DAILY FAMILY ROUTINES AFTER CORONA TIMES

Master thesis
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Appendix A

Assignments
Context Mapping

The booklets consisted of five assignments for each family member. A different distribution of assignments per day was made for each family.

Day 1: Getting to know each other
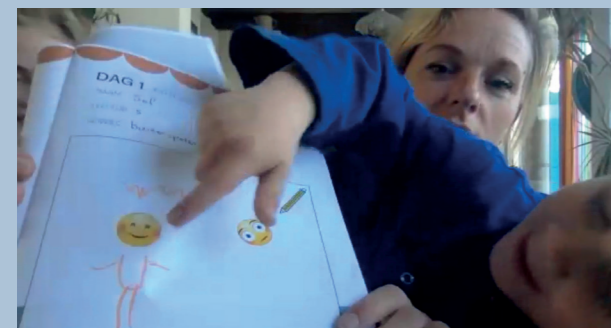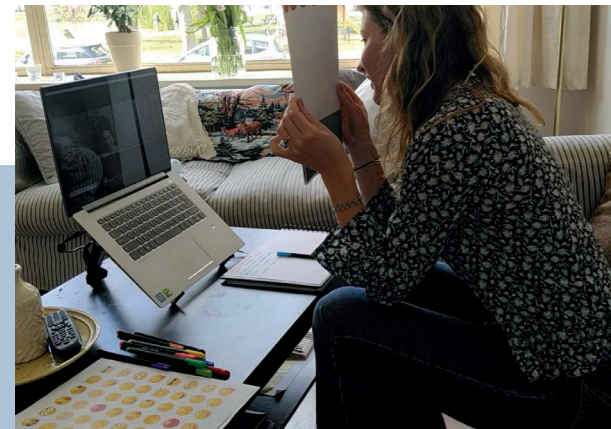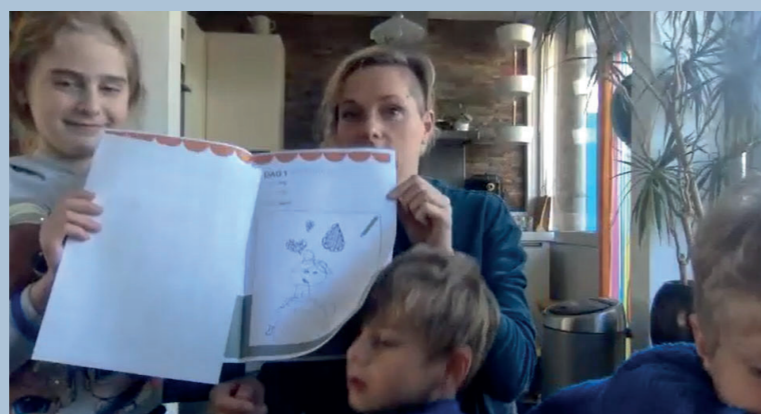

Figure 1: *Assignment of day 1.*

The first day was focused on getting to know each other, to create a personal environment within this research. This was done during a video call by sharing the first assignment.

Figure 2: *Collage of screenshots of the Zoom-interviews to get to know each other.*

Day 2 or 3: Director or Timeline

Figure 3: *Assignment of the director.*

Making videos of everyday actions was the chosen medium to gather information about the daily routines of the families. To get a broad perspective of the daily routines with in a family, all family members had to film one day. This assignment has been formulated as the "director".
Letting everyone film at the same moment, would create chaos. Therefore, the children were "directors" on different days.
In some families, the children were too small to film completely independently. These children were given a replacement assignment to draw what happened in the house that day.

In addition to the regular assignment of that day, the parents were given an extra assignment to photograph and film every day. Therefore, every day there is film material from two perspectives; of a child and of a parent.

Figure 4: *Assignment of making a timeline of your day.*

The assignment next to the director's assignment was to create a timeline. On this timeline it was possible to write and draw what happened that day. Pictures or newspaper clippings were also allowed to be attached. At the end of the day, the emoticon stickers could be placed on the timeline to reflect on the day.

The director assignments had a reflection part as well. They had to fill in what they thought was positive about that day and what was negative. In the booklet of the parents, extra information was given how to reflect on this together with the whole family.

Figure 5: *The children of Marijs with the selfie stick.*

Day 4: Closing

Figure 6: *Assignment of day 4, the dream island.*
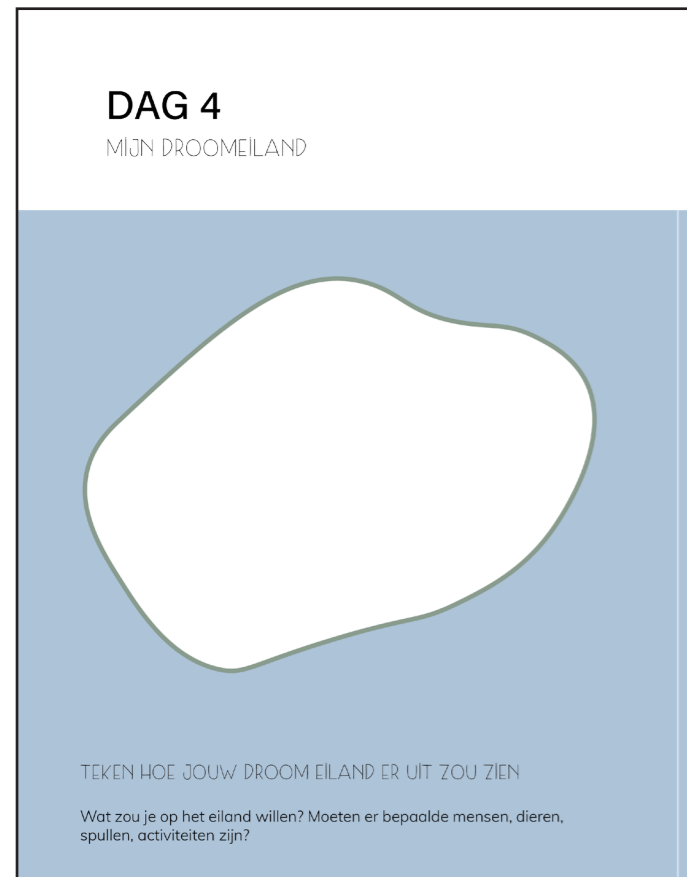
On the last day, everyone in the family got the same assignment; The dream island. This assignment aims to get the family to think about what the ideal environment would be. The function of this assignment was to gain insights about what is valuable for the families by thinking about their dream environment, after they have been filming and evaluating their daily routines for a few days already.
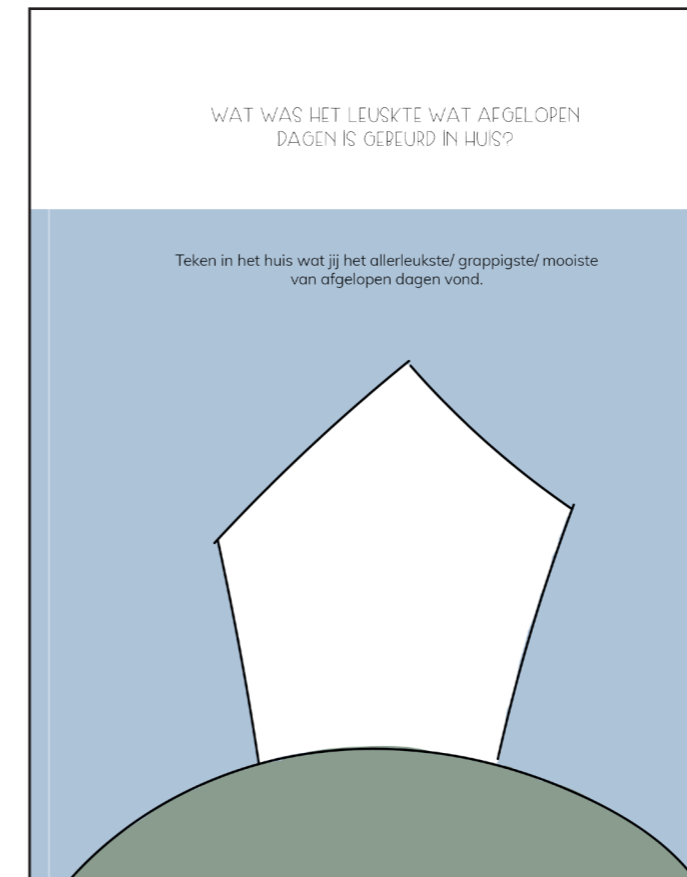

Figure 7: *The family of Margriet making their dreamisland.*

Figure 8: *Some dreamislands made by the families.*

Day 5: Retrospective interview

Figure 9: *Final reflective assignment.*

During the observation week, the family sent all the images and movies throughout the day. This made it possible to start editing the final movie of every family already. This final movie was made to bundle all collected data, to use this as a focus of the final interview.

The final interview looked back on all assignments and videos. In this assignment everyone had to draw in the house he/she thought was most fun/positive/most beautiful of recent days. This was a nice closing moment.
The three families were also asked if they would like to participate in validating part of this project in a few months. All three families were keen to participate.

Figure 10: *A retrospective interview by Zoom with a family.*

Figure 11: *The final assignment filled in by the families.*

Appendix B

Context Mapping clusters

1. Let go of expectations to live in the now.
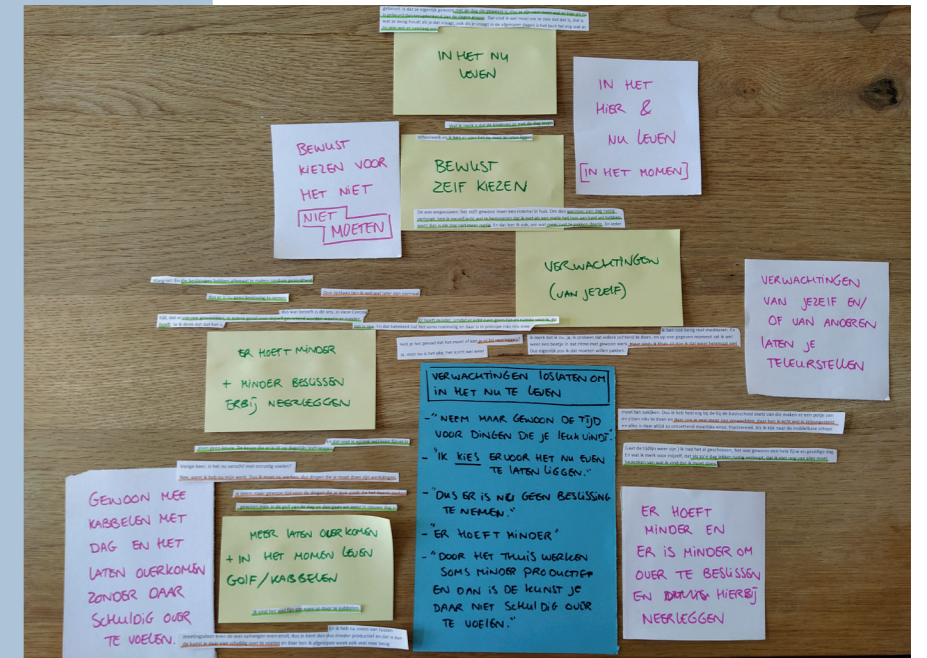
2. Freedom of time brings the feeling of more time.
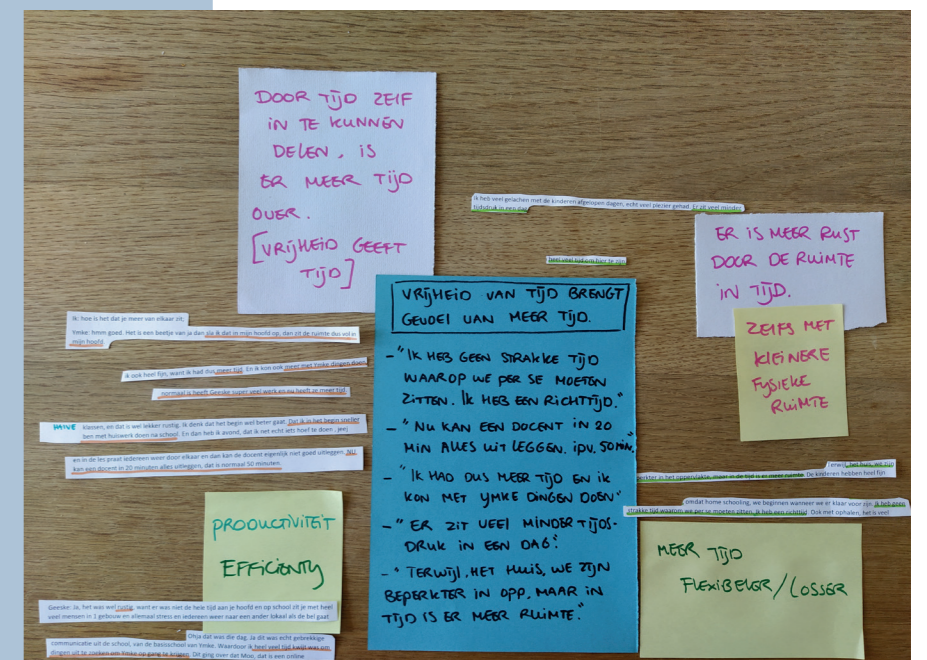
Figure 12: *The clusters made by analysing quotes and insights from the context exploration.*

3. Seeing the value of being together.
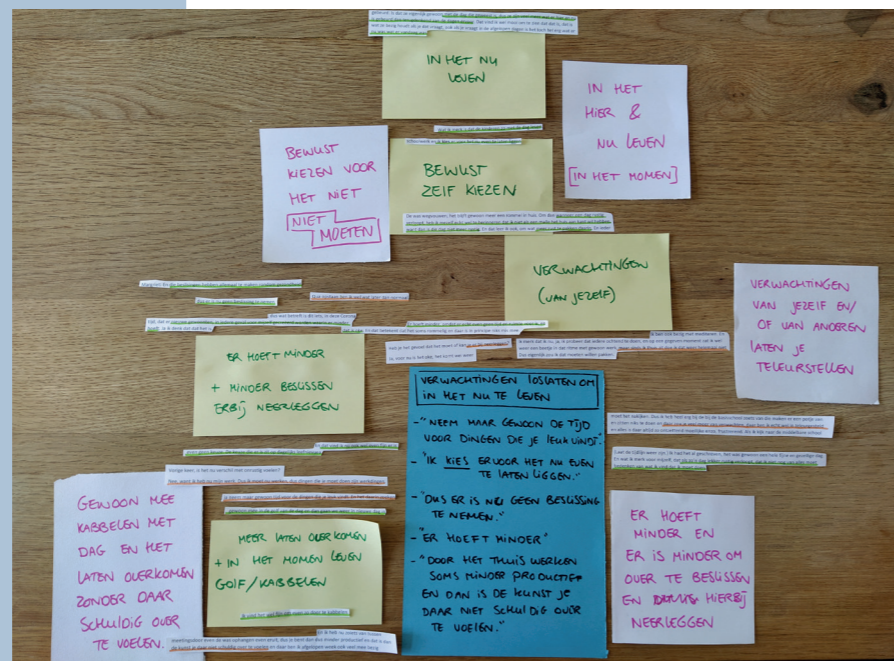
5. A small world, let you appreciate little things more.
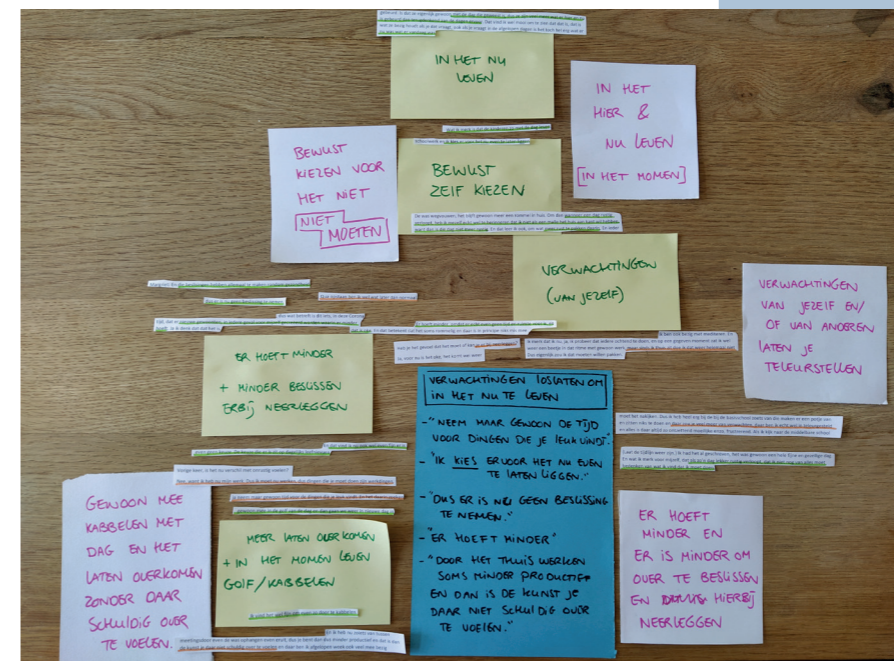
4. If old habits, routines, rhythms disappear, we would like to create new routines ourselves.
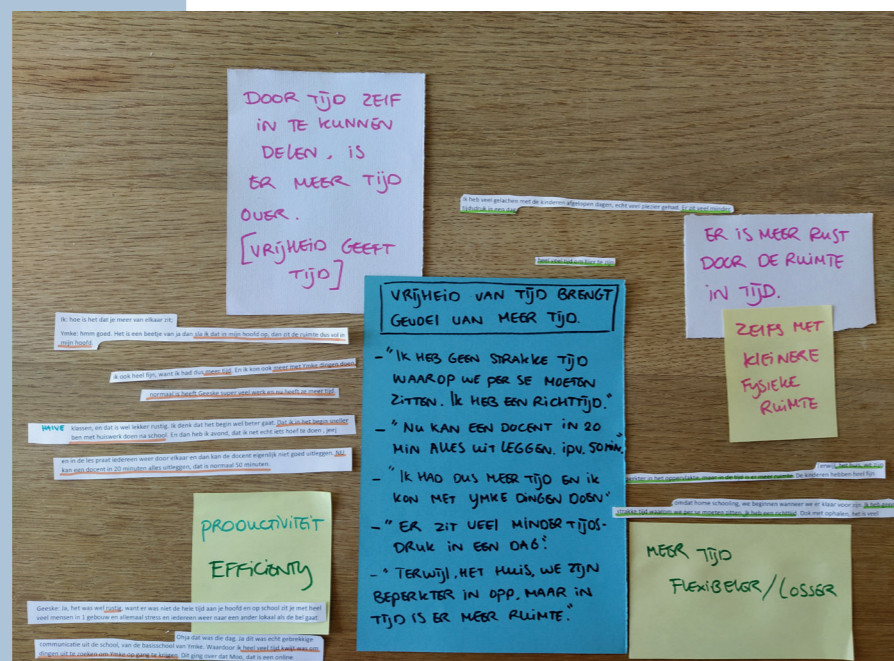
6. Because everyone's world becomes smaller, these small worlds come together and you will appreciate each other more.
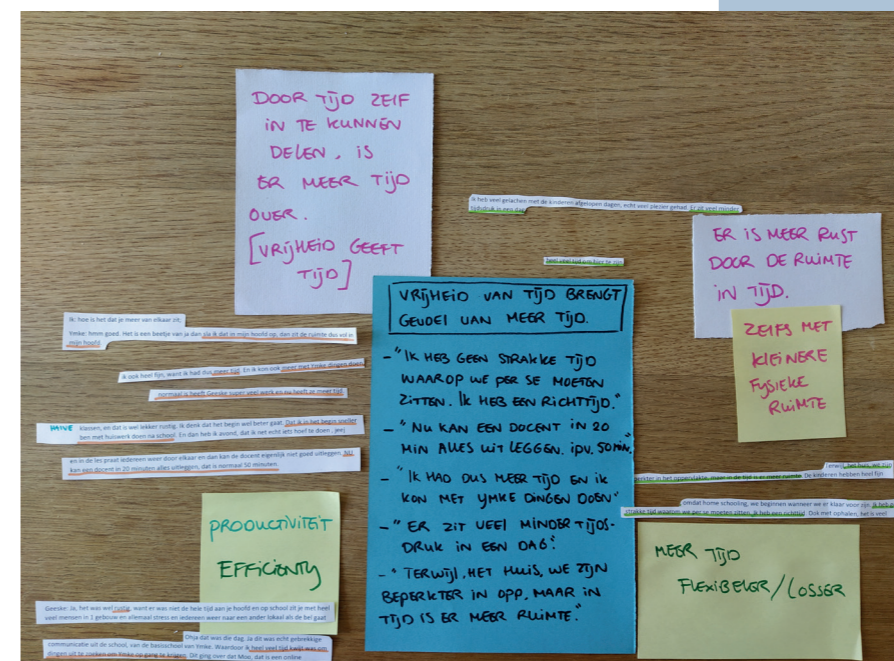
7. Children's imaginations allow them to be in a completely different world of experience, making it easier to let go of things.

Figure 13: *Defining the overarching insights: Living in the moment and the experience of living in a bubble.*

Assignments of the Inspiration session

C.1 The assignments

The aim of the session was to get inspiration where to focus on. In Chapter 2, "learning to appreciate the little things in life," was further explored into different parts that are connected to appreciation. These parts were used during the session to come up with ideas.

Figure 14: *The materials and formats for the session.*

C.2 Getting to know

The neighbourhood knows each other reasonably well, but we had never really spoken to the neighbours in the adjacent garden. Therefore valuable to know a little more about each other. Special was that we could not easily share these filled in formats with everyone, because of the separation of the two gardens. Still, it turned out to be a good assignment for a warming-up.
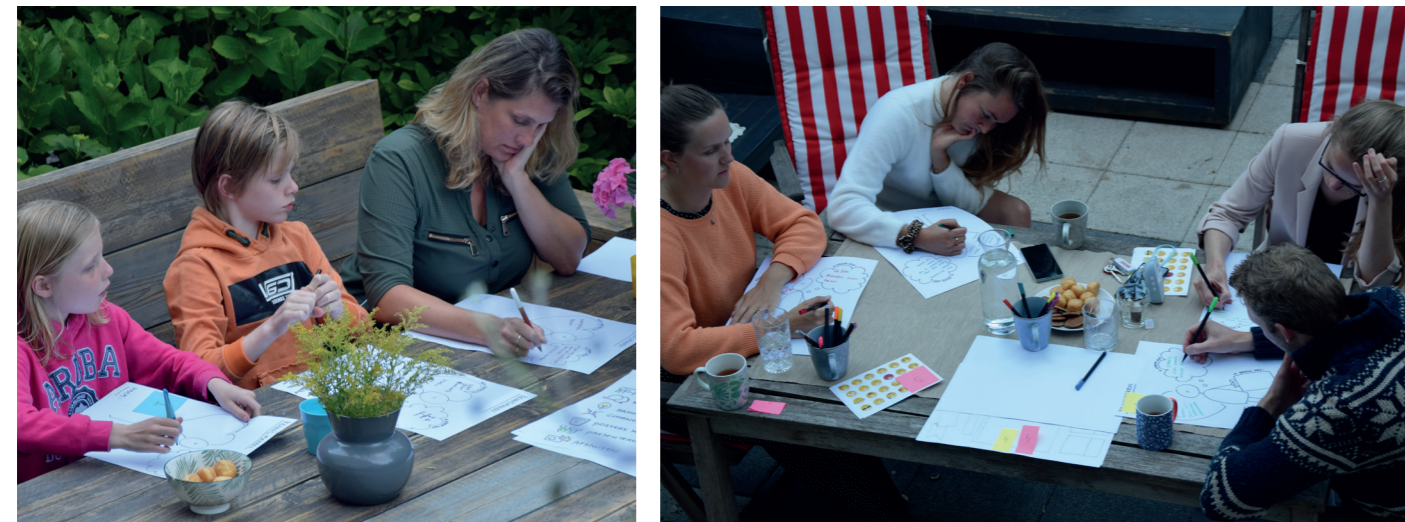
Figure 15: *Collage of the inspiration session.*

C.3 How to's

The main question, used for de idea generation, is:

In the big open world, how can we continue to appreciate as many of the little things in life as we do now in a forced isolation?
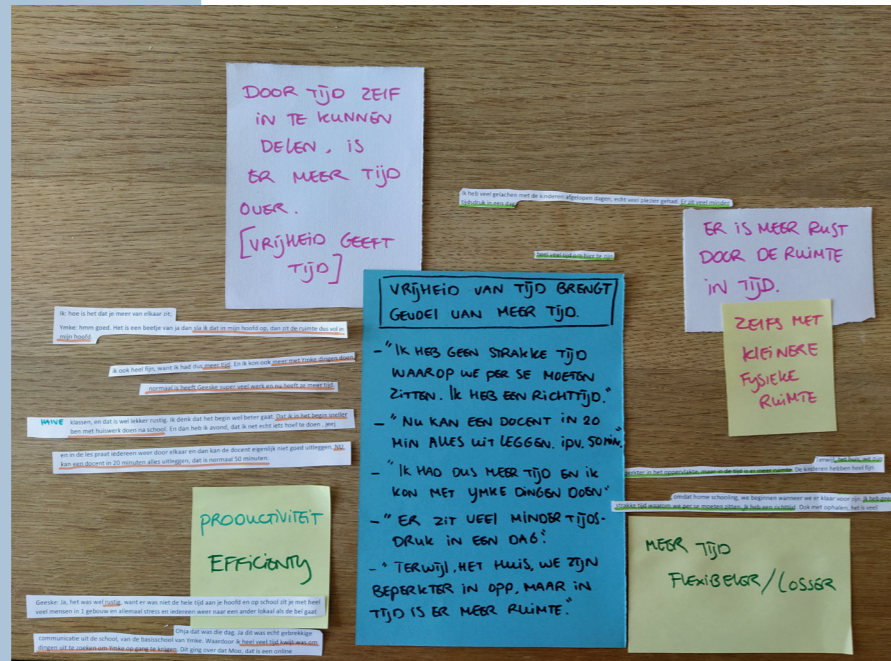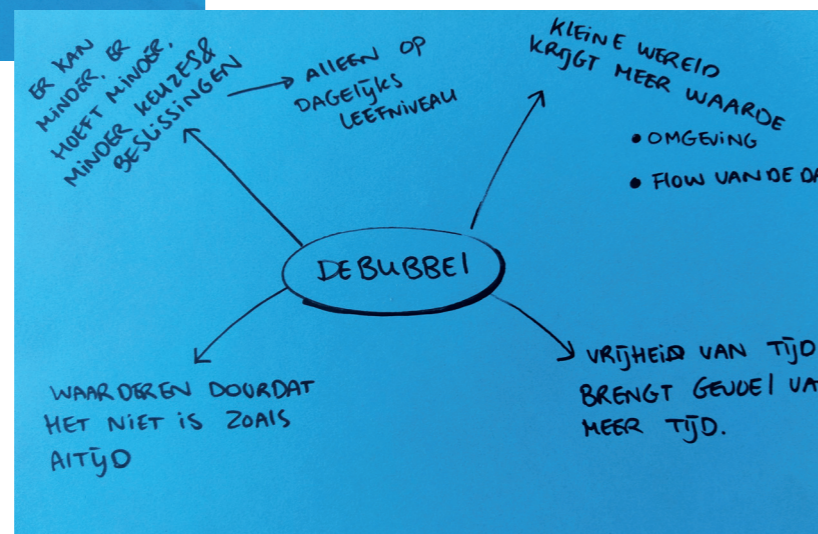
This question is split up based on the different parts connected to appreciation, discovered in Chapter 1.4.

The group was divided into two gardens. The garden with team Blue got the How-to questions on A3 sheets, which they passed on every 3 minutes.

Team Yellow and Pink were two separate households, this meant keeping 1.5m distance from each other. That is why this group did the How-to assignment by a shout-out. This means everyone shouts from a distance and one person writes everything on a flipchart sheet.

The assignment consisted of four How to-questions for each garden, where there was 3 minutes for each question. The questions were different for the two gardens, in order to get variation in the solutions. Beside this the slightly easier How-to questions were given to team Blue, with the two children.
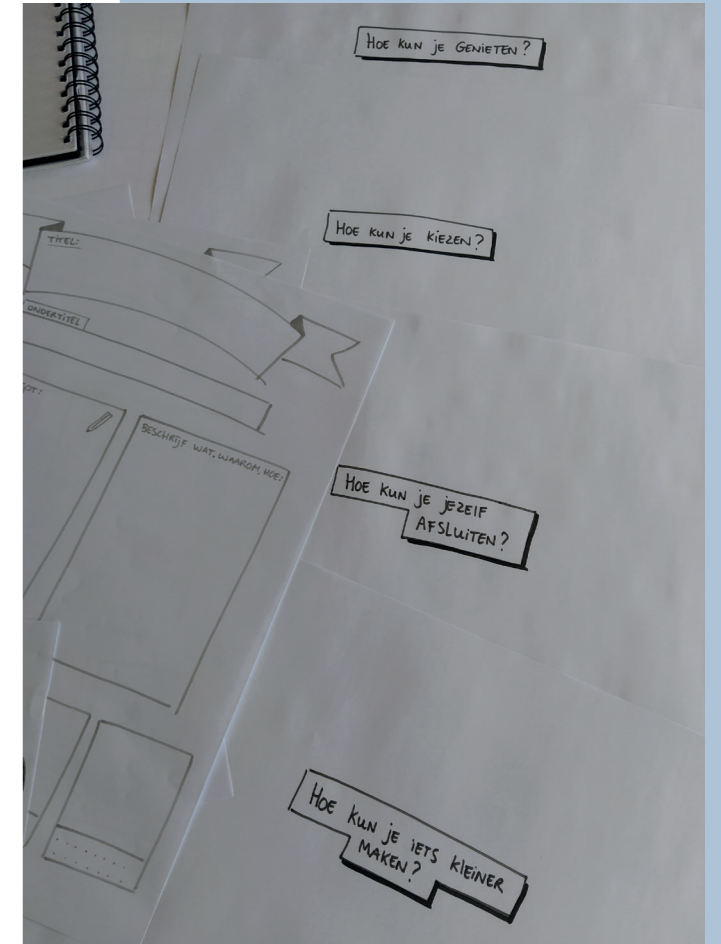
Figure 16: *The How-to questions used during the session.*
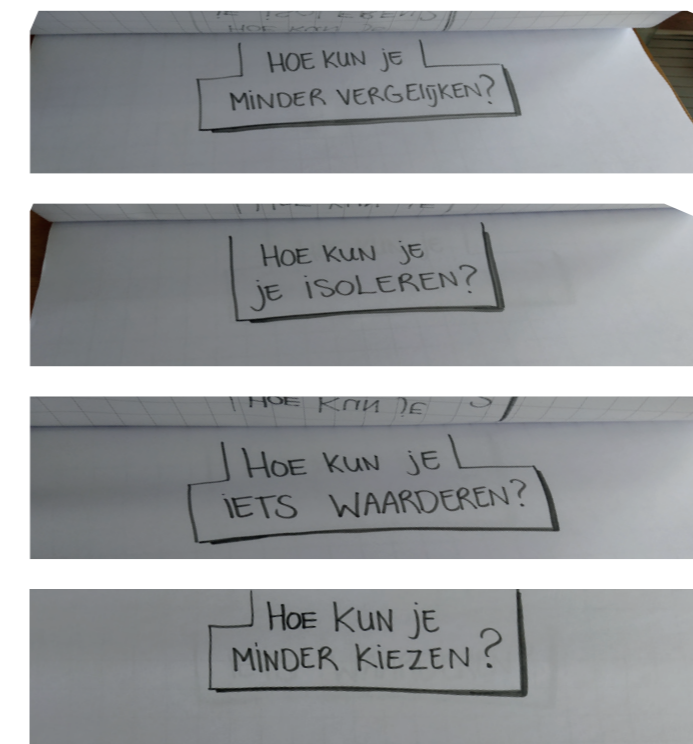
Figure 17: *The How-to questions used during the session.*

Figure 18: *Using Flip-overs to keep distance while working together.*

C.4 Combine

After the brainstorm session, based on the How to-questions, it was necessary to select which How-to-solutions were included in the further idea generation. This was done using emoticon stickers. Each participant was allowed to place three votes for each How-to-sheet; two positive and one negative.

Each garden group selected and circled the two How-to-solutions with the most votes. If the number of votes was a draw, the group had to decide which two solutions per sheet should be chosen. Interesting to hear the discussions about how they made their decisions. For example the explanations and different interpretation about when something is experienced negative or positive.

The last part consisted of combining the chosen How-to-solutions. The assignment was to select at least two circled How-to-solutions to create a combined concept.

Figure 19: *Participants voting using emoticon stickers.*

Appendix D

The concepts made during the session

D.1 Team Blue
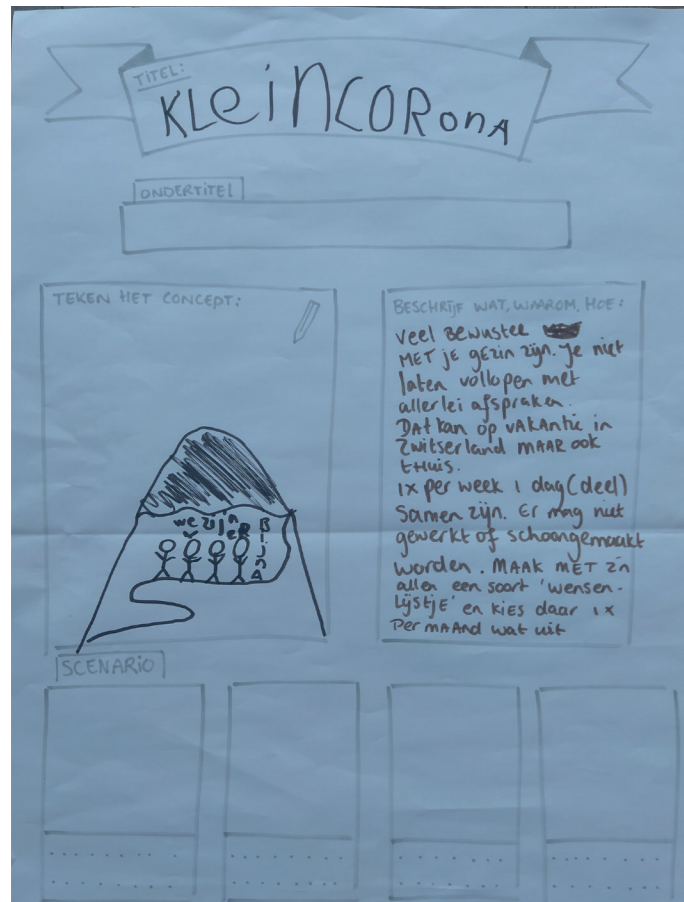
Figure 20: *Poster presenting the idea: Klein Corona.*

Klein Corona

Goal: To be together consciously with the family.

Parts of the concept:

- Be more aware with your family.
- Don't overload yourself with all kinds of appointments.
- Being together one day (part) once a week, no work or cleaning is allowed.
- Make a wish list together with the family and choose something once a month.
- The designed concept comes from the **How to- solutions**: Sitting on a mountain in Switzerland and being together with your family. It is about the holidy feeling and being in a different environment.
- They told the different environment makes it easier to experience the feeling of really being together.

D.2 Team Yellow

Figure 21: *Poster presenting the idea: Mindfull Navigation.*

### Mindful navigation, let the world surprise you.

Goal: See the most beautiful things in your environment by looking at it more consciously with 'different eyes'.

Parts of the concept:

- Discover your own neighbourhood.
- Make the unknown known and vice versa.
- Appreciate what is "normal".
- Let yourself be surprised and enjoy it.
- A guide will send you on your way in your own neighbourhood and let you look and discover the simple things.
- The designed concept comes from the **How to- solutions**: Let yourself be surprised, enjoy consciously enjoyment in the moment and seek silence.
- This concept is about awareness as well.

Insights:

- Marjolijn (the mother of Jacob and Liselot) said at the end she would be sorry when this period is over, because she likes being with the children so much. She also said that she likes to see what the children are doing at school and to see progress.

- Furthermore, the concept description shows that three things are not allowed if you want to be together consciously: all kinds of appointments, working and cleaning.

- Sharing wishes together and consciously making time together are essential in this concept.

- Interesting to link this idea back to the context research, where several families explained the Corona periode giving kind of holiday feeling at home.

Insights:

- In the process of designing this concept, the discussion started about whether this concept could be an app. The counter-argument was that you have been looking at a screen all day long already. This period of working from home via digital meetings makes people realise we want to be separated from screens.

- Some examples they gave about things to view and appreciate were: the sky, special houses and flowers.
- In an article in de Volkskrant this was described as: "Halfway through the corona time, I walked my umpteenth round through the Amsterdam Flevopark, looked at the trees through which the sun shone and found it so, so, so intensely beautiful and felt so, so, so happy that I thought: am I high?" (Corstius, 2018).

Figure 22: *Poster presenting the idea: Corona Corner.*
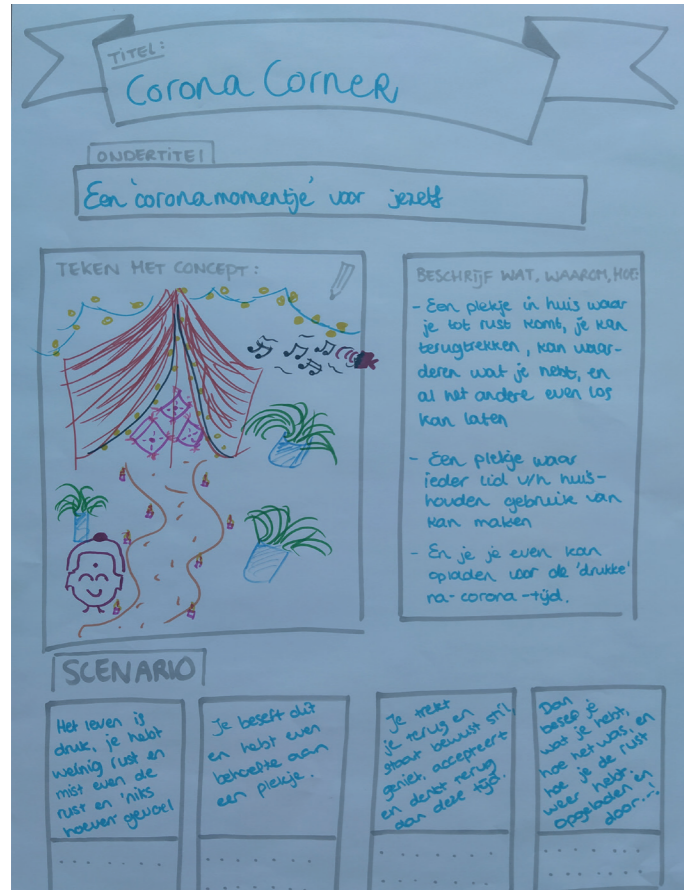
Corona Corner,
a Corona moment for yourself.

Goal: A place to relax in this busy life.

Parts of the concept:

- A place in the house to:
  - relax
  - be able to be on your own
  - appreciate what you have
  - let go of other people
- Everyone in the house can use it.
- You can recharge yourself for the busy time.
- Fulfil the need for a place of your own.
- Consciously be in the moment, enjoy and accept.
- "Don't have to do anything"- feeling
- The designed concept comes from the **How to- solutions:** Looking for safety, enjoying being in the moment, less thinking, looking for silence and conscious enjoyment.

Appendix E

Taking a few steps back

Insights:

- Everyone during the session firmly confirmed that this is what you want!
- The concept has the shape of a tent with all kinds of nice things in it: music, pillows, lights, buddha and plants. This 'nice things' will be different for different people. Interesting to see what an environment would be people like to retreat at.
- The context research of chapter 1 described several times that people would like a place to be on their own. This is how Maartje described on her dream island:

"I started with a house to be safe and cherished. Just that you have a nice place around you. This, a place to sit in a quiet corner. The bookcase, very important. "

- Furthermore, this concept could be a place to meditate. Meditation often returned in context research as well. The participants of the context research pointed out that it is hard to consistently meditate during a busy life. It is actually contradictory that people experience the feeling of expecting themselves they MUST meditate, while you do it to relax and feel calm. Not to make you feel not to achieve your goals of must do's.

Interestingly, all three concepts are about doing something conscious.

After the Mid-term, a few steps have gone back to retain the richness of the insights previously found. There were some crucial points that were taken into account in these steps back:

- Where is the pain?
- If you implement the idea, what's involved?
- What motivation of the users is needed? (Hedonic Adaptation)
- How to use the insights out of the co-creation session?

Figure 23: *Drawings made during the analysis to explore connections and insights within all findings.*

E.1 Connecting the insights

The collected insights from the first chapters have been put together and the directions from the inspiration session are linked to this. It was interesting to see how many of the ideas, statements and stories were connected with the theme: parent-child relation. After recognizing this, a red line appeared, which made is possible to define a design goal.

Insights out of the inspiration session used to connect with the first insights out of the context exploration:

- At the end of the co-creation session, Marjolijn, mother of two children, mentioned that she thinks she is going to miss this time of being together with your family a lot. She will miss to see that much of her children's lives when everything will be back to normal.

- She told this because their concept was based on a holiday in Switzerland on a mountain. With this concept you are consciously together with your family, which is happening during this period as well because of the forced isolation. And this is something which will probably change when this crisis is over.

- During the co-creation session, one of the following question was: How to you enjoy? The team with the two children had the following answers: Being with the family, being at home on Friday evening and seeing that the children are happy.

Connecting everything together revealed the lesson we have learned and what we want to hold on to. It also became clear what the difficulty is in this: the less synchronized living of the different lives within a family. The drawing below shows how the insights came together.
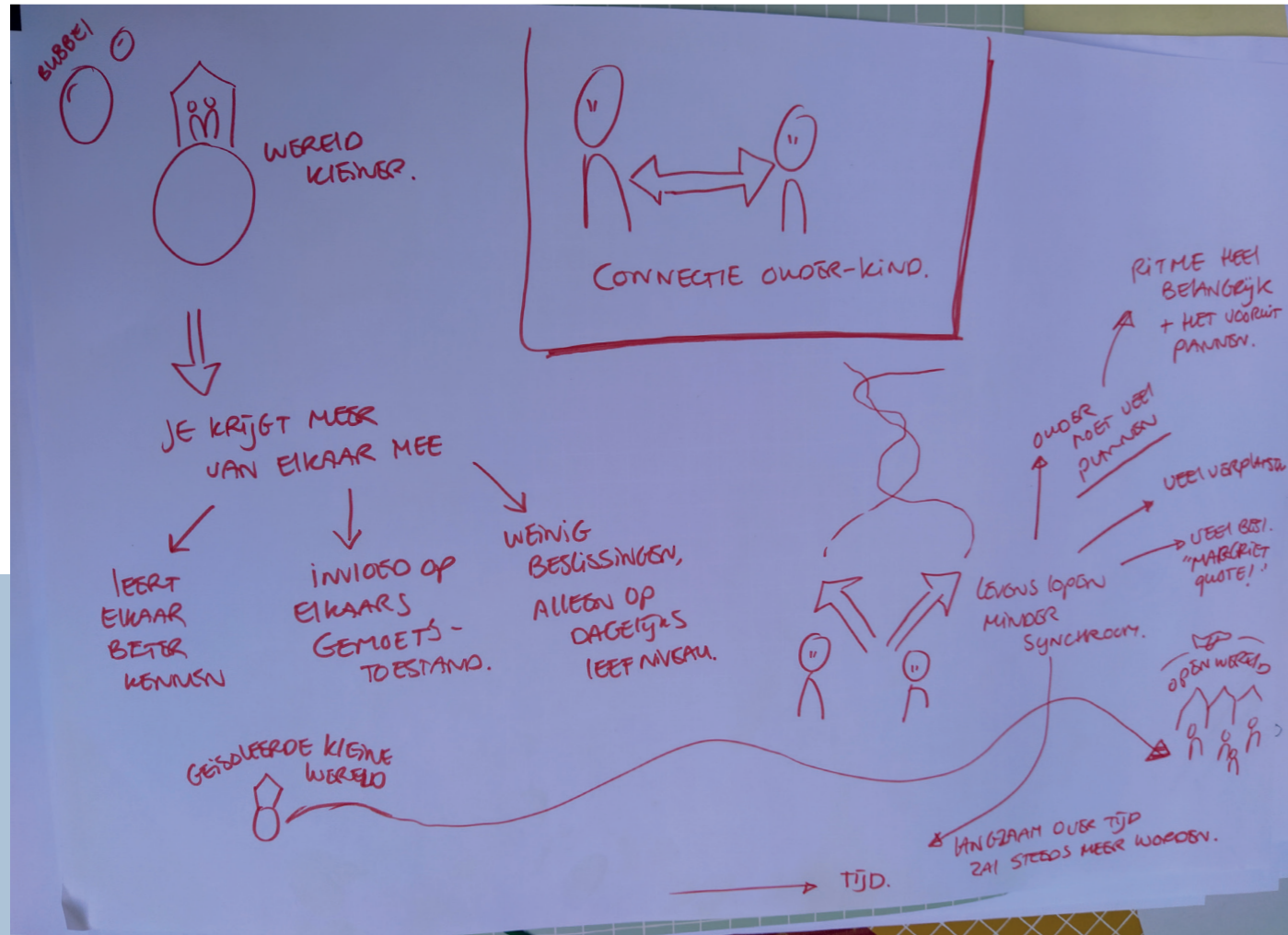
Figure 24: *Overview of insights about the changed parent-child relation, with the expected consequences in the future.*

Appendix F

First idea generation

F.1 How to's

The design goal was split up in four How-to questions.

By using dot-voting, a selection of ideas is chosen to brainstorm furher with. See the next page.

Figure 25: *How to's with first small ideas.*

F.2 Idea generation based on How to-ideas
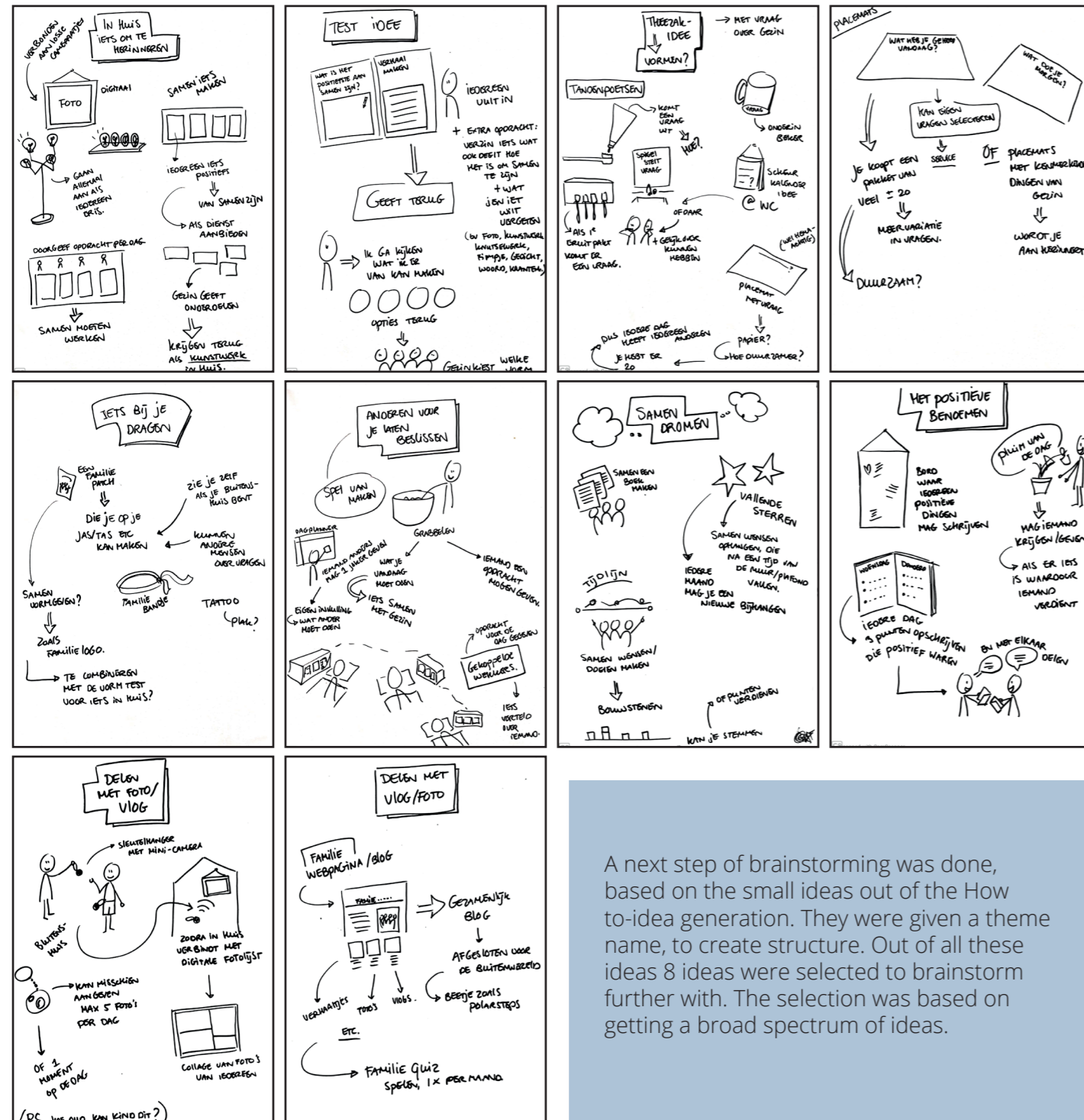
Figure 26: *Idea brainstorm based on the themes out of the How to-idea generation.*

A next step of brainstorming was done, based on the small ideas out of the How to-idea generation. They were given a theme name, to create structure. Out of all these ideas 8 ideas were selected to brainstorm further with. The selection was based on getting a broad spectrum of ideas.

F.3 Further idea genaration on selected ideas

The ideas were clustered into three themes.
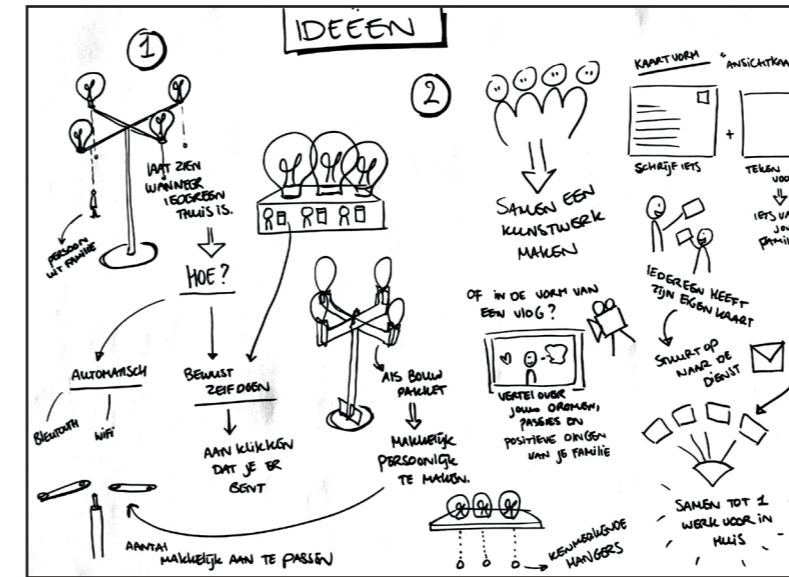
Remembering

Figure 27: *Clusterd ideas within the theme Remembering.*

Figure 28: *Clusterd ideas within the theme Transparency.*
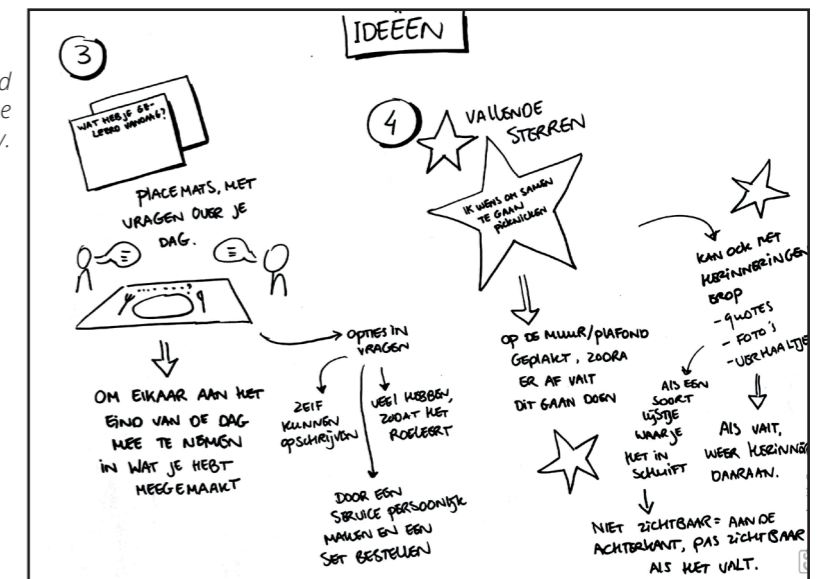
Transparency

Remote connection
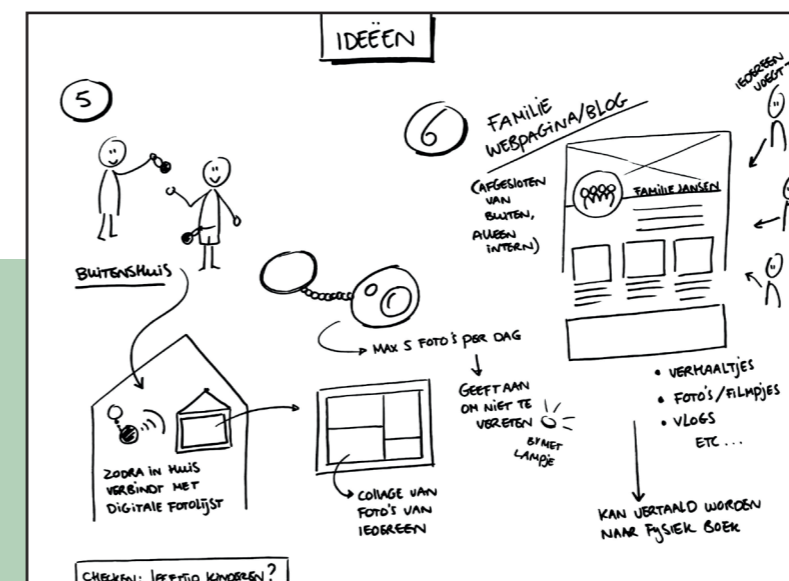
Figure 29: *Clusterd ideas within the theme Remote connection.*

Appendix G

Example diagram
Hedonic Adaptation

Figure 36 in chapter 2.4.2 shows a schematic sketch of the Hedonic Adaptation phenomenon in the context of a holiday. This is based on the diagram below. This explains the phenomenon of the Hedonic Treadmill.
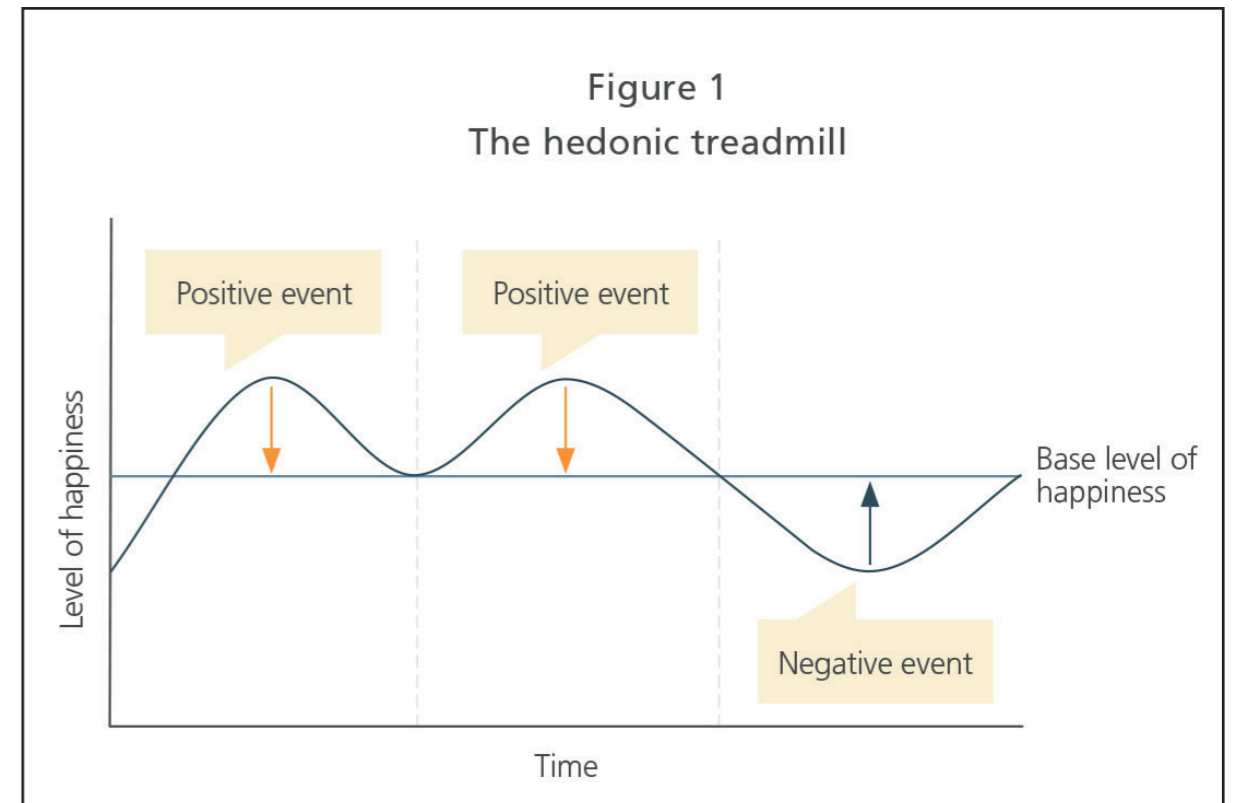
Figure 30: *The phenomenon of the Hedonic Treadmill (Brickman, P. & Campbell, D.T., 1971).*

Appendix H

Interview questions

Chapter 2.5 contains a description of the general questions for the families about the design goal. Below are the more specific questions described asked to the three families. Two out of three interviews were online. All three interviews were recorded and transcribed.

Interview questions:

How are the families doing at the moment?
The questions in the interview about this subject:

Question 1: How are you now compared to the start of my research?

Question 2: (About Hedonic Adaptation) At this moment, that you are used to these circumstances again, do you appreciate it the same way you did at the beginning of the quarantine period?

The feeling of being together and what to take with you?
The questions in the interview about this subject:

Question 3: What would you like to keep knowing/experiencing from each other?

    1. What were the nicest/most important things of the other family members, you kept informed about during the quarantine?

    2. When everything turns back to 'normal' again, what will you not hear from the children/each other, because they would rather not tell/share it themselves naturally?

    3. When is the opportunity to share things with each other? (in 'normal' life)

Question 4: Is it really about being physically together or can it also be done remotely with digital means?

Figure 31: *Interview with the family of Maartje through Zoom.*

Appendix I

Assignments of the first tests

First test of the first ideas

The test plans for the two ideas: the lamp and postcards-service are described below. These ideas kept coming back during the idea generation, but consist of many assumptions.
To know whether these could be potential solutions, first small tests were done with different families.

Figure 32 presents in short on which questions answers are sought with the small tests.

I.1 Testing Remembering-idea
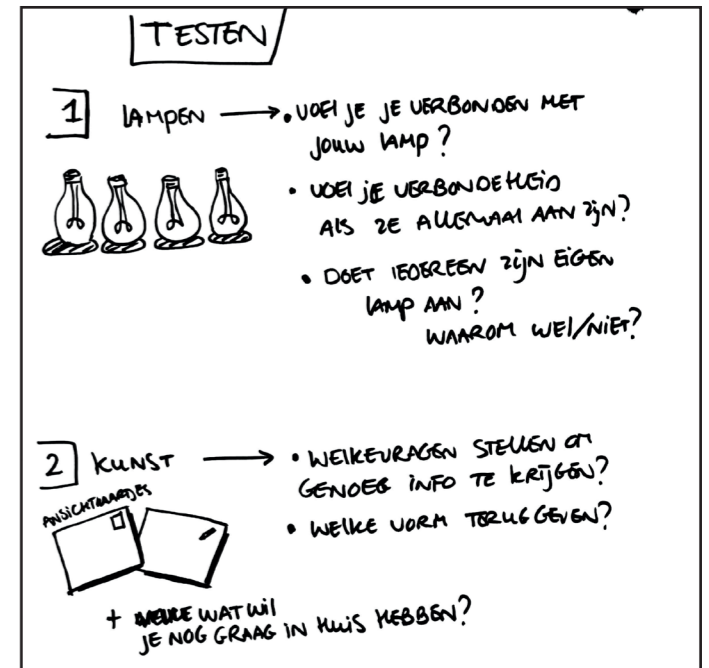
Figure 32: *The test plans in short.*

The purpose of the test was to gather insights on the following questions:

- Do you feel a connection with the lamps? And also with your own lamp?

- Are the lights noticeable? And is it connected to the feeling of being together?

- Does everyone turn on their lamp? Why not? Or is an automatic system better?

This idea was tested with one family. The four separate lights represented the four different family members. The lamps have been with the family for six days and the family has been given the only assignment to every family member to choose their own lamp and to ensure that his/her light is turned on when you are at home and turned off when you leave the house or go to sleep. They were completely free to use the lampes whatever they wanted to do with it.

The parents were asked to write down if they noticed anything interesting. In the interview on day six, they got the opportunity to share these insights.

Figure 33: *Prototype of the lamp-idea.*

1.2 Testing Transparency idea

The idea of the service was to create a personalized object for a family using collected data from the family by filled in postcards from the families. The questions that arose for the validation within this idea were:

- What questions are needed to ask to gather enough information?

- In what form/shape do families want to get something back?

- How to make it personal enough?

Figure 34: *The prototype of the postcard.*

The postcards consisted of the following fill-in sentences:

Hoi!

De laatste tijd maken we thuis veel samen mee. De leuke dingen in deze tijd met elkaar zijn ....

Als alles straks weer normaal is, ga ik missen dat ....

Als we nu samen zijn met het hele gezin dan doen we vaak ....
.... in de ....
Graag zou ik .... nog meer doen.

Als laatste lijkt me het super leuk om.. in huis te hebben,
dat hebben we nu nog niet.

Groetjes,

....

At the front of the card people could draw/paste/describe what being together with the family looks like. The postcards were sent by post, together with a written letter explaining the assignment. The postcards could be returned through mail. There was also an extra paper in the package with the question if the family had more ideas and preferences for objects they would like to have in the house.

Figure 35: *The prototype of the postcard.*

Figure 36: *The prototype of the postcard with the explanatory letter.*

J.1 Analysing the interviews

The interviews and the first tests with the three families generated a lot of data. All interviews have been recorded and transcribed. Interesting sentences have been highlighted from all interviews. These sentences were transferred to Post-its and clustered.

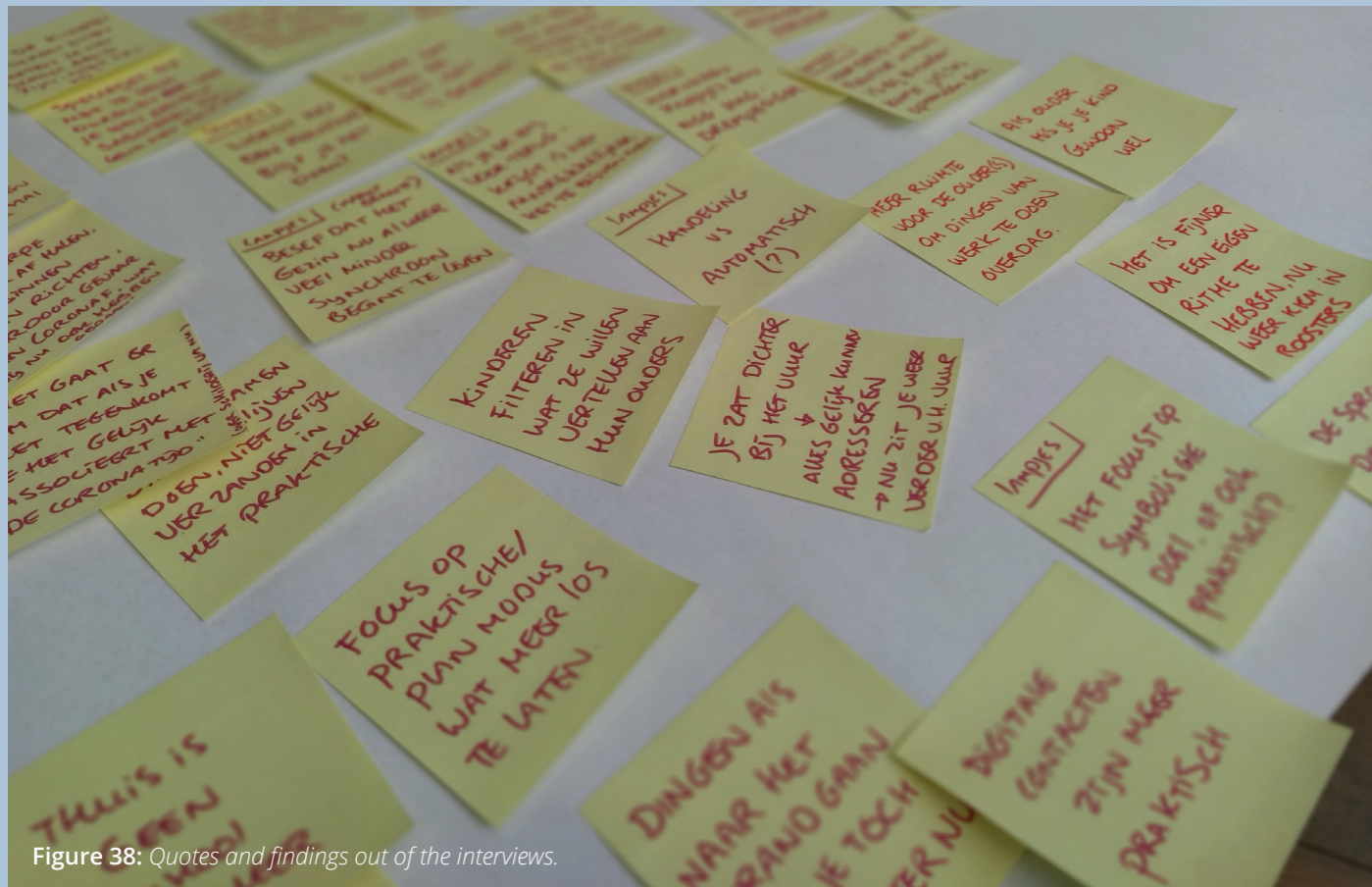**Figure 37:** *Me analysing the transcribed interviews.*

Figure 38: *Quotes and findings out of the interviews.*

J.2 Results testing first ideas

J.2.1 Lamp (Reminding)

Below the insights found from the test with the Bulb-light are described. These insights will be included in the concept development in the next steps.

Figure 39: *The prototype of the lamp-idea at the family of Marjolijn.*

a. It brought a moment of realization the family is already beginning to live less synchronously. The family was not necessarily aware of this:

"Ja nou wat ik wel grappig vond, nou ja grappig, ik ben vrij druk geweest de afgelopen week, en dat het lang duurde voordat ze een keertje alle 4 tegelijk aan waren. En ik dacht van, jij was natuurlijk in Den Haag, ik had veel gewerkt, de kinderen naar school, dus het wordt wel eens tijd dat ze een keer alle 4 gaan schijnen, en dat was eigenlijk het enige waarvan ik dacht oh, nou wordt het wel tijd, het is weer ouderwets druk aan het worden."

b. The question is whether the use of the lights becomes a routine. The lights have been with the family for a week. Opinions were divided about if they would use it over time.

c. The father of the family mentioned it could be valuable to get something in return, therefor it should remain attractive to keep using the lights. This idea should be an interesting possibility. In this way it could be linked to Yu-Kai Chou's theory (the Octalysis framework).

d. The family also pointed out, the interaction of pressing the button could be designed easier/more attractive.

e. The children were very enthusiastic about the idea the lights would turn on automatically when you get home. It is interesting to consider whether the action could be an essential part of staying aware.

f. During the final interview, Marjolijn mentioned she thought it would be logical to place the lights close to the front door:

"Ja bij binnenkomst. Dan kom je thuis en dan zie je of er wel of niemand is."

After explaining the difference about the practical and symbolic purpose, she understood using the lights indeed delivered the symbolic purpose in the living room: *"...toen dacht ik van je het wordt gewoon tijd dat ze alle vier een keer gaan branden en dat had ik me echt niet zo gerealiseerd, maar door jouw lampjes wel".*

g. The mother of the family gave an example about what a routine means for the family:

"Als je binnenkomt doen wij eigenlijk altijd schoenen uit, jas uit, tas. Dus dat is een routine. En alles wat daarna gebeurd is niet een routine."

J.2.2 Postcards (Transparency)

The following insights emerged from the test with the postcards:

Figure 40: *Filled in prototype of the postcard.*

The goal of the postcards-idea was to develop it as a service. The postcards were made to collect information in order to return a personalized item.
The test showed that this service is not the most suitable solution. It is a time-consuming concept and it is more interesting to find an overarching element that is suitable for a wider group of families. Instead of making a different solution for every family individually. One recurring element appeared; **playing games together.** This is a valuable insight to take with me.

Interestingly playing games was often mentioned by the families as an activity you do together with the family. The family of Maartje mentioned games that are fun to do with the family are: games that do not last long and where you can bully and sabotage each other.

The previously conceived ideas within the direction of Transparency were all focused on asking questions to each other as well. These insights contribute well with the recurring insight out of the postcards.

In this way, **the postcards are a source of inspiration about what being together means for families** and to make the concepts fit within the direction of Transparency, using the insight of the value of playing games.
Another valuable aspect of the game element is it can be connected with the theory about Octalysis framework. This will be discussed in more detail in the next steps of the concept development.

J.2.3 Remote connection

From the questions related to the idea of Remote Connection, the following insights emerged:

a. The interview revealed that connecting remotely with digital means was not received as positive. One of the reasons for this was, for example: *"Als ze op school zitten moeten ze met school bezig zijn. Ik ga geen contact met hun zoeken als ze op school zitten."*

b. In addition, it appeared the lesson learned focuses on the physical moments together at home. That is why the design goal has been tightened up. Therefore this solution direction does not fit in finding a solution anymore.
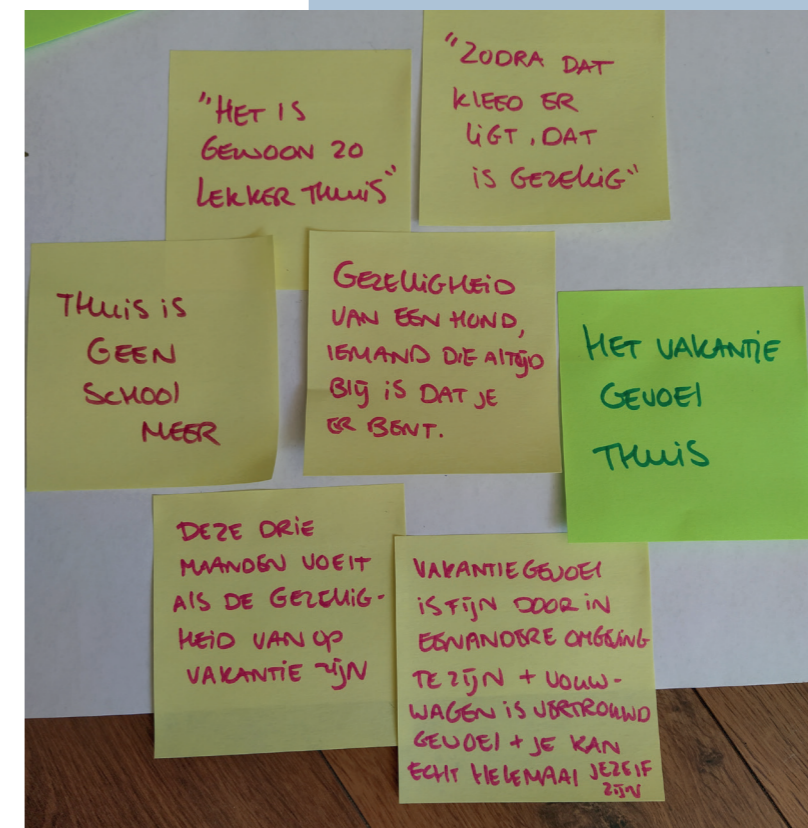
Appendix K

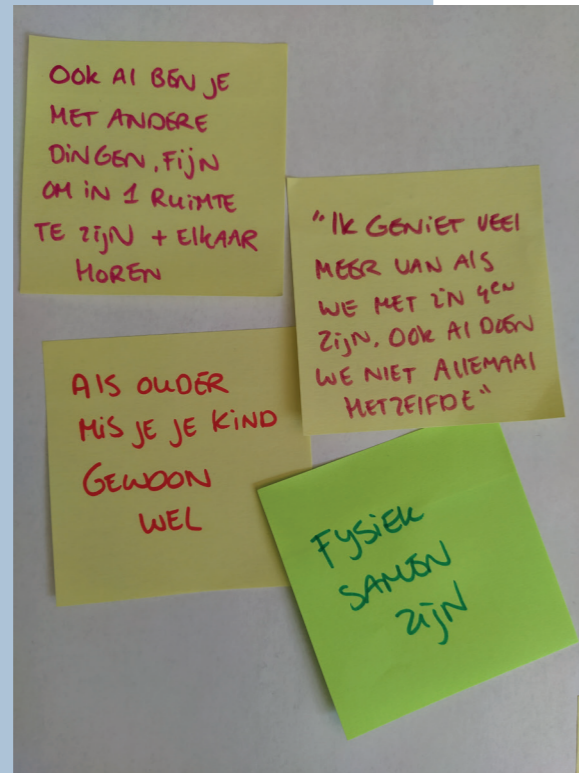**Clusters of the findings of the interviews and first tests**

Own peace at home
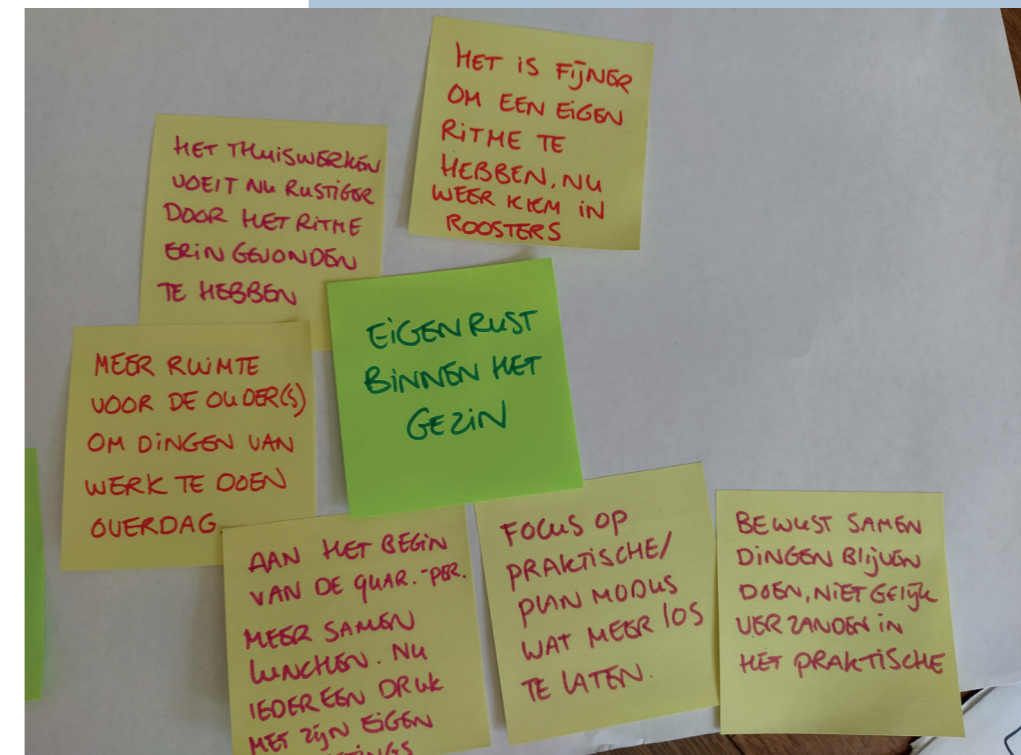
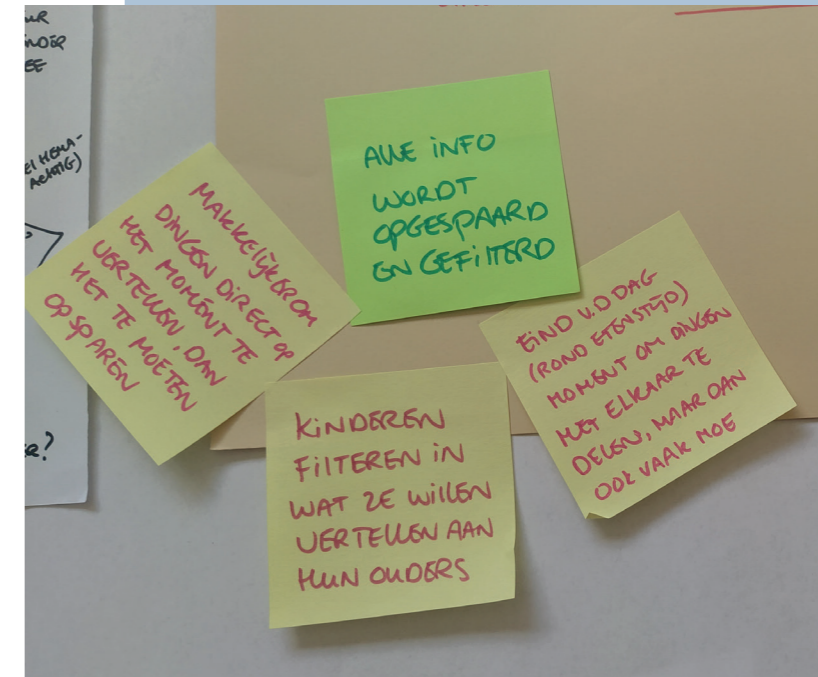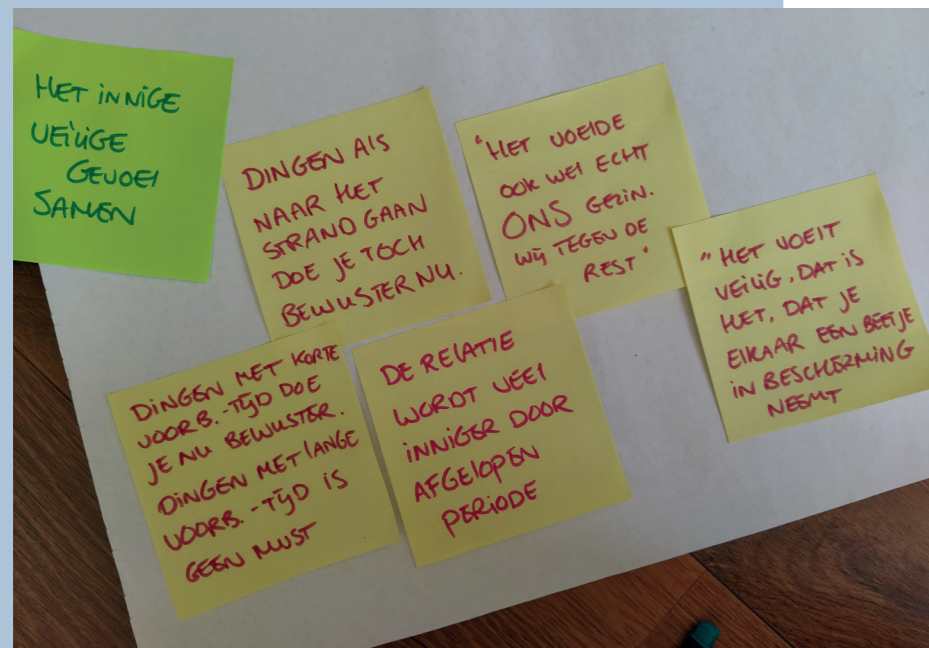## Holiday feeling at home
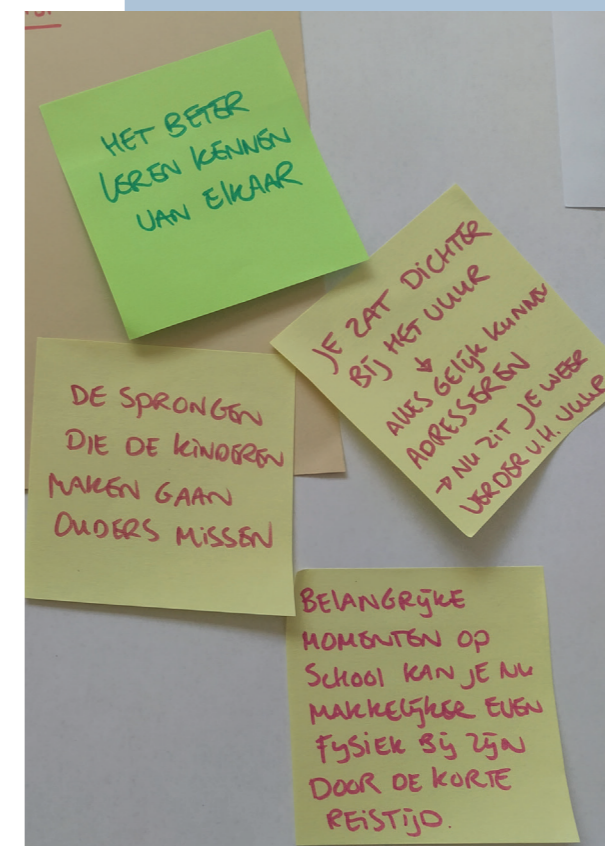
Physically togetherness

Closer the fire

Safe feeling at home

Get to know each other better

Appendix L

Connecting data with ideas

The clusters and the insights from the tests are linked to the existing ideas. All Post-its from the clusters are linked to the ideas generated in Appendix F. The ideas were divided into three flipchart sheets. Each sheet represented one of the solution directions: Remembering, Transparency and Remote Connection.
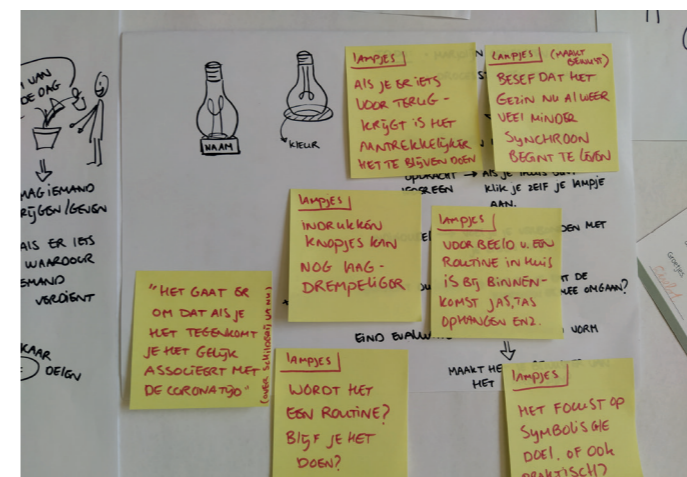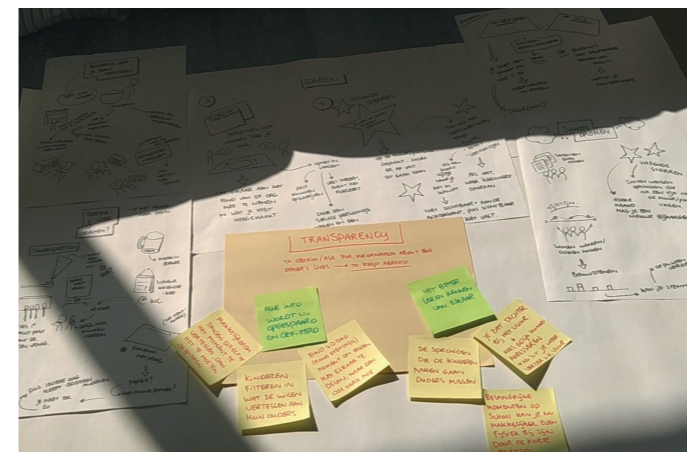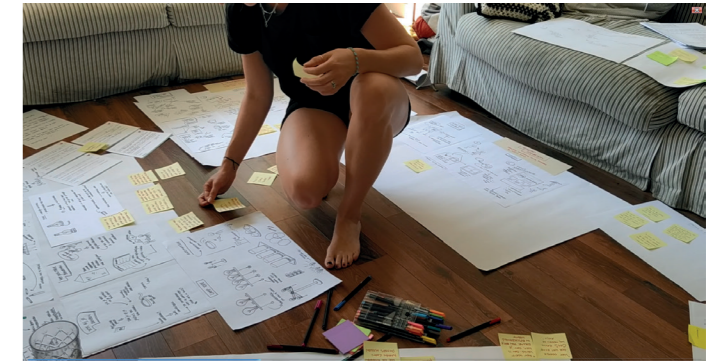

Figure 41: *Collage of the proces of connecting the data from the interviews and tests with the ideas/clusters.*
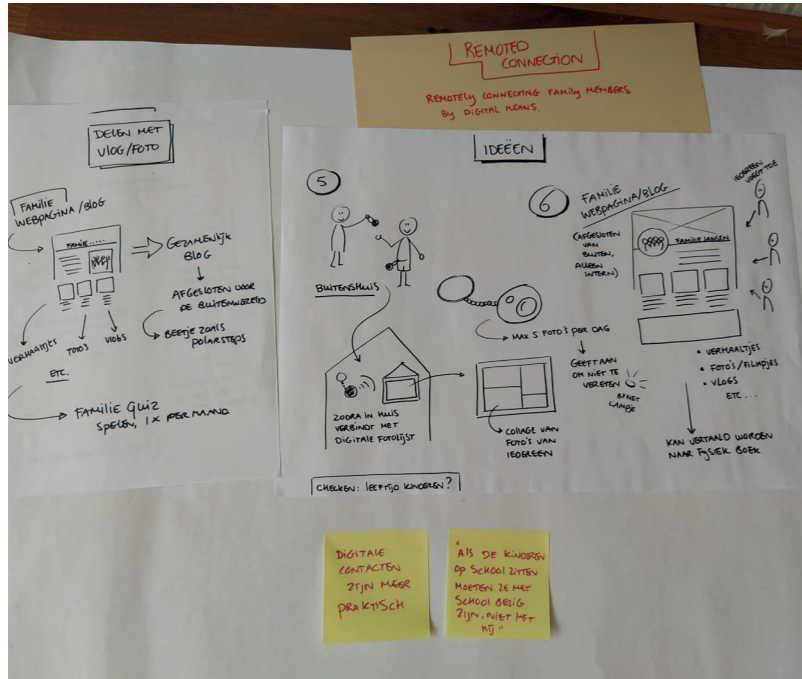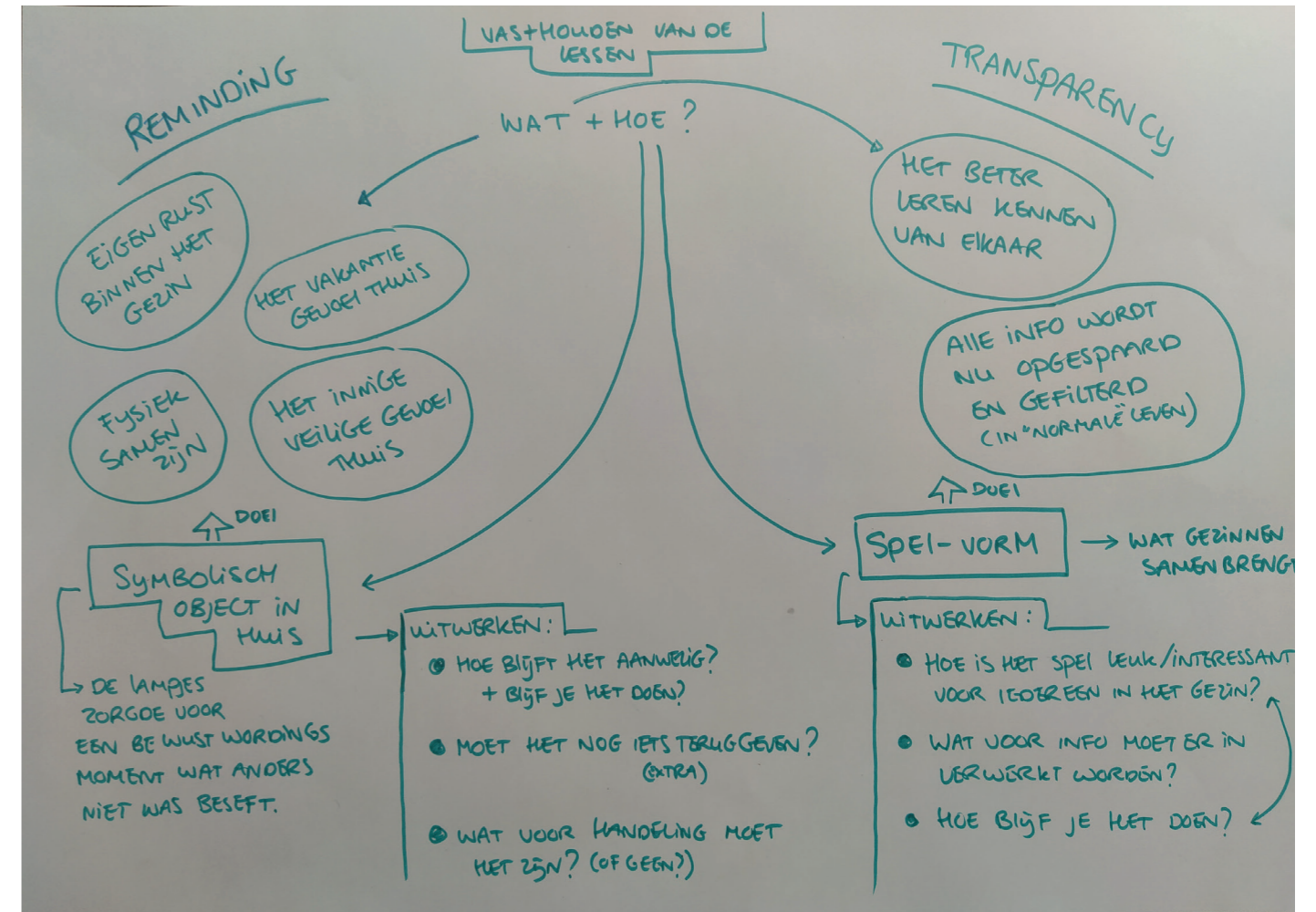
Figure 42: *Only two Post-its with findings out of the interviews and test fit with the direction of Remote Connection.*

When dividing all Post-its, little was within the direction of Remote Connection.

The defined focus is on the moments together, at home. Remote connection does not fit in this for now.

The image below shows the result of dividing the Post-its within the two directions of Remembering and Transparency. The overview is simplified in the figure on the next page.

Focus on two directions:

Ideas and Post-its about Transparency

Ideas and Post-its about Reminding

Figure 43: *The two directions with ideas, clusters and insights.*

Figure 44: *Sketch presenting in which way the two direction are connected with the lessons learned by the families.*

This figure is further elaborated in Chapter 2.6.1.

Appendix M

Iteration concept idea: LAMP
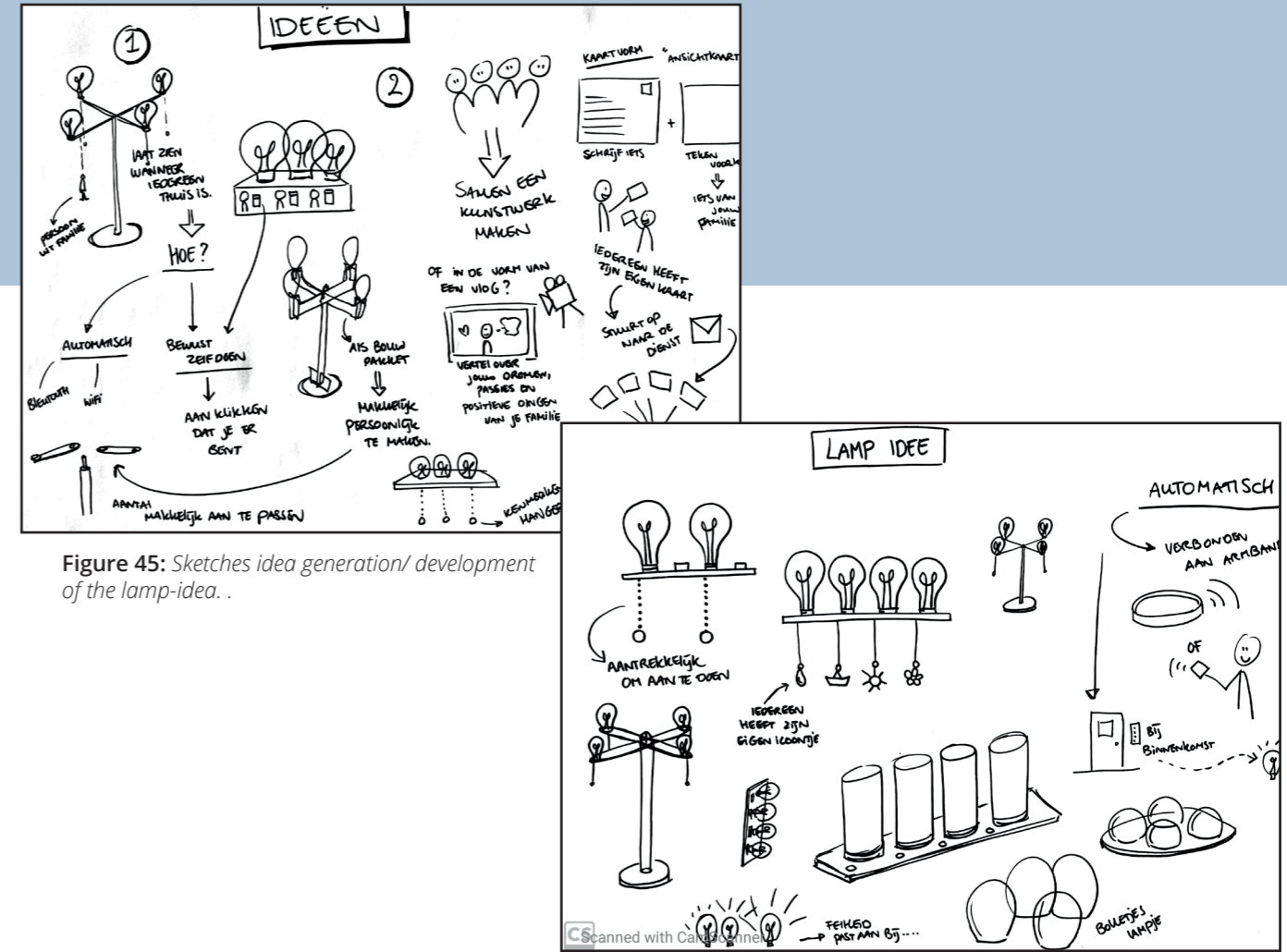
Figure 45: *Sketches idea generation/ development of the lamp-idea. .*

Still it is uncertain whether using the lamps will become a routine (Appendix J.2.1-b). How do you stay motivated to turn on your own lamp? If not everyone keep doing it, it will not achieve the goal.
For this, the concept is linked to the Octalysis framework from Chapter 2.4.1.

M.1 Octalysis
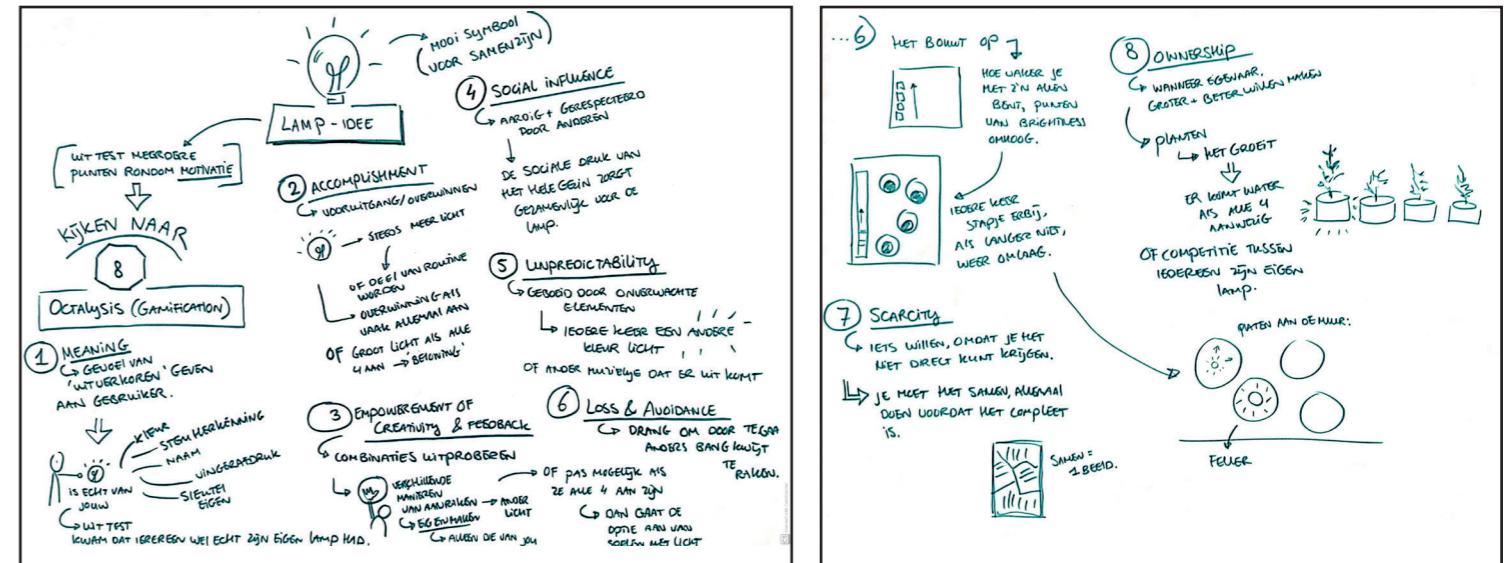
Figure 46: *Connecting the Lamp-idea with the elements of the Octalysis framework.*

M.2 Inspiration

Another point of feedback from the test was the interaction of turning on the lamp might be easier or more attractive (Appendix J.2.1-d). Therefor, I looked for inspiration of interactions used in other lamps. Some examples are showed below.

(hexa Tile Touch, n.d.)

(Architecture Art Designs, n.d.)

(A Lot Mall, n.d.)

(Brahme, 2012)

Figure 47: *Some inpirational interactions of other lamps.*

Further idea generation of the lamp-idea was done, using the Octalysis framework and the inspiration of interactions.
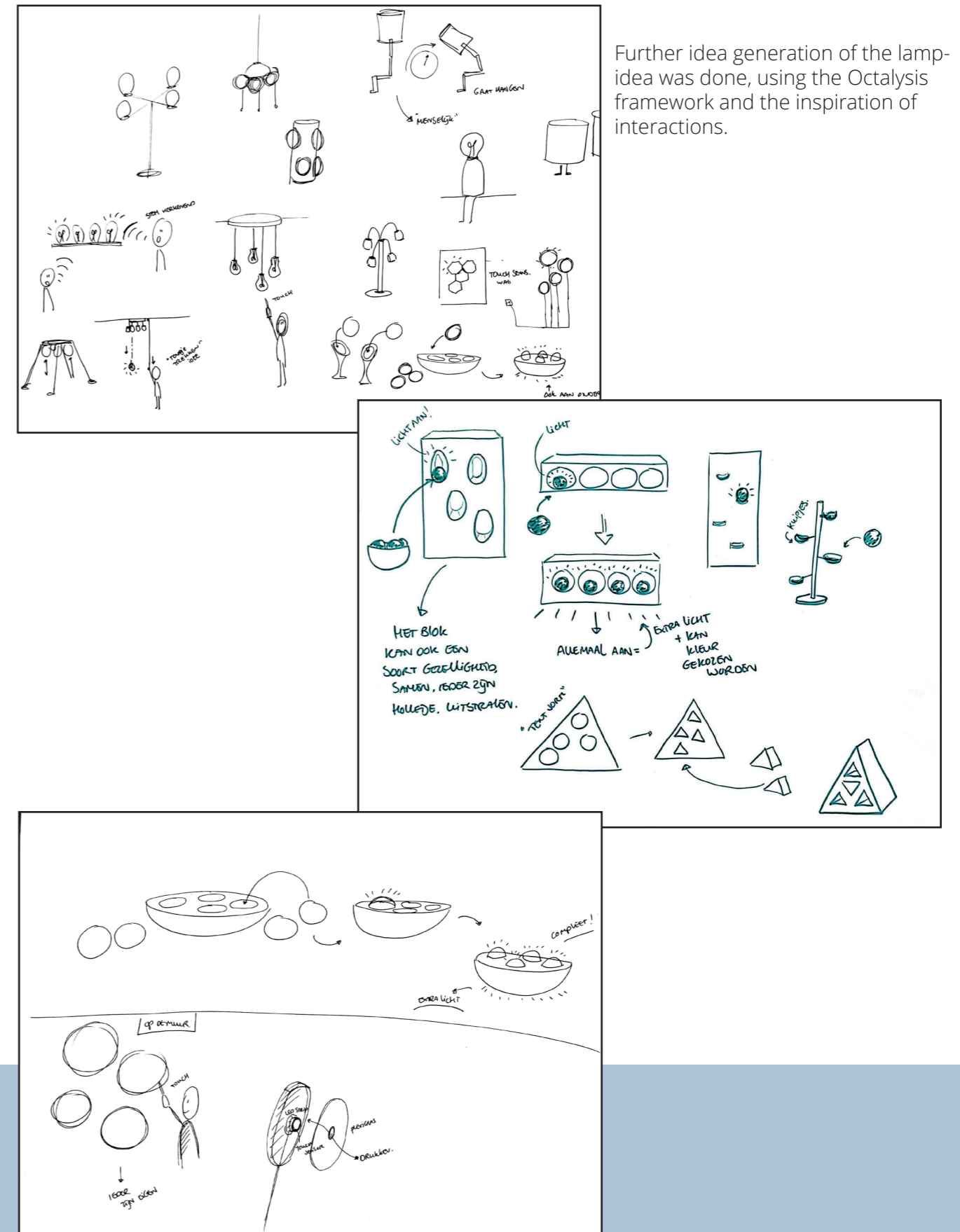
Appendix N

Iteration concept idea:
Question-game

To give the game an appropriate form, inspiration has been drawn from the stories and insights of the families. For example, the folding trailer and the pleasant feeling of camping were a recurring element in the experiences of being together within the family of Maartje. Therefore, some ideas where made within this theme.

During the interview I also got a look at the game cabinet, which in turn gives insights into what are the valuable elements in a game design for the whole family.

The inspiration from the families was used to brainstorm with:

Figure 48: *Screenshot of a family showing their game cabinet during an interview by Zoom.*
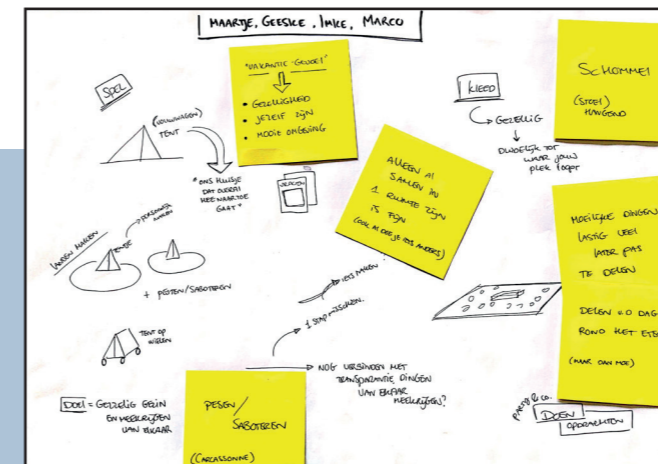
Figure 49: *Sketches of brainstorming on the Question-Game idea.*

N.1 Octalysis

This concept is connected to the Octalysis (Chapter 2.4.1), to make the game interesting (also in the longer term) by bringing the important elements of Gamification into the family games.
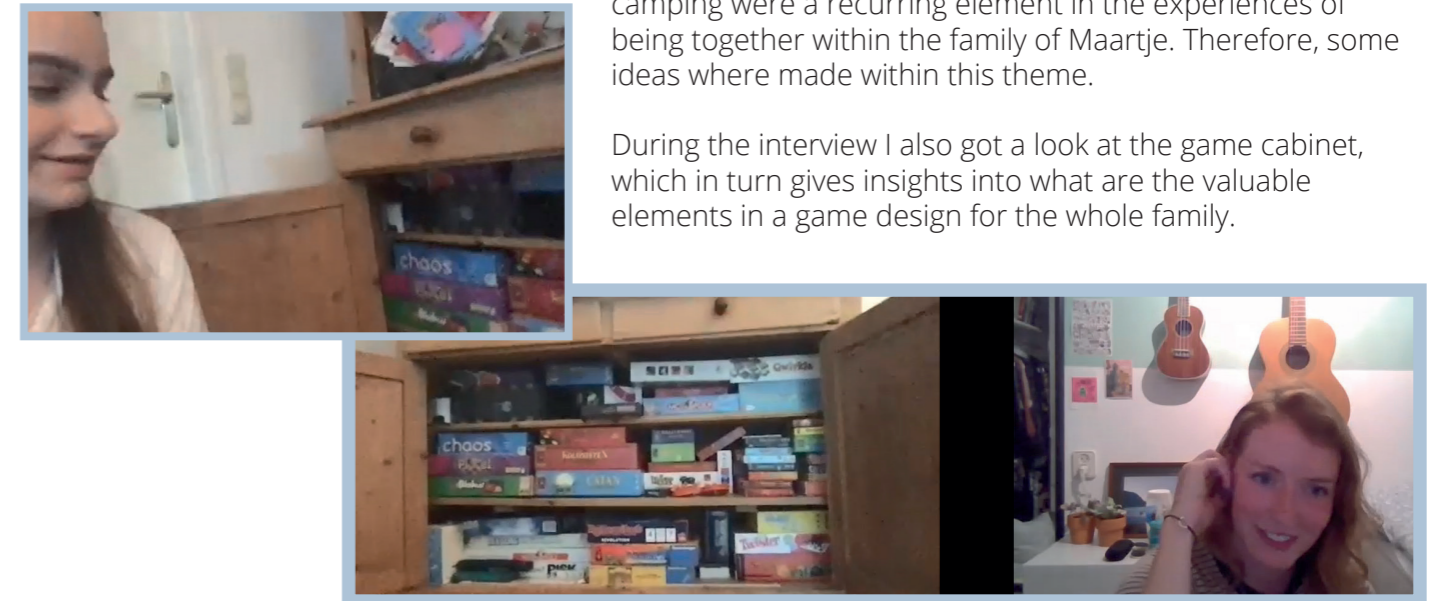

Figure 50: *Connecting the Question-game-idea with the elements of the Octalysis framework.*

N.2 Inspiration

In order to get more inspiration for the shape of the game, combinations have been made with existing games such as The Dictionary Game, Carcassonne, Party & Co. This brainstorm is presented below:

Figure 51: *Sketches of ideas inspired by the Dictionary Game.*

Figure 52: *Sketches of ideas inspired by Carcassonne.*

Figure 53: *Sketches of ideas inspired by Party &Co.*

Appendix O

Making the prototypes

Figure 54: *Sketches of the building plan.*

Figure 55: *Collage of the process of making the Balls-lamp.*

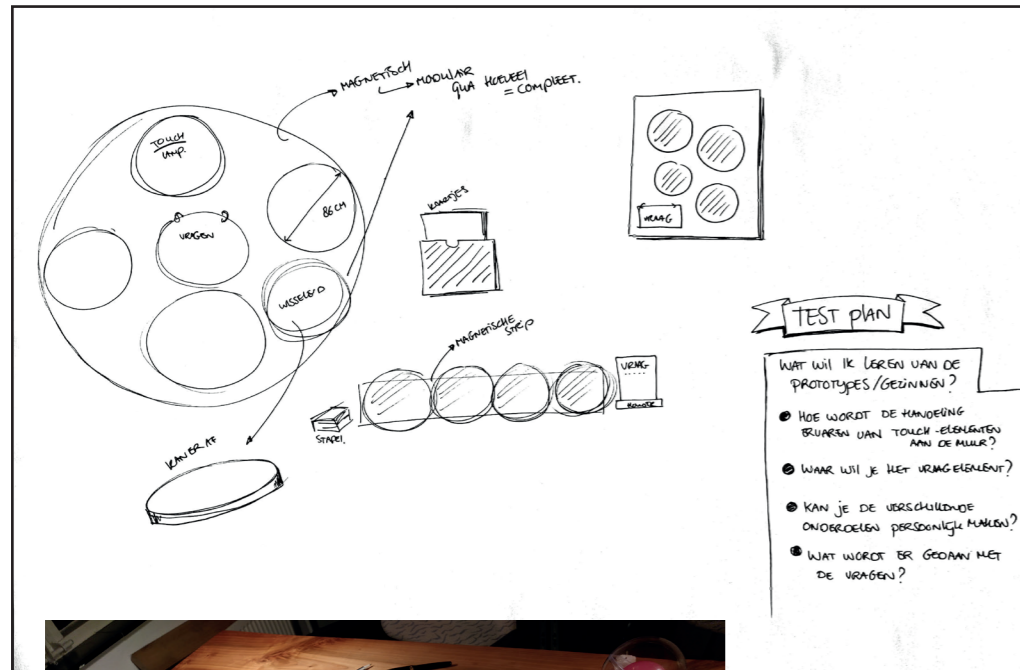## O.2 Making the prototype of the Touch-lamp

Figure 56: *Sketches of the building and test plan.*

Figure 57: *Collage of the process of making the Touch-lamp.*

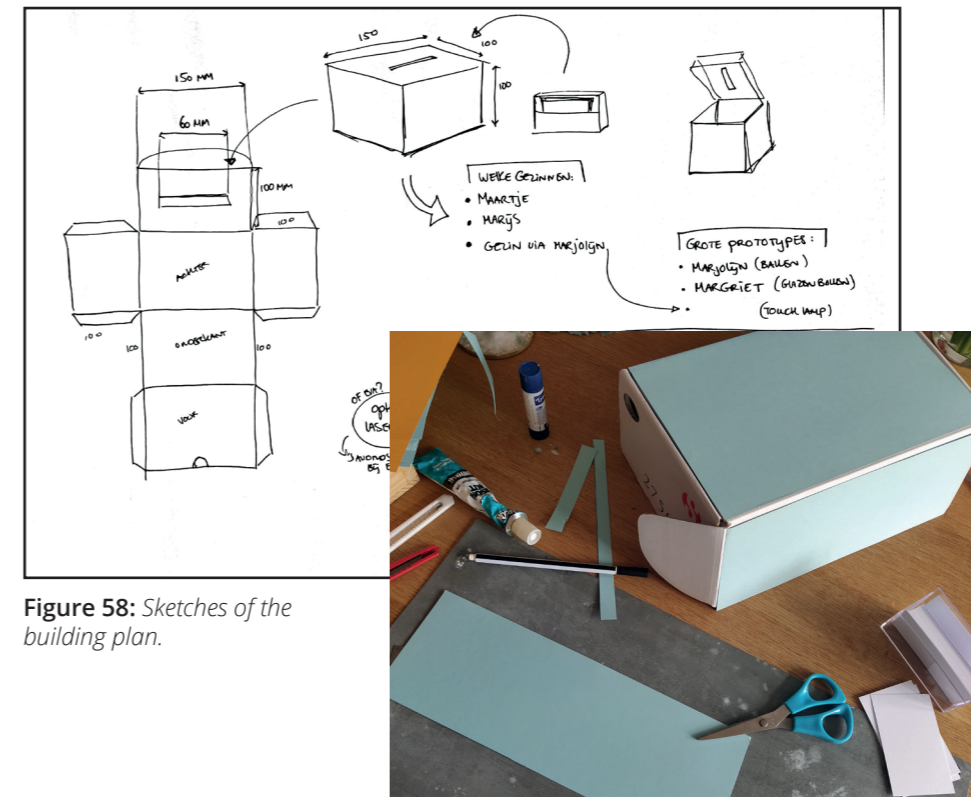## O.3 Making the prototype of the Question-box

Figure 58: *Sketches of the building plan.*

Figure 59: *Making the Question-box.*

O.4 Question cards

1. Wie is je beste vriend?
2. Wat wil je later worden?
3. Als je een superkracht mocht kiezen; wat zou je kiezen en waarom?
4. Wat zijn de 5 leukste dingen aan jou zijn?
5. Wat is het grappigste dat je ooit hebt meege maakt?
6. Als je drie wensen mocht doen, welke zouden het zijn?
7. Wat is het leukste of stomste aan mama?
8. Wat vind je eng?
9. Wat doe je als je bang bent?
10. Wat is het aardigste dat een vriend(in) ooit voor je heeft gedaan?
11. Wie is je held?
12. Wie is de stomste persoon ter wereld en waar om?
13. Hoe zou je jezelf omschrijven aan iemand die jou niet kent?
14. Als je een dag met iemand mocht ruilen, met wie zou dat zijn?
15. Wat is het leukste aan kind zijn?
16. Waar zou je naartoe gaan als je in de tijd kon reizen?
17. Welk dier zou je willen zijn?
18. Wat waren de drie leukste dingen die je van daag hebt meegemaakt?
19. Wat is je vroegste herinnering?
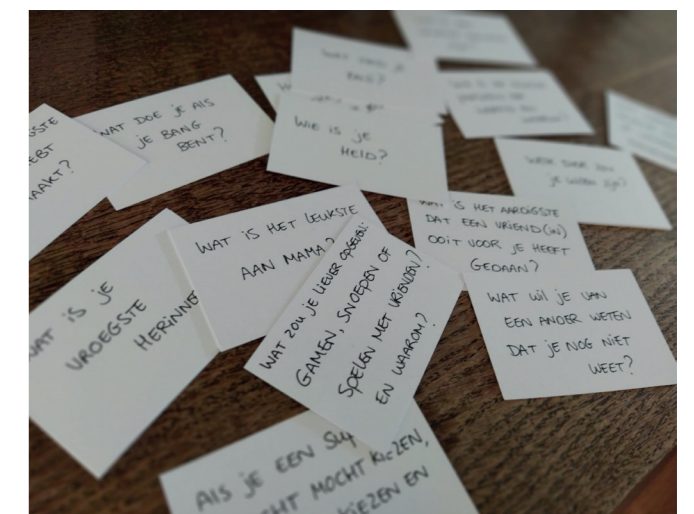20. Wat wil je van een ander weten dat je nog niet weet?

Figure 60: *The questioncards used with the prototypes.*

Appendix P

Analysis interviews
Validation for inspiration

The interviews have been transcribed and the important /valuable/recurring statements were highlighted. The main findings from the interviews are described below.

Test 1. Question-box, with the family of Maartje:

Figure 61: *The family of Maartje using the prototype.*

- The family explained that by creating your own questions it will be more personal and that is why you keep doing it. Probably the motivation of playing will be higher compared with other question card games.

- Furthermore they said it is fun to do and lunch is a good time to do it.

- They experienced it is valuable to let everyone answer every asked question, then it becomes more of a conversation.

- When everyone is at home, everyone can still be in a different place in the house and be busy with their own things. An interesting question is whether it is only about the moments that you are near the lamp. [Remark to myself: Maybe you can use this to force it].

- The family thought it must remain clearly visible to keep doing it.

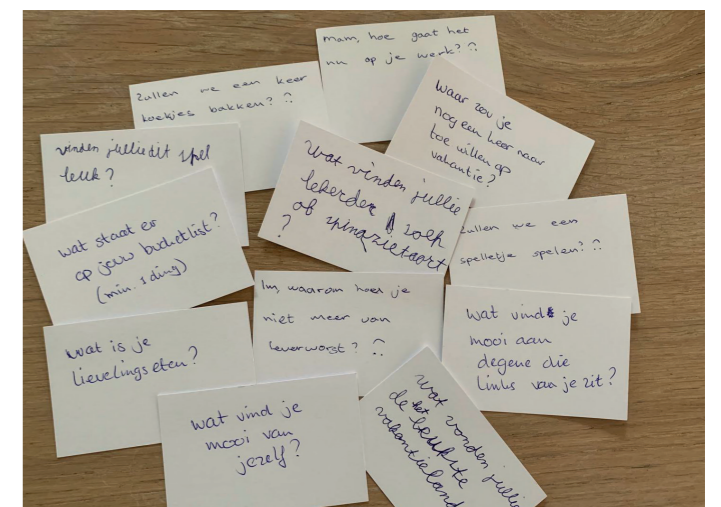- They mentioned the design could be a bit smaller and more a whole.

Figure 62: *Questioncards made by the family.*

Figure 63: *The family of Maartje using the prototype.*

Test 2. Balls-lamp, with the family of Marjolijn:

- The lamps should be placed at clearly visible place. This design of the prototype is too big for that.

- Warm/cosy light fits better in their home.

- The children think coloured light is fun and cool.

- The act of placing the ball in the base block is too much. They told when testing with the lamps with a button, their motivation was much higher.

- The focus of the family members quickly disappears if there are too many questions asked in a row.

- It is valuable not to come up with the questions yourself. Now it remains a surprise and you cannot think long about the answer, therefor it is honest.

- The other lights (of the first lamp test) were more compact and tender.

- The fact a lamp has cosy light ("gezellig licht"), is an important consideration whether or not to buy something.

- The mother of the family sees the lamps as a combination of lamp and decoration. *"Maar in eerste instantie dan toch wel een lamp, met een leuke bijkomstigheid".*

Figure 64: *Collage of the prototype of the Balls-lamp in use.*

Test 3. Bulb-lamp, with the family of Margriet:

- Everyone can influence each other's lamp and it can be used to plague your siblings. Interesting to think about making it less individual.

- *"Als je thuis bent wil je ook je alleen momenten. Dan lijkt het aantrekkelijker om de lamp niet aan te doen."* [Question to myself: Is this what you want to create?]

- The mealtimes are the easiest moments to ask the questions, then attention is high.

- The lamps add some extra cosiness.

- By making the lamps more united, more connection within the family is expected.

- *They have a time capsule at home with collected memories (Figure 66). It may be opened in 2028. "Ze vinden het ook heel leuk om te doen, om er briefjes in te doen, herinneringen te verzamelen".* [Remark to myself: This is inspiring!]

- Interesting to add an option where you can show how you feel when switching on your lamp. That the others know what you need. This is actually the "closer to the fire" phenomenon.

- *"het zou tof zijn aan de muur. Ik zou hem zeg maar niet, ik zou hem meer zien als een accessoire dan echt een functionele lamp."*

- If the lamp itself has a question, it is more a question from the lamp instead of a person who is in the lead. Having one person in the lead is perceived as negative.

- Children feel a connection with their favourite colour.

Figure 65: *The family of Margriet using the prototype.*

Figure 66: *The "tijdscapsule" the family is using.*

Figure 67: *The family of Margriet testing the lamp-bulb.*
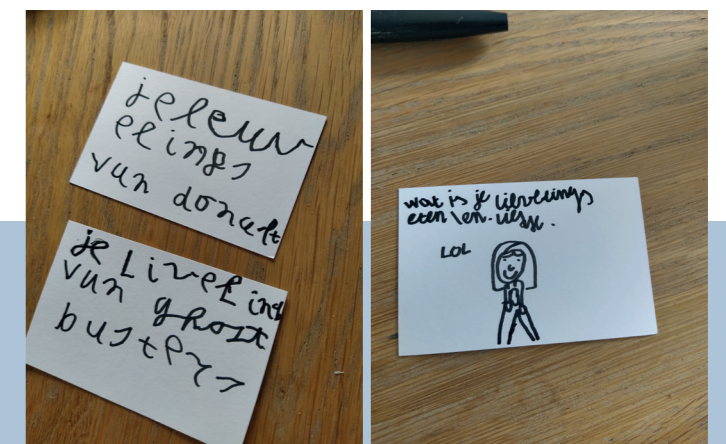

Figure 68: *Some questioncards the family made themselves.*

Test4: Touch-lamp, with the family of Winnie

- Preference goes to questions that give you a warm feeling and create connection: *"Omdat je dan ineens met elkaar gaat nadenken over gewoon waar je het nooit over hebt eigenlijk, onderwerpen als met wie zou je een dag willen ruilen en de vraag wat is je eerste herinnering."*

- The interaction of the touch-light was experienced as a pleasant act.

- Feeling connection with your own light is experienced as difficult for some people. An idea could make the lamps customizable to increase the personal connection with your lamp.
.
- The question cards make it easy to involve everyone of the family in the conversation: *"En dan vaak hebben we het over dingen die niet voor iedereen interessant zijn. Kijk even naar deze kant van de tafel. Dan haken mensen af. Maar het is wel leuk dat als je vragen hebt waarbij je met elkaar een leuk gesprek aan kan gaan."*

- The lamp should also not stand out too much, that would be irritating. They saw the lamp more like a decoration than really a light.

- *"Het moet alleen geen dwingend gevoel krijgen dat je er direct iets mee moet. Het zijn soms ook juist hectische momenten dat iedereen thuis is."* [Remark for myself: You also want to create a peacefull moment during the moments together!]

- *"Het geeft wel een ander gevoel wanneer je er maar 1 hebt branden in plaats van dat je er 3 of 4 hebt branden."*

Figure 69: *The Touch-lamp at Winnie's house.*

Figure 70: *The prototype of the Touch-lamp.*

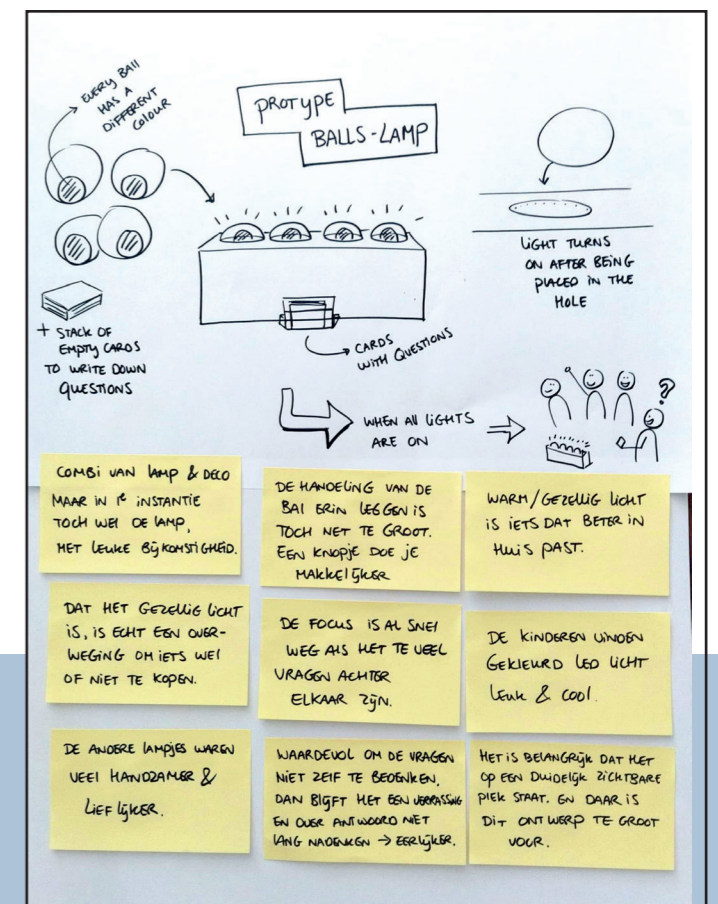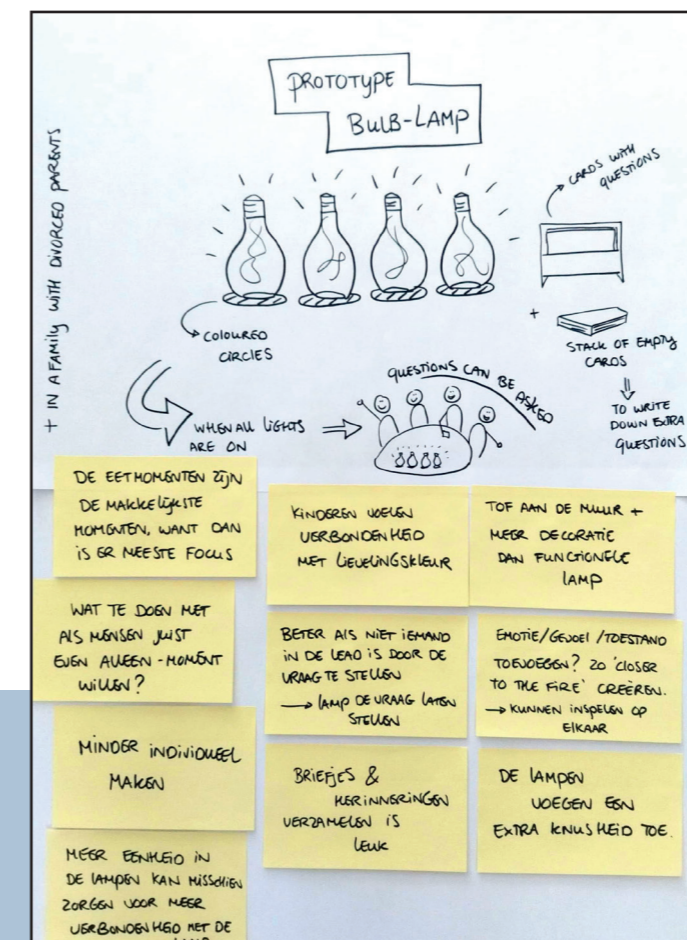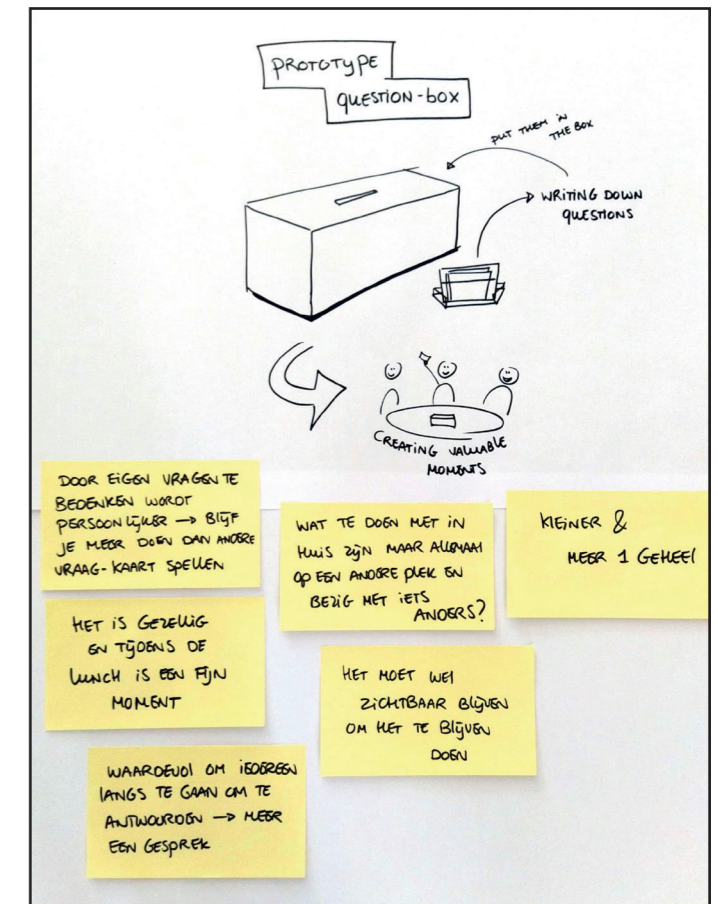These insights were written down on Post-its and attached to the drawings of the different prototypes.
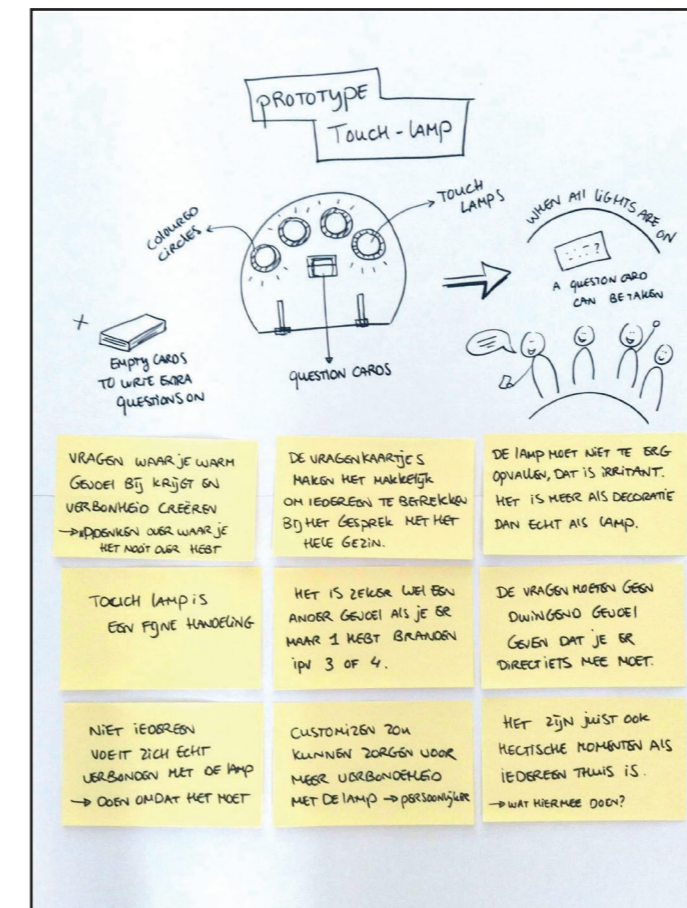
Figure 71: *Insights connected with the different concept-ideas.*

After this, the Post-its were clustered by subject.
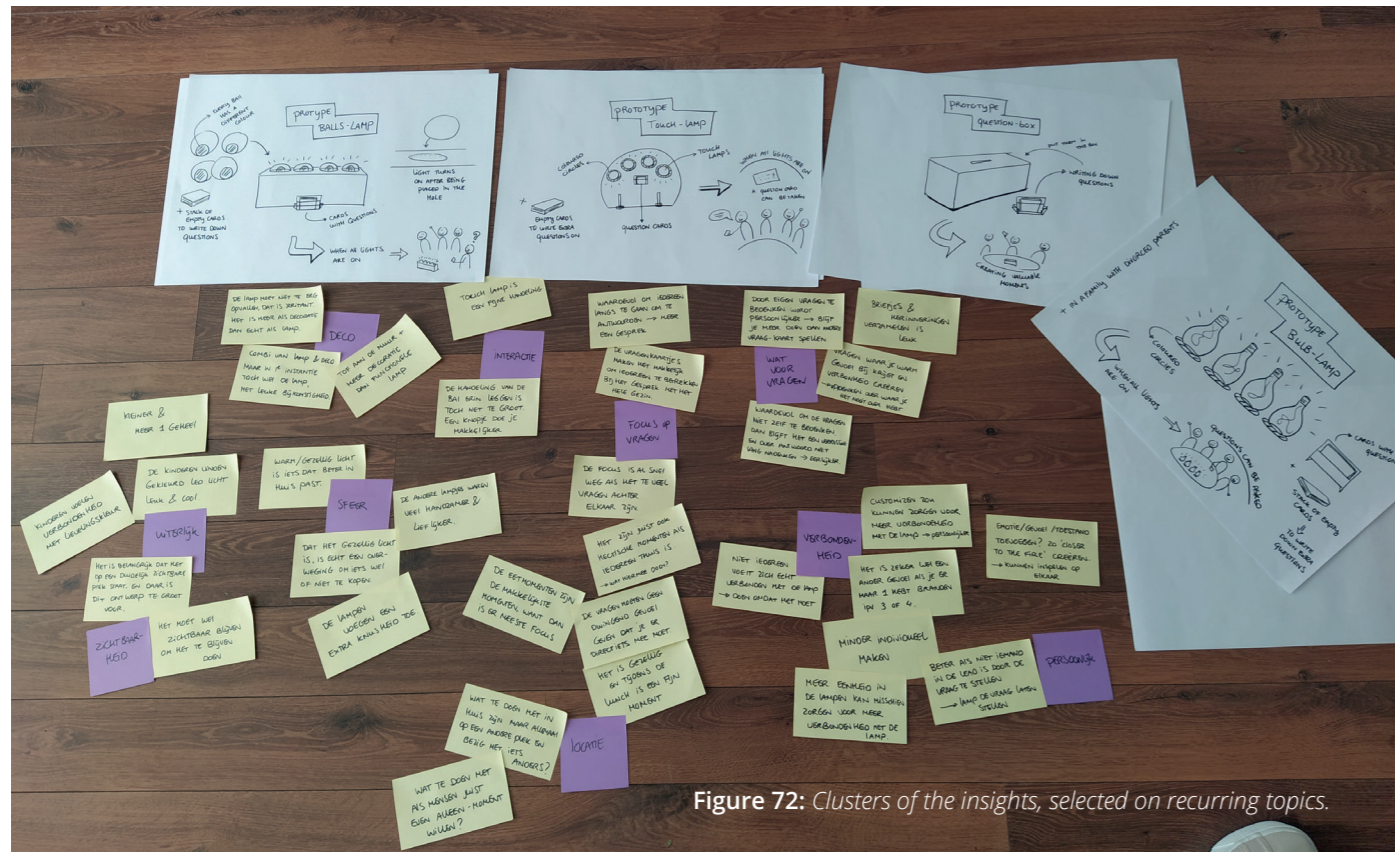
Figure 72: *Clusters of the insights, selected on recurring topics.*

An extra colour of Post-its has been added, presenting what these insights mean for the design . This can be seen as the wishes which can be taken into account for the final concept. These are the pink Post-its:

Figure 73: *Defined "wishes"out of the clusters.*

Figure 74: *Insights to include in the design (like "wishes").*

In the end, three ideas were developed in more detail, using these insights. The idea generation is presented on these pages. The three final shapes are presented in Chapter 3.4.

Figure 75: *Collage of sketches of the shape-idea generation.*

Appendix 17

Voting shapes
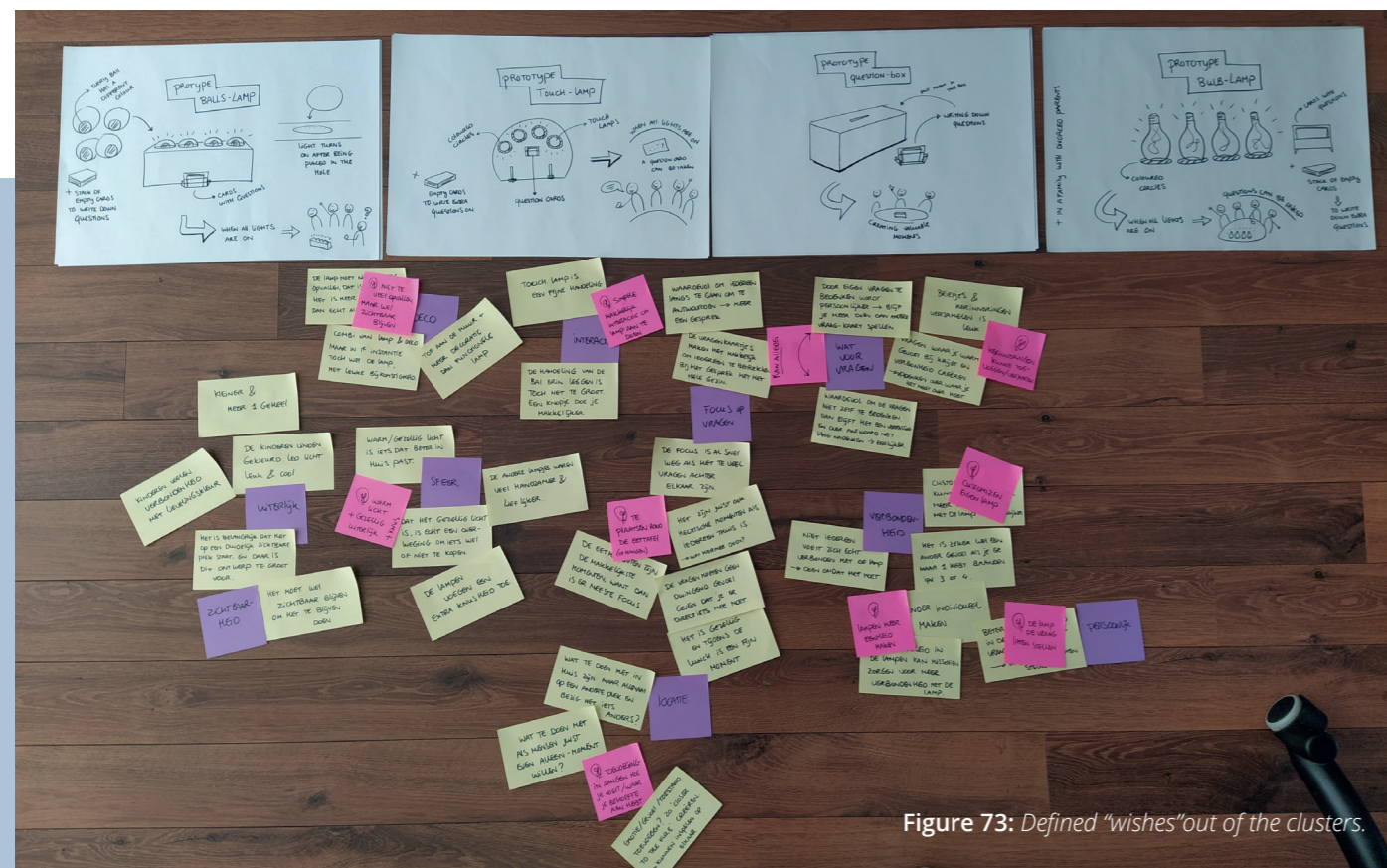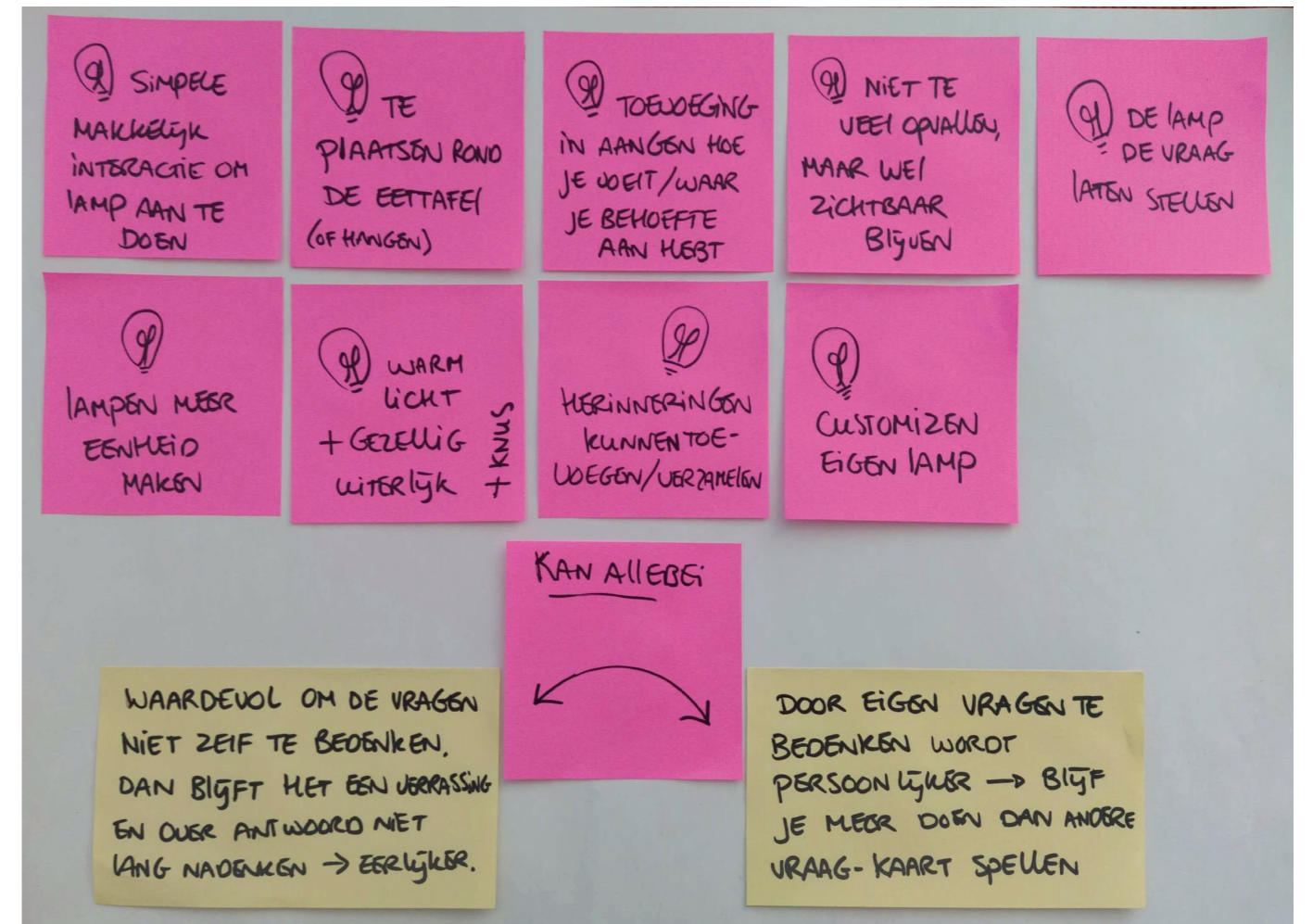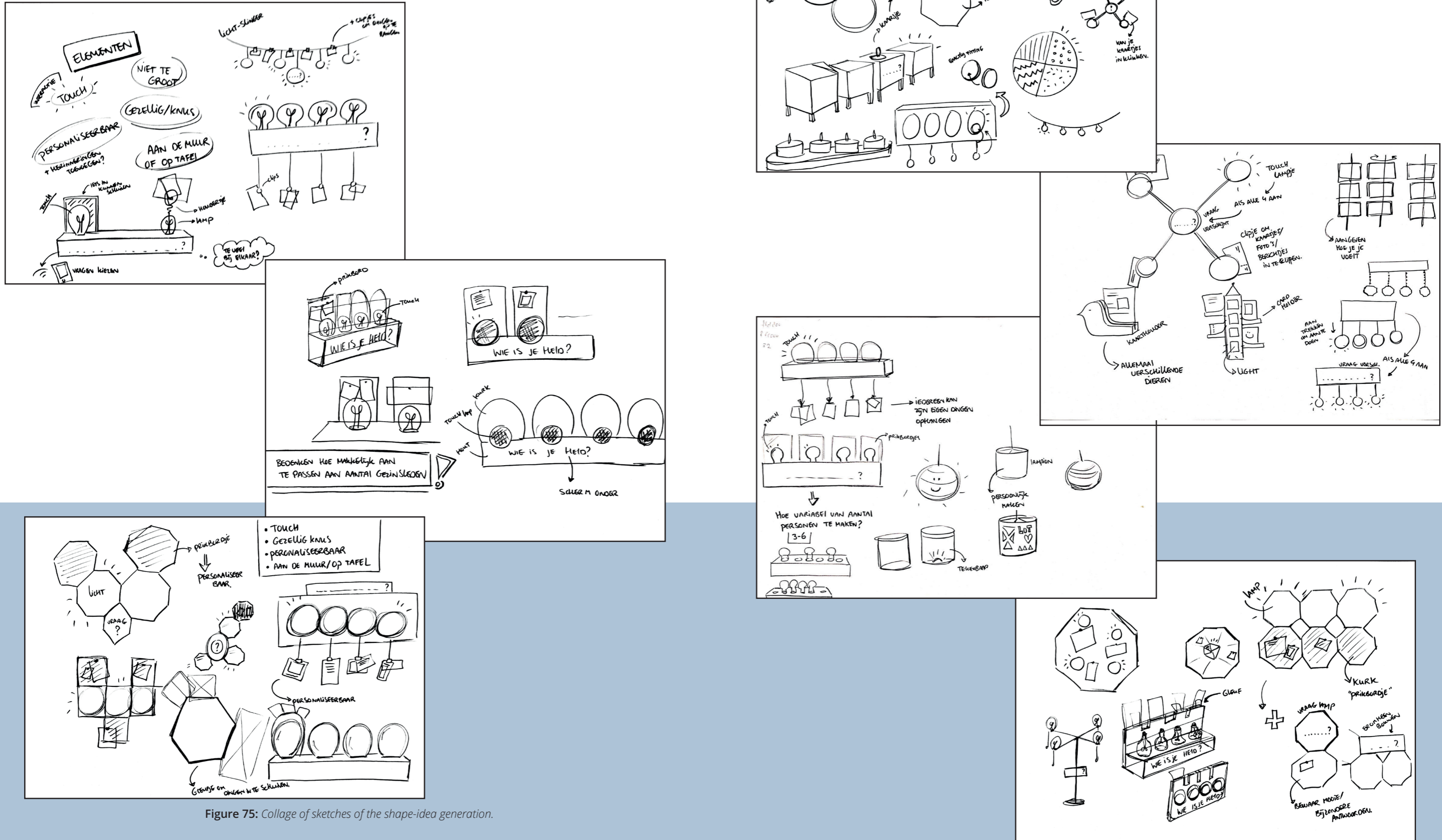
The different designs were presented to the different families using GIFs. The GIFs gave a brief overview of the possible interactions with the designs.

The table below gives an overview of the votes and motivations. In total there have been ten votes within the four families.

Design	Who	Why	Votes
Shape 1	Marjolijn	"I think all three designs have something. Design 1 or 2 I think. Okay, yes, design 1, it's quieter on the wall and it looks really nice with those pictures behind it. The design and form appeal to me".	4
	Ymke	"It is compact. Nice that you can put cards in it and cool that there is text on a piece of wood".	
	Evy	"The question in wood is pretty!"	
	Denn	"Cool the question in wood"	
Shape 2	Winnie	"Nice new designs. Dirk and I looked at it together. We choose this one, because you can change the shape. And we like the pinboard because you can also attach 3D things to it."	4
	Dirk	" "	
	Margriet	"I choose the second design. I like the design, shapes, angles, and flatness, I like that all. Everyone has their own pinboard. Maybe a possibility to make a common one for the family goals? It retains something individual and yet there is unity."	
	Sef	"Simply the best one! Your own notice board is decisive".	
Shape 3	Maartje	"Geeske likes the third best, because there is much space between the lamps, it is the lightest design. I think I will go with Geeske, although I still have to think about where we should hang this ..."	2
	Geeske	" "	

Figure 76: *Table presenting the votes and motivations of the families, selecting the design of the shape of the concept.*

Appendix R

Harris Profile

The use of a Harris Profile can give a clear picture of the level to which the insights determined from the prototype tests have been incorporated into the designs. As described in Appendix P, the insights out of these tests can be used as wishes (of the appearance) of the concept. The elements defined in Chapter 3.3 are described below and ordered from important to least important. The importance was determined by how often it was mentioned during the interviews.

- W1. It should be visible, but not too noticeable.
- W2. It should be an easy interaction to turn on and off the lamp.
- W3. The lamp should be customizable.
- W4. It had to project warmth and coziness.
- W5. The different lamps should be a unity.
- W6. It should be placed/hung near the dining the table.
- W7. It should be possible to collect memories.
- W8. The lamp should ask the question.
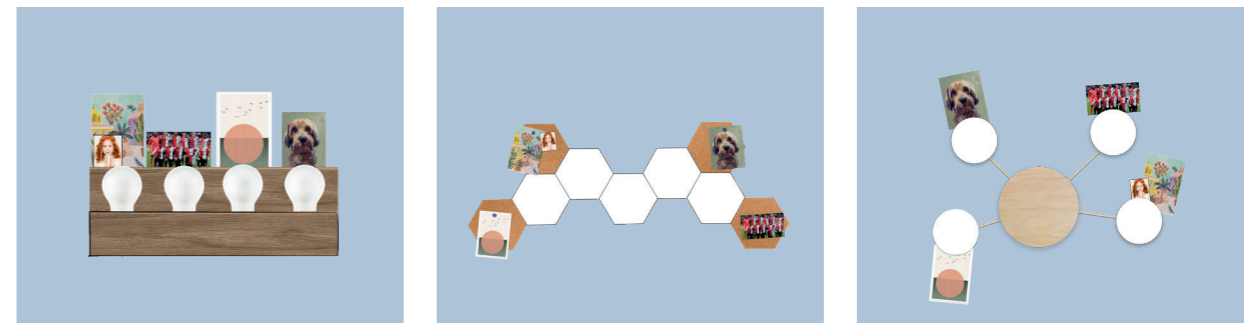
	-2	-1	1	2		-2	-1	1	2		-2	-1	1	2
W1			■					■					■	
W2			■	■				■					■	
W3			■					■					■	
W4			■					■					■	
W5			■					■					■	
W6			■					■					■	
W7			■					■					■	
W8			■					■					■	

Figure 77: *Harris Profile selecting the design of the shape of the concept.*

This diagram shows designs 2 and 3 reach the same looking at the defined wishes. Design 1, on the other hand, is less customizable. But design 1 is more one unit compared to the others.
During the interviews with the families it became clear that customizable is more essential compared with appearance of a unity. Making it personal plays a major role in the intrinsic motivation of staying connected with your lamp (Appendix P). Design 2 and 3 would therefore emerge most strongly out of this analysis.

Appendix S

Findigs about the questions of the PIN Light

Findings from the concept tests about the questions for further elaboration:

Which questions?

Questions that give you a warm feeling and create connection, "because then you suddenly start thinking together about what you never actually talk about, subjects such as with whom you would like to exchange a day and what is your first memory."

The question cards make it easy to involve everyone in the conversation with the whole family: "And we often talk about things that are not interesting for everyone. Then people lose interest. But it is nice that if you have questions where you can have a nice conversation with each other. "
Questions like what's the stupidest thing about mom don't give you that warm feeling you would like to create with the questions.

Extra questions thought by families themselves:

- Zullen we een keer koekjes bakken?
- Mam, hoe gaat het op je werk?
- Waar zou je nog een keer naartoe willen op vakantie?
- Wat vinden jullie lekkerder, soep of spinazietaart?
- Zullen we een spelletje spelen?
- Wat vind je mooi aan degene die links van je zit?
- Wat vonden jullie het leukste vakantieland?
- Wat vind je mooi van jezelf?
- Imke, waarom jou je niet meer van leverworst?
- Vinden jullie dit spel leuk?
- Wat staat er op jouw bucketlist? (min. 1 ding)
- Wat is je lievelingseten? (2x)
- Wie is je lievelings van Donald Duck?
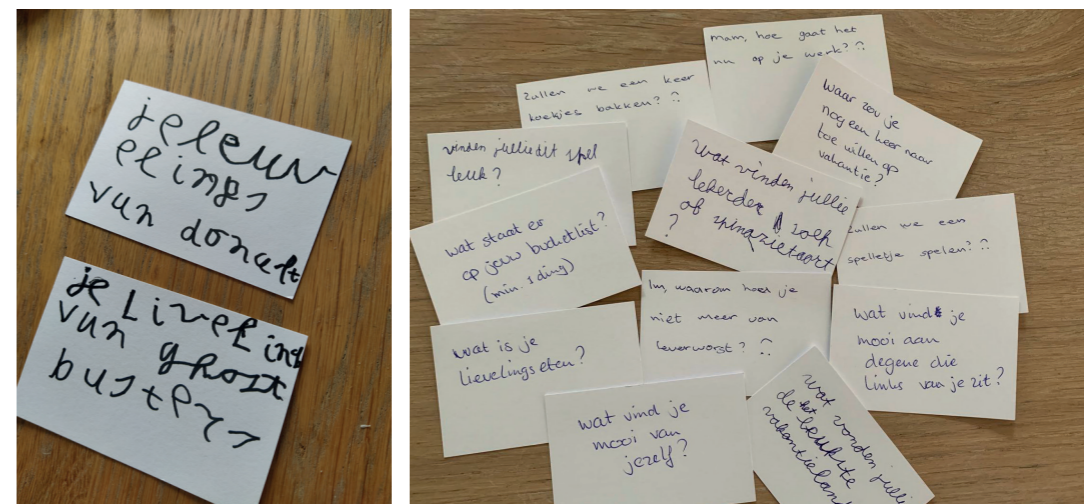- Wie is je lievelings van Ghost busters?

Figure 78: *Questioncards made by the families themselves.*

Appendix T

Test with non-western family

Goal
How is the PIN Light used in a family with a different cultural background than the previously participating families? What does the lamp contribute/not contribute?

The test
The family is using the prototype for 7 days. The prototype is a simplified version of the final design. The essential elements for the test are made:
-5 lamps, each connected with a cork pin board.
-A cardholder with questions and some empty cards.

Figure 79: *Collage of making the final prototype.*

Assignment
Use the lamp for one week, you can use it like decoration, a game or a lamp. Everyone is free to do with your own pin board. When you are home you turn on your own lamp, when you go to sleep or when you leave the house, you turn off your light.

With whom:
Robin and his wife and 3 children: Nisa 12 yrs, Nida 8 yrs en Eyup 4 yrs.

Insights of the interview with Robin:

- The questions were experienced as valuable, Robin explained, they don't usually ask those kinds of questions when they are together.

- He describes his family as a very close family and therefore he thought it was difficult to determine whether the PIN Light has given this extra connection.

- After the first few days, the pin boards were full and then the trigger becomes less to focus on the PIN Light.

- Robin himself came up with the idea to make it digital, for example by hanging a screen in it that posts an assignment every week. Valuable to hear because the final design looks like this!

- Robin saw the difficulty with their family to keep doing it. He describes that the speed within their family is very high: *"Dat wat eigenlijk een hoofdzaak moet zijn bijzaak is geworden en wat bijzaak is, bijvoorbeeld het huiswerk het sporten etc. daar hebben we op maatschappelijk niveau een hoofdzaak van gemaakt. Het echte gesprek, hoe vaak vind dat plaats thuis?"*

- Non-Western families are flexible with their dinner time and the moments when they are together. There is no fixed time attached to eating times.

- Robin has worked in youth care and he saw clear differences in the returns it brings between the different families. For example, he made a difference in the methodology with weekly schedules and reward cards: *"Bij een westers gezin die structuur met de paplepel erbij is ingegoten, ja dan werkte dat veel sneller. Dan dat je dat bij bijvoorbeeld een Marokaans gezin deed, ja dan, waarom zou ik me aan deze planning moeten houden en wat levert het mij op, want mijn planning ziet er totaal anders uit."*

- The PIN Light could be made especially in context for Ramadan, kind of a "Ramadan calendar": "De Ramadan is *ook wel een periode waar samenhorigheid in 1 keer extreem hoog is binnen gezinnen, maar ook binnen de hele community waarbinnen ze zich bevinden"*.

- The family hung their keys and mouth mask at their pin board. It can therefore also serve multifucitonally to temporarily hang things you want to store when you come home.
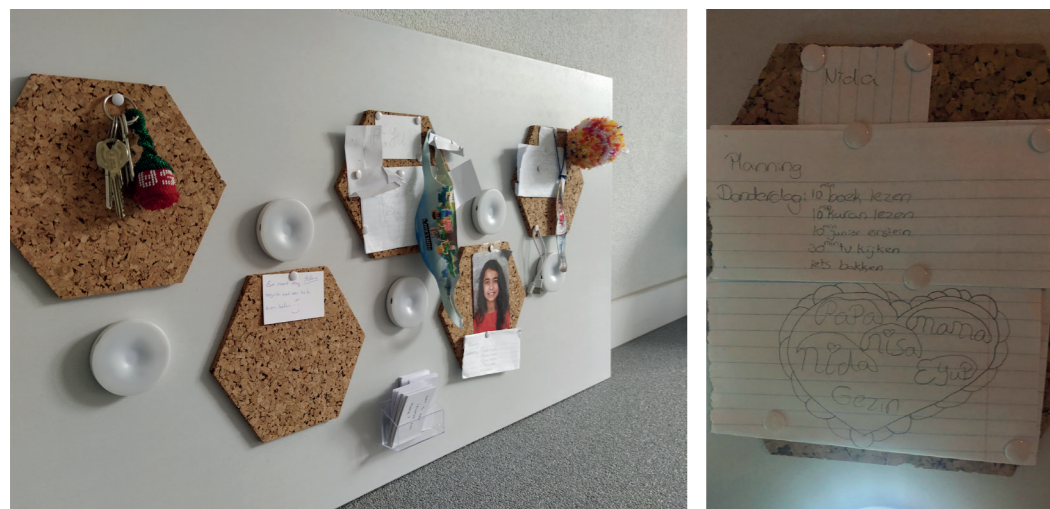

Figure 80: *The final prototype at the home of Turkish's family.*