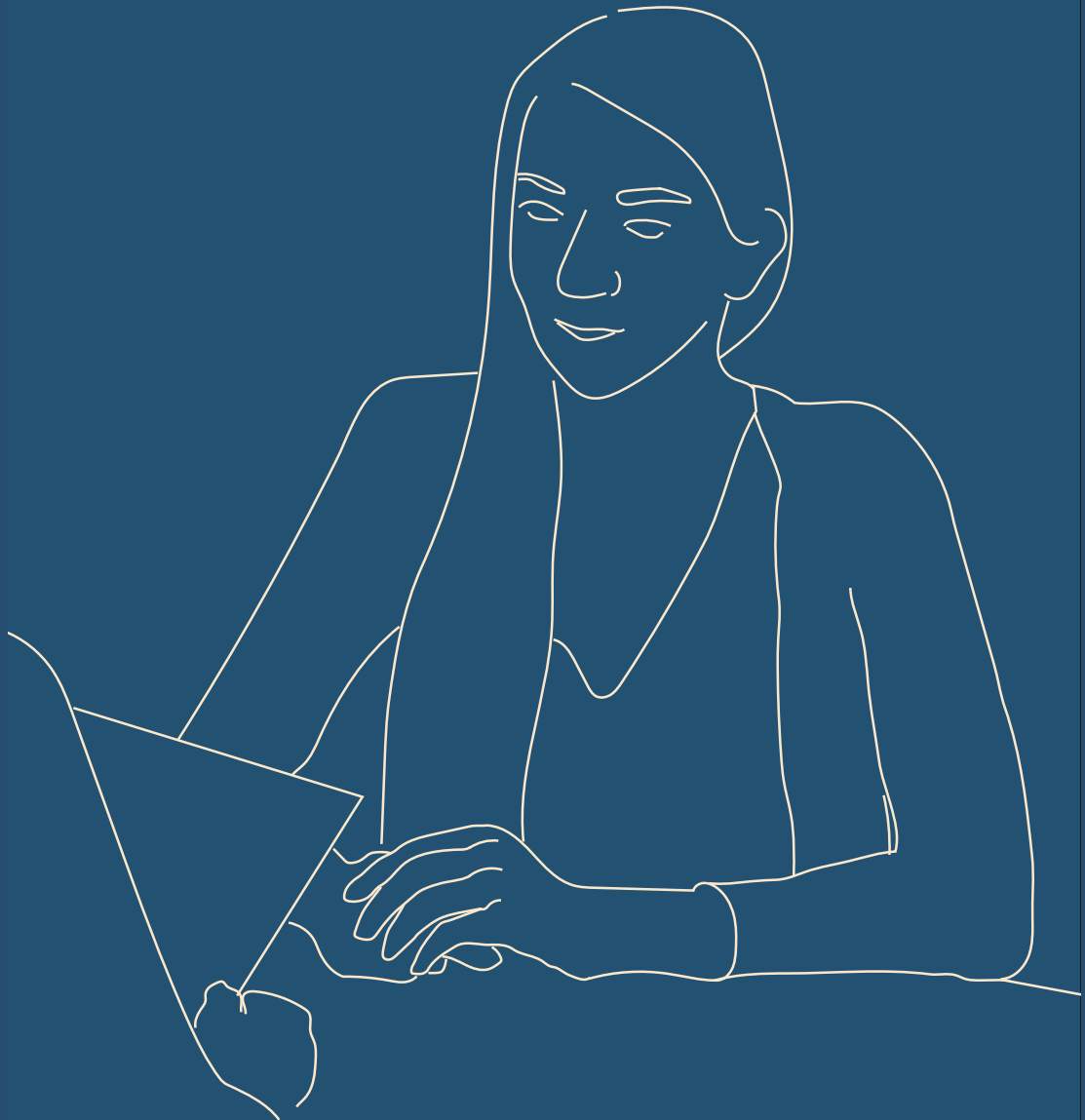
figure 43: close-up of text, occupied sign and door knob of the Mood Booth



figure 44: Mood Booth in context when occupied (1) and free (2)

# 5.

## CONCEPT TEST





### **5.1 TEST 1 – PERCEPTION OF THE MOOD BOOTH BY FEMALE STUDENTS**

To ensure the concept of the 'Mood Booth' works it needs to be tested. Through these tests, the following research questions should be answered:

- 1. Do female students perceive the exterior of the Mood Booth as inviting/intriguing/feminine?**
- 2. Do female students perceive the interior of the Mood Booth as safe/comfortable/warm/private/inspiring/memorable?**
- 3. Will female students use the Mood Booth?**
- 4. Will the users use the embrace and detach mood regulation strategies?**

The answers to these questions will give an insight on how successful the Mood Booth's design is and thus what changes are necessary.





figure 45: exterior of the Mood Booth when free for use



figure 46: exterior of the Mood Booth when occupied

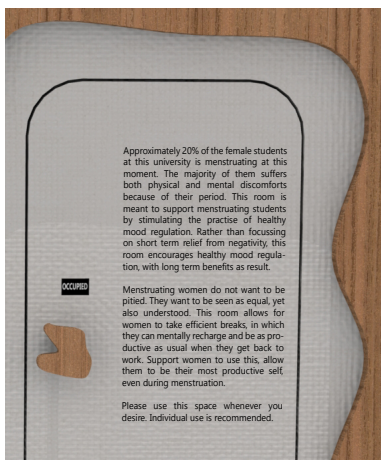


figure 47: close-up of text on Mood Booth



figure 48: six angles of the Mood Booth

## Method

Individual tests were done to find out how female university students experience the Mood Booth. Ten female Dutch Industrial Design Engineering (IDE) master students (five Integrated Product Design (IPD), three Design for Interaction (DFI), two Strategic Product Design (SPD), aged 22 to 25) were selected to perform the tests. The participants were selected through personal network and through random selection. The only requirement for them was to be a female IDE student. Only IDE students were selected, because for testing the exterior and its location, the Mood Booth is placed in the IDE faculty. For the test to go well, the context must be understood, therefore students from other universities or faculties would be less likely to envision the room in real life.

Without being given any context about the

project, the participants were given the pictures shown in (figures 45, 46, 47, 48). They were asked to observe the pictures and read the text. A short interview followed after which they were asked to fill in a short questionnaire (appendix H1).

Hereafter, the pictures in figures 49, 50 and 51 were shown to the participants, along with the explanation that the situation as presented in figure 49 will last seven minutes, after which the light will slowly turn to look like the situation in figure 50 and after ten minutes this will fade again to look like figure 51. Subsequently, figure 52 was shown, with explanation that this is the overview of the room. Here I mentioned that there is a lock inside the door. At last, the participants were asked to watch a video (appendix H2) which displayed the change of lighting, but mainly showed the atmosphere of the room.



figure 49: first phase

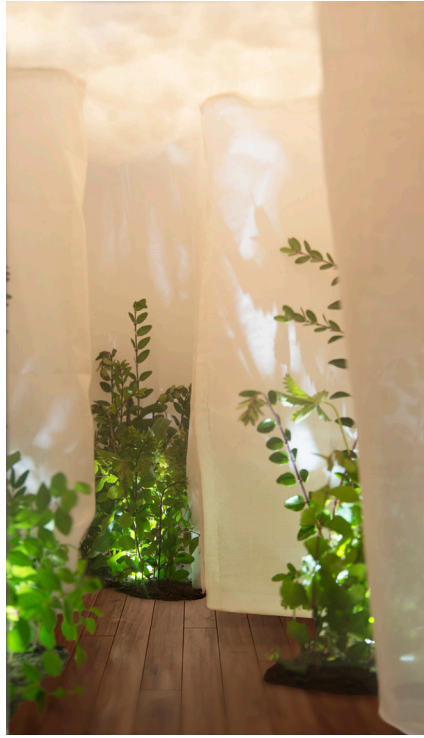


figure 50: second phase

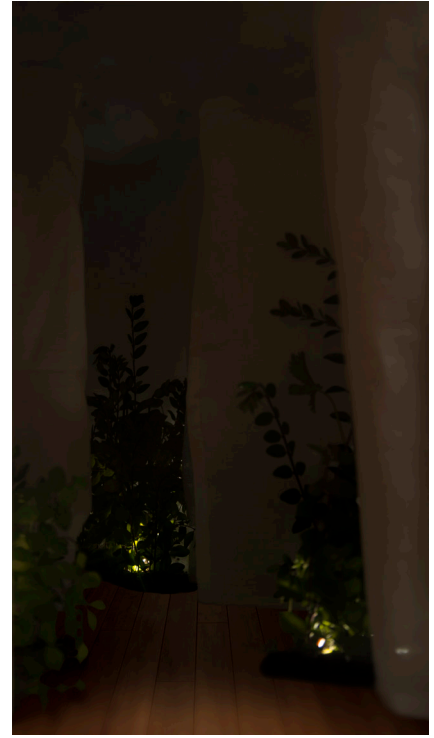


figure 51: last phase



figure 52: top view of Mood Booth as an overview



figure 53: view from the beanbags

An interview about the participants' behaviour and feeling in the room followed. Once the participants mentioned exploring the room, or sitting down in one of the bean bags, they were shown the last picture (figure 43), which shows the view from the bean bags. Nearing the end of the interview, the participants were asked to fill in a short questionnaire about the inside of the Mood Booth (appendix H1). After filling in, they were asked to explain their ratings. At the end of the interview the table of 20 mood regulation strategies (Desmet, 2015) was given to the participants. They were asked to read them and tell which one of these strategies they would practise in the Mood Booth and which ones they would absolutely not practise. Lastly, they were thanked for their participation.

The participants' interview answers and general comments were written down during the interview. The tests took approximately 30 minutes per participant. All pictures shown during the test were printed on A3 paper. The video was shown on a laptop. All tests were conducted inside the Industrial Design Engineering faculty. The tests were conducted in Dutch.





## Results

Appendix H3 shows all interview answers. This section discusses only the results valuable to this test.

### Exterior

From the ten participants, four participants said they would enter the Mood Booth. Of the participants who would not enter, three participants said they do not experience a heavy menstruation, so they do not feel like it is made for them, since they do not need it. Two said the Mood Booth was too prominently placed, so they would not feel comfortable to go in. One participant said she is generally afraid of going into new places, so she would wait until someone goes in and then ask how their experience was afterwards.

From the small questionnaire about the exterior of the Mood Booth the median scores are as following:

Inviting	4.7
Intriguing	6.2
Feminine	4.7
Distant	2.8

Four participants rated inviting on or below 4. These participants did so because of the location of the Mood Booth. They said it was too prominent and central in the IDE hall that they would not feel comfortable to go in. All participants were intrigued by the Mood Booth because of its shape and the concept itself.

Four of the participants were slightly confused by having to rate the femininity of the Mood Booth because it did not occur to them the design had much to do with either feminine or masculine connotations.

### Interior

From the small questionnaire about the exterior

of the Mood Booth the median scores are as following:

Safe	5.8
Comfortable	5.5
Warm	4.7
Private	6.7
Inspiring	5.3
Memorable	5.5

The following points show the reasons why the participants gave lower scores to the characteristics on the questionnaire:

#### Safe:

- Light feels safer than dark
- It would feel safer if I could see door
- Feeling of safety is based on strength of construction
- I am unaware of what is happening on the outside
- Not so safe in dark situation

#### Comfortable:

- I cannot put my stuff anywhere
- Bean bag is not most comfortable seating

#### Warm:

- Breeze and wooden floor make it less warm
- Influenced by warmth of the colour of light
- Not very because it is all very white and modern
- Not very warm lighting, wooden floor, too neutral
- Breeze makes it less warm, which is nice, because it is refreshing
- Connects warmth to temperature

#### Memorable:

- Reminds me of SPA, seen it before
- Not very special, but it does not have to be
- Not very because I would want to forget about everything connected to that bad feeling (not memorable is positive)

Table 5: Mood regulation strategies practised by the participants in the Mood Booth			
<b>Mood regulation strategy</b>	<b>Practised</b>	<b>Sometimes/ maybe</b>	<b>Not practised</b>
Seek distraction	3		2
Self-reward	5		2
Vent	4		5
Repress			5
Think positively	4		
Trivialise	4		
<b>Seek relaxation</b>	<b>7</b>		1
Seek refreshment	4		
Reduce demands	2	1	2
Avoid new demands	1	1	2
<b>Withdraw</b>	<b>8</b>		
<b>Eliminate energy drainers</b>	<b>6</b>		
<b>Rest</b>	<b>10</b>		
Energise	3	1	3
Seek social support	1		3
Rationalise	5		2
Analyse	3		3
Transform creatively	1	1	1
<b>Embrace</b>	<b>6</b>	<b>1</b>	
<b>Detach</b>	<b>7</b>	<b>2</b>	

Table 5 shows of the sum of the types of mood regulation strategies the participants envisioned themselves using in the Mood Booth. All mood regulation strategies which more than half of the participants said they would use are in bolded.

F2, F3, F6 and F9 said they would practise both the embrace and detach strategies.

F4 said she would only use 'embrace' in more intense moods, for example when she is really sad, but she would detach each time.

F8 said she would practise the embrace strategy each time, but the detach strategy only sometimes.

Furthermore, the following statements by the participants were interesting:

"By being able to see the entire outside of the [Mood Booth], the boundaries of the space

inside are clear, which makes it feel safer" – F1

"I envision the transfer from dark to light as a moment to learn to let go of negativity" – F4

"I am not sure if I would be able to notice the light at the door in the last phase when I am sat on a beanbag" – F5

"You need the [Mood Booth] when you feel at your worst and most vulnerable, having people see you go in to the [Mood Booth] would not be comfortable" – F8

"In the dark I would embrace the feeling, when it gets lighter I would feel ready to let go of it" – F8

"The location of the [Mood Booth] is provoking, but also a bit discouraging" – F9



## Conclusion

This test was conducted to find the answers to the following research questions.

### 1. Do female students perceive the exterior of the Mood Booth as inviting/intriguing/feminine?

The **invitingness** of the Mood Booth is both based on the appearance and the location. Whereas the appearance is generally perceived as inviting, the location scares some female students off.

The Mood Booth scored very high on '**intriguing**', this was both based on the shape and the message of the Mood Booth. Generally, the Mood Booth's **femininity** did not seem to be on the mind of many participants, but they argued that it is rather feminine than masculine.

### 2. Do female students perceive the interior of the Mood Booth as safe/comfortable/warm/private/inspiring/memorable?

The inside of the Mood Booth feels quite **safe** to most participants, but the dark phase less so than the light phase.

Some participants perceived plants and nature aspects in general as **comfortable**, others found their comfort more in the soft beanbags or the small spaces which are created through the curtains. Generally, the Mood Booth is seen as 'quite comfortable'.

The concept of **warmth** was very different amongst participants, for some it was connected with actual temperature, for others the light temperature was the main influencer and some connected warmth to soft materials. Generally the Mood Booth is not perceived as very warm (not cold either), but most were not bothered by the lack of warmth.

All participants agreed that the Mood Booth is very **private**, since it is meant for one person and there is a lock on it.

The Mood Booth is quite **inspiring**, but in

different ways for different participants. Some said the plants inspire them, some were inspired by the emptiness in their mind, some by the whole experience.

Most participants said it would be a **memorable** experience. For some because they found the whole experience special, for others it is mainly the booth in context which makes it unique and thus memorable.

### 3. Will female students use the Mood Booth?

The tendency to use the Mood Booth is first and foremost based on the **heaviness of one's menstruation**. If the student does not feel like they need it or are allowed to use it because they experience a light period, they are not likely to use it. Furthermore, the **location puts off the use**, because the students experience discomfort in showing they are on their period and they are not feeling well. Lastly, there are some who do not feel comfortable ever trying something new when they do not know what to expect, regardless of location and their type of menstruation.

### 4. Will the users use the embrace and detach mood regulation strategies?

Four out of ten participants would definitely practise both these mood regulation strategies. Two other participants practise both strategies depending on the type of mood they are in. The most practised mood regulation strategies are those in the 'seek balance'-category, namely rest and withdraw. All but one participants would use at least one strategy in the 'build resilience'-category, which is an improvement compared to the results of the study in chapter 2.



## Discussion

This test was very dependent on the participants' ability of imagining a space from pictures and video material only. Both the interpretation of the exterior and interior could differ when experienced in its real size. Especially the feeling of the size of the Mood Booth could not be accurately measured through this test, and will have to be tested in further research. When testing in real size, the practised mood regulation strategies could also be observed, giving more accurate results than the participants' predictions from this test.

Through random selection, all participants were IDE masters students. IDE bachelor students and students from different faculties, universities and cities might respond differently to the concept. As mentioned in the Method section, the decision to only test with IDE students was based on the ability to interpret the pictures used for the test. In further research the Mood Booth will have to be placed in the contexts of different universities, faculties and cities. With this addition, the concept of the Mood Booth can be tested on a greater scale, thus covering the target group more significantly.

The results show that the invitingness of the Mood Booth's appearance is quite high, but some of the participants were discouraged by its location. Therefore, the location needs to be reviewed, to ensure this is the right position for the Mood Booth, or to find a better suitable

place for it.

The shape and message on the Mood Booth seem to have triggered the desired intrigue. The participants liked both the shape and the message, and both were vague enough to create curiosity, but clear enough to understand what the Mood Booth is for, when to use it and why it exists.

As for the interior, the participants seem to have experienced the Mood Booth as desired. The only aspect that might need change is the transformation to the last phase (dark room with a spot on the door). As F5 pointed out, when the user is sat on a beanbag, it is likely that they do not see the use cue of the light on the door, and will therefore be unaware of the end of the ritual inside the Mood Booth.

The use of mood regulation strategies is very personal and therefore the types of mood regulation strategies used in the Mood Booth were quite diverse. However, the amount of uses per mood regulation strategy category is far more balanced than female students mentioned in the study (chapter 2). While the study generally showed a higher use of the strategies in the 'seek relief' category, the participants' mood regulation strategies in the Mood Booth were much more diffused over all three categories, and even leaning more towards the 'seek balance' and 'build resilience' category. Which is evidence of female students coping with their menstruation in a healthier way by using the Mood Booth than without it.



figure 54: exterior of the Mood Booth when free for use



figure 55: exterior of the Mood Booth when occupied

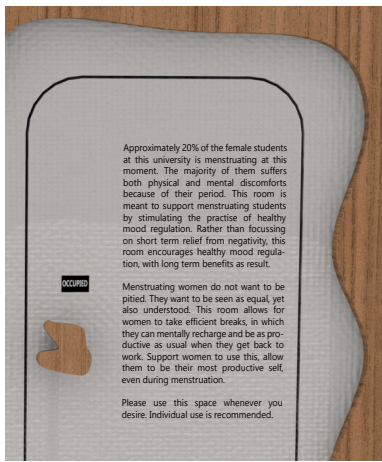


figure 56: close-up of text on Mood Booth



figure 57: six angles of the Mood Booth

## 5.2 TEST 2 – PERCEPTION OF THE MOOD BOOTH BY MALE STUDENTS

While meant for women, it is interesting to see how male students would react to the Mood Booth. The research of study 1 (chapter 2) showed that some female students fear the reaction of men on menstruation in general. By creating the Mood Booth, a public product of which the use forces female students to show they are menstruating, the response of male students could be very influential in the a woman's decision to use the Mood Booth or not.

The research questions for this test are the following:

1. How do male students feel about having the Mood Booth in their university?
2. Will male students change their behaviour towards female students when they use the Mood Booth?

### Method

Individual interviews were conducted to find out how male students would react on the Mood Booth's appearance and location. Ten male Dutch Industrial Design Engineering students (three bachelor, one IPD, six DFI, aged 18-25) were randomly selected at the IDE faculty.

Without being given any context about the project, the participants were given the pictures shown in figures 54, 55, 56 and 57. They were asked to observe the pictures and read the text. This was followed by a short interview.

The participants' interview answers and general comments were written down during the interview. The interviews were approximately 10 minutes long. All pictures shown were printed on A3 paper. All interviews were conducted in Dutch.



## Results

Appendix H4 shows all interview answers. This section only discusses the results valuable to this test.

Five out of ten participants said they understand why a place like the Mood Booth should exist.

The other five did not negatively express themselves about its existence, but were not convinced of its value. For three this was mainly based on the location, one did not see why a toilet or sofa would not be enough and one felt like the specification on menstruation is not necessary.

One participant (M5) mentioned he disliked the location, but not specifically for a product of this subject. He said he would not place anything there. However, M6 actually liked the location.

None of the participants said they would judge students who would use the Mood Booth or negatively express themselves towards the users.

Four of the participants mentioned they would (slightly) change their behaviour towards women they are working with, if they were to use the Mood Booth. All in different ways:

M1: "It would help me to understand their behaviour better"

M2: "I would ask if they are alright"

M3: "It would be a clear signal for me to

register, so I can keep it into account"

M10: "I would try to be more careful with female students who I have seen visiting the [Mood Booth]"

One of the students (M6) who would not act different around women who visited said "I would not be extra nice on purpose, I feel like if I have the capacity to be more sensitive, I should always be more sensitive".

The three bachelor students all were more occupied with the thought of female project group mates leaving for an unknown amount of time into the Mood Booth leaving them with all the work.

After being asked if they are aware of what women go through during menstruation one participant claimed he knew a lot about it, seven said they roughly know what it entails, and two said they know nothing about it.

None of the participants had ever had a woman in their project group who mentioned she was on her period. One participant said he might have heard it, but only expressed through a joke.

Lastly, the first response of M6 to the Mood Booth is one worth mentioning:

"It is nice to finally see something for women at TU Delft. Even though IDE is quite equally divided in gender, I feel like men are still seen as the default."





## Conclusion

The interviews were conducted to answer the following research questions:

### 1. How do male students feel about having the Mood Booth in their university?

Male students feel quite **normal** about it. Some more excited and understanding than others, but not a single participant felt negatively about its existence, even if they did not completely understand the need for it.

### 2. Will male students change their behaviour towards female students when they use the Mood Booth?

From these participants it shows that some will change their behaviour, but none of them in a negative way. Meaning that with the existence of the Mood Booth female students would not be treated much differently, except that they would receive more understanding from some.

## Discussion

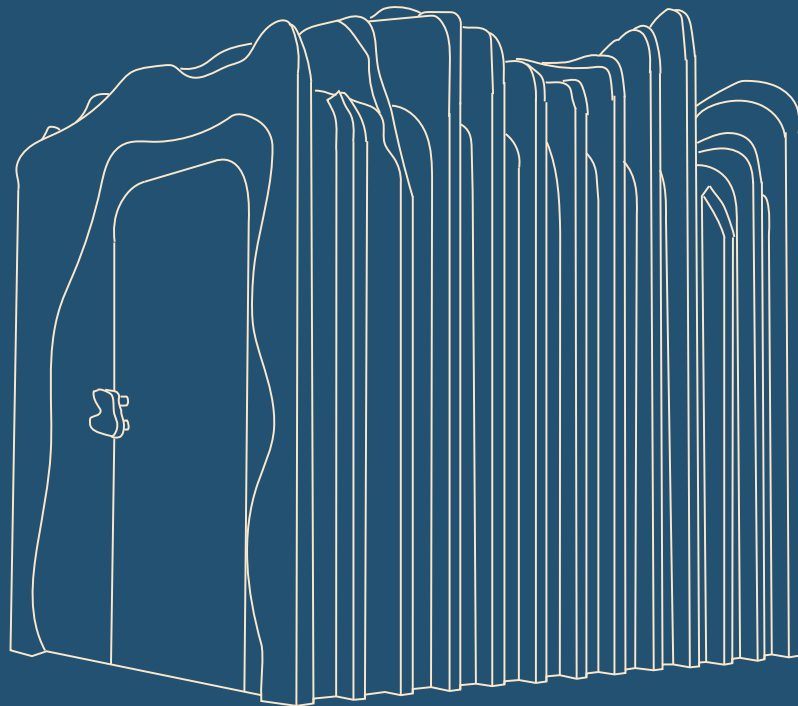
From these participants, it seems like women have no judgement to worry about when using the Mood Booth. However, it is possible that the ten most open minded at least judgemental male students were selected by accident. The masters students generally seemed more understanding about menstruation than the bachelor students were. Which suggests that bachelor students might be more likely to negatively respond to the Mood Booth, and thus to the women who use it as well. These speculations could be resolved by approaching more male students, of more varied study years, to get a more significant result. Alike test 1, only IDE students have been interviewed, because the test materials would only suffice for interviews with IDE students. A more elaborate study on male students of different faculties, universities and cities will give much more significant results.

Furthermore, the one student who was worried about an unevenly distributed workload made the point of not knowing how long a visit to the Mood Booth takes. In further iterations, the text should mention the length of a visit.



# 6.

## FINAL PRODUCT: MOOD BOOTH





The discussion points of the concept test show what changes needed to be made in the Mood Booth. In this chapter, the final concept of this project is shown and explained. This includes changes which resulted from the concept test, and some extra detailing.

This chapter will first show the interior of the Mood Booth and then the exterior.

### 6.1 INTERIOR

The interior is static, but the lighting creates different situations in the Mood Booth.

A detailed explanation about each of the situations will be given in chronological order.

When the door opens, the room is light (figure 58). Once the door is locked (figure 61), the room turns dark as shown in figure 60. This is the sign of the start of phase 1.

#### Phase 1

In the first phase, the Room is dark, except for lights coming from underneath the plants and a soft light coming through the curtains. The lights from behind the curtains are semi-dimmed spotlights which are aimed at the beanbags behind the curtains.

In this phase the user is meant to explore the room momentarily (figure 62), but quickly resort to one of the beanbags (figure 59 and 63). In the beanbags they can use the silence and darkness of the room to think about their feelings and rest. The room stays dark for 6 minutes, in which the users are meant to practise mainly practise two strategies: **rest** (a balance-focused strategy) and **embrace** (a resilience-focused strategy) (figure 63).

After these six minutes the lights slowly start to change. In a span of two minutes the ceiling lighting becomes ambient. During this change, a light breeze starts to flow in the room and the user will start hearing some bird sounds. This is the start of the second phase.



figure 58: view when door opens



figure 59: view from a beanbag in the first phase



figure 60: view from the door in the first phase





figure 61: locking the door





figure 62: exploring the space



figure 63: resting in the room, embracing the mood



## Phase 2

In the second phase (figure 66) the user is meant to practise **detach** (resilience-focused) strategies (figures 65 and 64). The environment in this phase should support the user in letting go of their negativity. The light invites the user to explore the room and in combination with the breeze and the bird sounds, the room feels refreshing and helps the user to empty their minds.

The ceiling lighting comes from above the clouds. The lights give diffuse lighting which is even more diffused by the clouds. The lights in the planter give off brighter light than they did in the previous phase.

The breeze moves through the room, slightly moving the plants and curtains. This creates an inspiring effect on both sides of the curtains. The view of the plants from behind the curtain is shown in figure 64.

After eight minutes the light slowly fades from the back of the room to the front. Leaving a spotlight on the door. With the light, the breeze and bird sounds also fade away. This takes half a minute and introduces the last phase.



figure 64: view from behind the curtains in the second phase



figure 65: exploring the room





figure 66: view from the door in the second phase

### Phase 3

In the last phase (figure 68) In only the front of the room is lit up, thus suggesting the user to (get ready to) leave. This phase should not take long, but as not to hurry the user into leaving, it is timed to be half an hour long. The Mood Booth is meant to be an escape to deal with negative moods, therefore it supports the user in regulating their mood to completion. If the user is needs more time to get themselves together after the seventeen minutes of the first two phases, they can take up to half an hour to get themselves together. This phase is not focused on a particular mood regulation strategy.

The light on the door is bright, while the lights in the planters are less bright than in the first two phases. They still guide the user along the paths, making sure the plants are not stepped on.

Figure 67 also show the locks on the door and how they are unlocked.

Appendix I contains a video in which a visit to the Mood Booth is shown.



figure 67: opening the lock



figure 68: view of the door in the last phase, with closed lock



### Details

Some of the details of the inside of the Mood Booth are not specific to each phase and are thus explained in this section.

### Beanbags



figure 69: corduroy beanbag

The room has two beige beanbags (figure 69). One of 1000mm and one of 600mm in diameter, with a height of 700mm and 420mm respectively.

The beanbags serve as a comfortable place to sit. The inside of the beanbags is made of Hybrid Foam, which is sustainable material that makes it possible for anyone to get comfortable in (Brand New Office, 2017). The fabric on the outside is corduroy, so it feels soft and warm.

Flexible seating allows for users to feel like the seating is made for them, which will make them feel more at home.

### Overview

Figure 70 shows the overview of the room. There are three planters with plants, two beanbags and four curtains in the room. The beanbags are sheltered by (translucent cotton) curtains, giving the user a feeling of safety and privacy. All planters are close to the curtains, so the plants are also well visible with a curtain in between them and the user.

The room bears some resemblance to a maze,

which creates some mystery. According to Terrapin (2014) mystery induces pleasure response. The room, however, is not mysterious or maze-like enough to feel scary or to get lost in.

The room has a length of 2800mm and a width of 2000mm.

### Lighting

The lights in the ceiling are diffuse plant lights. These lights are recognised by plants as sunlight and will ensure the plants do not die, if watered enough. The lights create warm white lighting.

The quantity of these lamps is dependent on the diffuseness and brightness of the lamps. Each of the planters contain three plant lights, which are faced upwards. Their brightness changes according to the timer.

All lights are connected to a timer which starts once the door is locked. When the room is unlocked (and thus presumably empty), the ceiling lights and planter lights are on. The ceiling lights have to be on for most of the day to mimic sunlight which the plants would otherwise not get.

When the door is locked, the timer is turned on and the room switches to the dark phase 1. In phase 1, the ceiling lights are off, the planter lights are on, and two spotlights above the beanbags are on. After six minutes, the ceiling lights take two minutes to turn on completely while the planter lights increase in brightness as well. The spotlights above the beanbags turn off. Eight minutes after having reached peak brightness the ceiling lights dim, starting in the back of the room. This takes approximately 30 seconds. During these 30 minutes a spotlight on the front door turns on.

the timer ends half an hour after the last phase started or when the door is unlocked. When the timer ends, the room turns back to its neutral state: ceiling and planter lights on.



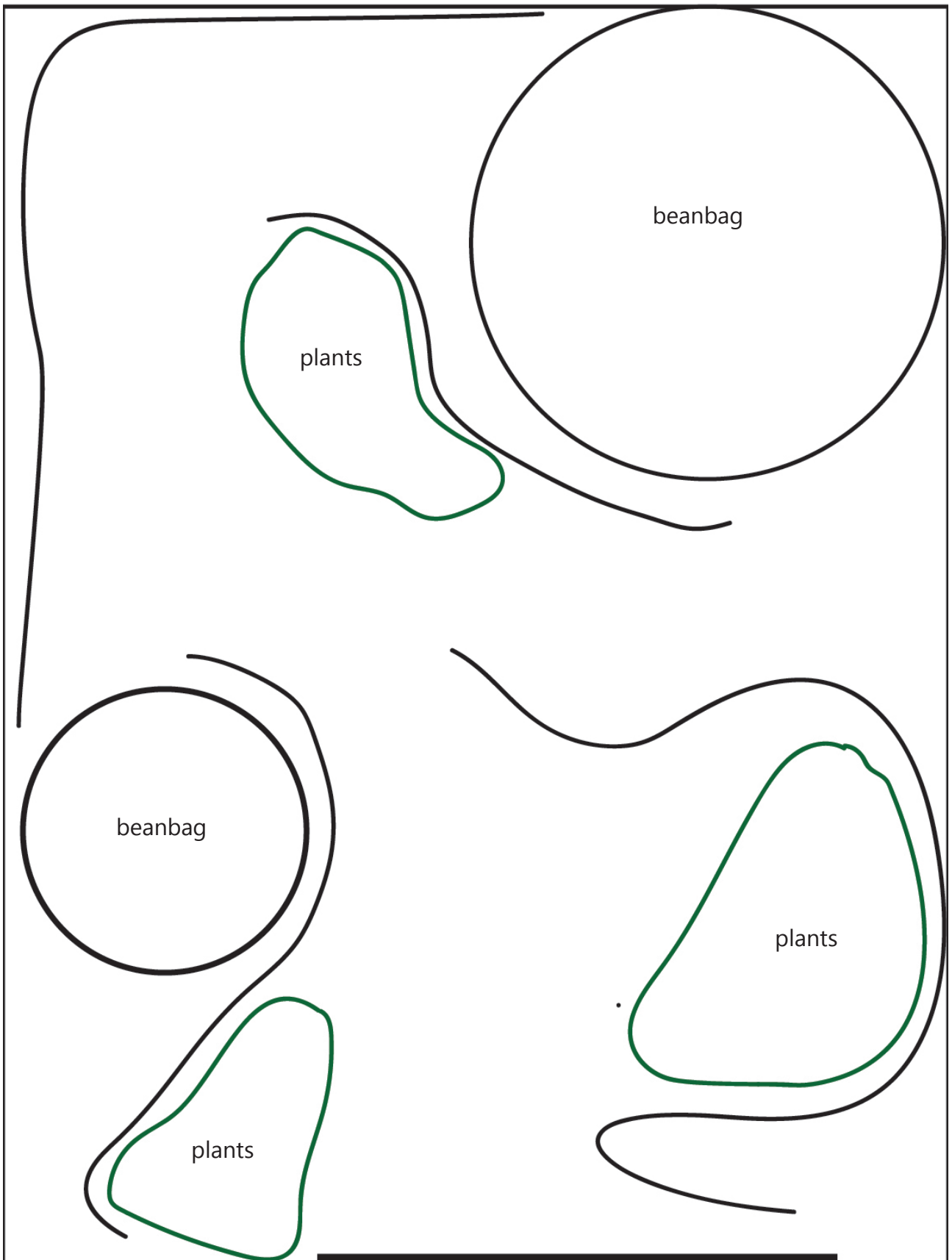


figure 70: overview of the inside of the Mood Booth

## 6.2 EXTERIOR

The exterior is meant to stand out in its context. Not in a way that it is appalling or discouraging, but in a way that is intriguing and inviting. The full exterior is shown in figure 72.

### Shape

As mentioned in chapter 4, the shape is organic and slightly feminine to give the Mood Booth a slightly soft and warm look. This increases its invitingness. The concept test results show that students like the appearance of the Mood Booth, therefore not much has changed.

The frames and door knob are made of pine wood. The rectangular shape is covered in canvas-like wallpaper.

### Door

The top of the door is rounded to give a more soft and friendly look to the product. To open and close the door some effort is needed, since the door closes through roller catches. This, combined with the lock, gives the user security of having a well closed door.

### Text

The text is exposed on the front of the Mood Booth (figure 71), facing the entrance of the university, because that is where it is most visible to all students. The text conveys the message that menstruation is a normal event and should be seen as such. However, in the event of menstrual discomfort, this existence of the Mood Booth is important, because it will help menstruating female students in both their academic and personal life. In interviews with the male students it came to light that the duration of the visit to the Mood Booth is unclear, which could be an issue when working on a group project. The duration time is added so (potential) users know what to expect time-wise. This will also help users to understand they need to leave during the last phase.

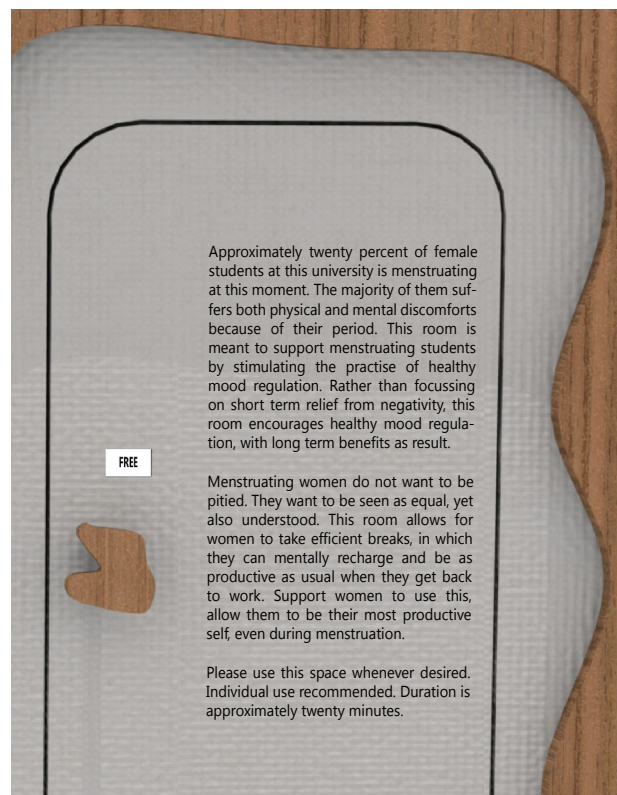


figure 71: close up of text on Mood Booth

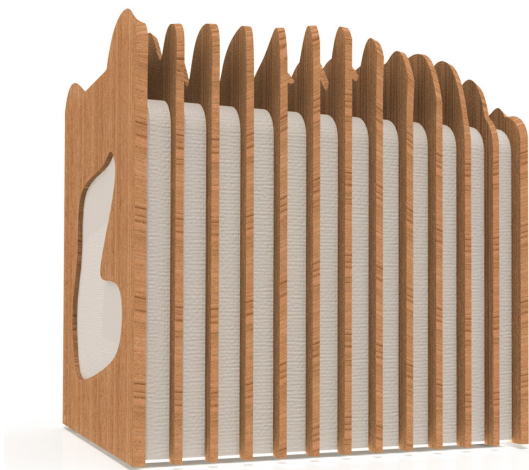


figure 72: six angles of the appearance of the Mood Booth





### Location

The location was not perceived very positively during the test. Understandably, the female students participating in the test would feel too vulnerable to use it when everyone can see them going in and out of the Mood Booth. Figure 74 shows the new placement of the Mood Booth. On this location it is still visible for anyone entering the building, however, it is not nearly as visible for the people who are working in the space, to notice who is entering or leaving the Mood Booth. Most importantly, when leaving the Mood Booth, rather than instantly facing all the working people, the user will have the view shown in figure 75, the service desk and mainly open space with some people passing by.

The prominence of the Mood Booth in a university shows there is no need for menstruation to be a taboo. The mere existence of the Mood Booth, will start a conversation about it amongst students, which in turn stirs up conversations about menstruation.

### Occupied/free signage

The Mood Booth has a sign on the door which signals if the room is occupied or not. This sign is visible from approximately two metres distance. When the Mood Booth is free, a LED light on the bottom of the base part of the Mood Booth (figure 73) is on whenever the booth is vacant. This way, it is possible for all students to see whether the Mood Booth is occupied or not.

Important to note is that there are no rules attached to the Mood Booth. There is no one stopping anyone from going in there. So, even though it is meant for menstruating women, non-menstruating women and men are free to go in there. It is also allowed for more than one person to go in there, but the product would just not be as useful then, since the concept is based on the needs of menstruating

women, of which one important finding was the need for withdrawal, isolation and little stimuli. The Mood Booth is created for menstruating women, but open to anyone. This is not included on the product itself, because menstruating women should have priority.



figure 73: LED lighting on the bottom of the Mood Booth



figure 74: outside of the Mood Booth in its context at Industrial Design Engineering faculty at TU Delft

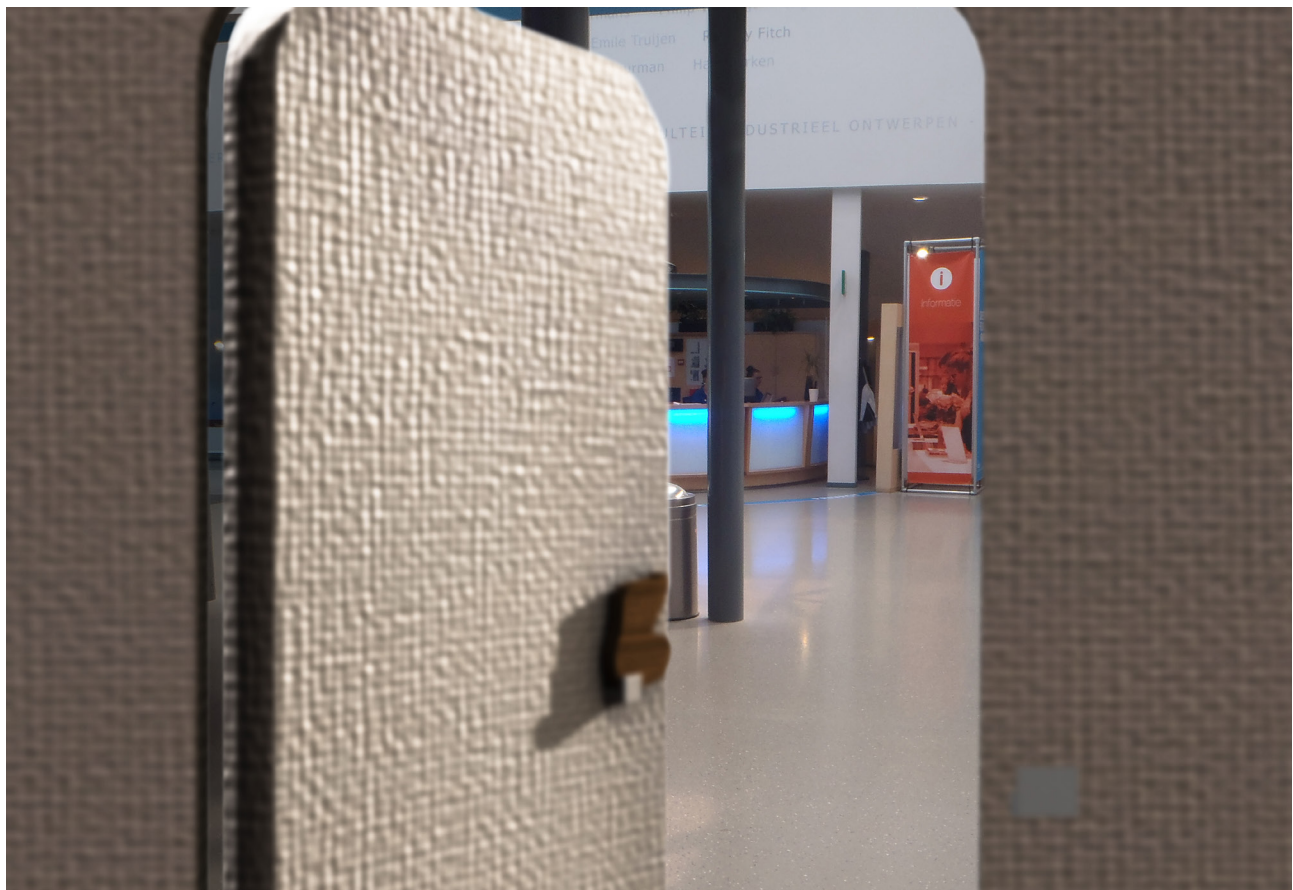


figure 75: view when leaving the Mood Booth

# 7.

## CONCLUSION, DISCUSSION AND RECOMMENDATIONS





## 7.1 CONCLUSION

The goal of this project was to study the way in which female university students deal with their mood during menstruation, and to use this information to design a product to help them deal with their negative moods in a healthy way, by using resilience-focused mood-regulation strategies.

Literature research and the study in chapter 2 showed that menstruation is very negatively experienced by women, regardless of how heavy their menstruation is.

The moods of female university students are mostly influenced by pain and the inconvenience of bleeding, even though the study also showed that the biggest obstacle in daily life is the fluctuating moods caused by hormones. These fluctuations exist in personal patterns, but no literature so far shows universal patterns in mood fluctuations. The most practised mood strategies are rest, withdraw and repress. The first two strategies are mostly practised at home, the last one mainly at university. The study showed that female students do not want to show weakness, they want to work as well as they normally do at university and take painkillers to do so. They ignore all other struggles which tends to exhaust them, resulting in a lack of energy when they arrive home. This is when they finally rest and withdraw, as desired.

The Mood Booth aims to improve moods and does so by stimulating resilience-focused mood-regulation strategies, which fits the design brief.

The Mood Booth is created to answer to the issues found in the research. It is a space to withdraw to and rest in, without having to wait to get home from university to do so. It is a relatively short, but efficient break for menstruating students from all sensory input in a university and a moment for themselves

to listen to their needs and desires and to find out how they can answer to them. This is encouraged by the environment, which stimulates the practise of embrace and detach mood regulation strategies.

The comfort of the room also supports menstruating students with the pain they are feeling, while the rest of the environment, especially in the second phase, distract the mind from the pain they are feeling whilst helping to develop a more positive mindset which makes it easier to deal with the physical discomforts of menstruation.

The stigma around menstruation is also tackled by the Mood Booth. Even though the study did not show shame to be experienced as a highly disturbing factor of menstruation, the female students did appear to find it uncomfortable to discuss menstruation or use it as an excuse in professional or academic settings. Therefore, the Mood Booth is a very public statement within a university. The final test shows that male students are unaware of female students being on their period, which is unsurprising since female students tend to not use it as an excuse because the fear to look weak. The Mood Booth should serve as a conversation starter surrounding the topic of menstruation and help women to not see shame or weakness in their menstruation. The male interviewees seemed open to learning about menstruation. However, female students' desire to open up about it has not been tested in this project.



## 7.2 DISCUSSION

The Mood Booth is a product which is originated from a lot of research throughout the process. With the positive results from the final concept test, it is fair to say that the Mood Booth is a gateway to more healthy mood regulation amongst menstruating female university students. It fits both the graduation brief and the research from early in the project and through frequent involvement of the target group, the Mood Booth is expected to be beneficial and desirable to many women during their menstruation.

The graduation brief describes this project as a research focused project, with a final concept as end result. The Mood Booth is the final product, however, since the end result is still a concept, there are many recommendations and future developing of details to take into account. These are based on how this project could develop with less time restriction.

First of all, the concept has been tested through pictures and video material only. The Mood Booth is a very physical product which will be best experience in real life and real size. To verify the findings of the final concept test of this project, the Mood Booth will have to be build and tested. Through this test the effectiveness of the Mood Booth with regards to mood regulation strategies should be found. Besides that the experience of the size and materials should also be verified in the test. These tests should also cover a much bigger part of the target group. The target group is Dutch female university students aged 18 to 25. In order to gain concrete insights on how the target group experiences this product, it needs to be tested with female students from different cities, ages, studies and universities within the target group. It is possible that the product is much differently experienced by students from technical universities than by students in creative studies.

The results of the study in chapter 2 were coherent with the findings from the literature study. This suggests that the results of the research are valid for the entire target group. All decisions made on the design throughout the project have been based on literature research, the conclusions of the study and other short interviews with students from the target group. This would suggest the Mood Booth should fit the whole target group. However, most of the interviews and tests done after study 1 have been with Industrial Design Engineering students, which is a niche group that is part of the target group, but may not be congruent with the general needs and opinions of the entire target group.

Furthermore the feasibility has to be taken into account. This covers several aspects. The materials of the Mood Booth are chosen based on its aesthetic. If for any reason, for example costs or sustainability, another material is preferred, this is open for adaptation as long as it does not interfere with the natural look and the atmosphere of the entire room. The location of the Mood Booth has thus far not shown to be extremely attractive to female students, however it has been decided to keep the location central and prominent as to not give in to the power of the menstruation stigma. The location, however, is also depended on electrical outputs and safety regulations. For each university a safe and feasible space should be chosen for the Mood Booth, while maintaining central and prominent in a common area.

Another feasibility aspect is the willingness of universities to allow the Mood Booth in their faculties. The Mood Booth should be marketed as interesting and valuable for universities and a price estimation needs to be calculated in order to properly present the product to (potential) buyers.



Lastly, it is important to note that this project has focused on menstruating women to create an easier target group. It is however important to ensure the Mood Booth is not transphobic and will not exclude transgender men who also menstruate. Therefore, the text on the Mood Booth should be reviewed and written without mentioning gender, while still conveying the right message. For transgender men, the Mood Booth might be less effective, because it is likely they experience more discomfort in enduring a bodily function associated with another gender than pain and mood changes.

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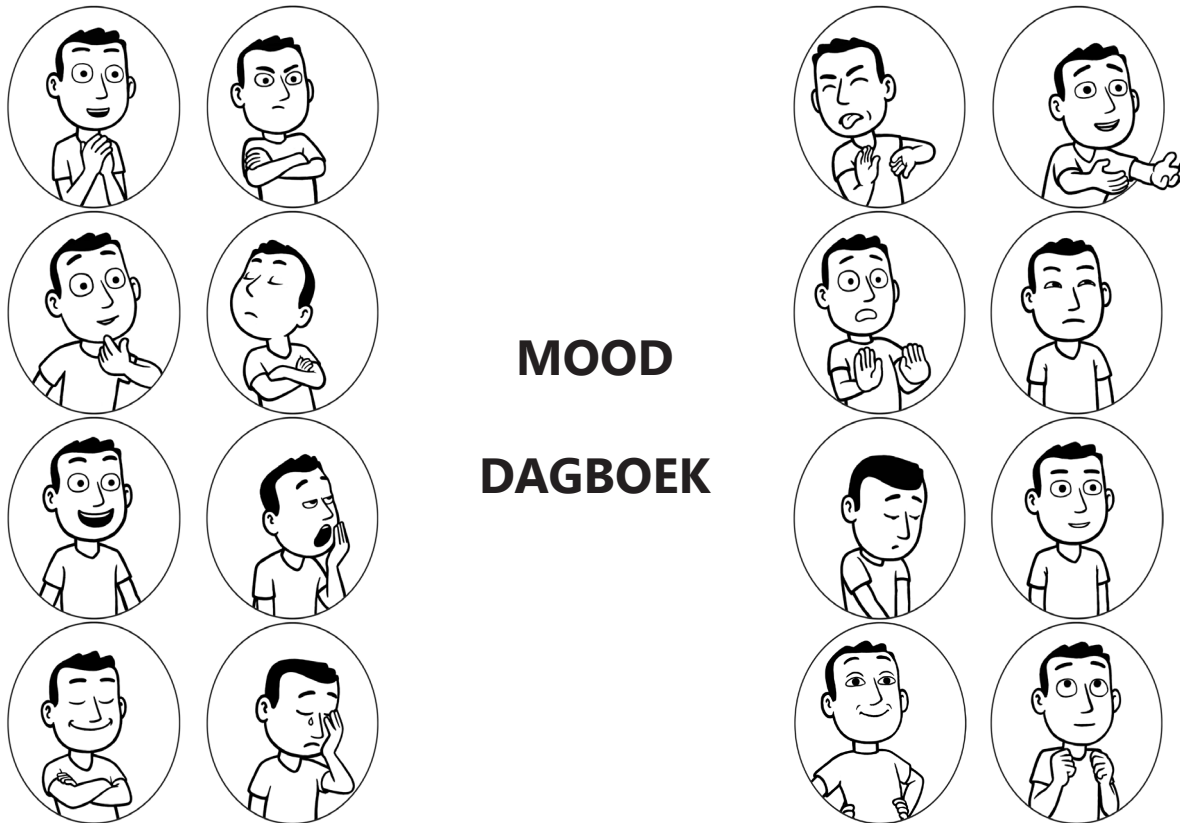
## APPENDICES



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# APPENDIX B - MENSTRUAL MOOD DIARY

## B1 MENSTRUAL MOOD DIARY



Bedankt voor het meedoen aan mijn onderzoek! Ik wil je graag vragen om elke dag tijdens je menstruatie drie momenten te nemen om op je moods van het afgelopen dagdeel te reflecteren in dit boekje. Als het, om wat voor reden dan ook, niet lukt om deze drie momenten te pakken, dan is dat geen probleem, maar schrijf dat dan even in de opmerkingen! Als je vragen hebt, dan kan je me altijd een berichtje sturen (+31631563065).

Naam:  
Leeftijd:  
Studie:  
Gebruik je contraceptiemiddelen?  
ja / nee

18 moods:

belabberd	onstuimig
sentimenteel	rebels
bedroefd	krachtig
moedeloos	giegelig
chagrijnig	vriendelijk
gefrustreerd	opgewekt
verontrust	relaxed
gestresst	dromerig
serieus	rustig

Deze moods, samen met de plaatjes op de voorkant van dit boekje, dienen als inspiratie. Het is de bedoeling dat deze voorbeelden het iets makkelijker maken om je moods te onderscheiden. Je bent niet gelimiteerd om alleen deze te gebruiken, dus leef je uit!

Je mag dit boekje zo gedetailleerd invullen als je wilt.



datum: \_\_\_\_\_

ochtend

tijd van invullen:

\_\_\_\_\_

middag

tijd van invullen:

\_\_\_\_\_

avond/  
nacht

tijd van invullen:

\_\_\_\_\_

**Neem drie momenten in je dag om te reflecteren op je moods:**

- 1) Voor elk dagdeel, vul de tijdlijn in met de moods die je ervaren hebt en (in het kort) waar de mood vandaan komt.
- 2) Voor elke negatieve mood: schrijf bij de mood hoe je hiermee om gegaan bent, en of dat je beter liet voelen of niet.
- 3) Aan het eind van elke dag: Wat waren de beste en slechtste momenten van je dag en waarom?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**opmerkingen**

datum: \_\_\_\_\_

ochtend

tijd van invullen:

\_\_\_\_\_

middag

tijd van invullen:

\_\_\_\_\_

avond/  
nacht

tijd van invullen:

\_\_\_\_\_

**Neem drie momenten in je dag om te reflecteren op je moods:**

- 1) Voor elk dagdeel, vul de tijdlijn in met de moods die je ervaren hebt en (in het kort) waar de mood vandaan komt.
- 2) Voor elke negatieve mood: schrijf bij de mood hoe je hiermee om gegaan bent, en of dat je beter liet voelen of niet.
- 3) Aan het eind van elke dag: Wat waren de beste en slechtste momenten van je dag en waarom?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**opmerkingen**

four  
times



Met welke mood zou je de gehele periode van je menstruatie beschrijven?

Met welke mood zou de weken die je niet ongesteld bent beschrijven?

Als je nog andere opmerkingen hebt, zijn die altijd welkom!



## B2 RESULTS MENSTRUAL MOOD DIARY

D1 - 23 - DfI - Pill

	Morning	Afternoon	Evening
Day 1	Cheerful Calm	Cheerful Dreamy Sentimental	Bit sad
Day 2	Miserable Cheerful	Vigorous Agitated	Boisterous
Day 3	Miserable Gloomy	Grumpy Calm	Cheerful Giggly
Day 4	Cheerful Relaxed/dreamy	Calm /gloomy	Vigorous
Day 5	Cheerful relaxed	Cheerful/ friendly Grumpy	Relaxed
Day 6	Vigorous Friendly	Stressed Calm	Very dreamy
Day 7	Cheerful Giggly	Friendly Rebellious	Gloomy

Miserable:

Day 2: menstrual cramps

Day 3: bad night of sleep – did not know how to deal – got over it

Sad:

Day 1: seek distraction: Netflix - worked

Gloomy

Day 3: did not feel like going to work

Day 4: tired but had to work – seek relaxation: took a nap

Day 7: tired, too late to bed – seek relaxation: went to sleep

Agitated

Day 2: tired

Boisterous

Day 2: restless mind

Grumpy

Day 3: wanted to go to bed, people interrupted – withdraw: sought isolation

Day 5: felt misunderstood, did not know why

Stressed

Day 6: stress about university work

Mood during menstruation:

Overly sensitive for emotions, temptations and criticism and more insecure.

Mood normally:

Relatively neutral. Often feel useless or bored, but in general I am content.

D2 - 22 - Dfi - Pill

	Morning	Afternoon	Evening
Day -1	Grumpy		
Day 1	Exhausted Stressed Unwillingness	Cheerful Relaxed Guilty	Calm / tired
Day 2	Self-conscious	Demotivated Annoyed	Tense Grumpy
Day 3	Tired Demotivated	Excited Uncomfortable	Grumpy
Day 4	Anxious	Uncomfortable	Grumpy Useful Motivated
Day 5		Calm/ sleepy Unhealthy	[too grumpy to write down]
Day 6			

Grumpy:

Day -1: Unwilling to do anything because of pain --> withdraw & seek relaxation: lie in bed and do nothing

Day 2: withdraw: avoid social contact (did not work)

Day 3: no idea why-->rest & seek distraction: lie in bed, make myself useful

Day 4: probably tired

Day 5: too grumpy to do anything

Exhausted:

Day 1: Bad and short night of sleep

Stressed:

Day 1: Knowing the day is going to bring pain

Unwillingness:

Day 1: The day is so long -->rest: sleep some more (postpone day) (worked)

Guilty:

Day 1: Wonder if using menstruation as an excuse --> repress: ignore the feeling (did not work)

Calm/ tired:

Day 1: Pain is slowly starting --> rest: go to bed early (worked)

Self-conscious:

Day 2: Fear of leaking --> wear suitable clothes (worked)

Annoyed:

Day 2: parents are asking too much questions --> withdraw: go to room (worked)

Tense:

Day 2: --> seek distraction: watch Netflix while doing uni work (did not work)

Demotivated:

Day 2: --> repress: went to gym anyway (worked)

Day 3: have to go to Rotterdam --> repress: ignore and go anyway

Tired:

Day 3: slept too long --> repress: ignore feeling

Uncomfortable:



Day 3: Fear of leaking --> go to toilet often

Day 4: fear of leaking, was wearing heels, makes going to the toilet more difficult

Anxious:

Day 4: Many things to do --> trivialise: one thing at the time

Unhealthy:

Day 5: headache

Overall mood during period:

Exhausted, tense, grumpy

Overall mood otherwise:

Calm, cheerful

Other comments:

The two days before period are more relevant than the last two days.

Cheerful:

Day 1: Pain is not as bad as expected, weather is nice

Relaxed:

Day 1: Allowing herself to rest before expected pain (sit in sun)

Useful:

Day 4: --> energise: went to gym

Motivated:

Day 4: to do uni work

Sleepy:

Day 5: calm

Excited:

Day 3: Nice exhibition

D3 - 23 - IPD - Pill

	Morning	Afternoon	Evening
<b>Day 1</b> (heavy flow)	Calm	Neutral	Drained
	Drowsy	Energetic	Sad
	Grumpy	Frustrated Tired	Focused Energetic Sleepy
<b>Day 2</b> (medium flow)	Rested Cheerful	Inspired Cheerful Satisfied	Relaxed
<b>Day 3</b> (very light flow)	Cheerful	Sad	Grumpy
	Inspired	Stressed	Frustrated
	Tired	Relaxed	Tired
<b>Day 4</b> (very light flow)	Stressed	Productive	Cheerful
	Ordered	Relaxed	Bored
		Exhausted	Extremely tired
<b>Day 5</b> (no flow)	Relaxed	Extremely relaxed	Hungry
	Interested	Energetic	Relaxed
	Content	Overloaded	

Grumpy:

Day 1: pain --> repress: paracetamol

Day 3: --> repress: ignored

Frustrated:

Day 1: matlab

Day 3: because of mother --> repress: ignored

Tired:

Day 1: --> repress: ignored

Day 3: --> repress: ignored

Day 3: --> repress: ignored

Day 4: --> repress: ignored

Drained:

Day 1: --> repress: ignored

Sad:

Day 1: pain --> repress: paracetamol

Day 3: --> repress: ignored

Stressed:

Day 4: --> repress: ignored

Exhausted:

Day 4: --> repress: ignored

Bored:

Day 4: --> repress: ignored

Overloaded:

Day 5: --> rest: relax

Mood during menstruation

Restless or tense

Mood normally

Content

Comments

I think that on the short term, moods are more affected by other happenings, such as rain or bad food. Menstruation has more influence on a more general underlying state.

D4 - 23 - SPD - Pill

	Morning	Afternoon	Evening
Day 1	Miserable Tired	Emotional Unbalanced Energetic	Hopeful Tired Frustrated Grumpy
Day 2	Positive Hopeful Pretty steady	Cheerful Dip	Social Relaxed Dreamy Excited
Day 3	Cheerful Calm	Dreading	Social Cheerful Motivated
Day 4	Calm Relaxed	Calm	Tired Calm
Day 5	Mediocre Energetic	Social Cosy Positive Cheerful	Relaxed Calm

\*last two days were filled in two days later, because she forgot

\*\* D4 also caught a cold while filling in the booklet, her moods may have been effected by this

Miserable

Day 1: Bad sleep, cramp, warm/cold feeling (maybe getting ill)

Tired

Day 1: Bad sleep, cramp, warm/cold feeling (maybe getting ill)

Day 1: headache

Day 4: homework was boring --> rest: read and it take it slow, to bed on time

Emotional

Day 1: --> rest: maybe nap later?

Unbalanced

Day 1: --> rest: maybe nap later?

Frustrated

Day 1: headache

Grumpy

Day 1: headache

Dip

Day 2: headache came back --> repress: aspirin

Dreading

Day 3: dreading the evening because it will be exhausting (but fun as well)

Mood during menstruation:

Tired, weak, miserable

Mood normally:

Positive, cheerful. I am always quite positive, in general

Other comments:

Illness made everything a little worse. Usually I am not very emotional during my menstruation, apart from being tired on day one and I usually experience things a bit worse than usually.



D5

	Morning	Afternoon	Evening
Day 1	Calm Relaxed Friendly Cheerful	Vigorous Friendly Relaxed	Serious Sad Miserable
Day 2	Calm Serious	Calm Serious	Stressed
	Grumpy	Friendly	Cheerful Anxious
Day 3	Giggly Vigorous Motivated	Serious Calm	Cheerful Giggly
		Stressed	
Day 4	Slow/demotivated Frustrated	Serious	Inspired
		Tense	Grumpy

Day 1: typical day op period: a huge mood swing, could not handle small things and negative thoughts easily creep up and take over.

Day 2: in the evening, the negative thoughts are harder to put in perspective

Serious

Day 1: cannot explain, but entire mood collapsed

Sad

Day 1: missing boyfriend

Miserable

Day 1: painful comment from dad --> couldn't deal with it, embrace: crying, then

rest: sleep

Grumpy

Day 2: hungry --> withdraw: isolated at home to eat, which helped

Day 4: friends went out, while we were going to meet

Stressed

Day 2: had to cook for 40 people

Day 3: did not understand homework --> repress: smoke weed

Anxious

Day 2: facetime conversation with boyfriend did not go well --> rest: sleep

Slow/ demotivated

Day 4: because of smoking weed yesterday

Frustrated

Day 4: could not get myself outside

Tense

Day 4: -

Mood during menstruation:

Very precarious. From very happy to very down within a day. I am more easily brought down by small inconveniences

General mood:

Depends, but in general more stable and more cheerful

Comments:

Booklet was too much work, did not finish it.

.....  
D66 - 24 - IPD - pill

	Morning	Afternoon	Evening
Day 1	Relieved	Gloomy Frustrated Weepy Uncomfortable	Excited Satisfied Sentimental Sad OK
Day 2	Cheerful Grumpy Miserable	Relaxed Vigorous Deeply disappointed Very grumpy	Calm Doubtful Vigorous Accomplished Bit emotional
Day 3	Numb Cheerful Vigorous Frustrated	Satisfied Relaxed Giggly Frustrated	Bit grumpy Asocial

\*Day 2: easy to be angry at myself, did not help, but hard to get out of it

\*Day 3: have to get used to getting out of bed at 6.30am, which makes mood worse. Was not angry with myself much today, which was nice.

Gloomy

Day 1: don't feel like doing anything --> decide what I can and want to do

Frustrated

Day 1: shopping takes long

Day 4: did not know someone was on holiday --> repress: 'get over it' + analyse:

why did I not

know? (helped)

Day 4: meeting takes longer than expected: impatience --> repress: 'get over it', it is my coach

Weepy

Day 1: felt like crying, but did not

Uncomfortable

Day 1: had to go to the toilet in McDonalds

Sad

Day 1: listening to sad songs --> embrace: listen to more (helped)

Grumpy

Day 2: did not feel like doing serious things --> repress: ignore, push through (did not help)

Day 2: because of wrong appointment

Day 3: tired and home late --> rest: sleep on train

Miserable

Day 2: everything is going wrong --> self-reward: lunch (helped)

Disappointed

Day 2: appointment was on another day --> rest: doing nothing (helped a tiny bit)

Doubtful

Day 2: sport or eat?

Emotional

Day 2: -

Numb

Day 3: very tired --> rest: tried to sleep in the train, did not work



Asocial

Day 3: do not feel like being social --> withdraw & rest: read a book (helped)

Mood during menstruation:

Quick tempered. Easily pushed over the edge. Extremely emotional regarding others, but mostly myself.

Mood normally:

Friendly, to myself as well

Comments:

The physical aspect of menstruation is uncomfortable, but not very bothersome. The mental and emotional aspect of menstruation is bothersome and annoying when reflecting on yourself. All my reactions did not have to be so extreme.

.....

D7 - 21 - Dental medicin (ACTA) - pill

	Morning	Afternoon	Evening
Day 1			Frustrated
Day 2	Calm	Tired	Stressed
		Dreamy	
Day 3	Calm	Stressed	Nauseous Tired
Day 4	Calm	Vigorous	Relaxed
Day 5	Calm	Relaxed	Relaxed
			Tired
Day 6	Calm	Anxious	Emotional

Frustrated

Day 1: unpredicted period, through pill --> embrace: accept it: stop with pill, let it happen

seek distraction: distraction from friends (helped)

Tired

Day 2: -

Day 3: stinging pain --> rest: calmly sit on sofa and to bed early

Day 4: rest: to bed early

Stressed

Day 2: no time to go to toilet tonight, fear of leaking --> embrace: accept it (did not help)

Day 3: fear of leaking, long workday in white trousers, little time to go to toilet

Nauseous

Day 3: stinging pain --> rest: calmly sit on sofa and to bed early

Anxious

Day 5: suddenly bleeding again --> repress: tried to ignore and continue with responsibilities

Emotional

Day 5: no idea why --> energise: jogging 6k, instantly felt better

Mood during menstruation:

Stressed. many activities, little time. Less time for the toilet and everything that comes with menstruation

Mood normally:

Ordered. Everything calmly according to schedule

# APPENDIX C - QUESTIONNAIRE

## C1 QUESTIONNAIRE

1. Leeftijd?
2. Wat studeer je?
3. Op welk niveau studeer je?  
☐ HBO  
☐ Universteit
4. Gebruik je contraceptiemiddelen?  
☐ Ja  
☐ Nee
5. Hoe vaak ben je ongesteld?  
☐ Eens per maand  
☐ ongeveer eens per drie maanden  
☐ ongeveer eens per zes maanden
6. Ben je op dit moment ongesteld?  
☐ Ja  
☐ Nee
7. Welke van de volgende menstruatieklachten heeft de meest negatieve invloed op je gemoedstoestand?  
Rangschik deze (1= meeste invloed, 4 is minste invloed)
  - Pijn
  - Beperkingen in dagelijkse activiteiten (bijvoorbeeld: moeite met school, werk en/of sociaal leven)
  - Rekening moeten houden met bloeden
  - Slaapproblemen
8. Doe je iets om je negatieve gemoedstoestand te verlichten?  
☐ Nee  
☐ Ja, namelijk...  
\_\_\_\_\_
9. Helpt dit?  
☐ Ja  
☐ Nee  
☐ n.v.t.  
opmerkingen...  
\_\_\_\_\_
10. Wil je deelnemen aan een vervolgonderzoek? Vul dan hier je emailadres in.  
☐ Nee  
☐ Ja, mijn emailadres is:  
\_\_\_\_\_

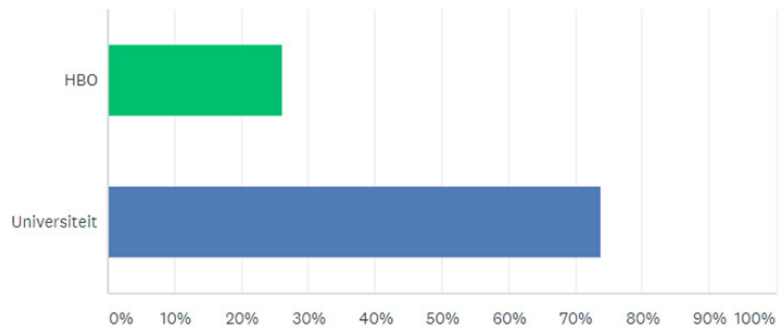


## C2 QUESTIONNAIRE RESULTS

Level of study:

73,81% university 31

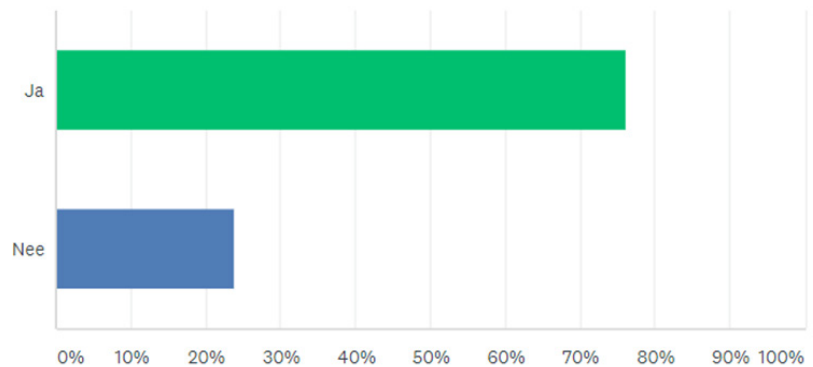
26,19% hbo 11



Hormonal contraception:

Yes 76,19% 32

No 23,81% 10

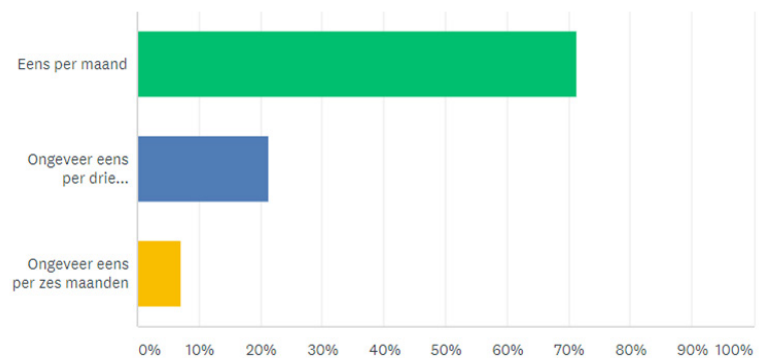


Frequency of period:

Once a month 71,34% 30

Approx. once in 3 21,43% 9

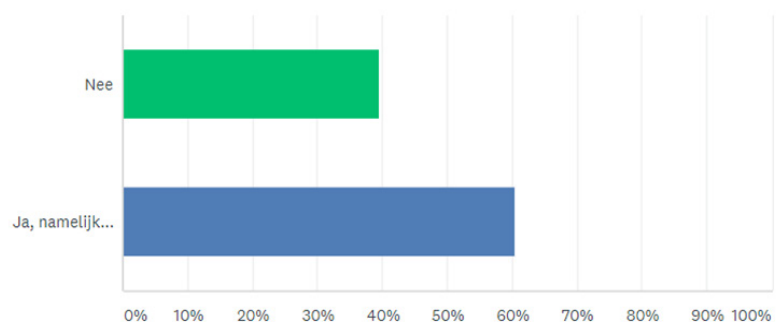
Approx. once in 6 7,14% 3



Minimise negative mood

Yes 60,47% 26

No 39,53% 17





rest, stay in bed	No, only temporarily. Movement is better
yes, sweet food, long showers, lying on the sofa watching brainless television and crying, a lot of crying	Yes, but only up until a certain point, because I do feel guilty about unproductivity
yes, tranquilizers	Yes
yes pain medication, because without pain i can go on with my life	Yes, but not always
yes, chocolate, wine and Netflix	Yes
yes, chocolate & fleece blanket on a resting moment. When not in rest: chocolate, painkillers, clothes to stay warm	Yes, it soothes, but does not eliminate it
yes, I tend to eat	No
yes, painkillers	Sometimes
yes, usually I feel sad the days before my menstruation. I make sure I'm in a comfortable environment	Yes
yes, buy nice food and shower more often and painkillers	Yes
yes, eat chocolate!	Yes, I feel good shortly after eating chocolate, but then I start feeling guilty about eating chocolate
yes, sports and sleep as much as possible	Yes
yes, hot water bottle	Yes, soothes the pain
yes, painting, talk to friends, whine a lot	Yes
yes, when I manage to get myself to do it I go sporting	Yes
yes, take short breaks when in pain	Yes
yes, good food! Whine a lot	Yes
yes, Aleve <u>Feminax</u>	Yes
yes, yoga, rest and being amongst people	Yes
yes, hot water bottle is soothing, usually naproxen and paracetamol. Eating light because I feel bloated. And try to not feel guilty for being lazy	Yes
yes, Aleve <u>Feminax</u>	Yes
yes, no thongs	Yes
yes, buy snacks	Yes
yes, painkillers and treating myself	Yes
yes, whining to my boyfriend. Prepare when going out by bringing more pads and tampons than necessary. Sometimes chocolate, which doesn't help. And sometimes a hot water bottle	No, not on the long-term, but for a second it always seems to work
yes, chocolate	Yes

2 of the people who did not do anything to improve it, said it did not work.

3 of the mood regulators said it did not work

Three of the yes saying mood regulators said it only worked for a short amount of time.

One said it sometimes works.

# APPENDIX D - INTERVIEW

## D1 INTERVIEW

Leeftijd

Studie

Ongesteldheid frequency

Contraceptiemiddel

Ongesteld op dit moment?

Ja / Nee

- Welke klachten heb je als je ongesteld bent?
- o Welke vind je het meest vervelend, en waarom?
- Zijn er bepaalde neigingen die je hebt tijdens je menstruatie?
- o Ga je daarin mee/ geef je daaraan toe? Waarom wel/niet?
- Wat doe je om je fysieke klachten te verlichten?
- Wat doe je om je mentaal beter te voelen?
- Op welke momenten heeft je menstruatie het meeste invloed op je mood?
- Wat vind je het belangrijkste tijdens je menstruatie?
- o Door kunnen gaan met leven, comfortabel zijn, mentaal stabiel zijn, etc
- o Waarom?
- Hoe heb je thuis geleerd om ermee om te gaan?
- o Ben je het eens daarmee?

Onderwerpen om aan te kaarten:

- Pijn
- Schaamte
- Slaapproblemen
- Beperkingen in het dagelijks leven
- o School, werk, sociaal leven
- Invloed van omgeving (vrienden, ouders, docenten: tonen ze begrip en acceptatie)
- Angst voor doorlekken
- Vermoeidheid
- Mood veranderingen (negatievere moods / mood swings)
- Positieve dingen aan menstruatie?
- Gebruik je iets om je menstruatie bij te houden? Apps, kalender etc
- Instelling

.....

## D2 INTERVIEW RESULTS

I1 - 22 - University: psychobiology - Menstruation frequency: once per month  
Not menstruating during interview

### Complaints:

Pressing feeling on stomach, which is sometimes annoying but not cumbersome.

Sensitive breasts, which is annoying as well because she cannot sleep or lie on her stomach then, while this is how she usually sleeps. It does, however, not disturb her sleeping patterns.

The week before her menstruation she experiences a couple of days of sadness. She gets into negative thought spirals and gets a rather pessimistic outlook on life. She worries about her relationship and usually has less self-esteem around this time. This sadness often comes along with grumpiness too.

She only recently discovered this relationship between her mood and her menstruation, but during her sadness she cannot seem to link it to each other, because at the time she feels like she has all the right to feel that way. While afterwards, she realises it made no sense.

She expects that she could deal a little better with this mood, if she was to realise the cause of it at the time.

Furthermore, she explained that talking about it would help, especially when it is with the roots of her worries (for example, talking to her boyfriend about her worries about their relationship). She tends to not do this because she feels like she can and should solve her own problems. This type of dealing with her feelings is not related to menstruation, it is how she always deals with it.

When feeling sad, she likes to take it slow and to watch a film. She also often tells people she is not feeling too well.

During her menstruation she feels less free in her movements, which is also a bit bothersome when sleeping (but her recent discovery of using the menstrual cup improved this).

Lastly, she mentioned she is chaotic and thus tends to forget to bring period pads when she goes somewhere, then she has to go and get them either at home or in the store, and that is frustrating.

I1 finds it most important to be comfortable during her period. In her sad days before her period, she says she needs love and someone to say "everything is going to be okay".

She is open about her period to her friends (she mainly has female friends) and she has attitude of 'menstruation is normal, so I should be able to be open about it, and if people act strange about it, that is their problem'.

If I1 experiences a lot of stress, she gets her period less frequently.

She tracks her period in her head, but is thinking about tracking it more efficiently on a calendar.



At home, she got the attitude of 'menstruation is annoying, but it is part of life'. Her mother had the same recurring sadness before her menstruation, and it helps I1 to talk about it with her mother. At home everyone at home was open about it.

She does not experience anything positive about her menstruation. The only slightly positive aspect of menstruation is knowing she is not pregnant.

Mood regulation strategies:

Trivialize (sadness)

Seek relaxation (sadness and menstruation)

Seek Refreshment (menstruation)

Showering to get into a more active mood and to feel cleaner

Avoid new demands (sadness and menstruation)

Withdraw (sadness)

Rationalize (sadness)

Embrace (sadness)

"I used to do this when I lived at my parents, but it has changed since I am in a relationship

and my sadness turns into worries about the relationship"

Never:

Detach



.....  
I2 - 22

Design for Interaction – uni

Menstruation frequency: once per month

Not menstruating during interview

Complaints:

Menstrual cramps, lower back pain (day one and two), sometimes headache (day three).

Seeks relief by stretching and yoga. She knows it works and is therefore motivated to do so. It gives her instant relief, a nicer type of pain.

She also uses Energetix body magnets, which she puts near the painful area and give her almost instant relief. She has an aversion to pain medication, because she does not like getting those type of chemicals in her body and she believes her pain is in her body to give a sign to slow down. The magnets give her a similar feeling as the latter after a while. Hence she only uses it for three days a month maximum (the worst days of her period).

Before her menstruation I2 often feels down. She gets sad and her thoughts get more negative, which has demotivation as a direct result. The feeling disappears when her menstruation starts. Lack of productivity enhances the feeling, while social interactions tend to reduce the negative mood. She tends to cope by looking for company (no crowds, just small cosy gatherings) and hobbies which make her happy (if possible, but she does take time for it).

She usually analyses her sadness to see where it come from, and she thus always realises menstruation is its cause.

At home, menstruation is no secret, her family talks about it freely. From her mother she got the attitude that menstruation is annoying and impractical, but it does not stop them. I2 still lives by this.

I2 tracks her menstruation in her calendar. She notes the first day of each period.

During menstruation (and a few days before) she needs chocolate, rest (not necessarily alone) and distraction.

She tends to hide evidence of her menstruation, although she does believe she has no need to.

I2 never talks about menstruation with her friends, but in her family they are very open and upfront about it.

I2 said she does not see many positive aspects in menstruation, but a regular cycle does make her feel more at ease than if it comes late.

Mood regulation strategies:

Self-reward

Pick up on hobbies

Vent

Think positively



Seek relaxation  
Seek refreshment  
Eliminate energy drainers  
    Eliminate external factors  
Seek social support  
Rationalize  
Detach

Never:  
Repress

These strategies are very similar to the ones she usually practises.

When asked what she expects would help her mood regulation, she said it would probably be better if she asks others for advice a bit sooner and to prevent herself from getting into negative moods by putting more effort in maintaining her positive moods.

.....

I3

23

IO –DfI

Once per month

Just stopped taking the pill

She has been bleeding lightly for about two weeks already since she stopped taking the pill

Complaints:

I3 says she has quite a light menstruation, she claims to be very lucky with that.

In the premenstrual phase she sometimes notices an increase of acne. On day one she gets a headache and on day one and two she gets a stomach ache and cramp. She takes ibuprofen to lighten the pain.

I3 says she has no psychological changes. No mood differences compared to the other two phases.

When menstruating I3 practises more yoga to lighten the pain, but less fitness activities than usual, because of her cramps.

In high school I3 used to experience very heavy menstruation, possibly with anaemia. She would have to go home from school. She does not experience that anymore.

She does not experience a difference in motivation or concentration.

She was well prepared at home before her menarche and she got the attitude of 'it is part of life, it is how it is'.

She does not experience shame regarding the subject of menstruation. She does not understand why people do. When asked, she would tell anyone her feeling bad if menstruation is the cause.

After she stopped taking the pill, I3 noticed that she has way less sugar cravings. She used to think about food the entire day, and now that has settled.

I3 experiences no positive aspects about menstruation.

The only mood regulation strategy she practises more than normally, is seeking relaxation, especially through relaxation techniques.



I4 - 23 - Graphic design: art academy (hbo) - Once per month

Not on period during interview

Complaints:

One or two days before her menstruation I4 gets very emotional, feels very bad and cries a lot. She gets sad and sentimental, but mainly sad. When she feels like this she seeks isolation and cries. Which she says, works for her.

On day one and sometimes day two, she gets bad abdominal pains: menstrual cramps and back pain. She always takes Aleve Feminax on the first day to prevent the worst of pains. She takes it when she starts to feel a the pain coming up.

I4 is very open to friends about her menstruation, to male and female friends equally so. At school she would just call in sick, but if her teacher is a woman, she might say it, since she would understand.

She finds it important to feel comfortable and clean. This is why she showers more often when she is on her period. She also feels more like showering during menstruation. Her goal is to feel clean and she knows that showering always has a positive effect on her mood.

I4's menstruation does not have that much impact on her academic or social life. She only notices she has to plan her day around it sometimes, for example when she forgot to take tampons with her. She also said she often fears leaking.

I4 does notice that the pain in particular influences her concentration.

At home she is taught menstruation is normal, but she was not prepared very well.

I4 used to feel the need to hide any evidence of her menstruation and would be very careful with that. Nowadays she is more comfortable to act normal about it.

The positive part of menstruation for I4 is that she knows that her body is functioning well and that she is not pregnant.

She tracks her menstruation in her head so she knows roughly when her time of the month is due.

Mood regulation strategies:

Self-reward

During menstruation she feels more pity for herself, so she eats more (which works for her)

Seek refreshment

More showers

Seek distraction

When the cramps are bad, if that does not work then:

Withdraw

To cry

.....  
I5 – 23 - Uni masters – architecture history - Once per month  
Not on period during interview

#### Complaints:

I5's period starts up slowly. Day two and three are most intense, and then she gets menstrual cramps and most of the times also a headache of which she suspects is the result of dehydration. Her head ache usually do not stop her from her usual daily activities, she says. To soften the pain of her cramps, she sometimes uses a hot water bottle, and sometimes takes paracetamol for both her cramps and her headache.

During her menstruation, I5 undertakes less physical activities. Mainly because the bleeding makes her comfortable. "It is not necessarily from a fear of leaking", I5 says, "it is mainly because I have an uncomfortable feeling in my body, I do not feel 100% myself." She suspects that, unconsciously, she probably makes less appointments and meets a little less people during the second and third day of her menstruation, again because of the uncomfortable feeling in her body. She tends to feel like she does not need it as much, as well.

Her academic performance does not suffer from her menstruation. She is equally motivated and concentrated as she is when not menstruating.

I5 does not view her menstruation as such a negative thing. Partly, because her menstruation is not so bad, but also because she got her menarche really late. She felt like something was wrong with her, because her menarche came so late (at 16). When her menarche finally came, she finally felt like an actual woman and she and her family even celebrated the event with cake. Another positive part about menstruation is knowing she is not pregnant. I5 gets a lot of food cravings during her menstruation, especially fat food.

She also prefers to be in safe environment, with people she knows and trusts.

She feels no shame around her period, at home it was also very normal and a subject open for discussion.

Keeping track of when to change pads and tampons is the most annoying thing about menstruation, according to I5. The amount of money it costs bothers her a lot as well, "I always pity myself when I am in the store buying period products," she says. Leaking through at night also annoys her, because it disrupts her morning flow.

#### Mood regulation strategies:

##### Self-reward

Especially through food

##### Seek refreshment

Long showers, or taking a bath (normally does not do that)

##### Rest

Sleep more

##### Withdraw

Stay at home a bit more often, but not necessarily seeking isolation

All of these help her.

She does think she would feel better if she would treat herself a bit more by taking time for herself.

Drinking more would probably help against the pain as well

.....  
I6 – 23 - BA graphic design - Once a month -Not on period during interview

#### Complaints:

She says she does not experience a heavy period, its merely annoying. The first two days I6 has a nagging pain in her stomach. Which she takes ibuprofen for sometimes. Which helps. Before and during menstruation she noticed acne on her chin, but she is not sure if it actually relates to her menstruation. She does not experience mood changes significant enough to affect her.

She finds her menstruation most annoying when she is not at home. She feels a bit uncomfortable because she is bleeding and finds it annoying when she does not know what to do with used tampons, in case there are no bins in the toilet or no bags in the toilet bins. She is not very worried about leaking or being seen with a (unused) tampon.

When she is on her period, she tends to treat herself by eating nice food, applying a face mask and showering longer. This helps to improve her mood, because she then feels cleaner.

She is not really ashamed of her period, if people see her tampons, for example, she does not mind. But she does not feel comfortable telling it to random boys or men. She says boys will think you are weak and that it is some sort of excuse.

I6's mother and sister have a similar period as her. She was well prepared for menarche and got chocolate from her mother during her first menstruation. At home they are very open about menstruation, she was taught there is nothing to be ashamed of.

The positive part of menstruation to I6 is knowing she is not pregnant.

She tracks her period with the app Flo. Which is actually an app to use when you want to get pregnant, but she only uses to see when her period is coming up.

#### Mood regulation strategies:

##### Self-reward

Food, rest, spa night, watch films

##### Repress

Tranquiliser (ibuprofen)

##### Seek relaxation

Spa night

##### Seek refreshment

Shower

##### Reduce demands

Would cancel something, not school

##### Avoid demands

Would not plan dates during menstruation

##### Rest

##### Embrace

Allows herself to feel bad





I7 – 23 -Design for Interaction - Once a month - Not on period during interview

#### Complaints:

The days before menstruation I7 feels extremely emotional (sad and easily frustrated), sensitive breasts and she gets acne. She often does not realise the link between this and her menstruation. She does not do much to deal with this, except for a good crying session every now and then. It does occur to her that she could do something to improve her mood, but she does not do it. During her menstruation I7 does not look forward to her day.

During her menstruation, I7 experience extreme menstrual cramps and it often quite tired. She uses ibuprofen to soothe the pain, which helps, or she lies in foetus position. She used to use a hot water bottle, but she lost it and she does not think it really worked anyway. I7's menstruation does not disrupt her academic or social life, but only because of ibuprofen.

I7 sometimes wakes up from the pain, but in the evening her pains usually settle. Her period lasts for six days, the first two days and the fourth days are the worst for pain.

She gets food cravings, and she allows herself to enjoy it more.

When I7 experiences the cramps, she wants to be left alone. On the days without cramps her life is basically the same.

Her parents are very open about menstruation. They are both biologists so when I7's menarche occurred, she went to her father, who explained all about it. And her mother explained her how to use tampons became necessary. Her mother feels pity for I7. I7 feels pity for herself too, a lot.

The positive sides of her menstruation are knowing that she is not pregnant, and to feel like she is healthy and fertile.

She keeps track of her menstruation in her mind.

#### Mood regulation strategies

More:

Seek relaxation (cramps)

Breathe calmly

Seek refreshment (cramps)

Showering and sitting in the shower

Rest (cramps)

Lie in bed

Analyse (emotional period and acne)

Link between emotions and period

Embrace

When emotional, "what else can you do"



Less:

Repress

Think positively

Self-pity

Energise

"No way that I am going to sport"

I should probably seek more distraction by going out with my friends, but I do not, because before doing something like that I never expect it will help.

#### Complaints:

I7 gets tired during her menstruation, which causes her to be annoyed with the smallest things. It occurs most when she comes back home after a day at the university, because that is the moment she does not have to be strong anymore. She wants to be left alone and isolates herself by lying in bed. She used to feel guilty for that, but she has worked on that, now she does not anymore.

She recently got a new type of pill which severely decreased her pain. She gets a headache during the entire six days of her menstruation. On the first day of her period, she sometimes got nausea as a result of the aching in her head. She also gets pain in her inguinal region on the day before menstruation, continuing until the second day of her menstruation. She takes paracetamol for both complaints, if it gets worse she takes naproxen (on doctor's prescription). She used to use a hot water bottle for her stomach cramps when she has them, but that was on a different pill.

I7 feels self-conscious and uncomfortable when she is on her period. She constantly worries about leaking, especially when she is in a public place. To worry less, she goes to the toilet more often and she usually wears black tights that keep everything in place, and dark clothes in general.

I7's mother is Indian and therefore does not like to talk about menstruation much. I7 talks about menstruation with her dad instead, and asks him to buy her period pads. I7's period pains used to be extremely bad, to the point where her parents almost had to carry her to bed. This made the subject easier to discuss, however only superficially with her mother. She always announces to her parents when she gets her period, so they know what is up.

She is open to friends about her menstruation, but she does not announce her period to them, because they do not live with her and thus do not experience her at her worst. I7 used to call in sick because of her menstruation quite often, it is less now. She always says she is sick to group mates, sometimes privately to a female group member she would tell what is really going on. She does this, because she believes men cannot imagine how menstruation is well enough, which makes her feel like they would not accept menstruation as an excuse for absenteeism. Being sick, however, is something they can understand. I7 also said she might try to protect men from the details of menstruation in general, because she is worried it will freak them out.

When I7 is menstruating she needs sleep, painkillers and isolation (to be sure no one will disturb her).

She tracks her period and symptoms in her mind and because of the pill.

Positive about menstruation is, according to I7, that she is not pregnant and that her body and hormones are functioning as they are supposed to.



Mood regulation strategies:

Seek distraction

Netflix: watch films instead of series, because they are longer

Self-reward

Allows herself to take it slow

Repress

Painkillers

Seek relaxation

Hot water bottle

Refreshment

Showering with the idea of getting clean

Reduce demands

Take evenings off

Avoid new demands

Avoid contact to avoid new demands

Withdraw

Try to be alone, not talk to people, put out phone, avoid stimulation

Rest

Analyse

Changes each month because she changed pill a lot

She only analyses symptoms

Embrace

She does not like to analyse her mood too much during her menstruation, it makes her feel worse. Distraction is really important to her, and when she is faced with her mood it is better for her to distract herself than to analyse it.

.....  
I9 – 24 - Dfl: university - Not on period during interview

#### Complaints:

I9 experiences extreme abdominal pain; menstrual cramps. She does not want to do anything and she cannot do anything. The pain restricts her in her academic and social life, because she cannot even stand up for a long period of time. She takes paracetamol and aleve feminax to repress the pain and she uses a hot water bottle to get more comfortable. She also takes the pill, which also causes her to have less pain during her menstruation.

She does not feel like doing anything because of the pain. The pain makes her not want to move her body at all. She tries to distract herself by doing the limited amount of things she can do while sitting or lying down.

I9 used to stay at home in high school, and would give her menstruation as excuse for her absenteeism. Now she would only cancel on university if she was in extreme pain, with the excuse of sickness. She explains that when she had heavy migraines for a while she would also just say she was sick, because people understand 'sick', and she does not feel like there is a need for people to know what is going on exactly.

I9 was prepared for her menstruation by her mother and her school. The attitude she got from her mother is 'it is part of life, but it is extremely bothersome'.

I9 is actually disappointed in how much she can talk about it to friends. She has no problem being open about her menstruation, but she does not have many friends who experience menstruation as heavy as she does, so then she does not get the understanding she needs.

She finds cooking during her menstruation a big hassle. She wants to make nice meals to take care of herself, but she is not in the shape to do so, because cooking requires standing up for quite a while.

The positive things about menstruation are knowing she is not pregnant, and knowing she is fertile.

#### Mood regulation strategies:

##### Seek distraction

- Sew clothes, watch series

##### Vent

- tell people she is menstruating, seek social support

##### Repress

- Painkillers (also, trying to forget the existence of menstruation when she is not menstruating)

##### Seek relaxation

- Hot water bottle

##### Seek refreshment

- Hot shower --> but not for the sake of refreshment, rather comfort

##### Reduce demands

- Has no choice to do so, this is actually a source of frustration for her



Avoid new demands

Does not want to do anything

Withdraw

Seek isolation (except from mother)

Rest

Take naps

Seek social support

Seeks someone to care for her

Rationalise

Only when the pain has gotten less, "then I know I will get through it"

"I should analyse my period more. At least keep track of it. I do not, because I repress the idea that menstruation exists when I am not on my period, and then my period just comes and surprises me."

--> This was especially when she was not on the pill



.....  
I10 - 20 - Architecture : university -Not on period during interview

#### Complaints:

Three to four days before I10's menstruation, she feels very sad and emotional and she is also more easily annoyed and angry. When she feels like this she sleeps as much as possible. She usually realises her mood is caused by her menstruation, which makes it easier for her to put her feelings in perspective. She also often tries to sport more, which is a hassle during sporting, but does make her feel better. She experiences her mood swings as the worst thing about her menstruation.

I10 also experiences menstrual cramps and sometimes a little pain in her lower back. She wears comfortable clothing to feel better. Her pains influence her mood negatively as well. She also has a very heavy flow, so she often fears leaking. This fear is annoying but does not affect her mood much.

Her menstrual discomfort is usually worst at the end of the day, especially if she had a long day at the university.

She was adequately prepared before her menarche. She got her period quite late (14), so all the girls around her had already gotten their periods.

Her mother was very open about menstruation, which helped her feel less shame about it as well. Now she does not feel much shame for her menstruation. She is very open about it with her friends (she likes to whine about it a lot), and tells her male friends when she is menstruating as well.

Her menstruation does not disrupt her academic or social life.

The only thing she really needs during her menstruation is rest.

She tracks her menstruation with the app called 'calendar'. It predicts when she gets her menstruation, so she can prepare for it. It has more features, which she does not use.

The only positive aspect of menstruation is that I10 always gets the urge to tidy everything.

I10 cannot have ibuprofen or special menstruation drugs, and paracetamol does not help.

Mood regulation strategies:

Self-reward

Venting

Constantly says she is on her period

Seek relaxation

Seek refreshment

By running outside

Reduce demands

Reduce workload

Avoid new demands

Withdraw

Rest

Rationalise

Embrace

Whining helps.

Less:

Repress

She does not manage to do so

Think positively

She does not manage to do so

.....

## Complaints:

### Before:

<b>Sadness</b>	<b>5</b>
Negative thoughts	2
Pessimistic outlook on life	1
Acne	3
Emotional	3
Easily frustrated	2
Angry	1
Crying	2
Sensitive breasts	1

### During:

Pressing or nagging feeling on stomach	2
<b>Menstrual cramps</b>	<b>7</b>
Lower back pain	3
Headache	4
Inguinal pain	1
Nausea	1
Tired	2
Less free in movement	1
Not feeling myself	1
Uncomfortable	3
Self-conscious	1
Acne	1
Easily frustrated	1
Lethargic	1
Fear of leaking	3
Interrupts daily life	3
Academic	2
Social	3
Lesser concentration	1

	Mood		Pain / discomfort	
Seek distraction	Watch films	1	Watch films II Hobbies	3
Self-reward	Pick up hobbies Eating III Spa night Watch films	5	Allow taking it slow	1
Vent		3		
Repress			Tranquiliser	2
Think positively				1
Trivialise	Sadness	1		
Seek relaxation	Sadness	3	Yoga Relaxation techniques Hot water bottle	5
Seek refreshment	More active mood Long shower, bath Outside	3	Feel cleaner More showers	4
Reduce demands	Take evenings off Reduce workload	2	No choice	1
Avoid new demands	Does not want to do anything	3		1
Withdraw	Cry Try to be alone and avoid stimulation Seek isolation	5	To cry Stay at home more	2
Eliminate energy drainers	Eliminate external factors	1		
Rest	Sleep more Naps	4	Lie in bed	2
Energise				
Seek social support	Seek care	2		
Rationalise		4		
Analyse	Find connection between being emotional, acne and menses	1	Analyses symptoms	1
Transform creatively				
Embrace	Only when the sadness is not worrying about relationship Whining helps	4		
Detach		1		

Less:

Detach

I

Repress

III (emotions)

Think positively

II (due to self-pity)

Energise

I

One of the interviewees had no psychological differences during her menstruation, so for her it was not necessary to ask for her mood regulation strategies



Tranquiliser users:	IIIIII	7
Ibuprofen	III	3
Aleve feminax	II	2
Paracetamol	III	3
Naproxen	I	1

#### Positive aspects of menstruation:

Not pregnant	IIIIII	7
Fertile	II	2
Healthy	III	3
Urge to tidy	I	1
Feel like a woman	I	1
At ease when regular	I	1
No positive aspects	I	

(more than one interviewee has said this, but they did mention a positive aspect subsequently)

#### Does not (always) realise the relationship between menstruation and mood:

IIII 5

#### Guilt:

I

II --> frustration

Some feel guilty or frustrated with themselves for taking it slow.

#### Allow themselves to take some rest:

7

1 no choice

#### Shame:

No	IIIIII	6
----	--------	---

Yes:

Pads & tampons	I	1
Talking to men	III	3
Using it as excuse	II	2

Not using menstruation as an excuse because men will not understand

Not using menstruation, or other specific issues with anyone, because nobody understands the exact thing you are going through. 'Sick' is something people understand.

#### What they think they should do:

- Asking others for advice/ talk to others sooner (2)
- Prevent from getting into negative moods by putting effort in maintaining a positive one
- "people say yoga help, I should try that, but I know I will not"
- Drink more water
- Take time for self (treat self)
- Should seek more distraction in friends (never expect it will help)
- Analyse more: keep track of period instead of repressing the existence of it each time

# APPENDIX E - FOCUS GROUP



## E1 FOCUS GROUP

Concentratie punten:

- Omgang met ongesteldheid
- Last van ongesteldheid
- Fysieke pijn
- Mentaal ongemak
- Manier van omgaan met menstruatie
- Zwaarste momenten
- Schaamte
- Slaapproblemen
- Instelling op ongesteld zijn (deel v/h leven, zelfmedelijden)
- Positieve onderdelen van menstruatie
- Beperkingen in dagelijks leven
- Invloed van omgeving
- General needs
- Dilemmas

	1	2	3	4
Leeftijd				
Studie				
Ongesteldheid frequency				
Contraceptiemiddel				
Ongesteld op dit moment?				
Ja / Nee				

.....  
**E2 FOCUS GROUP RESULTS**

Worst things:

P1: panic for unexpected bleeding or leaking & mood swings

Toilets where people you barely know or men can hear you rip your pads

P2: getting up in the morning; having to get up at once and run to toilet immediately. Having to plan toilet breaks when away from home

All: always having to be prepared (bring pads and/or tampons everywhere)

No bins when visiting people, especially people you do not know that well

P1+P2:

I do not like when people know I am on my period. It is quite intimate and private, "you don't tell when you have an STD or that you had sex this morning, why tell anyone you are on your period?"

Especially in the company of men it is awkward, many of them have no knowledge and/or understanding of the concept. Some think it comes along with poor hygiene, give dirty looks when mentioning it. Women are taught to hide it.

P1: "Once I told a mixed gender project group that I had trouble concentrating because I was on my period, and the boys gave me dirty looks."

P2: "I have told my project group once, but that was one on one to a girl in my group, because I knew she would understand because she knows it."

P2: "I've noticed that my boyfriend, for example, finds it much easier to understand what I'm going through if he physically sees me suffering. The concept of general menstrual discomfort is hard for them to comprehend."

Tendencies:

P1: I want to sleep

P2: I want to crump up when I get cramps and I want to shower more often

P1: "Something I really cannot stand when I am on my period is a change of plans. I need to be able to plan my whole day and if something goes different I get frustrated." P2 & P3 agree.

P1 described her menstruation as interruptive. P2 as physical discomfort and an interrupting factor. P3 said "it is part of life".

P1 and P3 were both accepting of their menstruation. They are not happy with it, but it is a part of life so we should just deal with it.

Positive aspects:

All: Not pregnant

P1: it feels like a sort of cleanse

P3: "when my period comes in a month exactly, I feel healthy and a bit proud."

Needs:

All: patient and understanding

P3: "I just need to be able to take small breaks of only 3 minutes to deal with my cramps."



.....

Other:

P1: "When I do fun things during my menstruation, I tend to appreciate them even more. Like, if I were to go to the zoo after a week of menstruating, I would enjoy it much more."

P2: "I would not enjoy it that much, because I would have to plan my toilet breaks when I am on my period."

P1: "oh yes, that is true."

P3: Summer is the worst.

All: "wearing shorts is the worst, it is so uncomfortable"

P3: "... and light coloured trousers"

All: "and swimming"

P1: "I feel less flexible, because I constantly worry if my pad is not moving"

P2: "I feel less motivation to go sporting, I know it is better to do so, but it does not feel like that"

P2: "I feel less active in general, I feel more dopey during those days"

P1: \*loudly\* "menstruating is so expensive too!" P2 & P3 agree

P2: "also, you have no idea what exactly you put inside your body" [referring to tampons]

P1: "that's why I don't use [tampons], I don't like to touch it in general, that's my problem with the menstrual cup too"

P3: "menstruating is complicated", P1 & P2 agree.

P1: "the feeling of menstruation is often feeling nauseous in your womb". P2 agrees.

Negative mood:

P1: day 2 & 3 are the worst, on those days my mood is definitely worse than normal.

P2: day 1 & 2 are the worst for me, on the other days my mood is more influenced by current events.

P3: my mood is not significantly influenced by my menstruation.

"does your period affect your motivation"

P2: "not necessarily, but it does affect my concentration" P3 agreed

# APPENDIX F - IDEATION

MENSTRUATION → stigma — irrationality  
disease/disorder dirty/unhygienic

lack of understanding  
empathy

misassumptions

criticism:

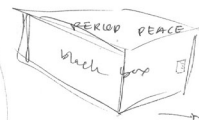
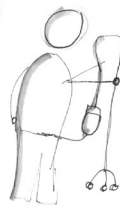
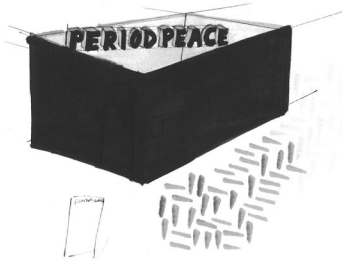
- its hidden, neglected & ignored
- lack of understanding
- shame

half minute — menstruable minute

vegetable

conscious

free tampons & pads

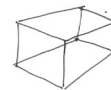


questions — women's shame of it

it being a black box refers to the unknown tendency to hide it from women and lack of knowledge in men.



haunted house period edition  
change current assumptions to show how edictate they are



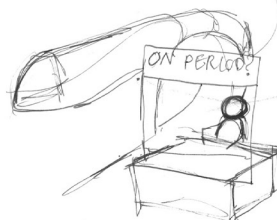
wearable hot water bottle



make men experience menstruation



makes needs of menstruating women clear/visible



amount of blood bleed at uni today

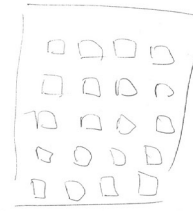


big animal out giving out giving hugs to those who need it

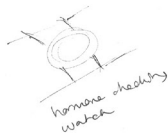
# (PRE) MENSTRUAL PERIOD NOTIFIER



10 kinder partner  
→ notified op  
toilet papier



advent calendar  
premenstrual + chocolate  
menstrual: tampon



hormone checking  
watch



→ Siri, waar en  
wel in me  
slecht



menstruation  
alarm

→ different  
colour for  
premenstrual  
bleeding



water in toilet  
reacts on hormone  
→ changes colour  
→ awareness of  
menstrual cycle



period  
person  
tells you  
if you're  
menstruating

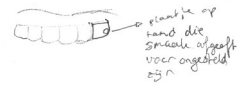


persoonlijke  
buis  
→ premenstrual  
phase → maandverband &  
tampons in bus

→ (like  
menstrual)  
colour



→ bracelet  
which gives  
off a feeling  
vibration



→ ring  
die  
signaleert  
of je  
menstrueert



→ gekleurd  
licht  
→ verandert  
van kleur  
by



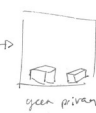
→ wil pols  
color-changing  
in period



tampon in bus,  
verandert kleur met  
onze helderheid, als signaal  
of maandverband te kopen



privacy



geen privacy

→ hadge van  
tampons &  
maandverband



shower kalender



brand van  
tijd naar  
onze helderheid



philips wake up light  
→ red before period  
instead of yellow



→ shirt  
which  
when arrived  
long hair

→ invite hugs  
and physical  
affection



→ hoort  
schakel  
→ weet dat  
het gaat  
stinken



→ wil bloem  
→ wil dat  
het lekker  
wordt



→ veel warmer  
→ weet dat je  
buis of maand  
verband



→ je hoort gel  
so het  
→ weet dat je  
nat gaat  
worden

→ hoort of  
in rusten  
→ weet dat er  
een menstruatie  
komt



→ verander  
doorgang  
geluid



→ verandering in  
onderbroek  
→ nader naar  
roeg



→ pluk de  
30 dagen  
beet?

hoe zet je mensen aan om moodregulatie strategieën oefenen?

doe ... mood regulatie strategieën  
throughout the day → korte strategieën

dagboek met  
dagboek met mood regulatie tips  
→ dagboek met  
ruggen analyse

AH  
personality  
bombs  
→ "break yourself"

make mood  
regulation technique  
challenges



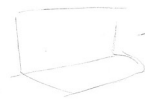
privacy (geen  
man doet plim)  
alle track jezelf  
producten

chille WS



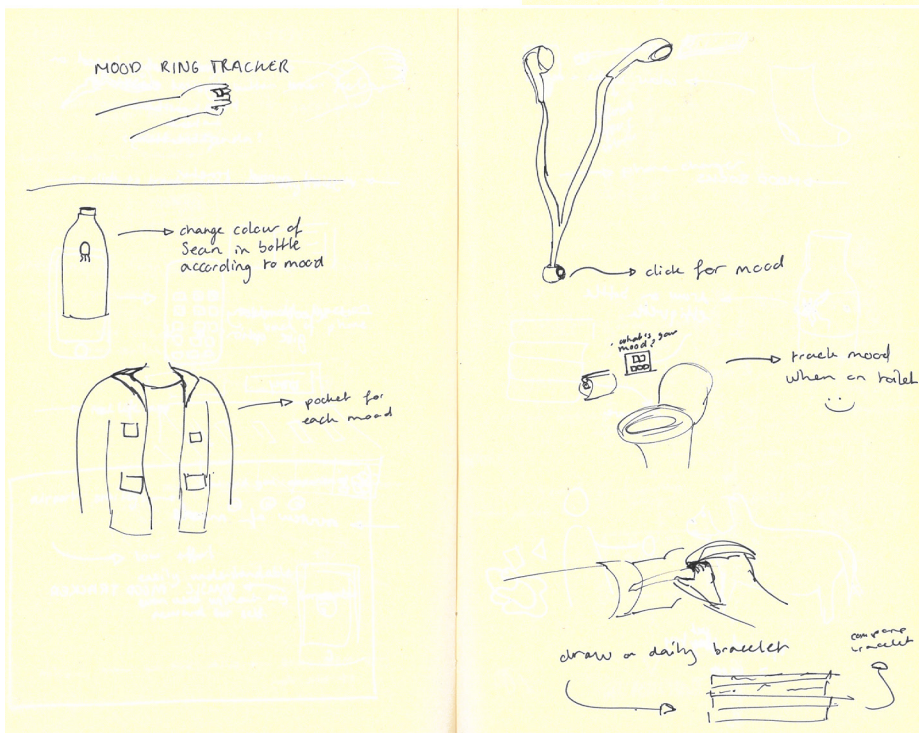
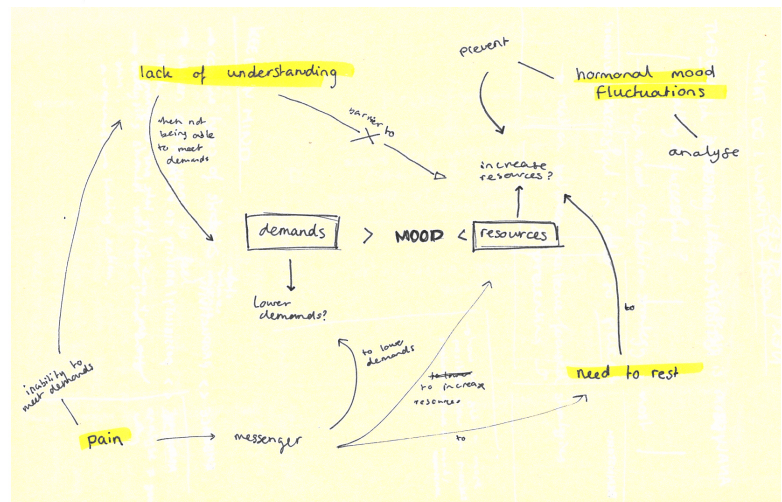
→ geluidsdicht  
→ nuttig

mogelijkheid  
social network

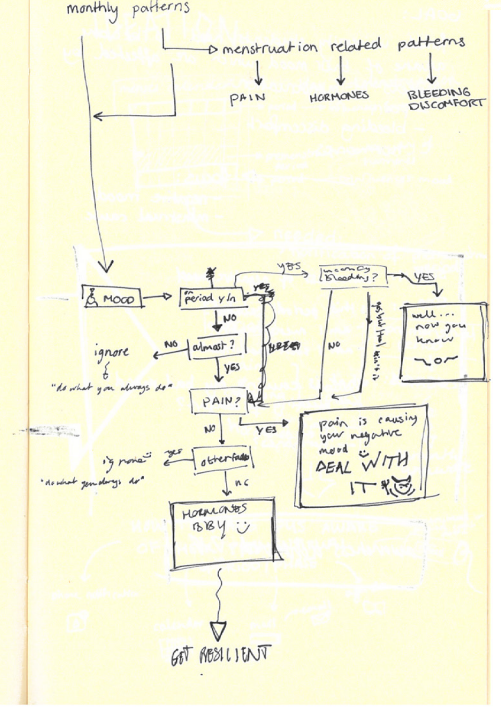
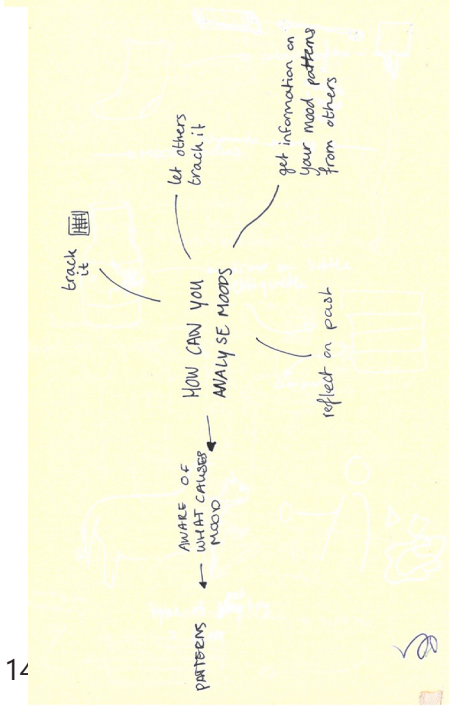
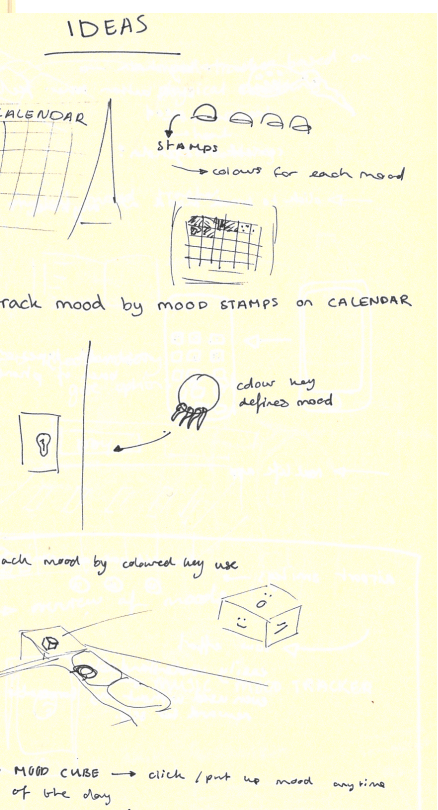
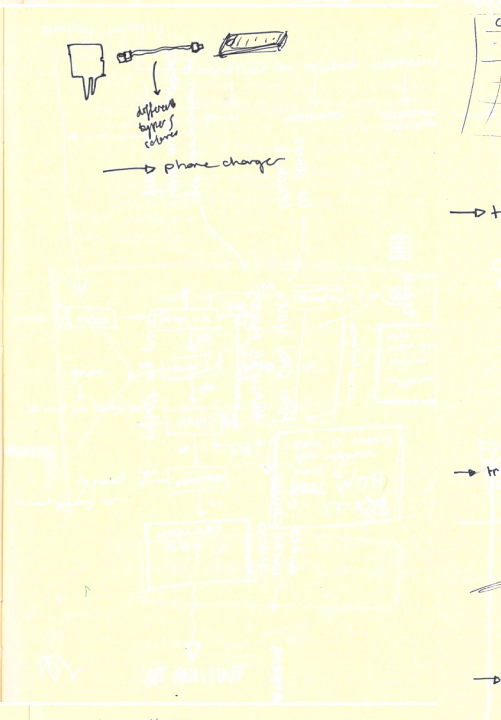
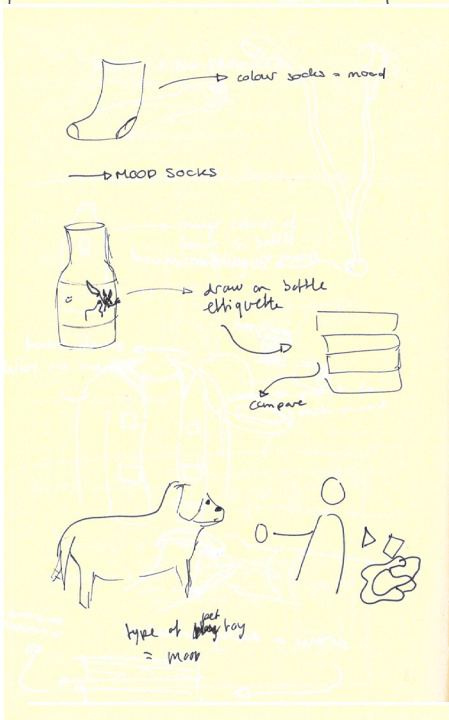
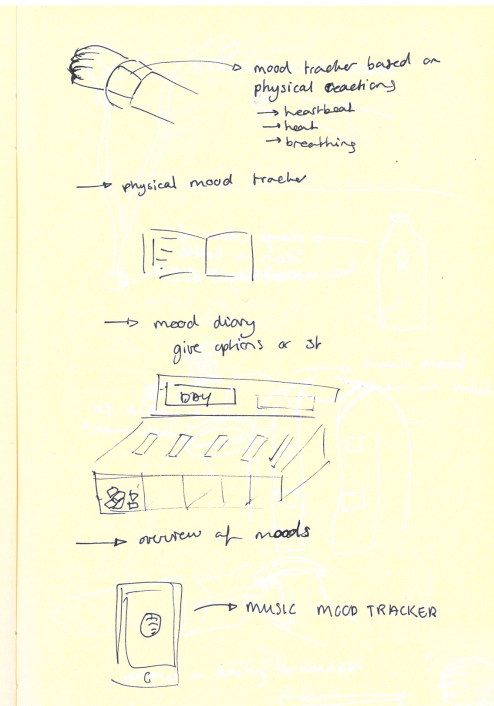
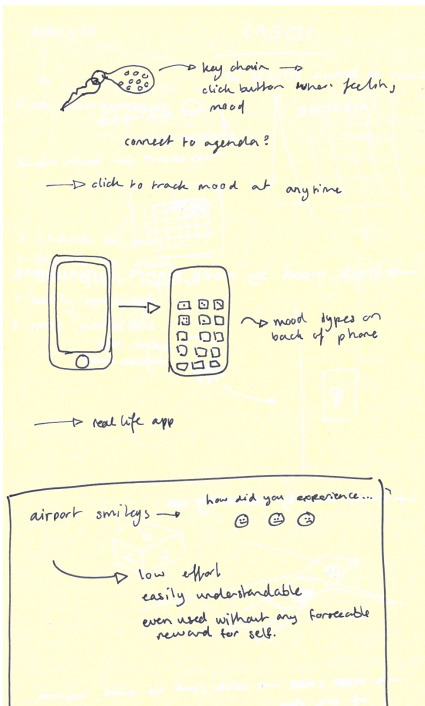


after a while  
→ force to  
chill

MKT  
inhalen



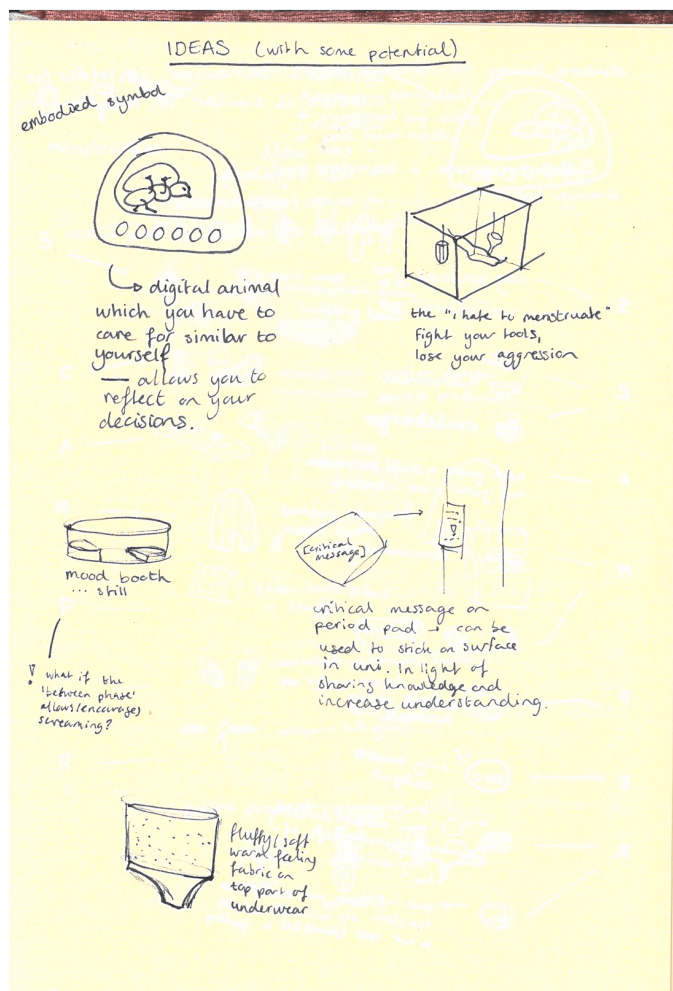
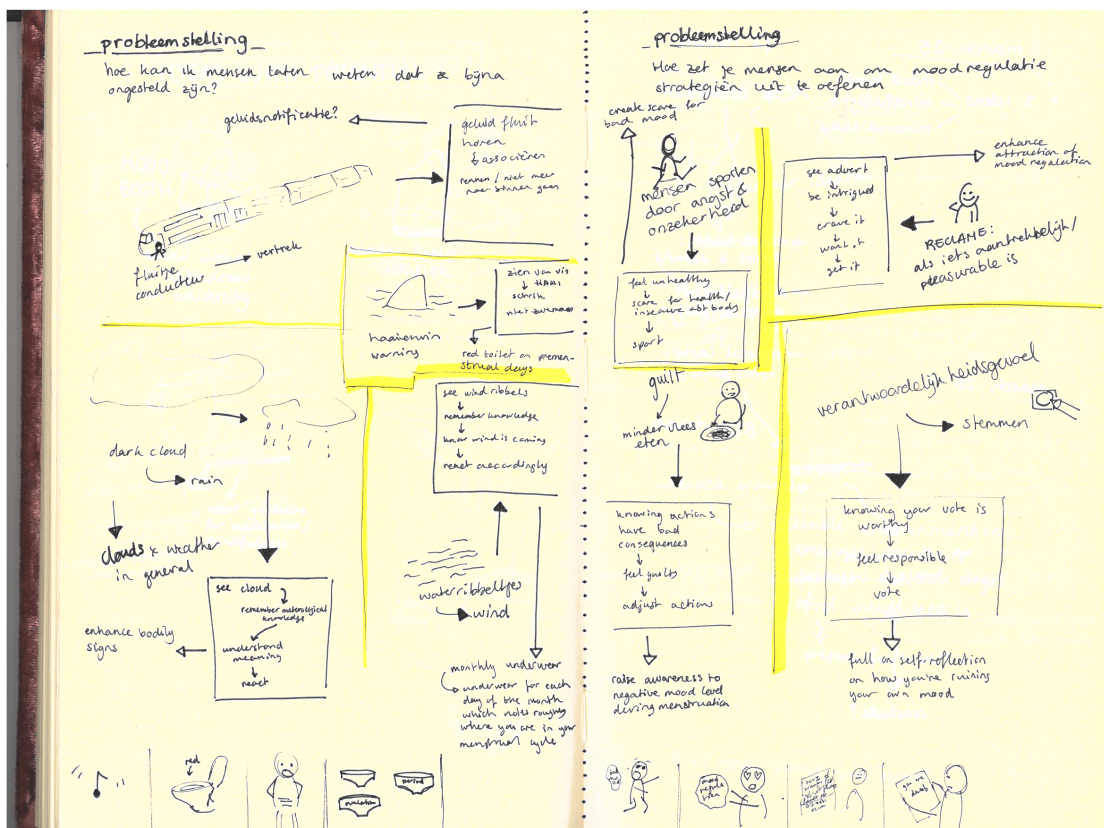








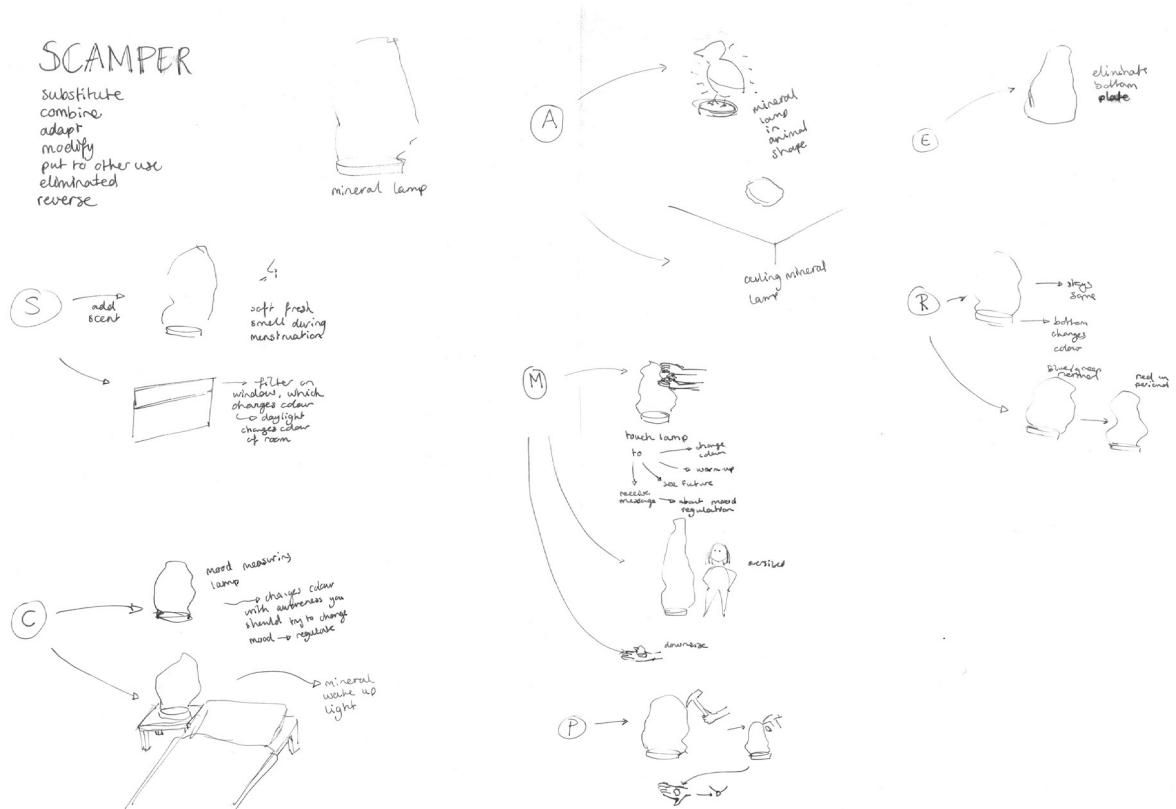




# SCAMPER

## SCAMPER

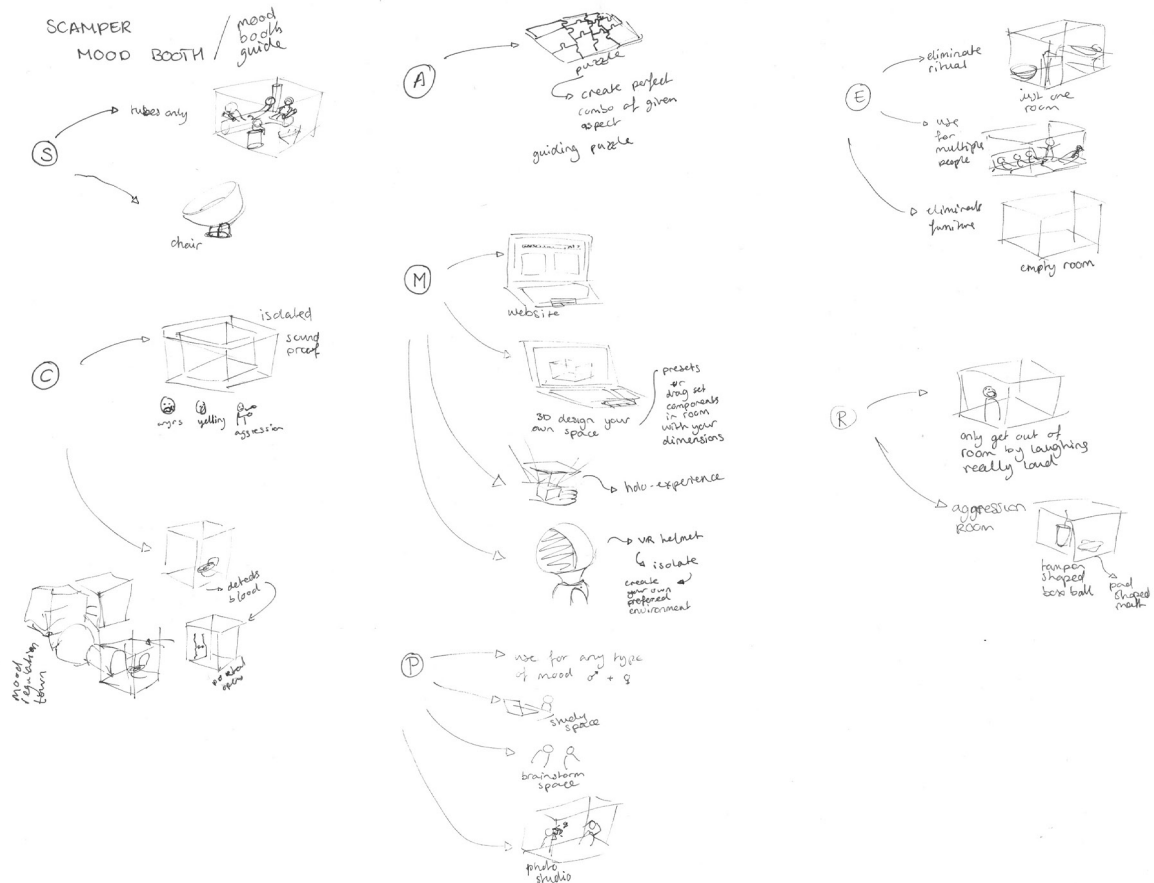
substitute  
combine  
adapt  
modify  
put to other use  
eliminated  
reverse



## SCAMPER

MOOD BOOTH

mood booth guide







animal's behaviour in order to survive is similar to menstruating woman:

- eat well
- rest regularly
- move / exercise

Rhythm of animal is same as own

S — any animal application

C — no animal  
sleuthbanger

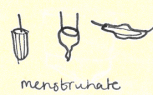
A — add goals n stuff to make the journal more interesting

M — communal game

P — advice giving animal

E — only audio output

R — own actions directly influence life of digi animal  
put in/repair own activities reaction of animal relates to how user (should be) is feeling



release agitation on period products

- tampon boxing ball
- menstrual cup swing
- pad hammock!

statement + exercise strategy  
→ feel vigorous

S — art instead  
more archetypal swing  
tumbling lone

C — menstrual interior design  
"normalize period products"

A — hit the tampon

M — tampon shaped mood bath

P — free tampons n stuff

E — baseball → tampon ball  
tournament

R — tampons hit you?

period product playground  
swings  
springing  
with

⚠ preferably don't promote negative association with period products.



critical message x sticker pad wrap  
• facts?

S — use sticker on pad

C — add sticker on calendar  
→ visualize every day  
some one is menstruating

A — let everyone know you're on period.  
cord on pad → use to take a break from group without having to explain (→ just hand cord)

M — red dot as sticker

P — recycle menstrual waste.

E — no sticker

R — free pads on public place as statement?



warm cosy underwear  
- warms abdominal area without heat

S — insert heat pads  
Pleee

C — onesie or just a vest

A — extra big n comfy to reduce leaking anxiety

M — period suit!!!

P — points for perfect pad placement

E — only warmth band  
→ separate from underwear for multiple uses & hygienic reasons

R — crop top...



# mood booth



⑤ @home

smart home changes atmosphere at home to desirable state during menstruation

in clothes → fluffy  
→ comfortable  
→ warmer  
→ soft

③



mood regulate in disquiet

ritual

④

⑥



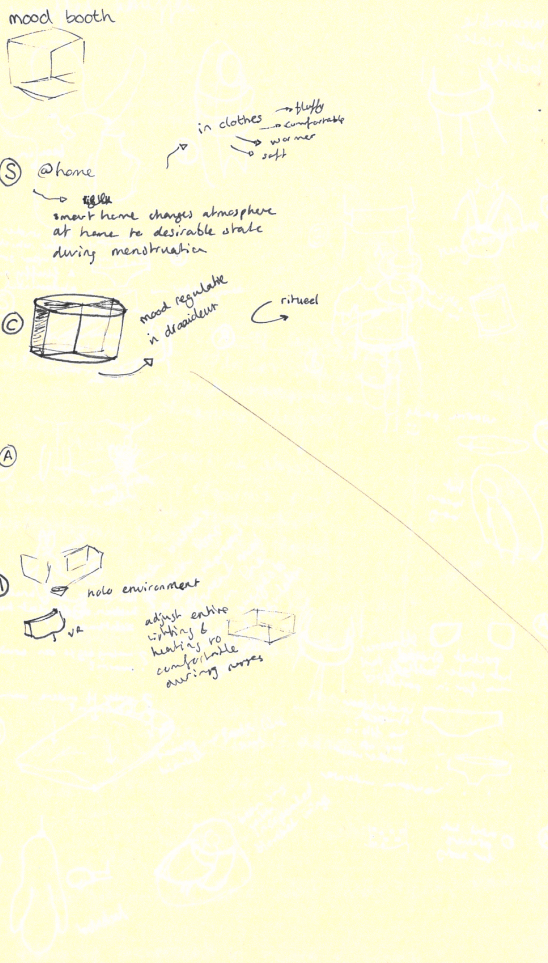
holo environment



adjust entire lighting & heating to comfortable during menses

⑦

⑧



# MOOD BOOTH → critical design



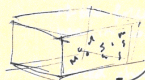
place booth in middle of university



non-obvious design challenges that challenge status quo  
PRIVACY  
STIGMA  
SUBTLE



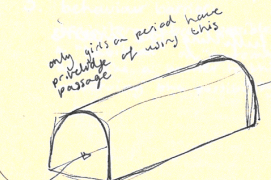
visualises the lack of knowledge of men @ period + lack of explaining from women  
black box  
only women allowed



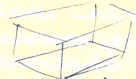
put up men's assumptions, quotes and myths



facts to think about



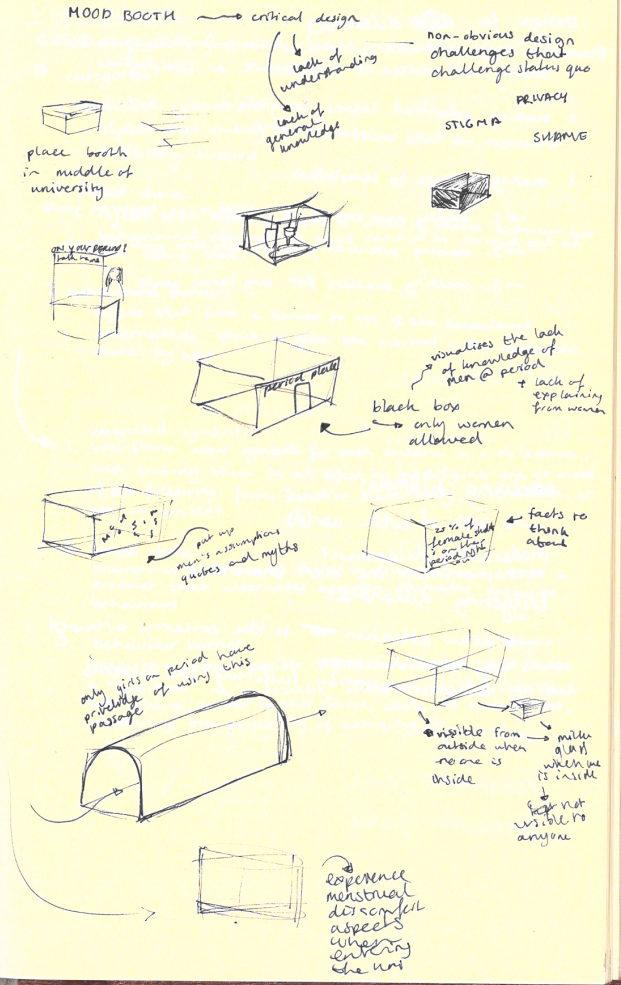
only girls on period have privilege of using this



visible from outside when no one is inside  
milk glass when we is inside  
but not visible to anyone



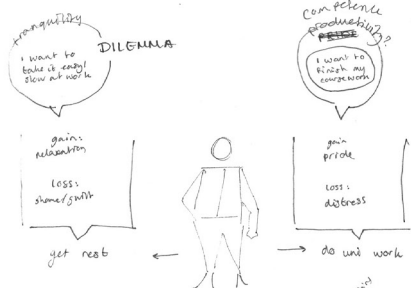
experience menstrual discomfort aspects where every the uni



# Dilemmas



S



MODERATE

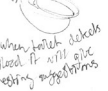
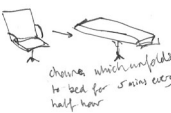
→ prioritise rest



→ used both a user alternative to use by making resources of pleasure and temptation



menstrual work room  
quiet room where you can work without distractions → room with home, the right comfort and atmosphere and will suggest regulation strategies



TRIGGER

visualise collapse of evening in case of working now

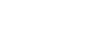
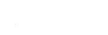
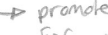
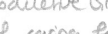
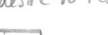
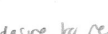
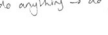
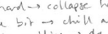
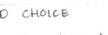
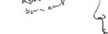
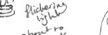
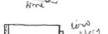
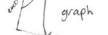
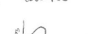
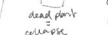


1) define the specificity of dilemma  
2) define case of ambiguity about triggers this dilemma

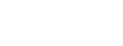
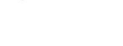
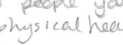
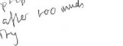
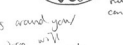
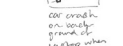
EMBEDDED SYMBOLS



best



form function material interaction use in context



TRIGGER DILEMMA

RICH EXPERIENCE

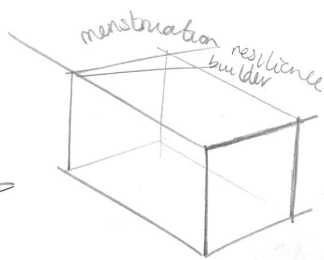
somewhat indulging

shows to show period & desire to rest and take care of self

somewhat self-sacrificing

reluctance to miss productive time and show people your struggles x pride of caring for mental & physical health and overcoming your worries

→ promote as menstruation space for women



embodied symbol



plants need watering die when not visited enough

forced choice



comfortable work environment when on period



timer tells you take a break



from miles to come by taking fruits

behaviour barrier



break after x time



hit up



take steps guide the mood better

## Rich experiences

### THE SELF SACRIFICING

reluctance + pride

→ forced enrage



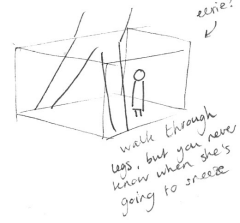
### THE GROTESQUE

disgust + fascination

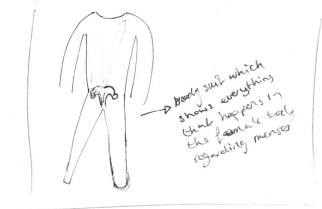
aimed at men:  
bloodiest way of  
learning about  
menstruation



feel in late  
vagina exactly  
what happens  
during menstruation



very real & big  
visualisation of  
period  
menstrual cycle



→ body suit which  
shows everything  
that happens in  
the female body  
regarding menses



video of a day in  
the life with  
menstruation  
→ very detailed

### THE INDULGING

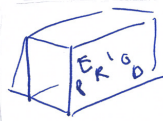
shame + desire

'forbidden' temptation

Free chocolate  
when on period



very long  
toilet visits



mood booth

→ everyone  
will know you're  
on your period  
but you'll get  
time in a very  
desirable environment

### THE SCANDALOUS

indignation + fascination

an outrageous, yet fascinating  
violation of social norms or values

#### ETIQUETTE

'hide menstruation'



show menstruation  
leak



visualisation of menstrual  
mood changes  
vs on face how  
girls deal with  
it / hotel book

in on my  
menstrual  
mood

period business  
card  
would handing  
to make excuses  
for taking a  
break by using  
this

#### SOCIAL NORM

'a very misogynist approach on menstruation'

once leave  
days for  
girls on  
period

put menstruating  
girls in different  
room(s).

period



period

everyone else



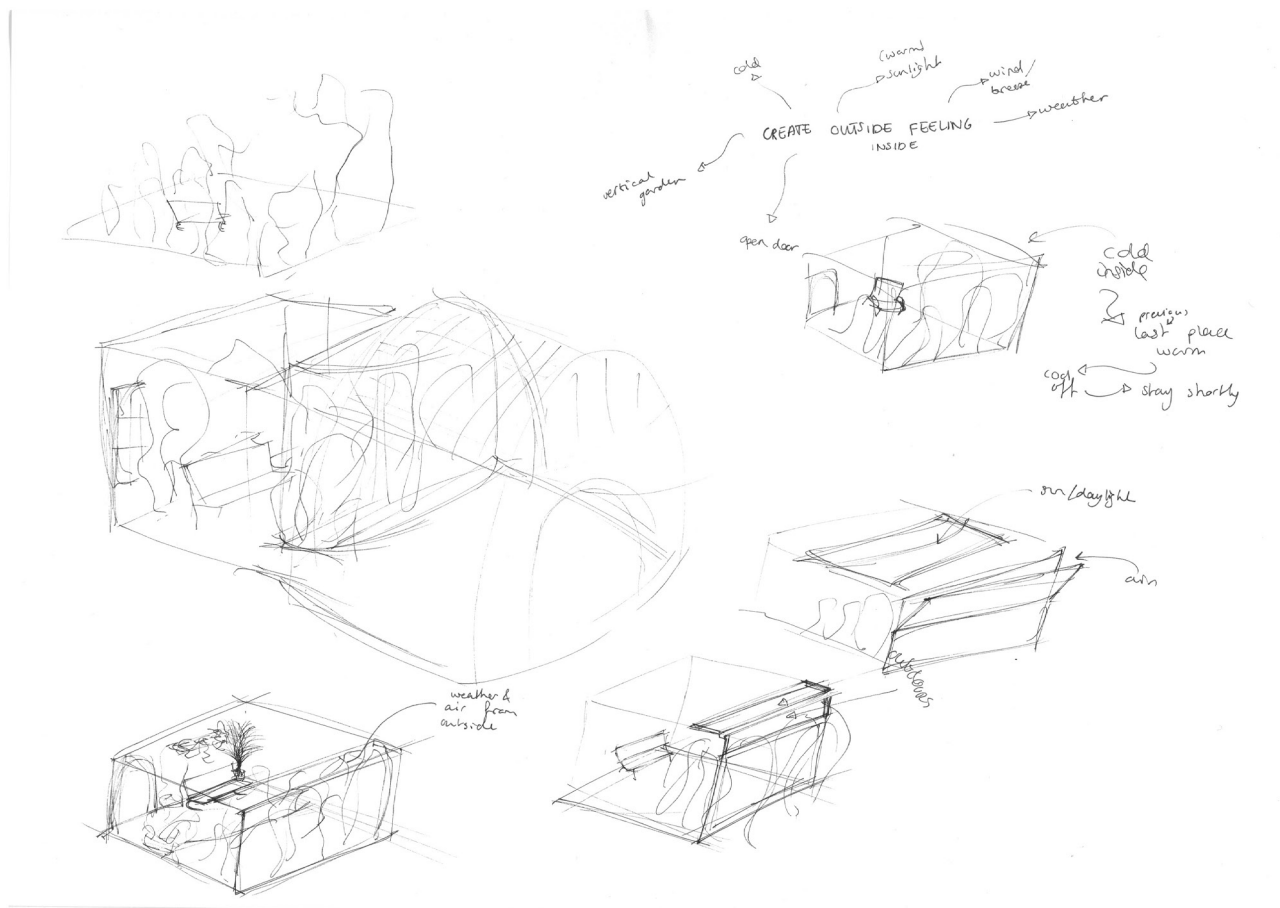
everyone else

private given  
woman's period

period  
privilege  
when period



# APPENDIX G - CONCEPT DEVELOPMENT



VISUAL APPEARANCE: acceptance

disregard taboo

create openness  
about subject

MOOP benefit is  
provided for northern  
women to get good  
rest during small  
breaks in order to make  
university more bearable,  
without negatively  
influencing their  
performance.  
Menstruating women need  
more rest than men and  
more bicabinolates

clear  
explanation

covered in pads  
very bad idea

Hand-drawn sketch of a 3D box with text on its faces:

- Top face: "20% of people struggle to manage their money"
- Front face: "No experience, no time, no confidence to do it"
- Right face: "tasks"
- Left face: "be able to do it"
- Bottom face: "group work"

← facts

MINISTRAWOOD BOARD

name of product

name of  
'product'

black  
this is a visual  
representation of  
how much men  
know about  
menstruation

completely up,  
d. transparent  
when not in  
use

down milk glass when in use

"feminist" image

visual explanation of what menstruation is

binnenkort naar  
huis

EXTERIOR

- in existing room → requirements for room

**SIGN**

(visual)  
explanations 'poster'.

images of inside

△ window

message:

- menstruation is normal, but hard
- female uni students prioritise uni over their own well-being
- They need rest
- A room for breaks with little stimuli will allow for female uni students to cope better with uni during their menses

Voorgesels

A simple line drawing of a room. On the right side, there is a window with a chair positioned in front of it. On the left side, there is a vertical line representing a wall or door frame. The drawing is minimalist, using only black outlines on a white background.

embrace  
embrace your feelings,  
allow yourself to feel  
bad. let it out.



detach  
empty your mind  
focus on your  
surroundings and  
on your breathing  
what do you see/  
feel/hear/smell

rdy to go outside

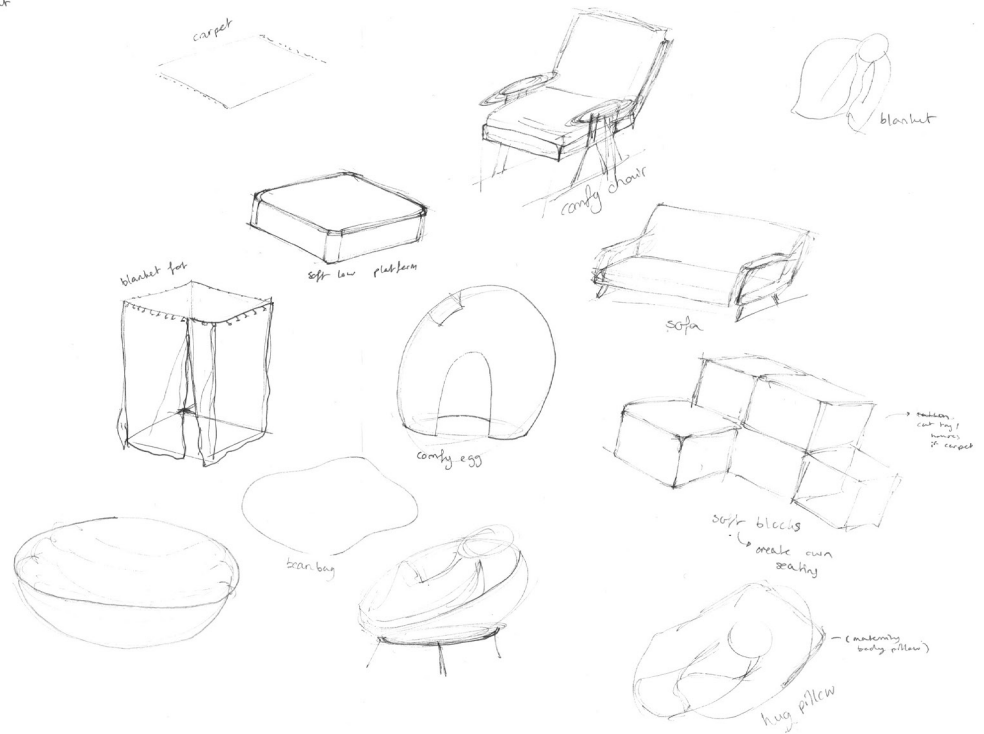
inspirative  
stands  
restaurants

plane  $\approx$  w/leg

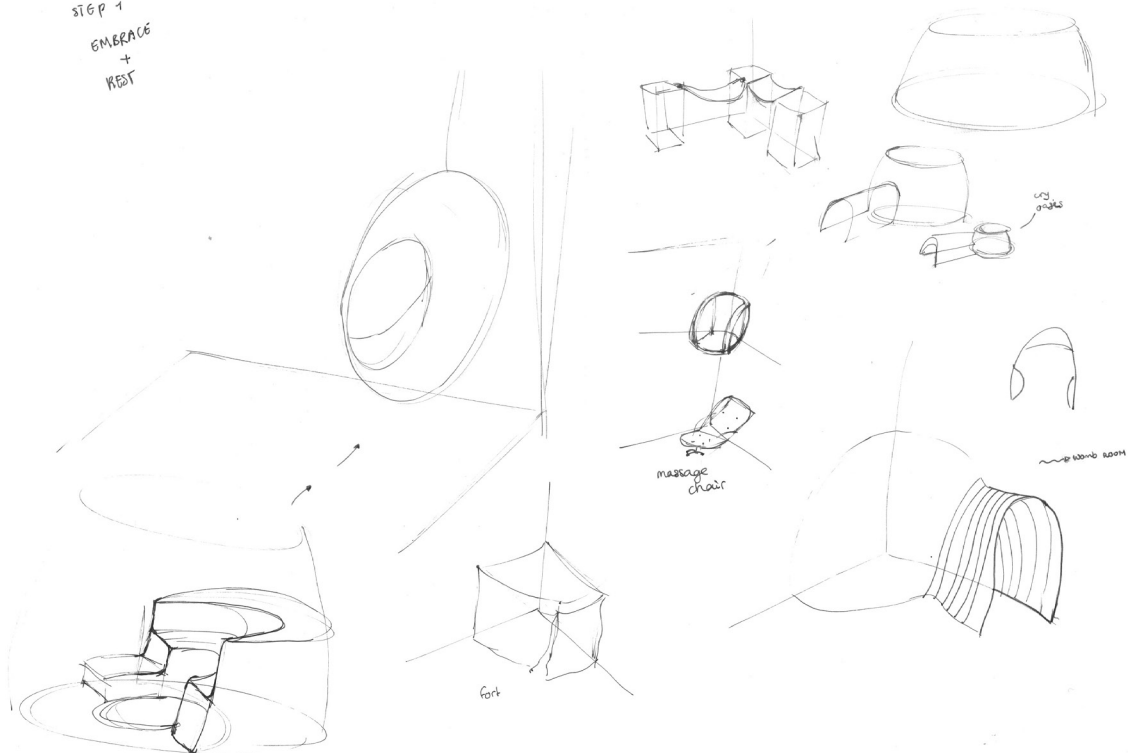
normal  
hard  
not flashy  
attractive  
serious  
friendly  
interesting

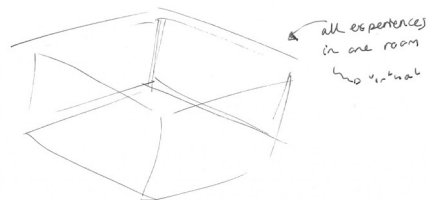
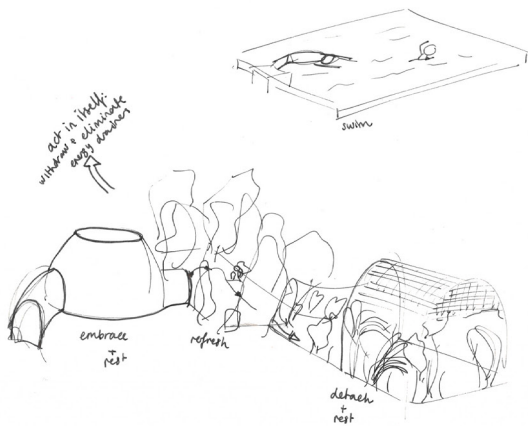
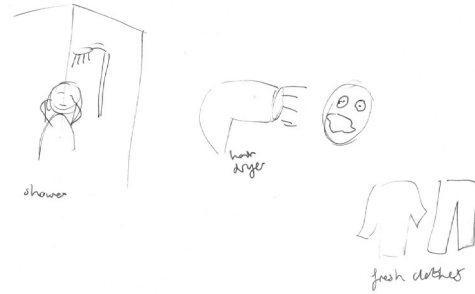
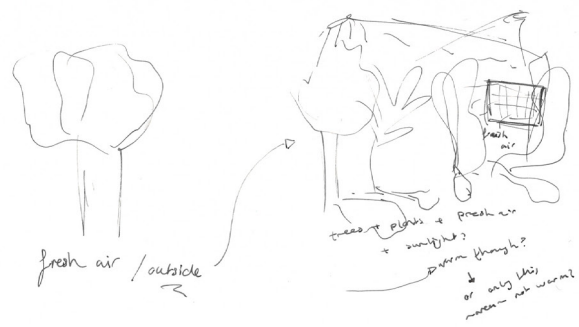
## EMBRACE SPACE

comfortable not too big  
warm alone  
small dark / warm colours fresh scent  
soft  
dark cozy isolated  
no distractions / clutter

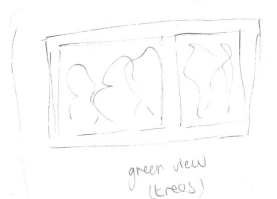


## STEP 1 EMBRACE + REST





calming sounds  
isolated  
fresher colours  
↑  
research  
interviews



bamboo sand glass  
clay  
rocks stone  
wood ceramics cork

white / light  
walls

green blue white brown → earth tones

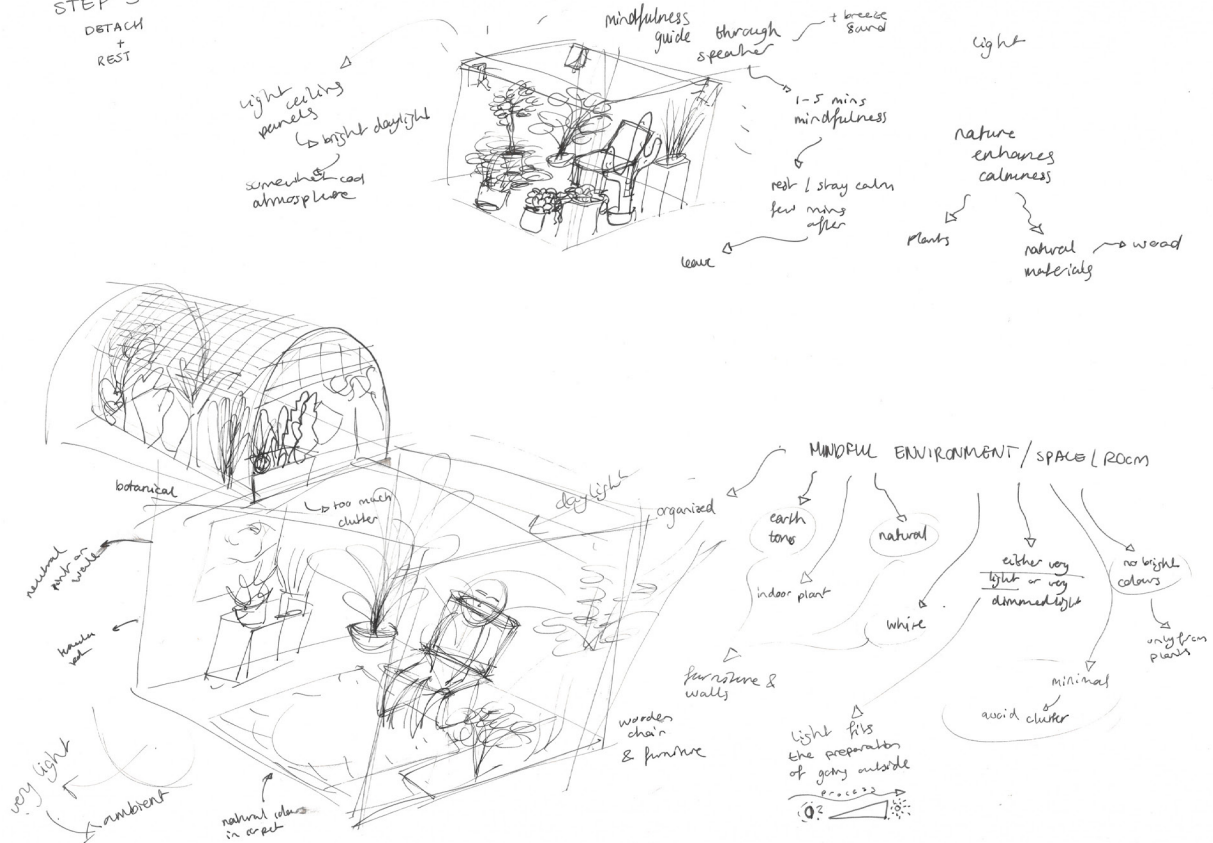
natural materials

presence of water





### STEP 3 DETACH + REST



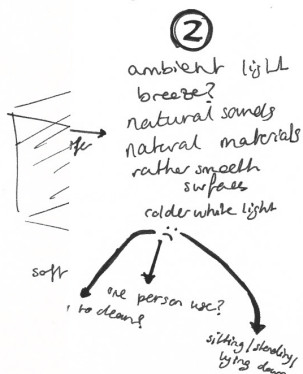
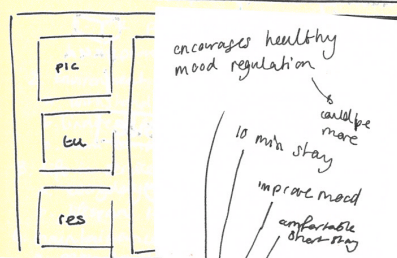
**SIGN:** "menstrual mood booth"

"period peace"

"menstrual resilience"

"surfing the crimson wave?"

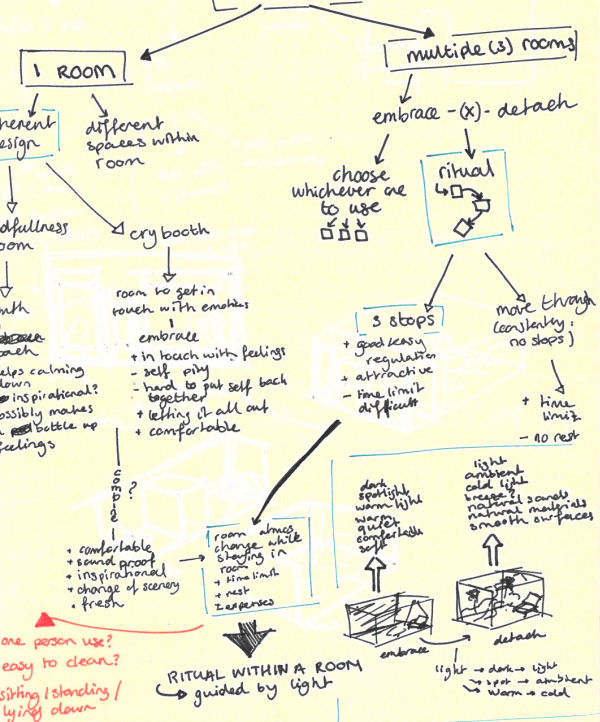
"menstruation withdrawal room"



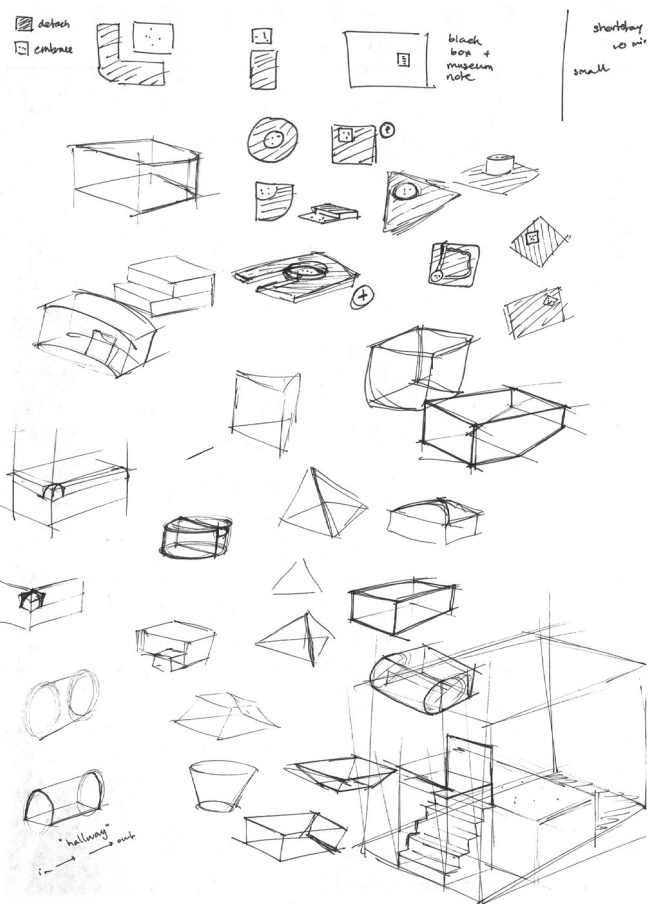
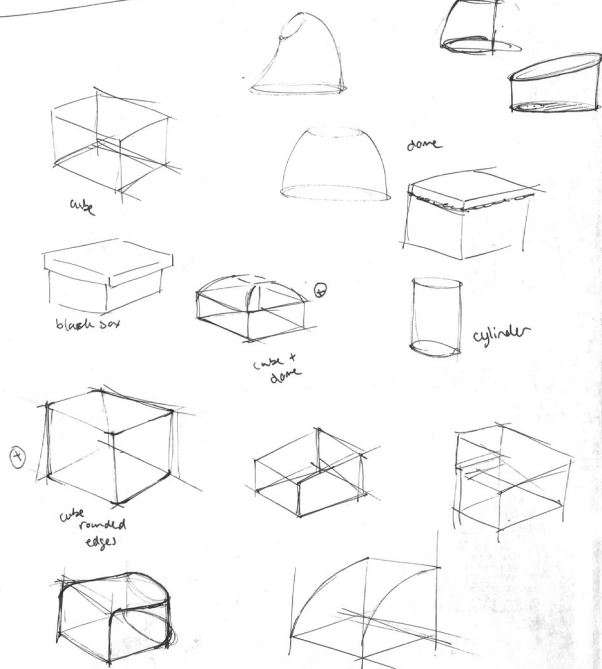
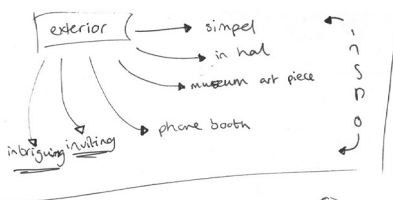
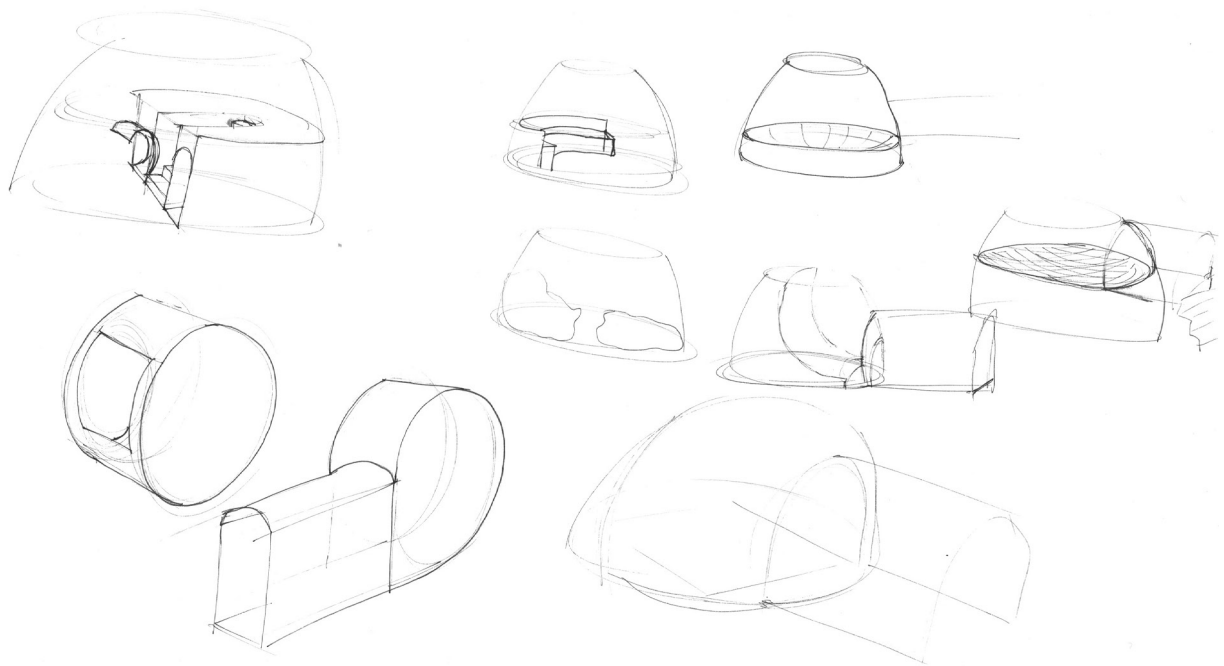
### INTERIOR REQUIREMENTS

- encourage healthy mood regulation
- 10 min. stay
- one person use
- improve mood
- easy to clean
- sitting, standing & lying down possibilities
- comfortable for short stay

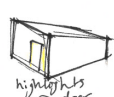
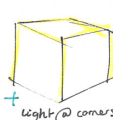
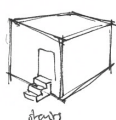
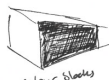
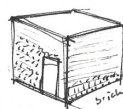
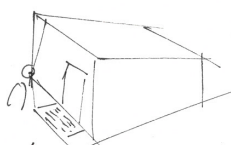
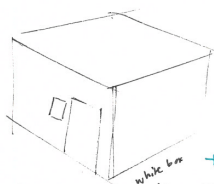
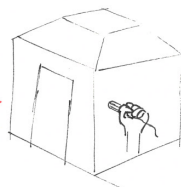
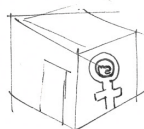
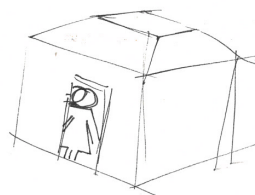
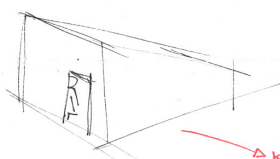
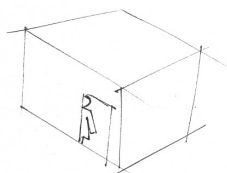
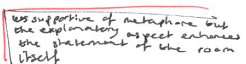
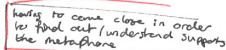
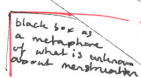
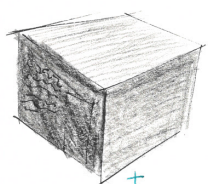
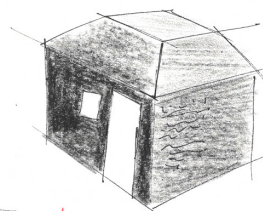
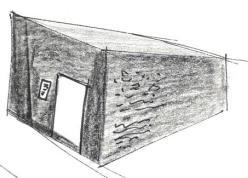
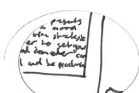
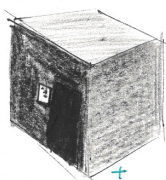
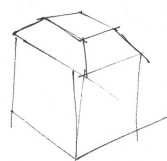
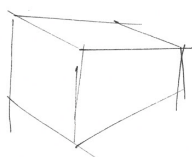
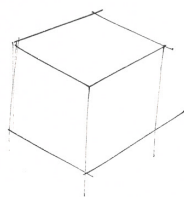
### INTERIOR







ALL BLACK  
MUSEUM PIECE

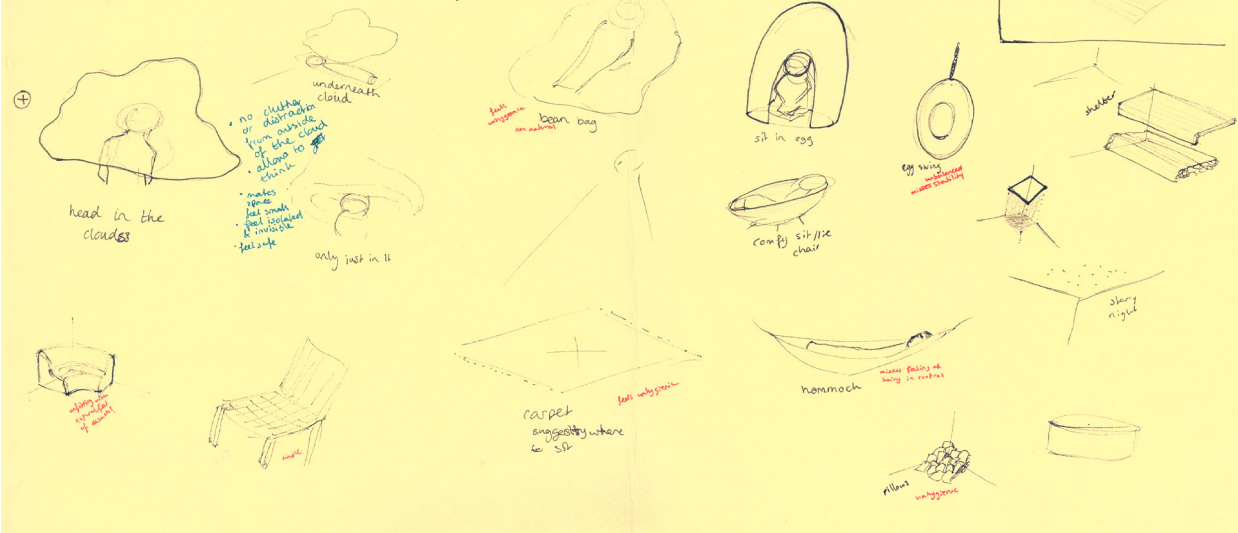




RESEARCH FINDINGS:

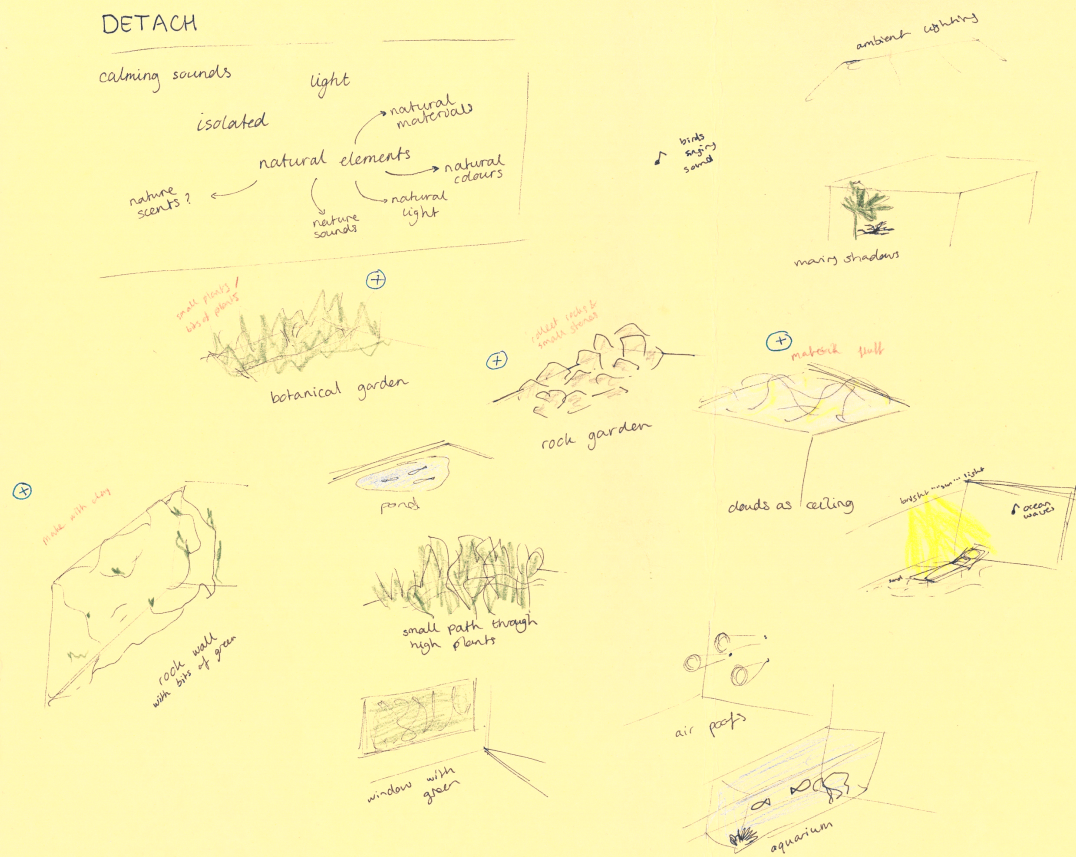
comfortable	warm	alone
small	cosy	fresh scent
isolated	dark	soft
		dark/warm colours
		no distractions / clutter

comfortable      warm      alone  
small      cosy      fresh scent  
isolated      dark      soft      dark/warm colours  
no distractions / clutter

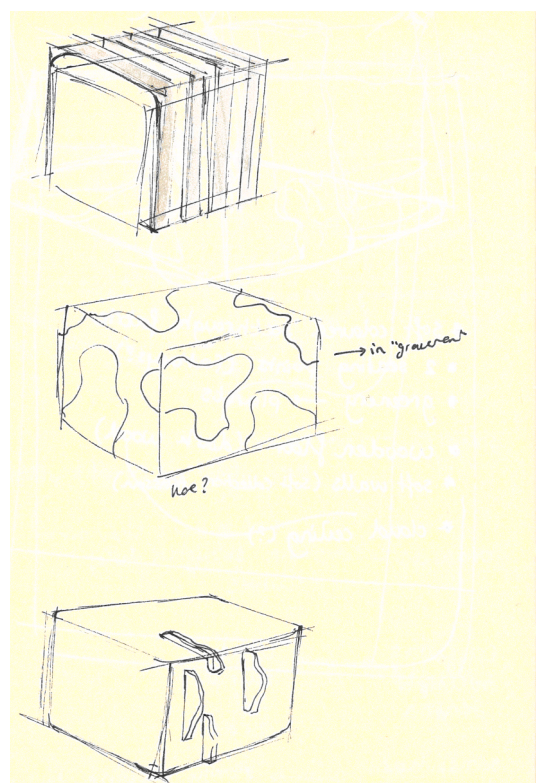
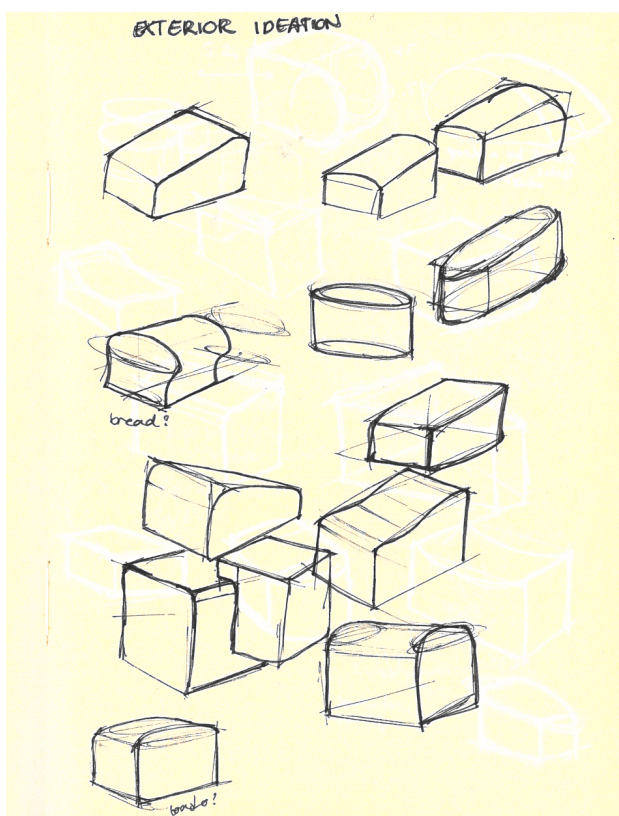
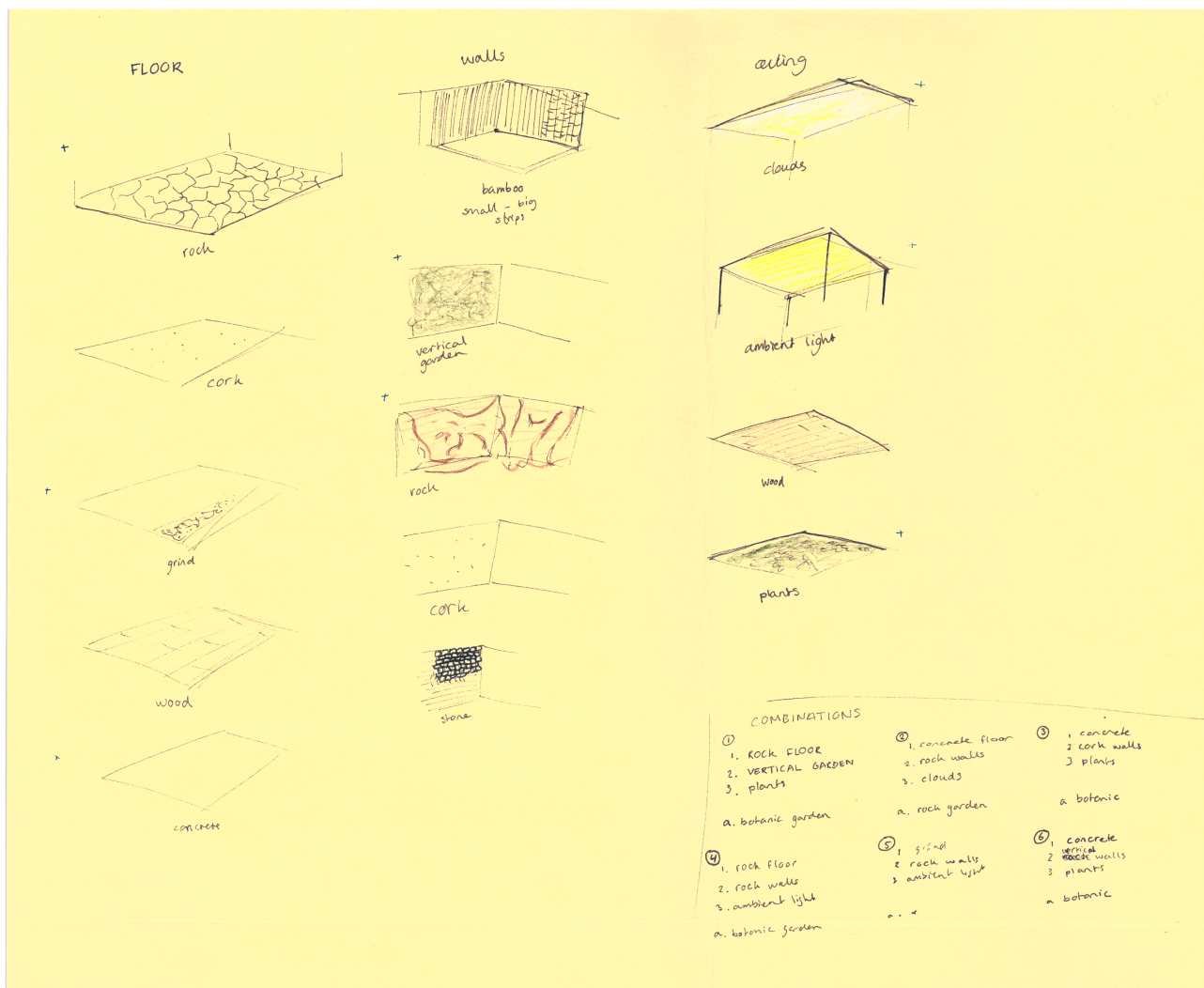


A mind map with 'natural elements' at the center. Arrows point to 'light', 'natural materials', 'natural colours', 'natural light', 'nature sounds', 'nature scents?', and 'isolated'. 'calming sounds' is written at the top left.

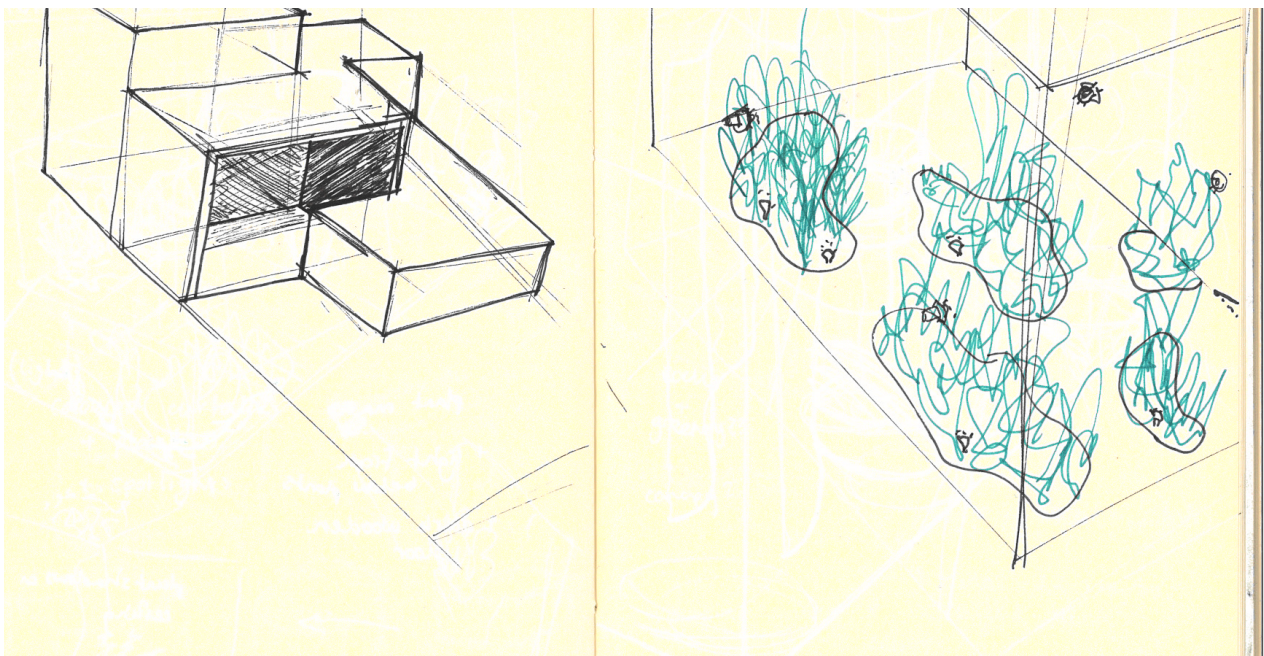
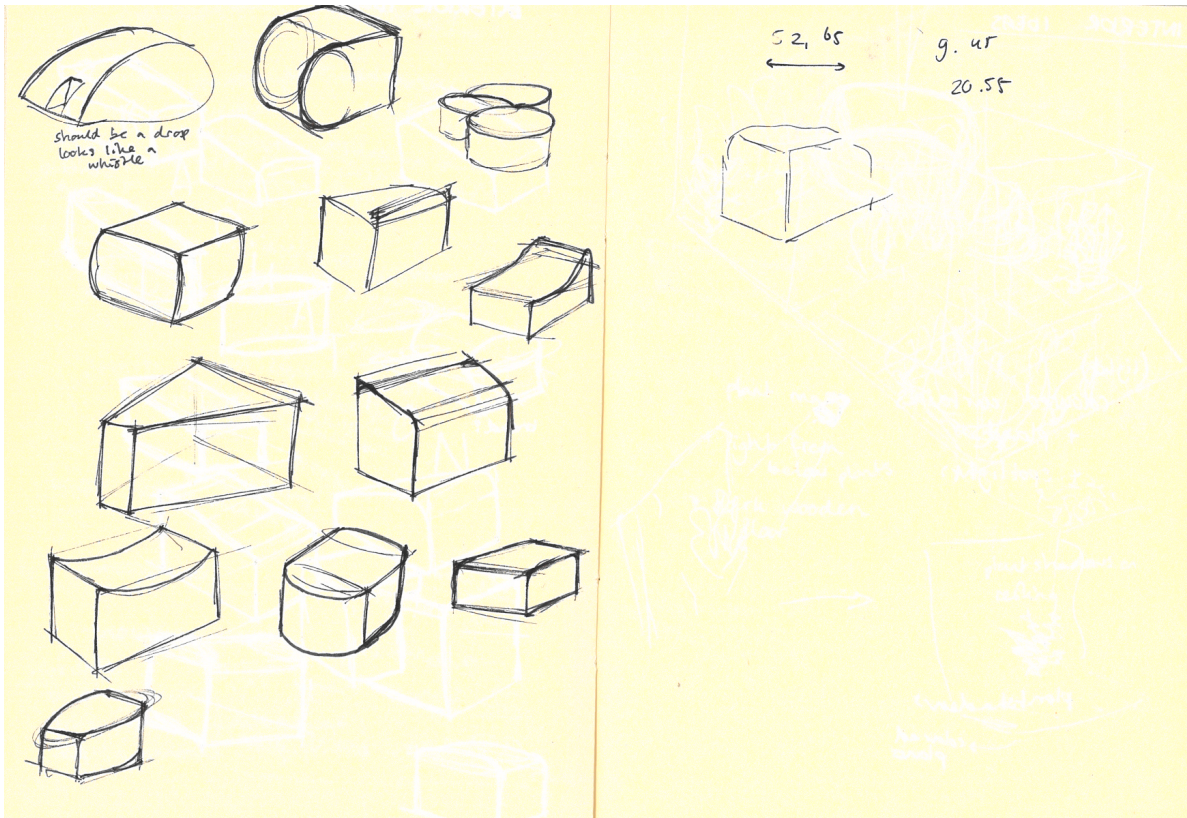
A mind map with 'natural elements' at the center. Arrows point to 'light', 'natural materials', 'natural colours', 'natural light', 'nature sounds', 'nature scents?', and 'isolated'. 'calming sounds' is written at the top left.



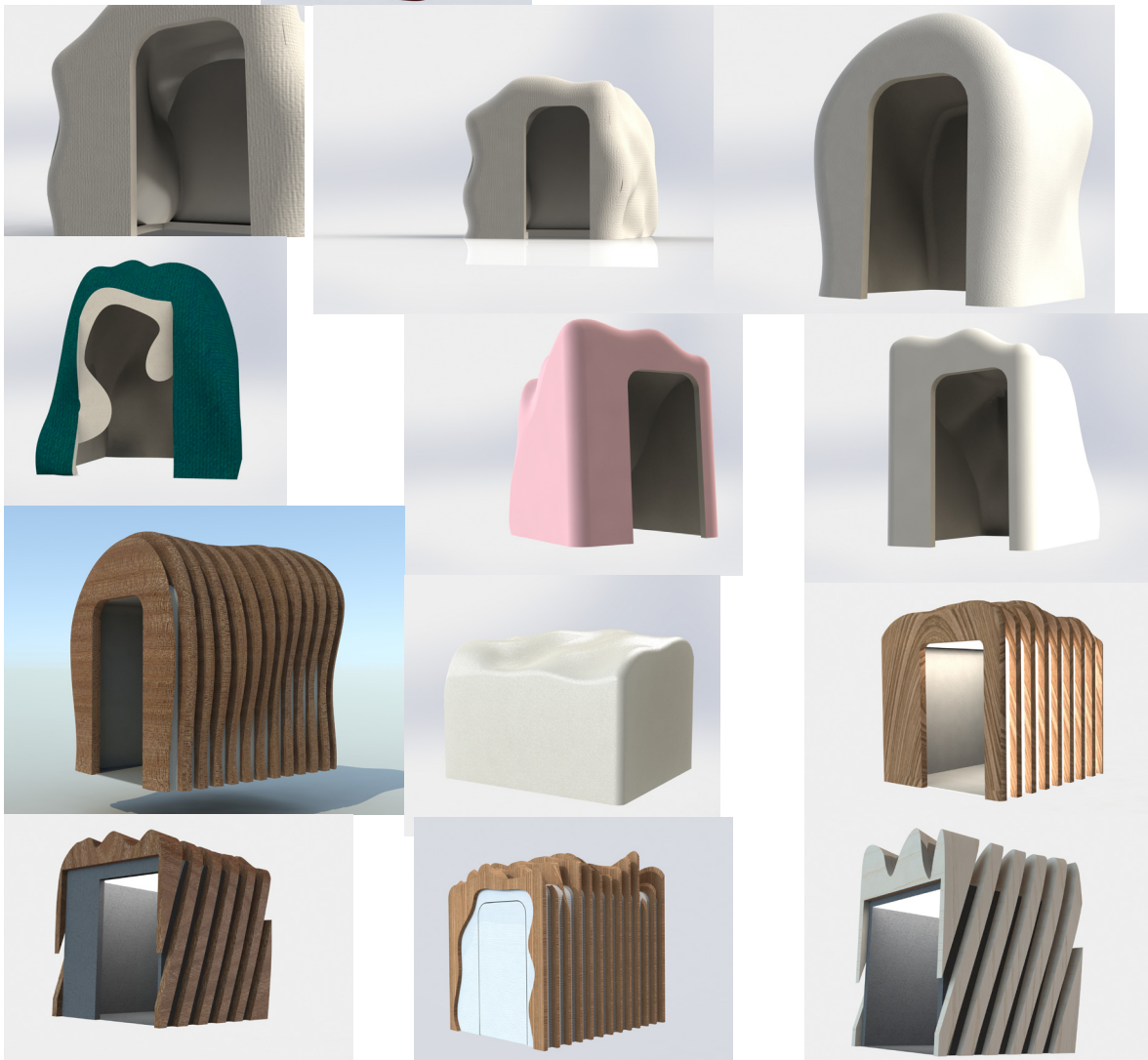
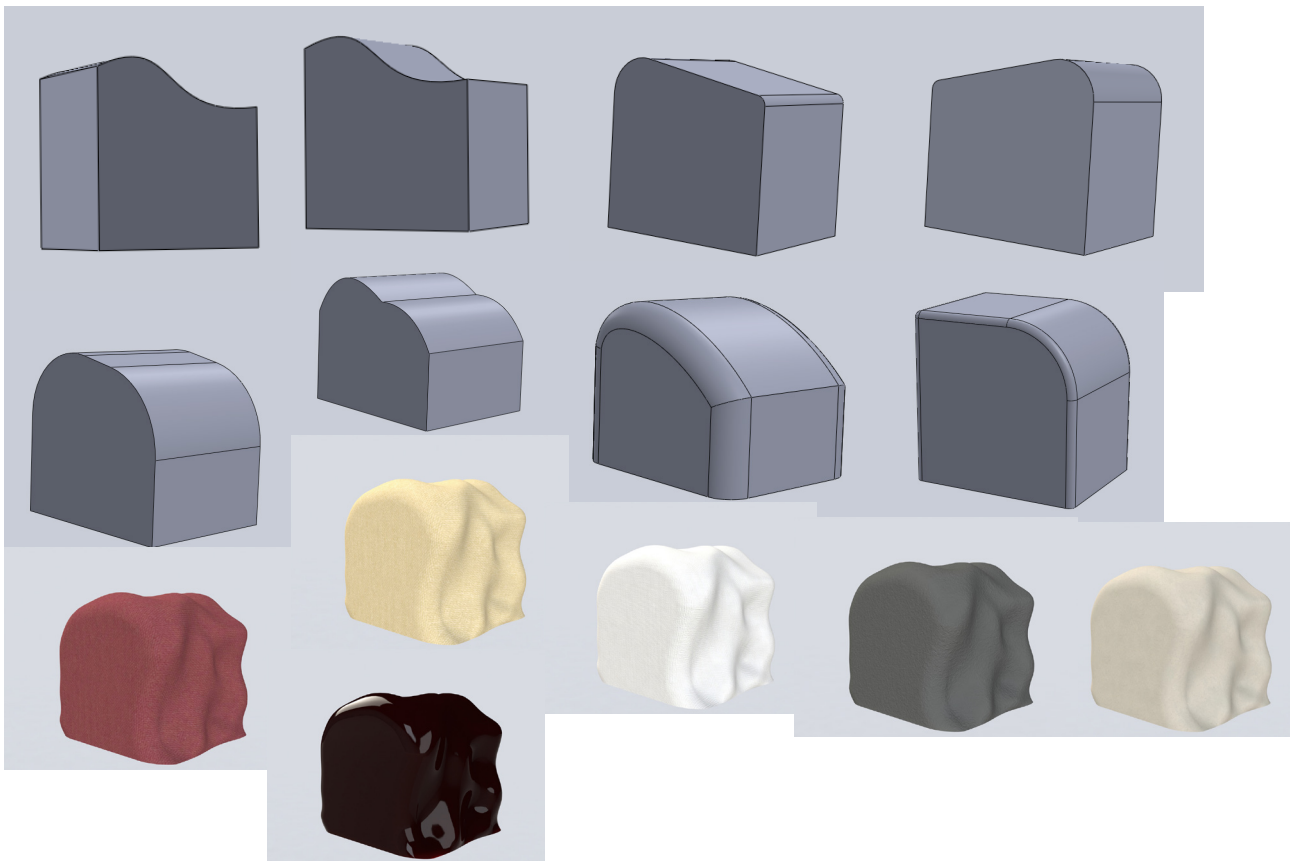












# APPENDIX H - CONCEPT TEST

## H1 CONCEPT TEST QUESTIONNAIRE

Op een schaal van 1 tot 7, hoe ervaar je het uiterlijk van deze ruimte voor de volgende eigenschappen:

### Uitnodigend

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

### Intrigerend

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

### Vrouwelijk

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

### Afstandelijk

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

Op een schaal van 1 tot 7, hoe ervaar je de binnenkant van deze ruimte voor de volgende eigenschappen:

### Veilig

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

### Comfortabel

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

### Warm

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

### Privé

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

### Inspirerend

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel

### Memorabel

helemaal niet ☐ ☐ ☐ ☐ ☐ ☐ ☐ helemaal wel



## H2 CONCEPT TEST VIDEO

<https://vimeo.com/342537547>

Password: VideoWies

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**H3 PERCEPTION OF THE MOOD BOOTH BY FEMALE STUDENTS RESULTS**

F1 – IPD masters – first year

Exterior:

Walk around

Read text

Shape is attractive

Reminds of a museum piece

Would go inside

Never thought if it is feminine or not

Occupied/free is not very clear, maybe add more light? Would make it more fancy

Interior:

Would want to sit down

Want to sit in the middle

More light --> see more --> walk around more

Dark: would stand and watch to get an overview of the room

Would reach a meditative state if it is dark a long time.

Long dark period is effective

Exterior reflects the interior well

By seeing all of the outside, I know the boundaries of the space, which is nice

Plants make me happy

Warm materials and natural elements give a safe feeling

Not being able to sit in the middle makes it a tad less comfortable, but it is definitely not bad

It's a very conscious choice to go inside, similar to a museum piece. It's surprising and thus inspiring. I would definitely revisit, because it is a nice way to withdraw

The museum feeling of it is inspiring

Combination of a change of scenery and a quiet, isolated space is nice, especially since IDE is very busy

Mood regulation strategies

Would practise in this room:

- Think positively
- Seek relaxation
- Seek refreshment
- Withdraw
- Eliminate energy drainers
- Rest

Sometimes:

- Embrace
- Detach

Not:

- Vent
- Repress

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F2 – DFI masters - graduating

Exterior:

Confused

Attracted to it

Interpret it as a pop-up thing (since that is common in IDE)

Does not blend into the environment, but maybe that is different when you are new to IDE

It's approachable

Looks closed off, but because it is not just a solid cube it makes me curious

Uncomfortable going inside, maybe a sort of tunnel or canopy would help. Although that makes it less approachable

The wooden structure makes it lighter and looks nice

The mystery of the whole thing is nice

Interior:

What if the beanbag lit up?

Feeling of outside because of the breeze

In the dark I would sit on a beanbag and that is it. I would look a bit around me or close my eyes, depends on what I desire.

In general my behaviour would be dependent on how I am feeling exactly

I would feel safe because it is isolated.

Does not feel very warm because of the breeze, the wooden floor and the beanbag, although that depends on the fabric of the beanbag

Mood regulation strategies

practised:

- (it is) self-reward
- Vent (self-reflection)
- Think positively
- Seek relaxation
- Seek refreshment
- Withdraw
- Eliminate energy drainers
- Rest
- Rationalise --> light situation
- Analyse --> dark situation
- Embrace --> dark situation
- Detach --> in transfer to light situation

Not:

- Seek distraction
- Repress
- Energise
- Seek social support





### F3 – IPD masters – 2nd year

#### Exterior:

Would be very curious

Strange shape --> not recognisable

Would walk around it and read, then go inside

#### Interior:

In the dark I would walk around

Stare at plants

It feels calming and intriguing

Also spooky and eerie, but without the negative connotations

Touch plants

When lighter, I would sit down

It looks more friendly

Sit and come to rest

Would not feel tendencies to do something, the environment gives enough stimuli

The stimuli gradually increasing gives a relaxed feeling

Feels safe because the curtains surround you and you do not feel like being watched

Comfortable because it is calming and the beanbag gives a sense of comfort

The sensory input and movement make the room inspiring

#### Mood regulation strategies

##### Practised:

- Distraction
- Self-reward
- Think positively
- Trivialise
- Relaxation
- Refreshment
- Withdraw
- Eliminate energy drainers
- Rest
- Rationalise □ when light
- Embrace □ in dark
- Detach □ is possible because it is safe and private

##### Sometimes:

- Reduce demands
- Avoid demands
- Energise (get energy from resting)
- Transform creatively (in the sense that it can inspire for later creative expression)

##### Not:

- Vent
- Repress
- Seek social support
- Analyse

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F4 – DFI masters – 2nd year

Exterior:

Curious

Do not know if I would dare to enter

Await someone else going in, then ask how it was (not what it was)

Exciting

Interior:

In the dark I would sit on the big beanbag

Try to snuggle up

Try to meditate

Seven minutes might be long

Might want sound, a low bass sound, although it might get spooky

In light I would want to stretch out

Walk around

Hands along curtains

Explore

Take pictures ("the room looks insta-worthy")

Hum songs

When it gets dark again I would leave

But before that I would do a small crazy dance

I envision the transfer from dark to light as a moment to learn to let go of the negativity

In light it feels safer than in the dark

The warmth is influenced mainly by the light colour warmth

The plants and the natural materials make it feel comfortable, they make it feel like I could feel at home. Also, nature is restorative which makes me believe it can restore me too

My head would be empty, rather than full of ideas, which is very positive and as expected.

It is memorable because it is in an unexpected spot, it's odd in the right way

Mood regulation strategies

Practised:

- Relaxation
- Reduce demands (reflect & prioritise)
- Rest (in dark)
- Energise (in light) --> walking
- Detach --> dark
- Analyse --> dark
- Embrace --> sometimes

in medium mood I seek solitude, not to accept my feelings

when sad I would embrace by crying in the dark



## F5 – IPD masters – first year

### Exterior:

Looks cool, quite big, curious

Would look what it is

Very aware of people seeing me go in

Feels public which would hold me back, although I feel like I should not be stopped by that

I do not suffer from mood swings, so I would probably not go in because it does not feel like it is made for me

The occupied/free sign reminds me of a toilet

### Interior:

In dark I would want to relax and clear my head

Sit or lie down

Look for seating

Get comfy

Close eyes

In light I would open my eyes and check if anything else has changed

Would get up to check if not in pain, would stay put when experiencing pain

Back to sit down

When it gets dark again, the spot on the door would clearly suggest I have to leave, but I wonder how visible it is from the seating areas

Feels safe because the boundaries of the room are clear from outside and I know I cannot get lost in it. I would have wanted to have seen everything before I sit down. Overview makes me feel safe, being able to see the door as well (even when it has a lock)

Comfortable because of the beanbag, the sounds and me feeling at ease in the room, but not completely because I cannot put my stuff anywhere

Not very warm because it is all very white and modern which feel colder. More carpet and pillows would make it warmer

The moving plants make it inspiring because the sound of nature and the plants encourage creative thinking.

It is not very memorable because it reminds me a lot of a spa, so it is not something I never experienced before.

### Mood regulation strategies:

#### Practise:

- Distraction
- Self-reward
- Think positively
- Trivialise
- Withdraw
- Rest
- Detach
- Analyse

#### Not:

- Vent
- Repress
- Relaxation
- Reduce demands
- Avoid new demands
- Energise
- Seek social support
- Rationalise

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F6 – IPD masters – first year

Exterior:

Agree with statement "do not want to be pitied, want to be seen as equal"

Worry that the room might be viewed as special treatment, which would not mean equality

I would not go in because my period is light

Generally do not want to show that I am on my period, because I have had negative responds from men in the past, which is probably inherited in our culture. They would think it is unhygienic and look at me as if I am a whole different person. It is still a taboo

Interior:

In dark I would try to come to rest

Sleep/mediate

Breathing exercise

Sit comfortably

In light I would stretch

Feel like waking up

In the dark I would not feel very comfortable going outside because the difference would be very big

Would want to go outside when light

Safe because the room is closed off and isolated. No one looks at me. Can completely be myself

Bean bag is not most comfortable seating

Small room makes it cosy, and thus warm. Playful light and light transfers also make it warmer

It is not physically inspiring, because a walk in a forest would be way more inspiring, but it is mentally inspiring.

It is a new concept, but not very special, but it does not have to be

Mood regulation strategies

Practised:

- Vent
- Think positively
- Relaxation
- Withdraw
- Eliminate energy drainers
- Rest
- Energise
- Rationalise --> light
- Embrace --> dark
- Detach --> second dark

Not:

- Distraction (although I would be day-dreaming)
- Self-reward
- Social support
- Analyse



## F7 – SPD masters – first year

### Exterior:

What is it

Find out what it is

Looks strange, do not know if I like the way it looks or not

Personally I do not experience much discomfort during my period, so I do not really care for it, but I know others struggle more

Would not go in, because I do not need it

### Interior:

The space looks bigger in the video

Simulated feeling of walking is nice

It seems small, hard to interpret the size

It keeps your busy but in a calm way

Would walk around

In light I would still walk around

Look at the lights on the curtains

After about three minutes I would sit down

Feels medium safe because the construction does not look exactly strong but not weak either

Plants make the room calm and thus comfortable

The natural light gives a warm feeling

Inside it is private, but knowing you are still at university makes it a bit less so

It is inspiring because it is a real break from everything you are doing and where you are

It is memorable because it is a small show and it is unusual

### Mood regulation strategies

Practise:

Vent

Seek refreshment

Rest



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F8 – DFI masters – 2nd year

Exterior:

Very public and prominent

Would think it is an exhibition piece because of the placement

I do like the design it looks very natural

It fits inside the faculty

Would not use it because of the location

Everyone sees it, I would be very hesitant going outside as well

You go in when you feel bad and vulnerable, having people see you go in the room would not be comfortable

Interior:

In the dark I would sit down somewhere and close my eyes

Lean against something

Pick the smallest beanbag, because that one looks more sheltered and thus safer and cozier

Legs up, leaning against wall or beanbag

Would use my jumper or coat as blanket

The light would make me more active

Time for self-pity is over

I would feel more awake because of the breeze

Feel forced to more positivity (in a good way)

Make myself presentable

When it is dark again I feel like I am being sent away

It feels a bit unfriendly

Inside feels safe but the placement makes it feel less safe because I do not know what is happening outside

Carpet would make it more comfortable

The light is not very warm everything is white and a wooden floor makes it less warm. The room is too neutral to give a warm feeling

The different corners and areas make it private, not being able to see all walls/corners as well

It is not very inspiring because my eyes would be closed most of the time, but plants and lights are inspiring when eyes are open

It is not memorable for me because I close a chapter of a bad feeling in this room and I want to forget the whole experience that links to the bad feeling. It is a good thing that is not memorable

In the dark I would embrace the feeling, when it gets lighter I would feel ready to let go of it



## Mood regulation strategies

### Practised:

- Trivialise
- Relaxation
- Withdraw
- Eliminate energy drainers
- Rest
- Rationalise
- Analyse --> dark
- Embrace --> in between dark and light

### Maybe:

- Detach

### Not:

- Distraction
- Self-reward
- Vent
- Repress
- Reduce demands
- Avoid
- Energise
- Social support
- Transform creatively

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F9 – SPD masters

Exterior:

Would be a step to go inside  
Girls are always secretive about it  
I would want to use it when not on my period as well  
Curious to what is inside  
Maybe men would want to look inside as well  
First sentence of the text is very in your face, which is good  
Natural materials and shapes fit the purpose well  
Looks kind of liquid  
Placement is provoking but also a bit discouraging  
It looks very pretty  
The location makes it less inviting  
It's good that it is not too feminine, it should not have been pink

Interior:

When coming in I would stretch, bend, move a bit  
Nice if it is quiet  
Need rest and not too much sensory input  
Breeze feels nice and light  
Would touch the curtains

In light I would sit down but I would worry I fall asleep  
Calm, nice and safe  
Would really enjoy being there  
It is small but not claustrophobic because of the layers  
When it gets dark again it would feel like a full circle  
Although going from dark to the light outside might be tough  
Feels like you have had a reset

The breeze makes it feel less warm, but that is nice, because it is refreshing. Pain goes along with warmth  
It is inspiring because my head gets calm because of the elimination of sensory input  
It would feel memorable, I would go back there

Mood regulation strategies:

Practised:

- (it is) distraction
- (it is) self-reward
- Relaxation
- Reduce demands
- Withdraw
- Eliminate energy drainers
- Rest
- Embrace --> in dark
- Detach --> light

Not:

- Vent
- Repress
- Rationalise



## F10 – IPD masters

### Exterior:

Would think it is an experience room

Expect toilet or a bed

Occupied insinuated a toilet but that would be a strange location

I would look at it but not use it because of the location

It seems odd that it says women want to be equal, but then this room is solely for menstruating women

I do like how it looks

### Interior :

It is dark like I expected

I would not expect something to happen

Maybe I need to take a nap

I would want to know what is behind the curtains

Would be surprised when it gets lighter

Not expect that

Would do nothing

Would go outside when it gets dark again

Feels safe in the light situation, not so safe in the dark one

Soundproof room is comfortable

Connects warmth to temperature

Private because it is small and for one person, own room

Inspiring because it give a feeling of freedom and the breeze is nice. Feels like being in a dream

It would be a memorable experience

### Mood regulation strategies:

#### Practised:

- Self-reward
- Vent
- Trivialise
- Avoid new demands
- Withdraw
- Rest
- Energise
- Seek social support
- Rationalise --> in dark and light
- Transform creatively --> light
- Detach --> light



#### H4 PERCEPTION OF THE MOOD BOOTH BY MALE STUDENTS RESULTS

M1 – DFI masters

Looks like a nice place where you can withdraw

Location might be confronting for women

If it helps, I support it

I do not know a lot about it, but I have noticed mood fluctuations in my girlfriend

It looks nice

I would not feel weird if women use it, would not judge them. It might just help me to understand their behaviour better.

It is sometimes hard not to judge people solely on their behaviour, so if you know what is going on it is much easier to deal with

M2 – DFI masters

The message surprised me, because I have never thought to pity women who are on their period

I do not know why this should exist, why they could not just go to the toilet or sit on a sofa

I would be curious to what is in it, want to have a look

Have heard about menstruation from friends

When women mention it, I ask if they are alright.

Talking about it does not bother me

It has never been mentioned in project groups

M3 – DFI masters

Location is intense

It is a very private thing, yet placed very publicly

I do not understand the shape, but it looks cute

There is no title, but that might be okay

Seeing someone going in I would feel for them, which might be probably pity

I would not give it much thought

If someone in my project group were to go, it would be a clear signal to me to register it and keep it in mind so I can keep it into account.

I have never heard anyone mention their period

I have looked up information about menstruation on internet

M4 – DFI masters

Understand why it should be there

Odd that it is so public

Creates an image about the people using it

Would not say anything about it

Would not think anything negative or positive about it

I know there is a stigma, makes me feel like I should not know about it

I know about a girl in high school who would struggle a lot with it and I do have friends who are open about it

With good friends it would be nice to say 'go to that place', would never do that with group mates





M5 – IPD masters

Have not experienced it, so cannot say much about it

Think it is good

Maybe not so prominent in the building, mainly because it is an awkward place to put something

Cannot imagine women would want to be seen going in there

It seems like a nice thing for women

Better for everyone

Only ever heard the mention of menstruation as a joke

Do not know much about it, but enough to understand it is a shitty experience

M6 – DFI masters

Nice to finally see something for women in Delft. Even though IDE is quite equally divided in gender, I feel like men are still seen as the default.

Curious

If it is designed for specific problems with menstruation, it might be educative to know what is on the inside.

I would not be extra nice on purpose, I feel like if I have the capacity to be more sensitive, I should always be more sensitive.

I like that it is placed in the middle of the building

To me it is the same as smoking break, it something that you need at a certain moment. Except smoking is a decision, while you cannot stop menstruating.

Never heard anyone mention menstruation in group work. Might be that that would stimulate the stereotype even more. But it is obvious the stereotype is not real because if twenty percent of women would be the stereotype of menstruation here right now, we would have noticed it.

M7 – bachelor IDE first year

I would be very aware of who goes in

Makes it awkward for the women, because they are put in the spotlight

Boys can be weird or annoying about it

I have heard comments that insinuated girls being on their period, but I have not directly been told

I know a lot about menstruation because of my girlfriend

M8 – bachelor IDE first year

I would imagine it would be a better fit next to the toilet

That would make it less embarrassing for girls to go to

As long as group work is equally done and no extra breaks are taken, they can do whatever they want

I would not say anything about it

I have never been told by a girl that she was menstruating

I know basically nothing about menstruation



M9 – bachelor IDE first year

I would think about it a lot, when girls go in

But I would not treat them any differently

Group mates never told me they are on their period

I know nothing about it

M10 – DFI masters

Very specific space

Feels like it could be a room for resting not specified on menstruation

I would try to be more careful with women who I have seen visiting the room

Never been told by a group mate they are on their period

Know roughly what women go through during menstruation

# APPENDIX I - FINAL PRODUCT VIDEO



<https://vimeo.com/343683901>

Password: VideoWies

Wies Kruisdijk  
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MSc graduation project

Chair: Pieter Desmet  
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MSc Design for Interaction  
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February - July 2019  
Delft, 27 june 2019