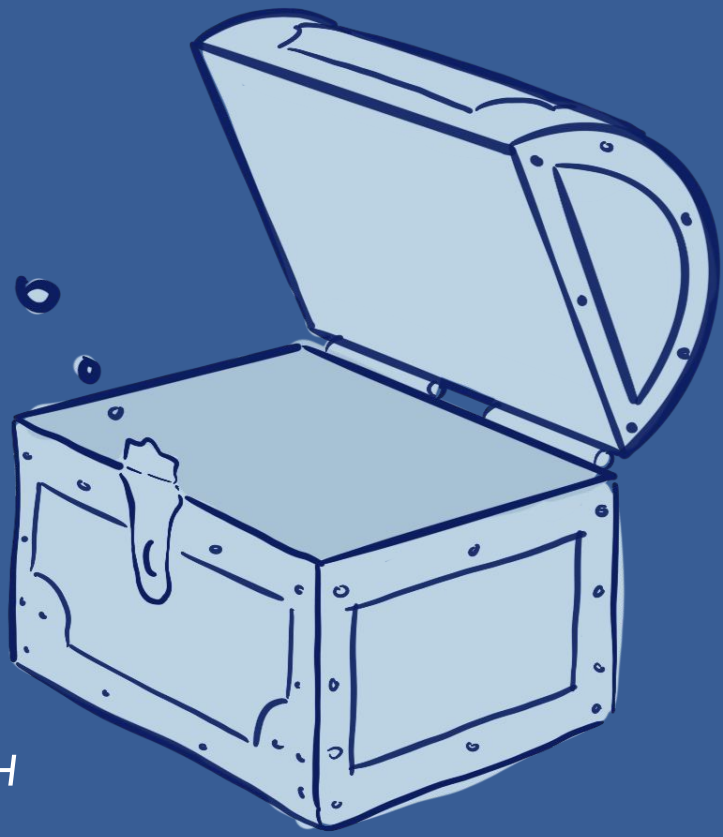

TREASURED MOMENTS

DESIGN OF A TOOL TO SUPPORT CHILDREN IN COPING WITH PERSONAL LOSS

A Master's Thesis By Swetha Krishnan

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August 2024

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Hello,

Welcome to my graduation project. It feels like it got over so quickly, but I am so happy with everything I have managed to do in these past few months. I started with an ambitious project early in February, not knowing where it would go, and here I am six months later, with a much wider and deeper understanding of this topic and such a rewarding experience.

I definitely could not have done this without all the support I have had on my journey.

Thank you, Marieke, for always hearing me out on my personal experiences and emotional takeaways. I am also gratefulc for your invaluable insights into end-of-life care and for guiding me through the emotional complexities of this project. Your expertise has been crucial in shaping my understanding and approach.
Thank you, Mathieu, for your wonderful mentorship and for helping me think creatively about how to make my product engaging for young children and critically analyse my play mechanisms. I have thoroughly enjoyed all our meetings and your constructive feedback. Thank you for also driving my interest in working in design for play. My project would not be where it is without both of your guidance.

Thank you, Romy, for your psychological expertise and for providing such thoughtful guidance on how to handle sensitive topics with care and empathy. You were a joy to work with.

Thank you, Amma and Appa, for always being so curious about my project and cheering me on from back home. Appa, this project was inspired by you. You are so strong for everything you have been through, and it shaped this project.

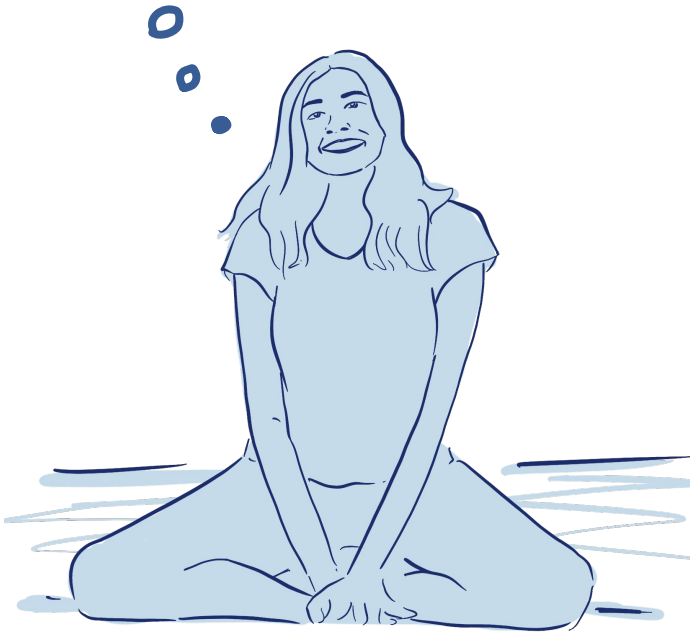
Thank you Patti for always keeping me in mind and wishing the best for me throughout.

Thank you, Ramana Chitappa, your strength inspired me, and your words were very moving. Your confidence in belief in me has been so endearing.

Thanks to all my friends who always expressed their appreciation, were always willing to think with me, and played all my games, even if it meant sharing childhood stories all through the lunch break. Thank you, Arjun, for all your support throughout. I could not have done this without you. And Ankita, I could have never finished this report without you. Thanks for dragging me to campus the last few weeks and pushing me to finish this!

Finally, thanks to everyone who played a part in this project. Your contribution was not forgotten and I am ever so grateful!

Love,
Swetha



SUMMARY

This project addresses a critical need in palliative care by developing a product that supports children in coping with the loss of a parent. Specifically targeting families with young children, it seeks to provide emotional support during the challenging times of a parent's serious illness and eventual passing, fostering family bonding and memory-making through engaging activities. The primary objective is to help parents and children support each other by creating and sharing personal stories. Through play and storytelling, the project aims to help families build a re-tellable, constant story that can serve as a source of comfort and continuity throughout the grieving process.

The research phase uncovered several critical insights. First, parents often struggle to talk to their children about the illness due to uncertainty about what to say and how to start the conversation. Open communication in age-appropriate chunks is essential for helping children process their feelings. Second, children and parents may feel lonely and isolated during this period. Maintaining family bonds and a sense of support is crucial. Third, children express complex emotions through play rather than words. Providing a safe space for this expression is vital for their coping process. Fourth, children need honesty about the situation to start making sense of their experiences. Encouraging questions and honest answers helps them find meaning. Finally, close physical presence and comfort are necessary for children to feel secure and supported.

The final product, "Treasured Moments," is designed to help families create and preserve memories together. It not only provides tangible records of memories but also creates a lasting legacy that can help children and their families cope with loss through shared storytelling and play. It aims to use the power of personal connection in the face of grief, offering a flexible approach to support families during one of the most challenging times in their lives.

Initial tests demonstrated that the product effectively facilitates family bonding and memory-making. The family was able to engage with the product independently, filling the memory tiles with personal items and stories that held significance for them.
The positive feedback and interest from KIEZO in taking the product forward indicate its potential impact and relevance in the field of palliative care.

HOW TO READ THIS REPORT

The overall report is broken down into six main chapters: Introduction, Discover, Define, Develop, Deliver and Conclusion. The four chapters in the middle highlight the main phases of the project. They dive into the main research and design phases. In addition, this report has two narratives running in parallel.

First, is the main part of the report with the research, design process and results that I had from this master's thesis. The chapters follow a general flow covering the approach, results and discussion from my work.

The second narrative is Zoe's story. This is a fictitious story about a young girl named Zoe and her mother who is ill. It is constructed through a series of research, reflects some learnings from the research and is a synthesis of several stories. It is meant to help the reader follow along the story and the different phases of the journey in coping with losing and make it easier to relate it back to the presented literature. Zoe's story pops up every now and then in the course of this report and the pages of this report that dive into Zoe's story are coloured in blue.

Zoe's Story

CRITICAL REFLECTION ON THE WRITING

Using Zoe's story as a constant throughout the report involved choosing between creating something personal versus something objective. I acknowledge that this narrative might colour the reader's perception of the problem space, given that it focuses on a mother and her daughter. The perception and story could differ significantly if it were about a father and his son. However, for a deeply personal theme, I believed it would be beneficial to have an emotional story to foster empathy.

There are drawbacks to using Zoe's story since it represents just one narrative and cannot fully encapsulate the range of experiences people might go through. Different individuals cope with grief in various ways and have unique relationships with their families. Different children also have different personalities, and this report is in no way suggesting a one-size-fits-all solution. This is just one scenario, and one scenario cannot cover all possibilities and personalities. Additionally, the story was entirely created by me as a result of my research but it inevitably presents some biases. This is a story from my lens, and someone else could have dissimilar views and hence a different story. Despite these limitations, I chose this story because, with an emotional theme such as this, it was crucial to create a personal connection. An entirely objective approach might lose the deeply human and personal feelings associated with the subject of grief and coping.

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Everything marked in blue is a part of Zoe's story

This is Zoe. Zoe is now 4 years old. She likes to play with her ball. She also enjoys playing with her blocks and being told stories every night before bed. She plays with her mom, dad and also some friends from school.

Six months ago, Zoe's mum was diagnosed with stage 3 lung cancer. Her health was never stable and had lots of ups and downs. Some days she was doing fine and Zoe is very happy that her mom can play with her. Other days she had difficulty getting out of bed and could not pick Zoe up from school.

Two months ago, Zoe's mum's condition began to worsen. She could no longer get out of bed. She spent most of her day taking rest.

Zoe and her mom used to play together, read together and cuddle together but now she didn't do those things with Zoe. Zoe's dad used to ask her to be more quiet when her mom was asleep. All this made Zoe feel a little sad and angry. Zoe wanted her mum to be all better again.

One day Zoe's mum was feeling very ill and was having trouble breathing, she went to the hospital. Zoe was very scared. She didn't like the hospital.

The doctors said that medication was not having the effect that they would have liked and the cancer was spreading to other parts of the body. Her doctor said that there was no way to cure it and suggested that they look at palliative care. Zoe's parents were heartbroken and made the decision to make the most of the time they had left together.

Zoe did not really understand what was going on. She did not know why everyone was crying a lot more. She was mad and confused but nobody told Zoe what was going on.

Her mom didn't read her bedtime stories any more, even her dad didn't give her as many hugs. Dad was busy all the time now and Zoe felt like she was by herself.

INTRODUCTION

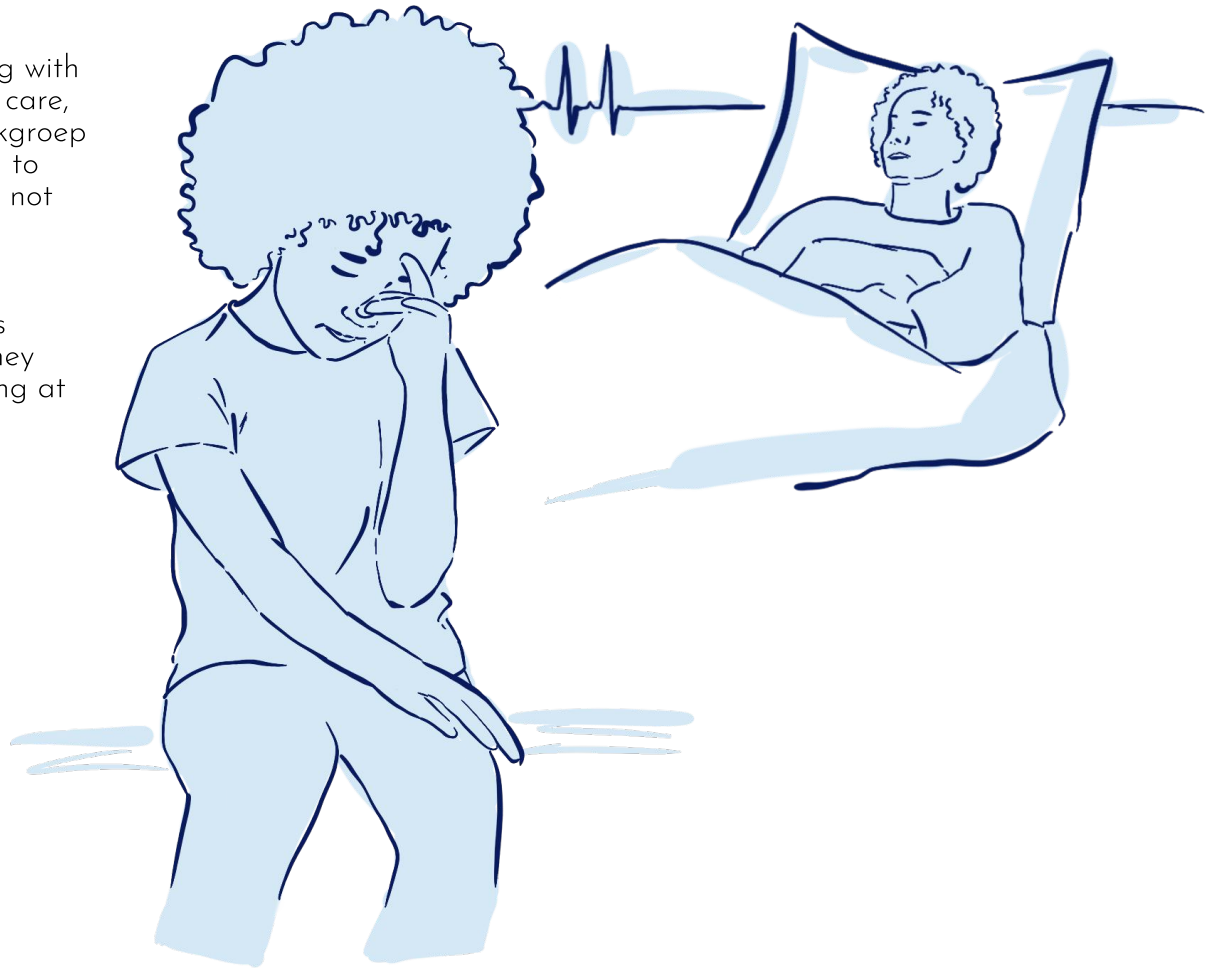
This section covers the introduction to the project. It takes Zoe's story and analyses the problem at hand. It also covers the approach taken in my design process.

INTRODUCTION

Zoe's story is not an uncommon one. The project at hand addresses a critical need within the sensitive domain of palliative care, focusing specifically on supporting children like Zoe, in coping with losing.

The emotional turmoil experienced by these children, dealing with a seriously ill parent, sibling or close-by-relative in palliative care, can lead to feelings of depression, anger, and anxiety (Werkgroep KIEZO Kinderen van Ernstig Zieke Ouders, z.d.). It's crucial to recognize that during this challenging period, these children not only face emotional struggles but also lose a vital source of compassion.

Drawing from the ideals of compassionate communities, it is paramount to provide these children with the compassion they need during this period, supporting their emotional well-being at a difficult time.

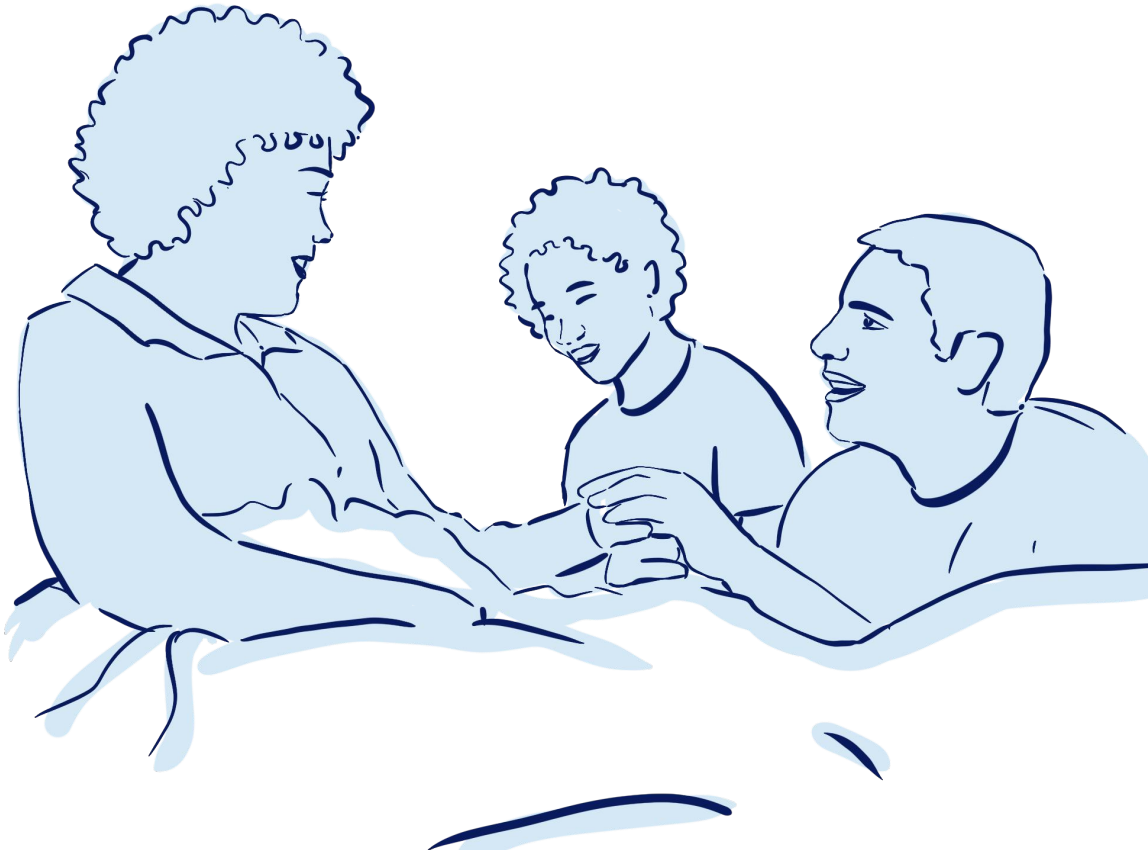


BRIEF

When a parent faces a serious illness and receives care at palliative care centers, the predominant focus often revolves around addressing the needs of the ill parent (Werkgroep KIEZO Kinderen van Ernstig Zieke Ouders, z.d.), highlighting a systemic issue within the healthcare system that is primarily patient-focused. This approach creates a blind spot for the families and caregivers, casting a shadow over the children of seriously ill parents and sometimes perceiving them as burdens rather than integral members of the care unit. This blind spot results in a lack of awareness, knowledge, and developed skills surrounding the needs of these children, leading to a deficiency in support services.

It's imperative to recognize that when a patient is involved, their families are equally involved and should be treated as a cohesive system to ensure comprehensive care. Excluding any part of this system, risks neglecting essential needs.

Furthermore, children have unique needs and perceive situations differently from one another, making it challenging to devise a rigid, one-size-fits-all solution. This complexity underscores the necessity for a flexible and tailored support system to effectively address the diverse emotional and psychological needs of children in such circumstances.



DESIGN PROCESS

The process followed throughout this project closely aligns with the double diamond (Figure 1) framework, with a particular emphasis on the 'develop-deliver' phase. The project aims to answer the research and design questions by systematically progressing through the research and design stages. This approach ultimately leads to the development of a product designed to support children in coping with personal loss.

RESEARCH QUESTIONS

1. How do children understand death and loss?
   a. What is the grief that is associated with the loss of a loved one? How do children express this grief?
   b. How is the concept of death explained to children?
2. How do children cope with loss?
   a. What is needed to help children cope with loss?
   b. How do professionals help children cope with loss?

DESIGN QUESTIONS

1. How can I help a child cope with personal loss in an individual way?
   a. How can I leverage play and storytelling to help a child cope with loss?

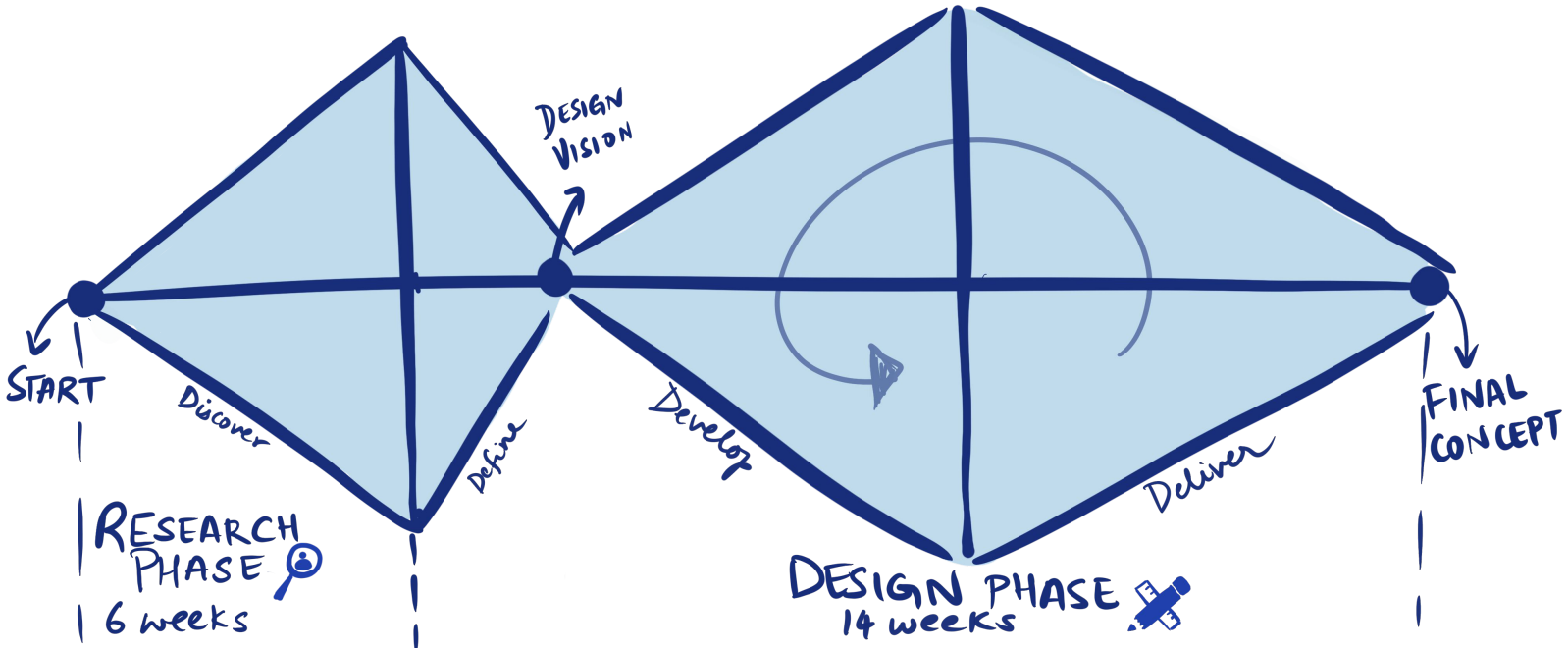


Figure 1: Design Process

DISCOVER

This chapter covers the learnings from the research phase. It covers a short section about the research approach and then goes into the results. These results are presented as themes and sections including children's understanding of death and communicating with children about death. Zoe's story is also sprinkled throughout the whole chapter. Zoe's story follows a timeline of events in her life, with research findings related to each part of her journey. Finally, all of this is summarized through a journey map which serves as a backbone for the research. The chapter concludes with a discussion section where the research questions are answered.

RESEARCH APPROACH

PHASE 1

LITERATURE REVIEW

The literature review encompassed an examination of academic papers on psychology, grief, and play, along with articles providing personal accounts and insights from psychologists, as well as books on child development and communication with young children. The insights gathered from this review were organized into a mind map(figure 2), facilitating a comprehensive understanding of the research areas, identifying recurring themes, and pinpointing gaps that required further exploration. This literature review formed the foundation for subsequent interviews, the establishment of design goals, and future ideation. It was essential to gain familiarity with this domain before engaging with professionals or identifying key areas of inquiry.

MEDIA REVIEW

The media review involved watching movies and TV shows centered around similar themes to gain familiarity with the problem space. This was complemented by an examination of cartoons and books designed for children coping with loss, aiming to understand how the subject is communicated to young audiences. Visits to museums provided additional insights into the communication and representation of themes related to grief.

This review bridged the gap between academic findings and practical, real-world interpretations of grief and its communication. Together, the literature and media reviews laid the groundwork for the next phase of research—interviews—and facilitated answering the first research question.

How do children understand death and loss?

a. What is the grief that is associated with the loss of a loved one? How do children express this grief?
b. How is the concept of death explained to children?

Figure 2: Mind map from research

PHASE 2

QUALITATIVE INTERVIEWS

Participants

Interviews were conducted with four distinct participants to gain a comprehensive understanding of the emotional, psychological, and practical needs of children coping with loss:

- **A Drama Therapist:** To gain insights into the psychological and emotional needs of children coping with loss and understand specific tools and techniques used.
- **Network coordinator kinderzorg :** To learn about the practical aspects of providing care to terminally ill patients and their families, including children.
- **A person who lost their mother at age 5 :** To gather first hand experiences on a young child's perspective on losing their parent.
- **A person who lost their partner when they had young children:** To gather first hand experiences and perspectives on supporting a young child through the loss of a parent.

Time

Each interview lasted between 45 mins- 1 hour.

Materials

- Audio recorder/ phone
- Interview script
- Some interviews involved using a visual aid
- Consent forms

Methodology

An audio of the interview was recorded for personal reference and these files were deleted immediately after the interview was processed.

Analysis

The interviews were transcribed and analyzed using a method known as statement card analysis. In this process, key quotes were extracted from each interview and coded based on their underlying meaning. These codes were then used to cluster the quotes, forming broader themes that emerged from the discussions. The identified themes are detailed in the subsequent section (refer to Appendix A2 for more information on the statement card analysis).

These themes, combined with insights from the literature review, were instrumental in the creation of a comprehensive journey map (refer to Appendix A3 for details on the creation of the journey map).

Ensuring participant comfort and consent was a priority throughout this process. A consent form was provided to participants during the interview, and after processing the results, participants were sent the specific content derived from their interviews for final approval before its inclusion in the project. This step was crucial to maintain transparency and respect for the participants' contributions.

This phase of research laid the groundwork for developing the design vision and addressing the second research question:

How do children cope with loss?

a. What is needed to help children cope with loss?

b. How do professionals help children cope with loss?

There was a lot that Zoe was going through. It was an increasingly difficult time for her. She was feeling so emotional but she did not know what to say. Instead, she would throw her toys around and scream and cry. She would pretend that her doll was her and enact her day. Her parents saw that this was all really affecting her but they did not know how to communicate to Zoe about what was going on. They were having a very tough time as well.

Then, Zoe's mom started getting very very ill. She could barely get out of bed. She was always asleep. She needed help with everything. Zoe had never seen her mom like this.

Zoe's parents wanted to tell Zoe something but they did not know what to say or what Zoe needed at the time.

THEMES RELATED TO GRIEF

WHAT DO THE CHILDREN NEED?

Children of seriously ill parents have an emotionally turbulent experience. They are often confused and express and communicate differently than adults do. As a result of the research relating to this time in a young child's life, six themes related to grief were identified.

These themes emerged consistently in all interviews and literature reviews. They highlight the needs of children during this difficult stage in their lives and how families can support one another. The themes are expressed as simple, first-person statements from the child's perspective, articulating their needs clearly.

These themes are:

- "Hear me out"
- "I am not alone"
- "I need to express"
- "I play to process"
- "I need to understand for myself"
- "I need your support"

These themes are discussed in detail in this section.

HEAR ME OUT

COMMUNICATION AND RECOGNITION

Be curious, open, get in touch with your inner child when you talk to your child

The reluctance to talk to children about the illness is sometimes because parents do not know what to say, and do not know how to start the conversation. (Fearnley & Boland, 2019).

"We never talked about it. It was more like if we dont talk about it it was not an issue anymore"- Widowed young parent (Personal communication, April 2024)

However, evidence suggests that it is generally optimal to tell children about their parent's illness Ideally these conversations need to be in 'small chunks', delivering manageable, age-appropriate amounts of information which become more detailed as the illness progresses. (Fearnley & Boland, 2019b)

What young children, like Zoe need is to be told about their parent's illness and how their parents are feeling as well. While it is a difficult conversation to have, it helps them process their feelings as well.

By sharing your own feelings and creating a safe space for the child to share theirs, you'll be modelling healthy behaviour that will help them as they move through the grieving process. (Allen et al., 2022)

I AM NOT ALONE

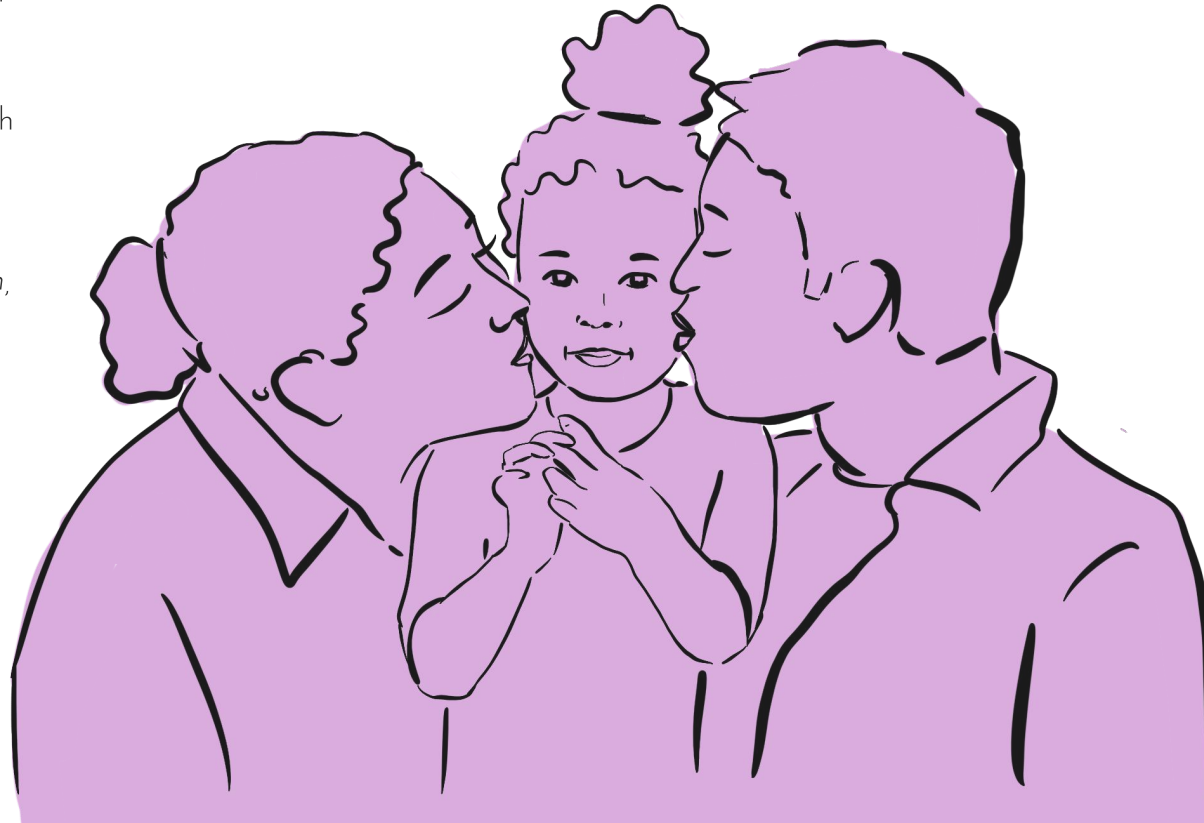
RELATEDNESS AND CONNECTIONS
Reassurance and presence of family and friends

"At school you see other mothers coming, you feel alone. It keeps coming back, those thoughts." - Lost their mother in childhood (Personal communication, March 2024)

Times like this are particularly hard on both children and parents. They can lead to feelings of loneliness in both the children and the parent. As a family tries to cope with a significant loss, the dynamics of the family can change and it can be an unsettling time for children. This period may manifest in certain behaviours, such as withdrawal, and certain feelings, such as isolation. (Simantov, z.d.)

It is important to draw focus to the fact that families go through the entire process together . They always have each other's support in this journey and their bond plays a big role in their coping journey.

"Whether it's in her heart, your memory or for real, I think within, the energy will always be with her.....That is a very important factor in her healing process." - Claudia Hass, Drama therapist (Personal communication, April 2024)



I NEED TO EXPRESS

EMOTIONS AND EXPRESSION

Emotions at this point can be confusing, expressing this can be difficult

"There are a lot of feelings, a lot of emotions. To put a word on that within the sea of I don't know how many emotions there are. Chaos." - Claudia Hass, Drama Therapist (Personal Communication, April 2024)

Children Zoe's age feel many things at a time like this. They feel angry, sad, confused and worried. (Robinson, 2024b). To find a way to express all these complex emotions can be a challenge.

Studies find that the more you talk about death—and what it means—the less scared and confused your child may be when it happens to a family member(Milbrand, 2022b). Open communication and giving children a safe space to express how they feel is very important in the coping process.

"I knew if I show my losses to my children it would affect them. I knew I had to put aside my losses and be supportive for the children."- Widowed young parent (Personal communication, April 2024)

I PLAY TO PROCESS

PLAY AND STORYTELLING

Processing through a language children are familiar with

With all of these complex emotions, a child like Zoe struggles to express these emotions. A young child Zoe's age does not generally use words to express but rather expresses through play.

"For children, fantasy and imagination, that's their world. That's where you can relate the most easy."- Claudia Hass, Drama Therapist (Personal Communication, April 2024)

This method of expressing gives them a safe space to process their emotions and the situation.

Children use play to reduce anxiety and understand traumatic experiences. They may recreate an unpleasant experience such as an automobile accident over and over to assimilate it and diminish the intensity of feeling (Frost et al., 2000)

"Storytelling is a very safe way because you can identify with the characters but you don't have to talk about your own process. You're in control and you can decide whether or not, or at which point point you want to tell your own story. So, it's a very safe."- Claudia Hass, Drama Therapist (Personal Communication, April 2024)

I NEED TO UNDERSTAND FOR MYSELF

MEANING

Understanding the meaning of death, what this means for them, their families, have a space to ask questions

The meaning of death is complex and is something for everyone to find their individual meaning of. While this sounds like something far too much for a young child like Zoe, meaning finding is an important part of coping. For children this can start with being honest and giving them the space to ask questions.

"The most important thing is to be honest. So when you know it, you tell them because they feel when you are sad or grandma is going to be at home a lot because normally, you see them like once a week and now she's daily there and she's crying. And so when children ask something about it, be honest." - Romy van den Booren, Netwerkcoördinator Integrale Kindzorg (Personal communication, April 2024)

Evidence suggests that it is generally optimal to tell children about their parent's illness so that they can begin to make meaning from what is happening.(Fearnley & Boland, 2019b)

"It's important to be honest, but also ask, what do you think, what it is like to be dead? And maybe you can talk to them at that point to explain things that they don't know." - Romy van den Booren, Netwerkcoördinator Integrale Kindzorg (Personal communication, April 2024)

I NEED YOUR SUPPORT

COMFORT AND SUPPORT

Physical comfort, getting back on your feet and memories and their importance

Physical comfort and emotional support throughout the coping journey are extremely important for children like Zoe. Children are sometimes unable to ask for the comfort and care that they need, but receiving that care is very important.

"I wasn't able to ask for that comfort and care" - Lost their mother in childhood (Personal communication, March 2024)

Children require a close physical presence and comfort throughout the coping journey.

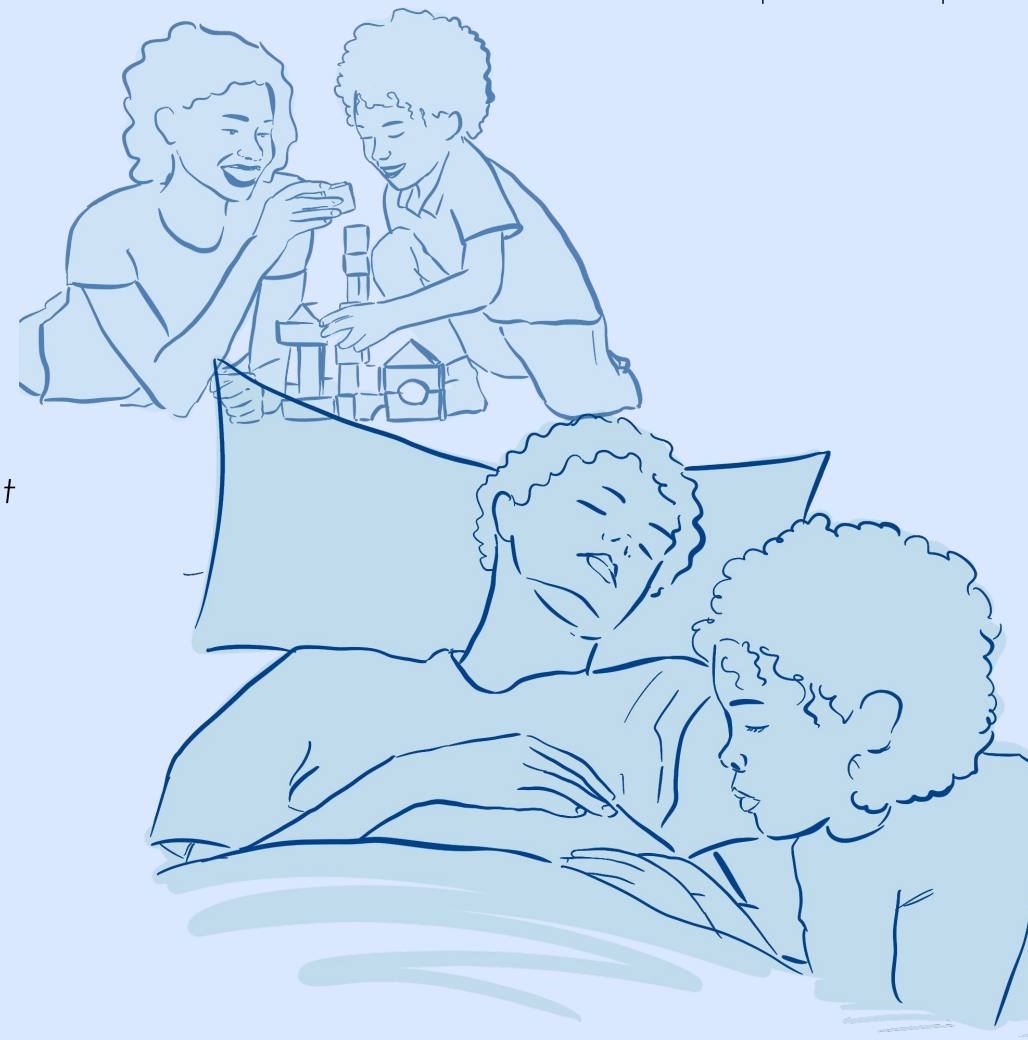
"When a parent is able to hug the children and touch the children. Give them comfort in that way. That's a significant factor I saw in loss and grief" - Claudia Hass, Drama Therapist (Personal Communication, April 2024)

Ideally, children's needs are met in a stable and supportive family, with the help of their usual networks such as school and community groups (Children And Grief: When A Parent Dies, 2001). Maintaining a constant in their life often ensures that they feel a sense of stability.

"And it's important that they have their own routine and you stay with that because that's their normal daily activities. And when you take that back or they don't go to school or they don't go to football then their stability is disappearing." - Romy van den Booren, Netwerkcoördinator Integrale Kindzorg (Personal communication, April 2024)

Zoe's mom was also struggling to cope with all the new information. Along with physical symptoms of her ailment she was also staring to feel emotional effects of the situation.

She was already beginning to feel like there was hardly anything left of the mum that she was. She could not pick Zoe up from school or play with her. She wanted to prevent Zoe from remembering her as the frail woman that shuffled around in her pyjamas. (Carend, z.d.)
She was reluctant to tell Zoe the details of her illness because she was anxious about upsetting her (Cockle-Hearne et al., 2020).
Despite all of this, Zoe's mom found that it was very important to her to spend as much time as she could with her family.



Zoe's father was emotionally overwhelmed. There was a lot going on around him. It pained him to see his wife ill but he tried to stay strong for his family. One day Zoe even saw him cry and she knew something was wrong.

NEEDS OF THE PARENTS

As pointed out in the project brief, the families should be looked at as a cohesive care system. Excluding any part of this system, risks neglecting essential needs. The parents form a crucial place in this care system and their needs need to be investigated as well.

THE PATIENT

Every person is different, and the symptoms experienced at the end of life can vary widely. Along with physical symptoms such as body pain and tiredness (Department of Health & Human Services, z.d.), patients often struggle to cope with an influx of new information. This can lead to feelings of depression and anxiety (Providing Care And Comfort At The End Of Life, z.d.). Additionally, patients with life-limiting illnesses grapple with changes in their family roles and perceptions. This is especially true for parents who anticipate the loss of their parental role and worry about the long-term impact of their illness on their children (Carend, z.d.).

A person who is dying might be worried about who will take care of things when they are gone. Spiritual needs may include finding meaning in one's life, ending disagreements with others, or making peace with life circumstances. The ill parent might find comfort in resolving unsettled issues with friends or family (Providing Care And Comfort At The End Of Life, z.d.).

Beyond practical support, patients at the end of life seek comfort in being with their family and feeling involved in family communication (Providing Care And Comfort At The End Of Life, z.d.).

THE CAREGIVER

Family caregivers have received very little attention in the medical space (Joad et al., 2011). They suddenly face a significant increase in responsibility during an emotionally challenging time. With limited time to process their own emotions regarding their partner's serious illness, they often experience anxiety and depression related to stress and their partner's condition (Joad et al., 2011). Their routines are disrupted, and their energy and spirit are often depleted. Rarely confronting their emotions leads to physical and psychosocial effects on their health (Joad et al., 2011) .

"I myself was going through a tough time and it was not easy for me to put that aside and talk about it," shared a young widowed parent (Personal communication, April 2024).

Caregivers also experience anticipatory grief, where they may hold on to hope while simultaneously beginning to let go. These emotions can be deeply painful (Eldridge, 2024). It can take a significant amount of time for caregivers to cope with their new reality.

HEAR ME OUT

I AM NOT ALONE

I NEED TO EXPRESS

I NEED TO UNDERSTAND FOR MYSELF

I NEED YOUR SUPPORT

A few weeks later, Zoe's mum's health dipped even more and everyone was very sad. A few days later, she died. Everyone was heartbroken.

After Zoe's mom died, Zoe's dad had the very challenging task of telling Zoe what was happening. Zoe had already picked up that her mom was sick but she was not told that her mom was going to die.

Zoe's dad spoke to Zoe and told her that her mother had died. Zoe did not fully understand what was happening. Zoe was confused. "How can we get her back?", she asked, "Does it hurt?"
Confounded by the depth of Zoe's questions, Zoe's dad did his best to try and talk to her.

He told Zoe about the funeral and Zoe wanted to wear the coat her mum got her to it. She wanted to sing a song and draw something for her mother.

COMMUNICATING WITH CHILDREN ABOUT LOSS

"If I had known how to communicate that without hurting or affecting the childrens mental state then I may have done that." - Widowed young parent (Personal communication, April 2024)

There are many reasons why parents choose not to talk to their children about their life-limiting illness. They may have the misconception that their children are too young to understand and therefore do not need to be included in what is happening.(Fearnley & Boland, 2019)
However, evidence suggests that it is generally optimal to tell children about their parent's illness so that they can begin to make meaning from what is happening. (Fearnley & Boland, 2019b)

When it comes to communicating about death, research indicates that using explicit terms like 'death' and 'died' can prevent misunderstandings and fear in children. Euphemisms such as 'passed away' or 'gone to sleep' can lead to confusion or fear. For instance, if a child is told that someone has 'gone to sleep forever,' they might develop a fear of sleeping, thinking they might not wake up (Death: How To Talk About It With Children, 2023).

Explaining death biologically—stating that the heart stops beating, the person cannot breathe, and their brain ceases to function—helps children comprehend that the person is no longer alive. Referring to the body as an empty shell can further aid their understanding (Explaining Death and Dying to Children, n.d.).

It is also beneficial to discuss the natural cycle of life: birth, living, and eventually death. This context helps children grasp that death is a natural part of life. Furthermore, children often have many questions and assumptions about death, and it is crucial to provide them with a safe space to express and address these thoughts (Milbrand, 2022).

Parents seeking support for helping their children cope with loss can find various resources and tools. Books and cartoons that address similar themes can be particularly helpful. For instance, "The Invisible String" by Patrice Karst and resources from Kinderen van Ernstige Zieke Ouders (KIEZO) provide relatable narratives and coping strategies (The Invisible String Origin Story - Patrice Karst, 2024; KIEZO, n.d.; Kenney, 2024).

Museums can also offer valuable experiences. Institutions like Museum Tot Zover and exhibits at the Nemo Science Museum provide interactive and informative environments. These museums present death and loss as shared experiences, offering direct information and opportunities for children to explore the subject matter in an engaging way (Museum Tot Zover | Het Museum Over Leven & Dood | Ontdek Nu!, 2023; Humania - Exhibitions - NEMO Science Museum, n.d.).

Professional support is another crucial resource. Grief counselors and spiritual advisors can offer specialized assistance to help families navigate their emotions and the grieving process (KIEZO, n.d.).

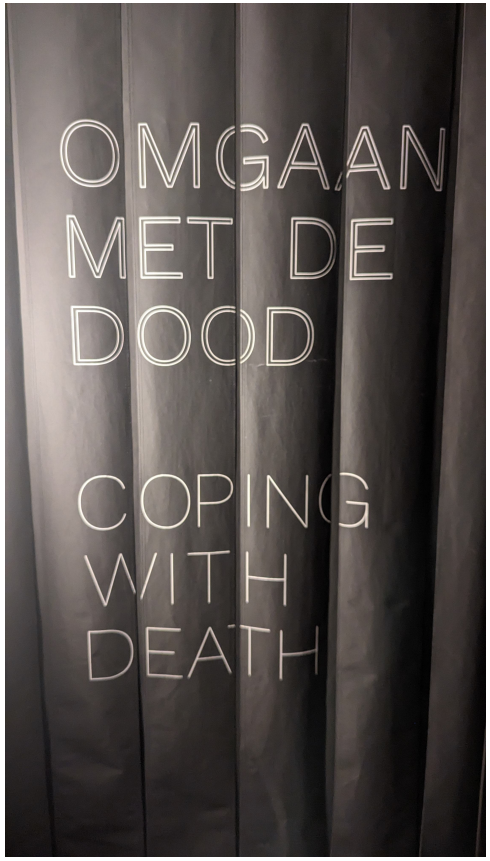
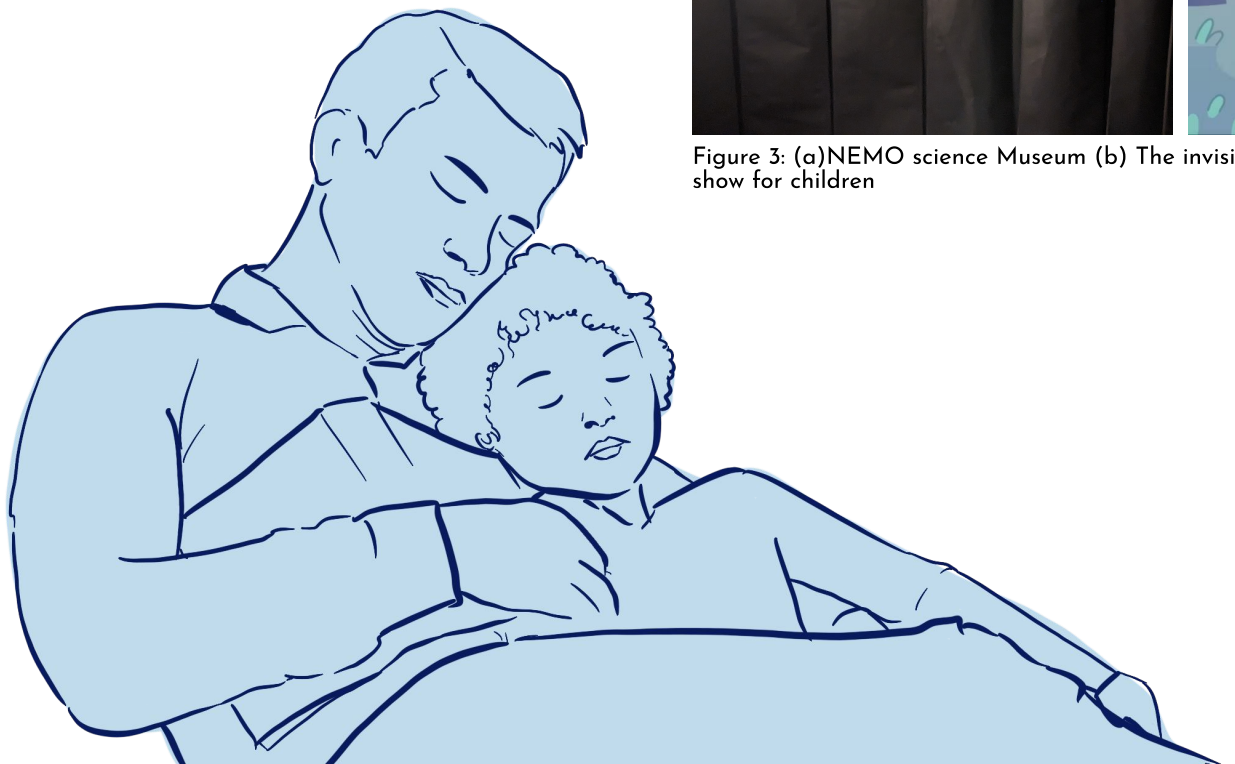


Figure 3: (a)NEMO science Museum (b) The invisible string by Patrice Karst (c)Bluey, cartoon show for children



Zoe's dad noticed that off-late, Zoe had been very emotional. She was very angry and aggressive a lot. She would get mad and throw things on the ground. She was scared to go back to school and sometimes could not sleep too well at night.
Every now and then, she would go to her dad and ask, "Is mom coming back today?" or say "Its a cold day, is mom feeling cold?"

When she would play, she would often replay scenes of her mother when she was ill and went to the hospital or replay the funeral where she sang a song.

CHILDREN'S UNDERSTANDING OF DEATH

Children understand death differently from adults. They also process this information very differently.Even at different ages, children experience and understand death in different ways. (Martin, 2023),(Grief Reactions in Children - Cancer Care Services, z.d.),(Milne, 2023)

AGES	0-2yrs	3-5yrs	6-9yrs	10-13yrs	13+yrs
BEHAVIOUR AND UNDERSTANDING	Babies have no understanding of the concept of death yet, long before they are able to talk, they are likely to react to upset and changes in their environment such as the absence of a significant person who responded to their needs for care and nourishment on a daily basis. A baby's sense of a change in atmosphere may lead to more clingy behaviour than usual. With no language to express themselves, their anxiety and insecurity may show as inconsolable crying. Feeding and sleeping routines may also be disrupted which may cause them to be unsettled.	Their limited understanding may lead to an apparent lack of reaction when told about a death, and they may ask many questions about where the person who has died is and when that person will come back.They may struggle with the concept of someone not being alive and may need reassurance that dead people feel nothing and therefore are not able to feel cold or pain. A young child is capable of taking in information from the adults around them and will be aware that something significant has happened. Under fives can, and often do, react strongly to their own grief, but also to the grief of significant adults involved in their day-to-day care. Anxieties about daily practicalities are common.	Begin to develop an understanding that death is permanent and irreversible and that the person who has died will not return. Some children may believe that their thoughts or actions caused the death, and they can feel guilty or may think they can make the person come back. Not being given sufficient information in age-appropriate language can lead them to make up and fill in any gaps in their knowledge.	They have a full understanding of the finality of death. Children who have been bereaved when they were younger will have to re-process what has happened as they develop awareness of the finality of death. Will rely on family and friend group for emotional support. Even when there is no expectation to do so, a child may take on the role of carer for a surviving adult or siblings. In an attempt to appear grown up they might take on inappropriate adult responsibilities.	Teenagers will have an adult understanding of the concept of death but often have their own beliefs and strongly held views and may challenge the beliefs and explanations offered by others. Adolescence is a time of great change, and grief can impact on the developmental task of moving from dependence to independence. Young people are moving from primary reliance on their family to increased involvement with their peers.

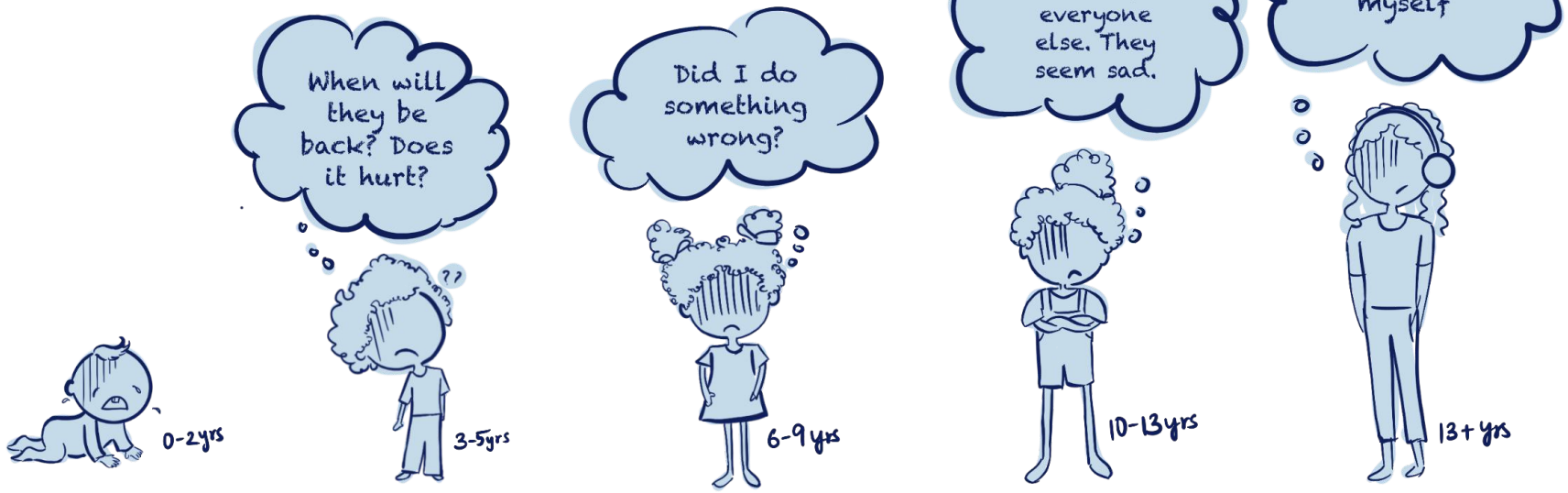


Figure 4: Behaviour and understanding of death based on age group

CHILDREN COPING WITH LOSS

"I still didn't know what emotions are associated with this. I was frustrated. No one cared about me. I locked myself in the bathroom for 3-4 hours and didn't want to come out. I didn't know what to do. I was just stuck there." - Lost their mother in childhood (Personal communication, March 2024)

Parents may notice changes in their child's emotions and behavior during times of grief. For instance, children might display increased anger and aggression, which is normal for their age (Robinson, 2024). To support their children, parents can utilize various strategies. Research indicates that children often use play to reduce anxiety and process traumatic experiences. (Frost et al., 2000).

Play can also act as a mediator with the social and cultural world, helping children learn to set limits, use symbolic thinking, plan, take on roles, and practice self-regulation. In fantasy play, children create controllable events, allowing them to vent negative emotions in a safe environment (Capurso & Ragni, 2016).

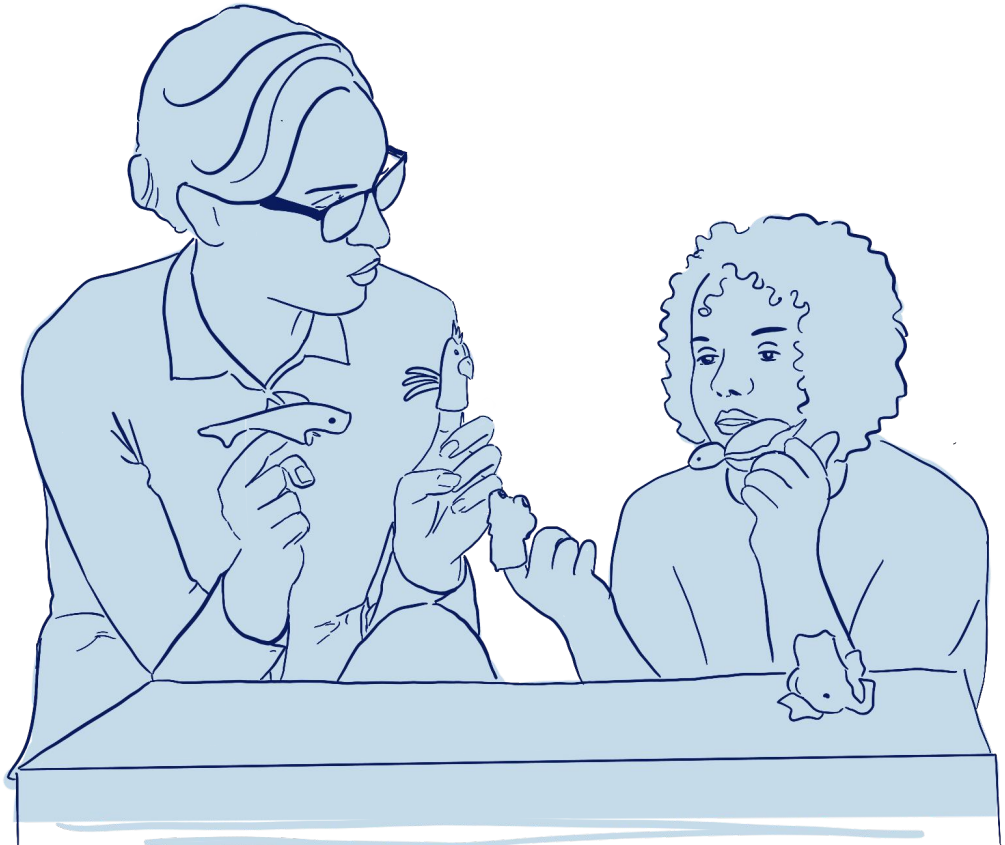
Other recommended methods for supporting grieving children include positive memorialization activities. These can involve making a favorite meal, engaging in activities the child and their loved one enjoyed together, or creating memory boxes to preserve special memories (Milne, 2023).

Drama therapists also commonly use play as a tool in children's coping journeys.
Role-play, lego duplos and playmobil serve as valuable tools.

"Playing with duplo, with playmobil, And basically everything, a child plays with, I intend to use in therapy" - Claudia Hass, Drama Therapist (Personal Communication, April 2024)

Roleplaying and storytelling offer a safe space for children and their parents. It gives them a space where they can react and perform actions that do not have consequences outside of the play.

"Something they would not do any real life, they can do in playing. But also in role playing,it gives you as a professional or parents, the opportunity to do something, you would not do and real life. So I can, be very angry when I'm a dinosaur and I can just sweep you out of your feet and throw you would against the wall. I can do that. So, it gives you the power to come to breaking points or oyu can play with your own role to push someone to the certain point."- Claudia Hass, Drama Therapist (Personal Communication, April 2024)



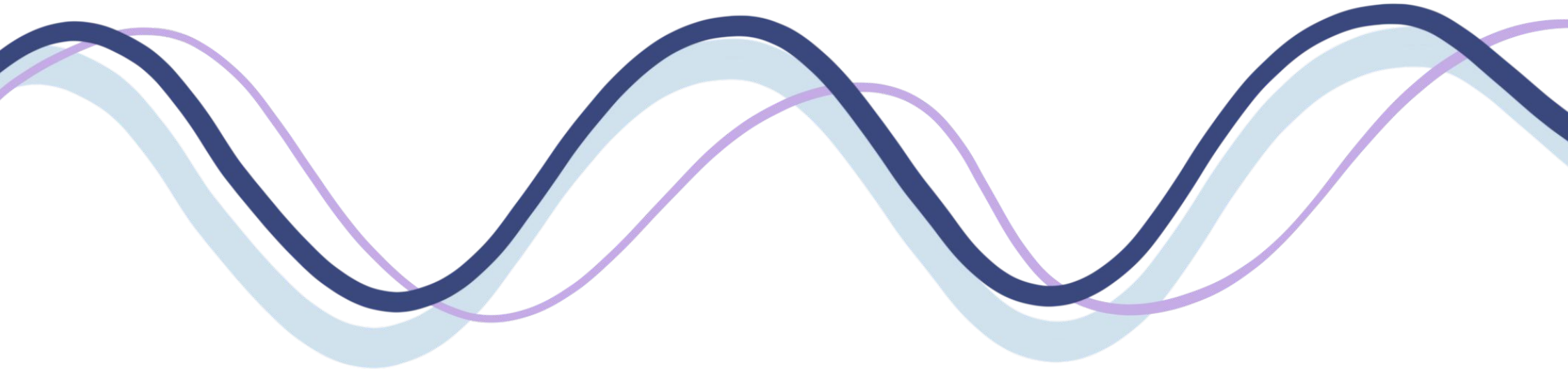
THE WHOLE JOURNEY

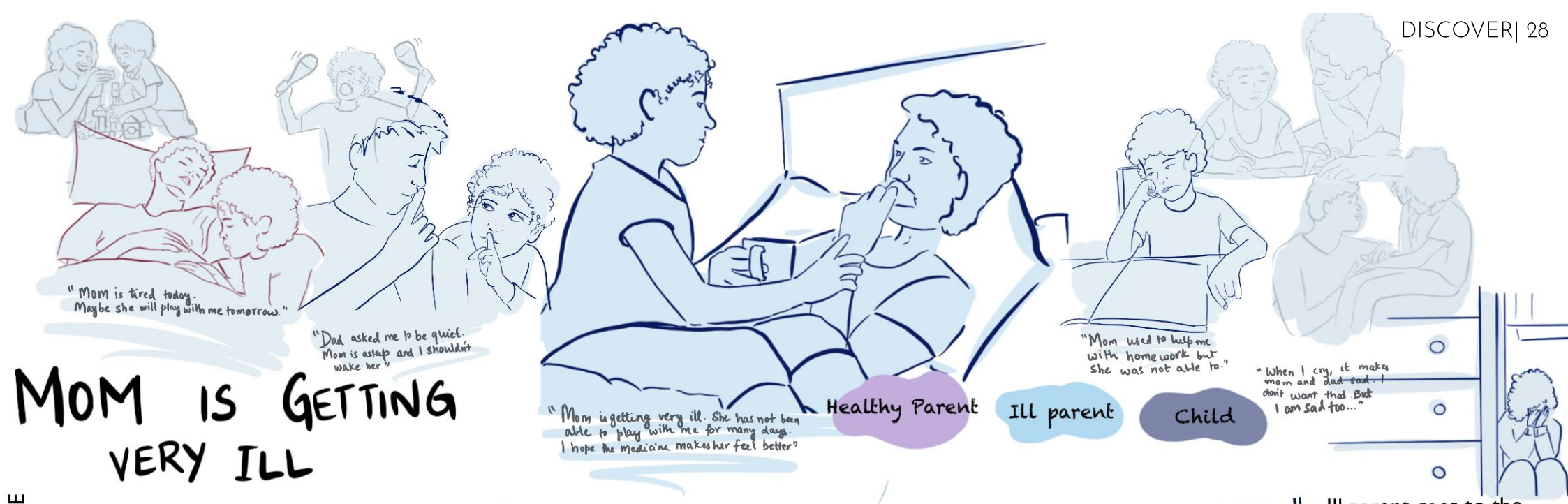
A ZOOMED OUT PICTURE

The journey of coping with loss is inherently marked by emotional highs and lows, reflecting the fluctuating health of the ill parent and the resulting impact on the family. Visualizing and understanding this complex journey is crucial, as it allows for the identification of key moments where support is most needed, and the type of intervention that will be most effective.

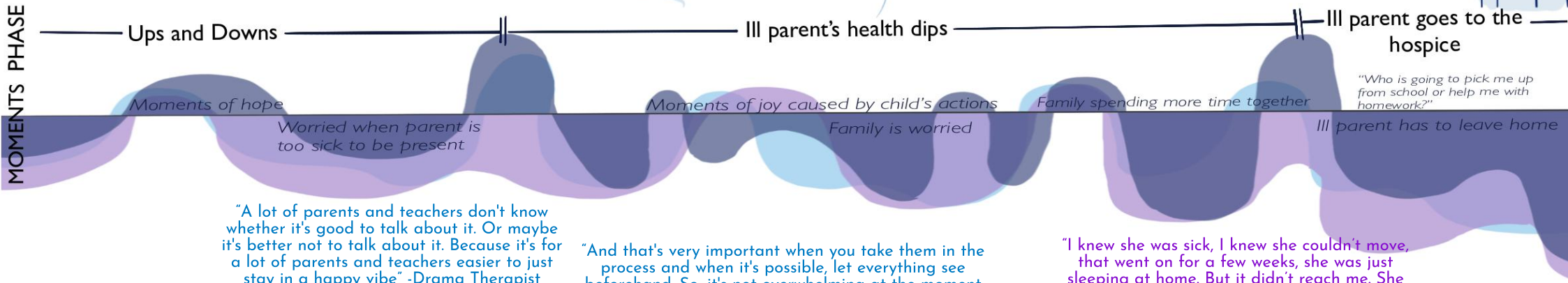
For young children like Zoe, who are prone to rapid shifts in mood, comprehending these emotional fluctuations is particularly important. Children can transition quickly from distress to happiness, and their emotional responses are deeply intertwined with the well-being of their parents. By mapping these fluctuations alongside the parent's journey, a more holistic view emerges, revealing the interconnected nature of their experiences.

While each family's journey through loss is unique, the presence of emotional ups and downs is a common thread. Understanding these patterns provides valuable insights into the emotional landscape that families navigate, enabling more targeted and empathetic support. These insights are distilled into a two-part journey map that captures the emotional fluctuations and highlights key quotes from interviews, offering a vivid portrayal of the challenges and resilience that define this journey.





MOM IS GETTING VERY ILL



"A lot of parents and teachers don't know whether it's good to talk about it. Or maybe it's better not to talk about it. Because it's for a lot of parents and teachers easier to just stay in a happy vibe" -Drama Therapist

"And that's very important when you take them in the process and when it's possible, let everything see beforehand. So, it's not overwhelming at the moment with a lot of people and everything nearby" Netwerkcoördinator Integrale Kindzorg

"I knew she was sick, I knew she couldn't move, that went on for a few weeks, she was just sleeping at home. But it didn't reach me. She said to me, "I cant even walk. why did you do this?" -Lost their parent at age 5

"Well, the most of the attention goes to the illness of the parent and sometimes you forget that there's a child in the family that also has needs or concerns. They feel what's going on, even if you don't say it." - Netwerkcoördinator Integrale Kindzorg

"When a parent is able to hug the children and touch the children. Give them comfort in that way, that's - Drama Therapist

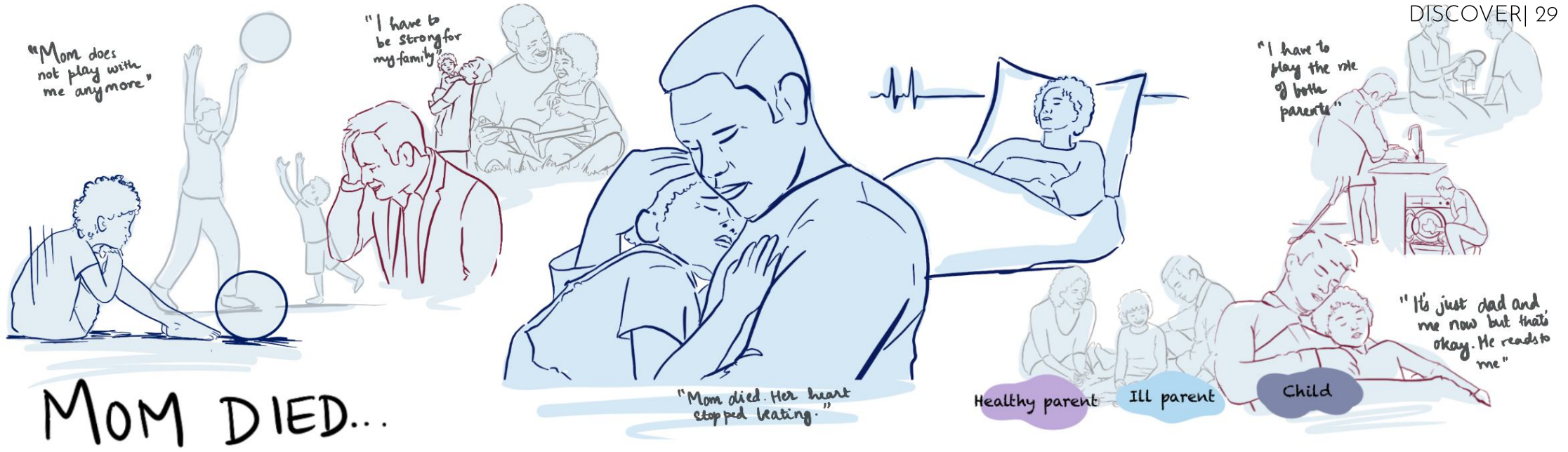
"Is he going to die? No, no no we say no no, no, no. He's only ill. He's not going to die. Yeah. Well, of course, it is an option. Yeah, of course, you talk about it." - Drama Therapist

"So tell them when you know the parent is going to die, tell them. And sometimes it helps when you ask them, what do you think?" - Netwerkcoördinator Integrale Kindzorg

THEMES

- HEAR ME OUT
- I NEED YOUR SUPPORT
- I NEED TO EXPRESS
- I NEED TO UNDERSTAND FOR MYSELF
- I AM NOT ALONE
- I PLAY TO PROCESS

Figure 5(a): Representation of themes from interviews in the timeline



MOM DIED...

PHASE

Ill parent is not getting better | Ill parent dies | Family discusses memories | Slowly understanding what has happened

MOMENTS

Family spending time togther
Healthy parent is upset and worried
Child is confused
Family is happily talking about their most happy moments
Child is helping plan the funeral

"Well, children have a lot of imagination and possibilities. So, when you don't tell them the truth, they will make it on their own and it's very important that you stay close to the facts and it will help." - Netwerkcoördinator Integrale Kindzorg

"I wasn't able to ask for that comfort and care" - Lost their parent at age 5

"There are a lot of feelings, a lot of emotions. To put a word on that within the sea of I don't know how many emotions there are. Chaos. So, within the the mind of each child, that is important."- Drama therapist

"I still didn't know what emotions are associated with this. I was frustrated. No one cared about me. I locked myself in the bathroom for 3-4 hours and didn't want to come out. I didn't know what to do. I was just stuck there."- Lost their parent at age 5

"Whether it's in her heart, your memory or for real, I think within, the energy will always be with her.....That is a very important factor in her healing process." - Drama therapist

"Reading is a very safe way, for also parents and children. It gives words. Yeah, so you don't have to look for your own words, you don't have to talk about how you feel."- Drama therapist

"Try and provide a way to carry a positive state of mind about it. Share positive stories, nice things to hear. Do little things that make them go into a positive world. Create little moments of joy" - Lost their partner when they had a young child

"The sooner the better theres no point pushing this away
Maybe the initial months is when I would have liked to talk about it" - Lost their partner when they had a young child

"Your connection is for life. That connection will never die." -Lost their parent at age 5

"I work a whole lot with duplo..... But when it can be placed on a table. So it's a small enough to put on a table.So a child can look at it, that is important. So the child can experience a certain amount of distance, emotional distance to the situation"- Drama therapist

THEMES

HEAR ME OUT
I NEED YOUR SUPPORT
I NEED TO EXPRESS
I NEED TO UNDERSTAND FOR MYSELF
I AM NOT ALONE
I PLAY TO PROCESS

Figure 5(b): Representation of themes from interviews in the timeline

DISCUSSION

1. *HOW DO CHILDREN UNDERSTAND DEATH AND LOSS?*
    a. *WHAT IS THE GRIEF THAT IS ASSOCIATED WITH THE LOSS OF A LOVED ONE? HOW DO CHILDREN EXPRESS THIS GRIEF?*
    b. *HOW IS THE CONCEPT OF DEATH EXPLAINED TO CHILDREN?*

While children may not fully understand what death means, they are able to sense that it is a significant change in their lives. Their understanding varies based on factors such as age and family dynamics. Younger children, like Zoe, may perceive death as a temporary absence and may express confusion, fear, and sadness when faced with the illness or death of a loved one. For this reason,a choice was made to work with 3-5-year-old children. It was a personally interesting challenge to use play as a medium to support young children who have a different understanding of death compared to adults.

The grief experienced by children following the loss of a loved one can manifest in various emotional and behavioural responses. Children may express sadness, anger, confusion, and longing for the deceased individual. Their grief may be expressed through behaviours such as crying, withdrawal, acting out, or regressing to earlier developmental stages. These expressions of grief are often influenced by the child's age, personality, relationship with the deceased, and the support they receive from caregivers and their social environment.

The journey of understanding loss is not filled only with lows; families often recollect stories of their times together and find joy in discussing their favourite memories. These memories could be funny stories or heart-warming ones, bringing back happy emotions and shared joy.

Explaining death to children requires sensitivity, honesty, and age-appropriate communication. Caregivers are advised to use clear and direct language to convey the biological aspects of death, avoiding euphemisms or ambiguous phrases that may confuse or frighten children. Providing factual explanations about bodily functions, such as the heart stopping and the body no longer functioning, can help children understand the physical reality of death.

2. *HOW DO CHILDREN COPE WITH LOSS?*
    a. *WHAT IS NEEDED TO HELP CHILDREN COPE WITH LOSS?*
    b. *HOW DO PROFESSIONALS HELP CHILDREN COPE WITH LOSS?*

Children begin to cope with loss by making sense of what has happened to them in their own way. This can be a confusing time with a sea of confusing emotions but supporting them in expressing and making sense of the story is part of the journey.

The themes identified encompass a large part of the children's needs during this period. These themes cover their need to be heard and supported. They also cover their need to express, understand for themselves and not feel alone. Finally, it covers their language of communication and processing: play.

Commonly in therapy, storytelling and play is used to explain things to children. It is a safe way that gives children the distance they need. It also gives them control to express and experiment in ways that they want to in order to understand for themselves.

HOW CAN I HELP A CHILD COPE WITH PERSONAL LOSS IN AN INDIVIDUAL WAY?

While this question is answered in upcoming sections of the report, an important learning from the research phase was the switch from coping in an individual way to coping together as a family. Through all the research, it was clear that the family had a very important role to play. Both through conversations with professionals and through literature, it was evident that the support of the family is mutually beneficial to both children and parents.

While defining the problem, it became apparent that viewing the family unit as a single entity is essential. Focusing solely on the patient as an individual can neglect the rest of the family and fail to provide a holistic approach to care. Similarly, concentrating only on the children can exclude the parents, who are also grieving and need support. The family is one care unit and is best addressed and supported as a whole. It is imperative to recognize that when a patient is involved, their families are equally involved and should be treated as a cohesive system to ensure comprehensive care.

This question is hence changed to be "How can I support a child to cope with personal loss together with their families?"

WHAT DOES THIS MEAN FOR THE DESIGN PHASE?

Highlighting the needs identified in the research phase makes it clear what essential elements must be incorporated into my design, shaping my design drivers. The feedback from the drama therapists indicated that the product should be a tool for home use, rather than a therapy tool. One comment stood out: *"I really think I should not be the one interfering within your family, get my book and leave me out of your family because you can do it, you can do it! Just talk."* This underscores the importance of empowering families to navigate their own experiences without external intervention.

The research phase also helps define the scope of the project well. For instance, it has helped clarify goals of the project by aiding some decisions such as the age group of the children and on addressing simple grief. This ensures that the final product is focused and effective, catering to a well-defined audience and their particular needs.
Incorporating more positive elements into the design is crucial. As discussed, sharing and discussing memories together as a family is a significant source of joy during the coping journey. Integrating this aspect of positivity into the product can turn it into a positive experience for everyone involved. Incorporating these positive elements can transform the product into a tool that not only helps children cope with loss but also preserves and celebrates the cherished memories and stories of their relationship with their parent. This holistic approach ensures that the product supports the child throughout the entire grieving process.

The journey map developed during the research phase helped identify the best point for the product to intervene: before the death of the parent. This timing provides closure for everyone in the family and initiates the coping process earlier. The phase I am most interested in focusing on is when the parent is sick, during that window of emotional fluctuation and limited care given to the children. This addresses a blind spot in the current system, allowing the parent to still be involved. Additionally, I envision the product as something that can be revisited after the parent dies, helping children relive their times with their parent and continue the healing process.

DEFINE

This chapter dives into the design goal. It starts with the method used to form the goal and then introduces the design goal. The themes formulated in the previous section are translated to form design drivers that help achieve the goal. These are used to drive the envisioned scenario which is presented at the end of this chapter.

GOAL DEFINITION APPROACH

THE GOLDEN CIRCLE APPROACH

Translating the themes that were discovered through the research phase to a goal and design drivers was challenging.
One way to define the goal is the Golden Circle approach. The Golden Circle helps us understand why we do what we do.(The Golden Circle - Simon Sinek, n.d.)
It involves defining the 'Why' the 'How' and the 'What' of your goal. The Why highlights the motivation for the design. The How highlights the qualities of the design and the What outlines details of the design itself.
This framework allowed freedom while still making things concrete enough to promote creativity with ideation. It also translates the key learnings from the research phase to a concrete product vision.
Refer to Appendix A4 for the evolution of the design goal.

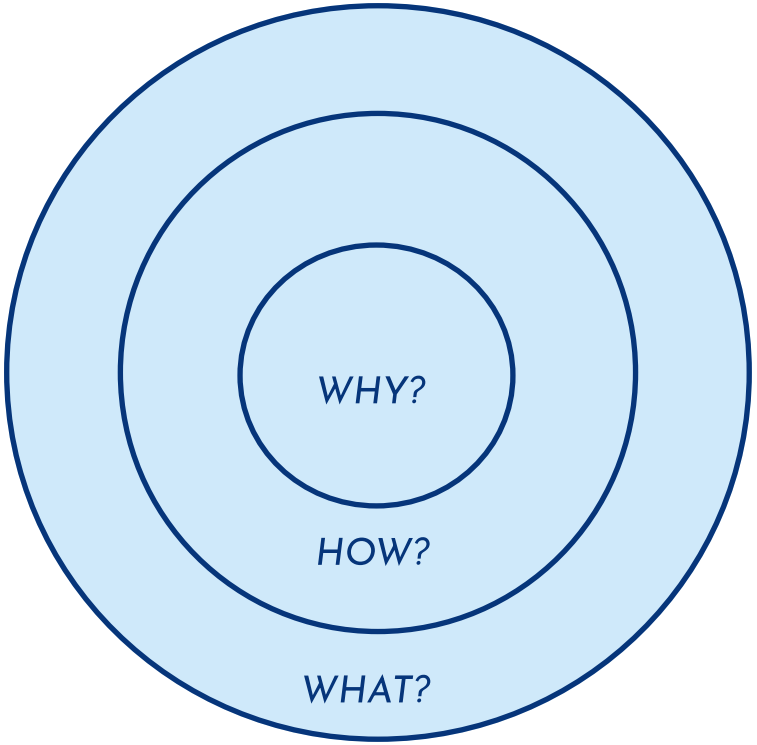
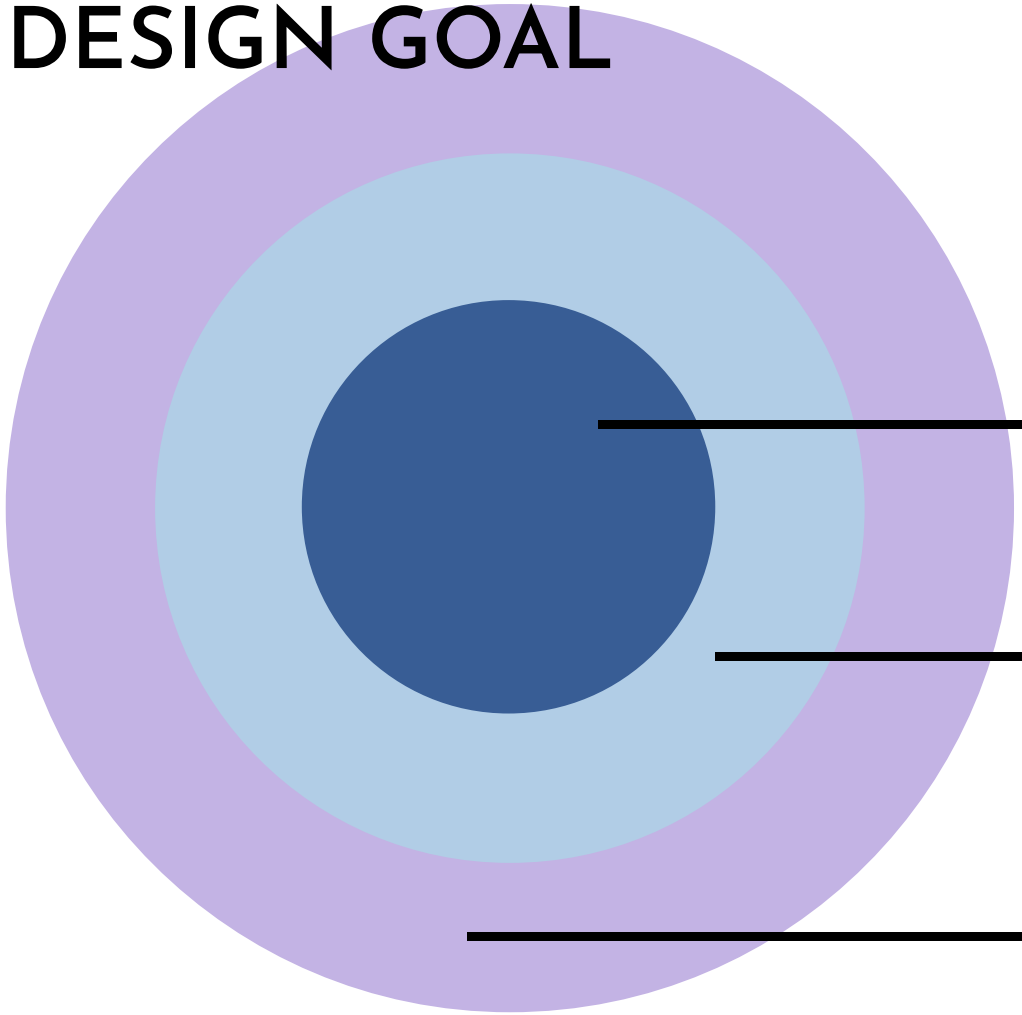


Figure 6: Sinek's Golden circle

DESIGN GOAL



WHY?

I want to support parents and children to support each other in coping with losing

HOW?

By making personal sense of what has happened through play and storytelling, allowing them to align and begin to build a story together

WHAT?

By designing a product they can engage with together, allowing them to start to create a story before the loss of a parent to serve as a re-tellable, constant story through the coping journey

DESIGN DRIVERS

FOSTER BONDING
Actively create opportunities for parents and children to bond and spend time together

HEAR ME OUT

I AM NOT ALONE

INVITES PERSONAL MEANING
Encourage individuals to find their own interpretations and significance and meaning in stories

I NEED TO UNDERSTAND FOR MYSELF

PROMOTE STORY SHARING
Encourage everyone to actively share their stories and build stories together

I PLAY TO PROCESS

I NEED TO EXPRESS

EASY DOES IT
Make it effortless for parents to engage and participate in between their hectic schedules

I NEED YOUR SUPPORT

PROVIDE CONSTANT SUPPORT
Be present and act as a sense of constant support through the coping journey

I NEED YOUR SUPPORT

ENVISIONED SCENARIO

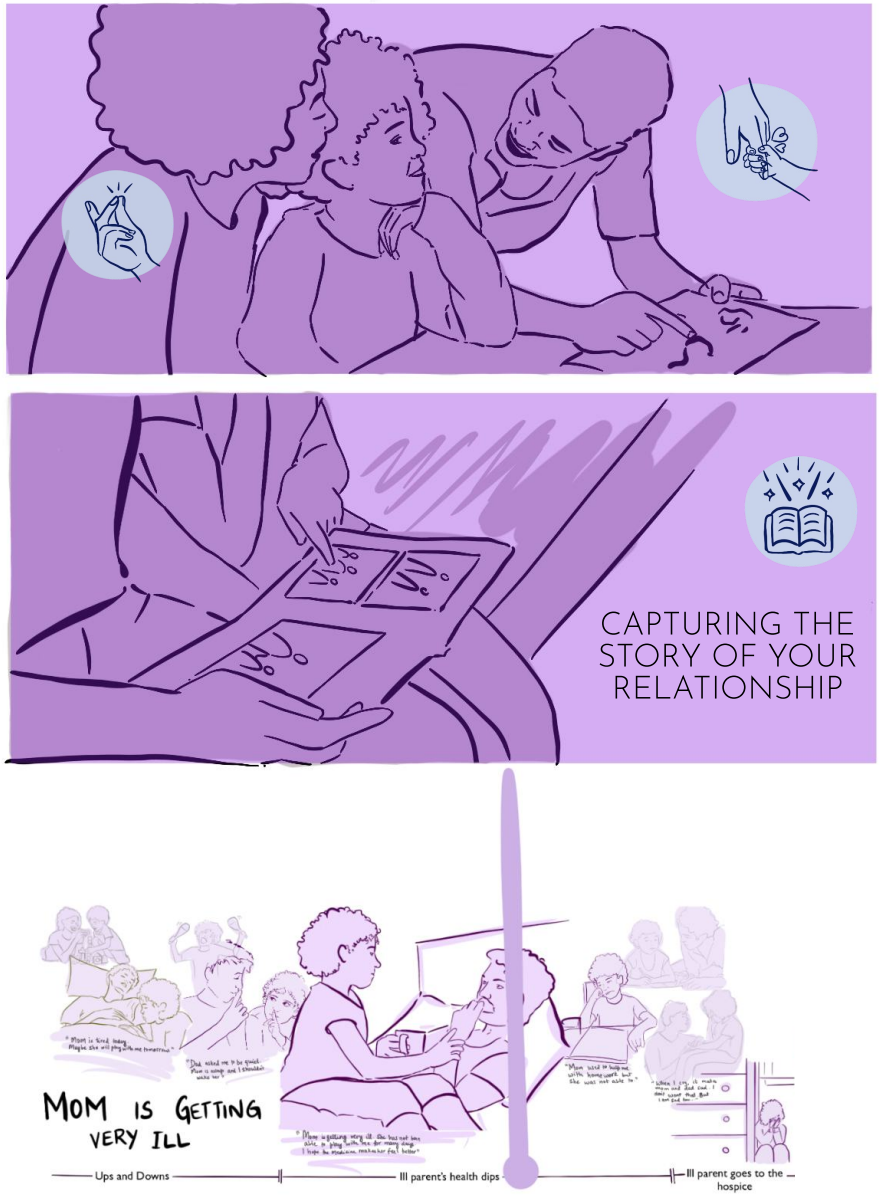


Figure 7(a): Envisioned scenario

After learning that there is no cure for the cancer, Zoe's mom and the family decide to make most of the time they have left. The product is a tool that is designed to support them through this journey. It facilitates the creation of memories and attempts to capture the story of their relationship.

Zoe and her parents spend time together with the product which gives them an easy activity that fosters bonding. They create something together and can look back at it at anytime to relive their memories and their personal story.

Through the journey of this activity, they also share stories, relive their experiences together and create new memories together.

After Zoe's mother dies, Zoe is heartbroken. She does not understand what is happening. She does not know what all of this means, but she remembers her time with her mother. She remembers all the times they played together and laughed together.

She pulls out the product and looks back at it. She looks at their memories together and finds a connection to her mother there. She sees their story together. She holds it close to her and thinks about her mother.

Every day, all she wants to do is be with her mother. She finds some comfort and support in looking back at the product. Reliving those memories make her smile. These memories are valuable, and she understands her relationship with her mother in her own way and interprets the messages her mother has left her.

Figure 7(b): Envisioned scenario

DEVELOP

This chapter details the ideation phase and the development of the final concept. It begins with a brief overview of the ideation approach, followed by a presentation of three main concepts generated during this phase. A co-creation session was conducted using these three concepts and they are presented as storyboards of the concepts with annotations on the images. The chapter concludes with the converged concept that emerged as a result of the co-creation session. It covers the details of the product, use-case as a storyboard and the prototype. It ends with a self evaluation of the concept as a precursor to the next chapter.

While the final concepts, co-creation and converged concept are covered in the main body of this chapter, more details of the ideation phase in the form of brainstorming sketches, intermediate concepts and prototyping can be found in Appendix A5

IDEATION APPROACH

INITIAL BRAINSTORMING

At the start of the process, engaging in brainstorming was found to be helpful, as it cleared up some of the ideas that were clouding perspective.

'HOW MIGHT WE..?' QUESTIONS

Upon completing the research phase, a more purposeful method of ideation was pursued by breaking down the design goal into "How might I...?" questions. This approach generated several smaller ideas, which were then combined in various ways to form more complete concepts. These ideas were subsequently mapped out to assess their value along the journey map.

CLUSTERING

All the ideas generated from brainstorming and the "How might I..." questions were clustered. This allowed for the identification of several distinct idea directions to explore further.

Figure 8: Ideation through How Might We questions

REFLECTION, IDEATION AND CLUSTERING

Following an initial round of idea clustering and reflection, it became apparent that many of the ideas were quite similar. To foster greater divergence, another round of ideation and clustering was conducted, accompanied by low-fidelity prototyping. This approach helped generate a broader range of ideas and refine the concepts further.

CONCEPTS

Following the divergence in the previous iteration, the focus shifted to convergence. Three concrete concepts were developed and each was prototyped to evaluate their potential and effectiveness.

PILOT CO-CREATION

With three concepts in hand, the next step involved seeking feedback from a professional in the industry and engaging in a collaborative creation process. A pilot co-creation session was conducted to refine the main session and ensure its effectiveness.

Participant
The pilot co-creation session was conducted with a non-IDE student.

Time
The session lasted 1 hour

Materials
- Storyboards of every concept
- Low-fi prototypes of every concept
- Prompt questions
- Audio recorder
- Consent forms
- Additional blank sheets
- Post-its
- Markers

Methodology
The session was set up as follows:
- The project and design goal was introduced
- The concepts were shown one by one with the printed out storyboard and prototypes. The participant could engage with the prototype and ask any questions about the storyboard
- The participant was encouraged to think along with me on the product and what could be different, what they liked, what they would do differently. They made additions to the storyboard sheets by writing over them.
- When the participant did not have anything to add, question prompts were presented, encouraging them to think along specific directions.
- When once concept was completed, the next one was presented.
- When all three concepts were covered, the participant was asked for an overall impression and what they would like to preserve about each concept and if they had any further thoughts or would like to think of an entirely new idea together.
- The session concluded by thanking the participant for their time.

Learnings
- The question prompts were instrumental in guiding the process.
- Key insights included the importance of allowing more time for individual reflection before introducing concepts
- Improving time management for the final co-creation session.

CO-CREATION WITH AN EXPERT

Participant

The main co-creation was set up with Romy van den Booren, Netwerkcoördinator Integrale Kindzorg.

Time

The session lasted 1 hour 15 mins

Materials and Methodology

The setup and materials were similar to those of the pilot test, with the exception of asking participants for their thoughts before introducing the concepts. After the co-creation session, more space was provided for collaborative idea generation. All additions to the concepts were made directly on the storyboard sheets.

REFLECTION AND INDEPENDENT IDEATION

After collaborating with the expert, independent ideation was pursued to integrate the strengths of previous concepts with new insights gained from the expert. This led to another round of prototyping, followed by reflection and refinement to simplify the concept and enhance its effectiveness.

LOW-FI PROTOTYPING

Goal

The goal of the low- fi prototype was to clarify details of the concept and identify the best method of creating a higher fidelity prototype. It was used to finalize the dimensions of different parts and identify the best material for the next prototype.

Materials

The primary materials used for this prototype was cardboard and cellophane sheets.

Figure 9: Co-creation

MID-FI PROTOTYPING

Goal

This prototype was created for the first evaluation. For this evaluation, the prototype was intended to be left with a family for a few days hence it had to be robust, self sufficient and work as the envisioned concept would.

Materials

Plywood, Acetate sheets, magnets, adhesive sheets

Methodology

Parts of the prototype were laser cut and others were traditionally machined. The rest was hand made since only one piece needed to be made.

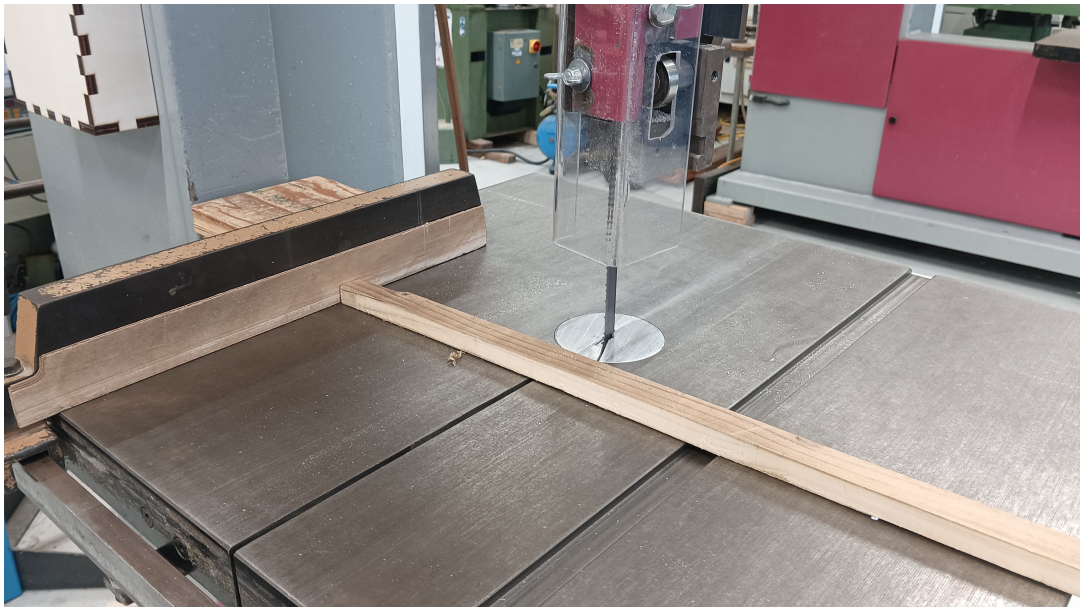


Figure 10: Traditional wood prototyping with a band saw

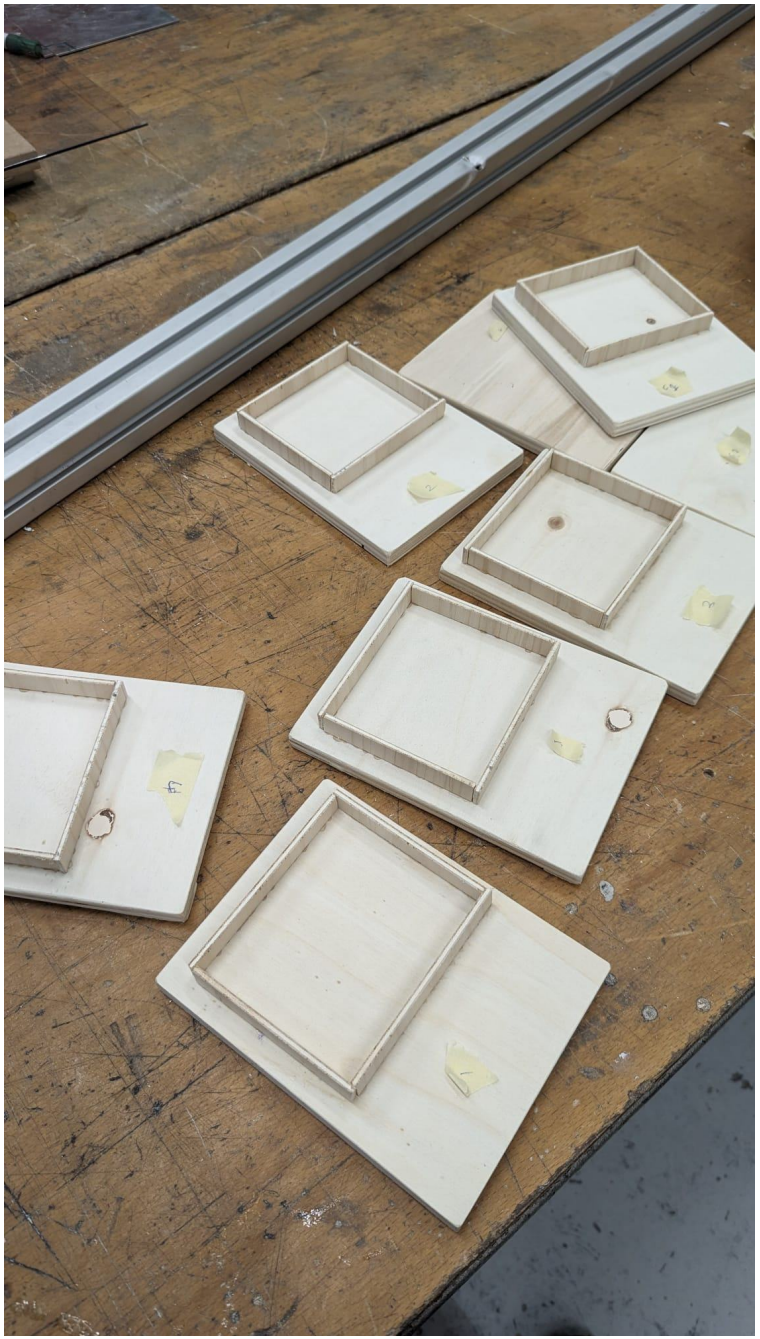


Figure 11: Prototyping

CONCEPTS

CONCEPT 1 : FEELINGS OF WARMTH AND LOVE

CREATING THE STORY OF YOUR RELATIONSHIP

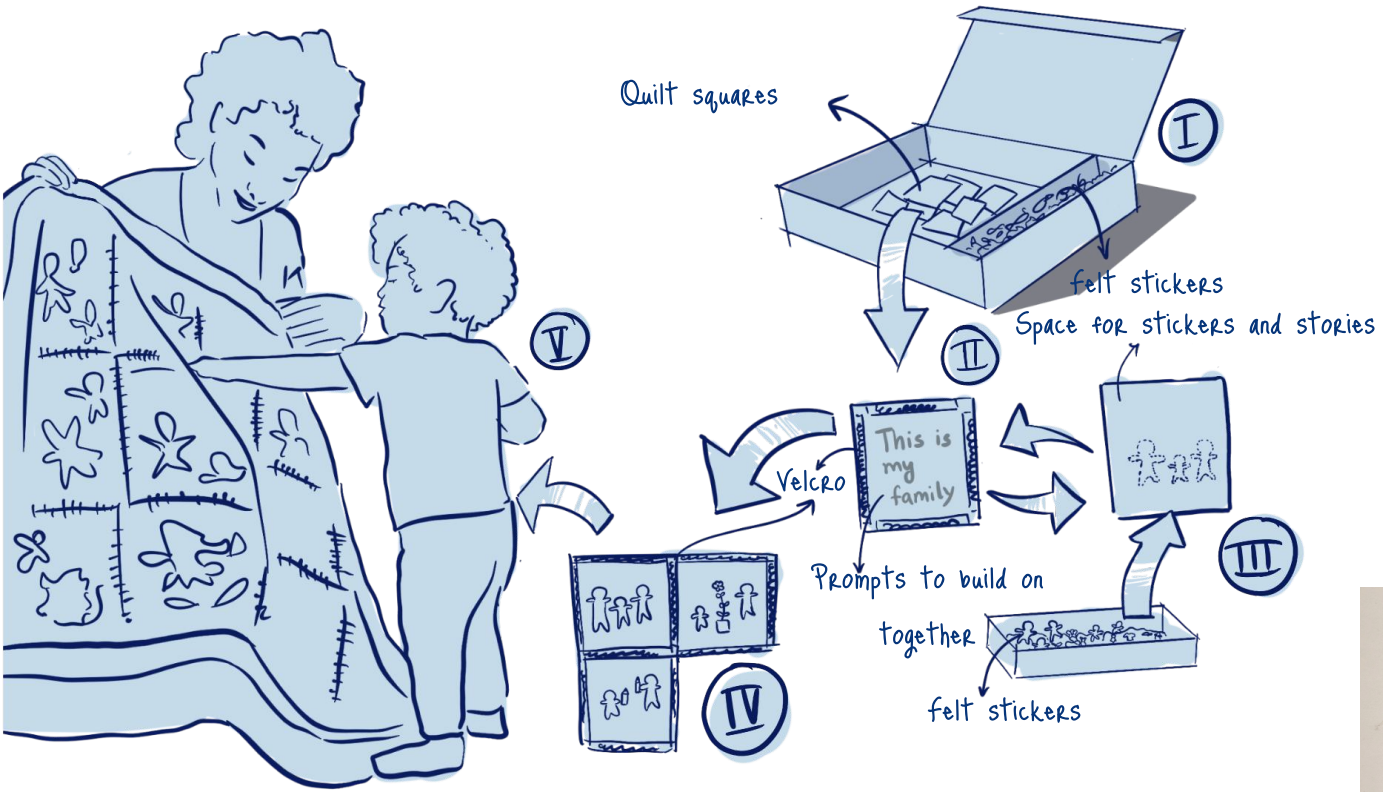


Figure 12: Concept 1

The parent and child make a quilt together based on some prompts.
The product contains quilt squares with Velcro on all 4 sides. Each quilt square contains a prompt on the back. A prompt is a small sentence to inspire the parent and child to create something, for instance, 'This is my family' or 'This is what I like to do with my mum'. With these prompts in mind the parents and child together try to depict this prompt with felt stickers present in the kit.
Once all the quilt squares have been completed, they all join together through the Velcro and form a quilt.
After the ill parent has died, the child can hold on to this blanket and remember their stories and memories together that they documented on the quilt.

Figure 13: Concept 1 Prototype

CO-CREATION WITH THE EXPERT

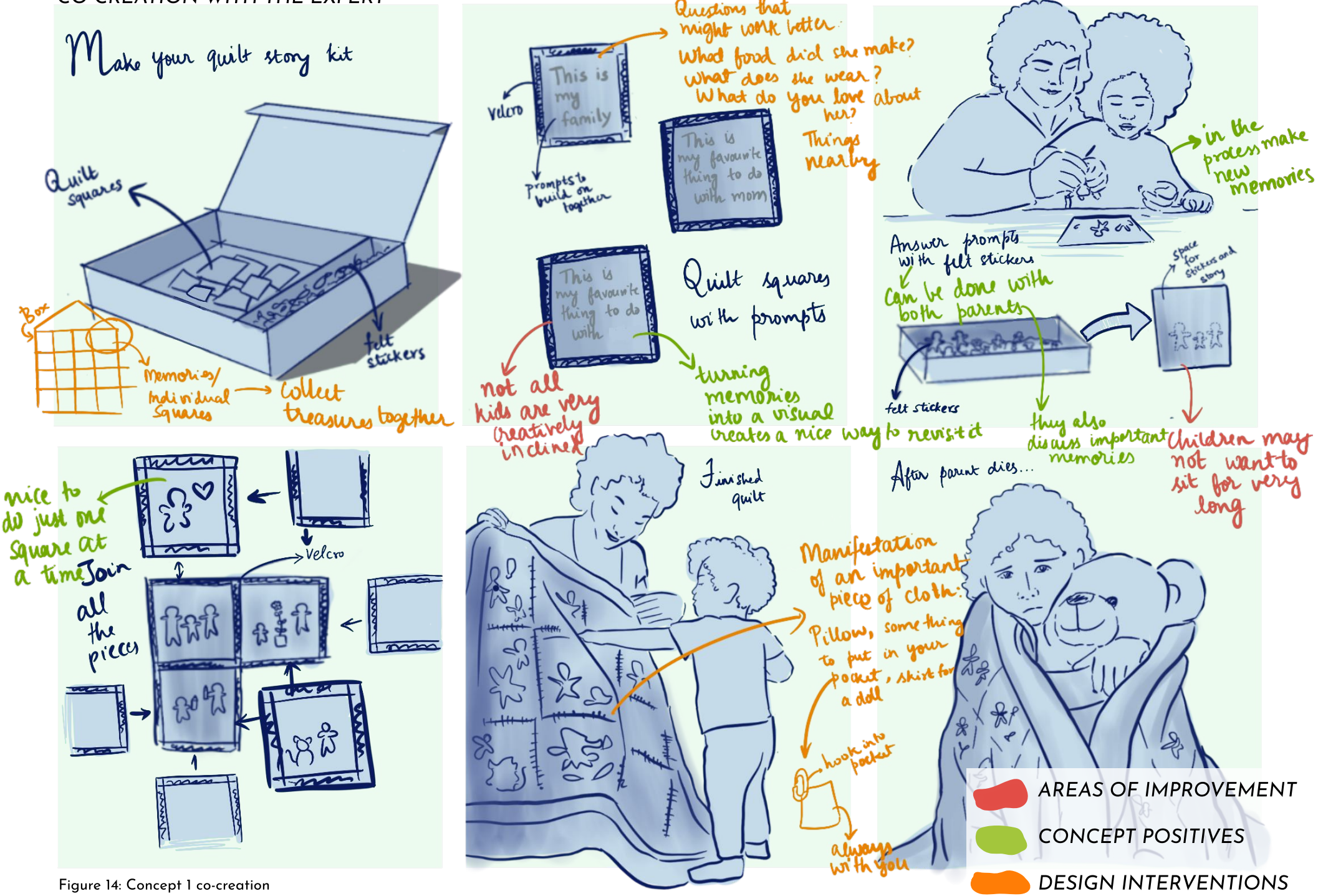


Figure 14: Concept 1 co-creation

CONCEPT 2 : ALWAYS BY YOUR SIDE

TELLING THE STORY OF YOUR RELATIONSHIP

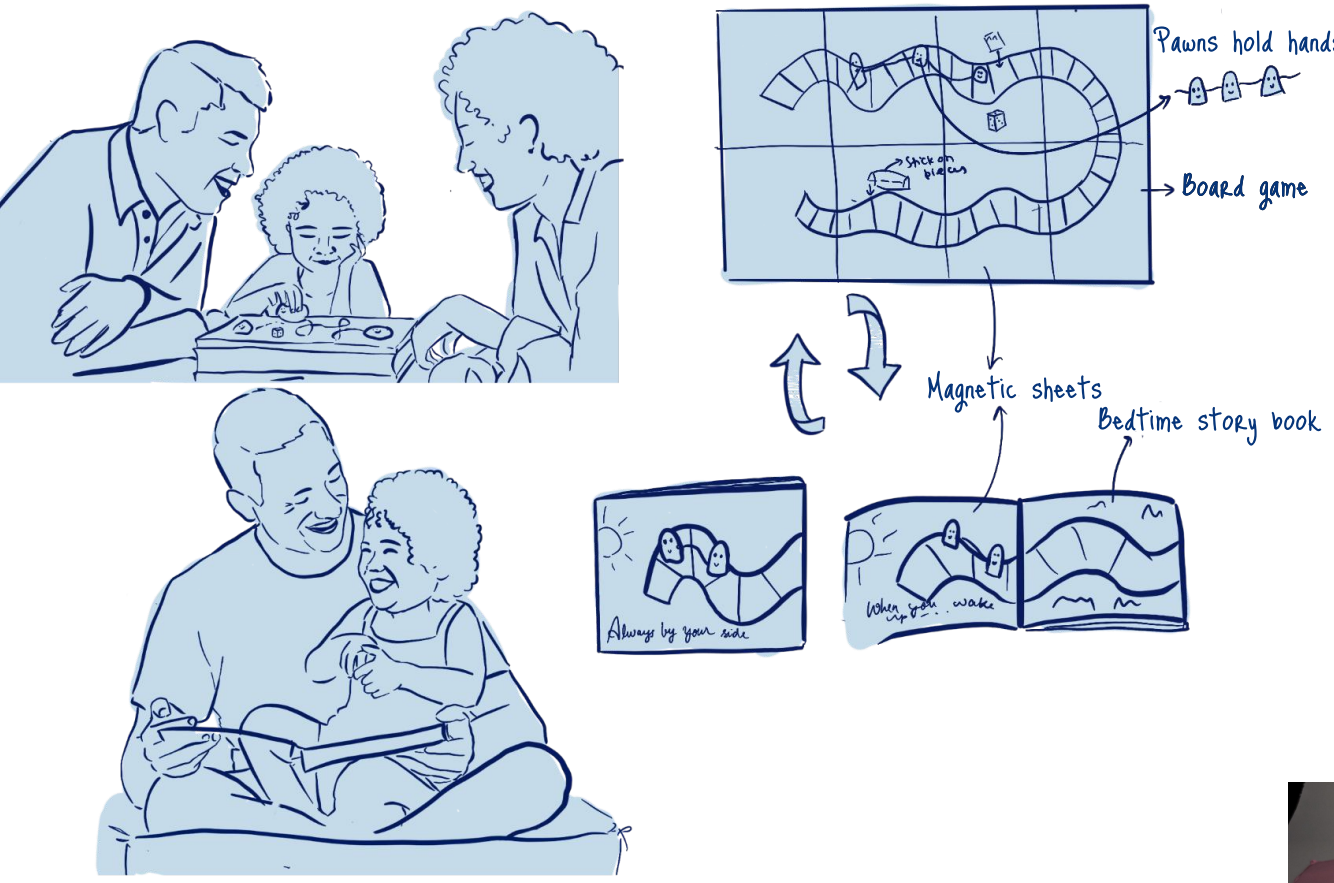


Figure 15: Concept 2

A bedtime story book that can unfold into a board game. They highlight that no matter what, your parent will be by your side.
This message is a little more explicit in the story, emphasising messages like 'even when you cannot see them, your parent is by your side'.
The board game attempts to represent the book in a symbolic way. For instance, if the book says 'even when you cannot see her, mom is by your side', then they board game might have a tunnel where a player is not visible but is still playing. Additionally, the players' pawns hold hands throughout gameplay. This means that when one player goes in front they all go ahead together and if one player has to take a few steps back, they all go back together. This re-emphasises the message that they will always be together, through good times and bad ones.
The book and board game together strengthen each other's message.

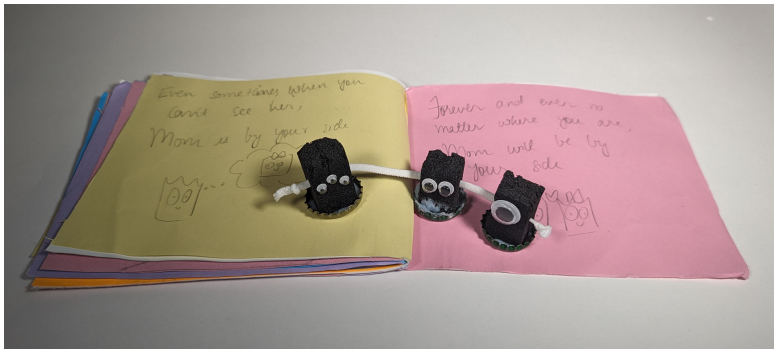


Figure 16(a): Concept 2 prototype

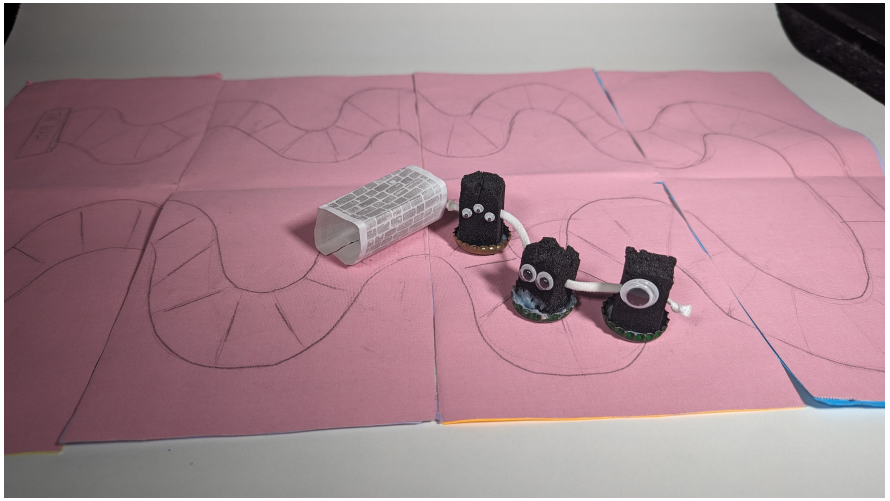


Figure 16(b): Concept 2 prototype

CO-CREATION WITH THE EXPERT

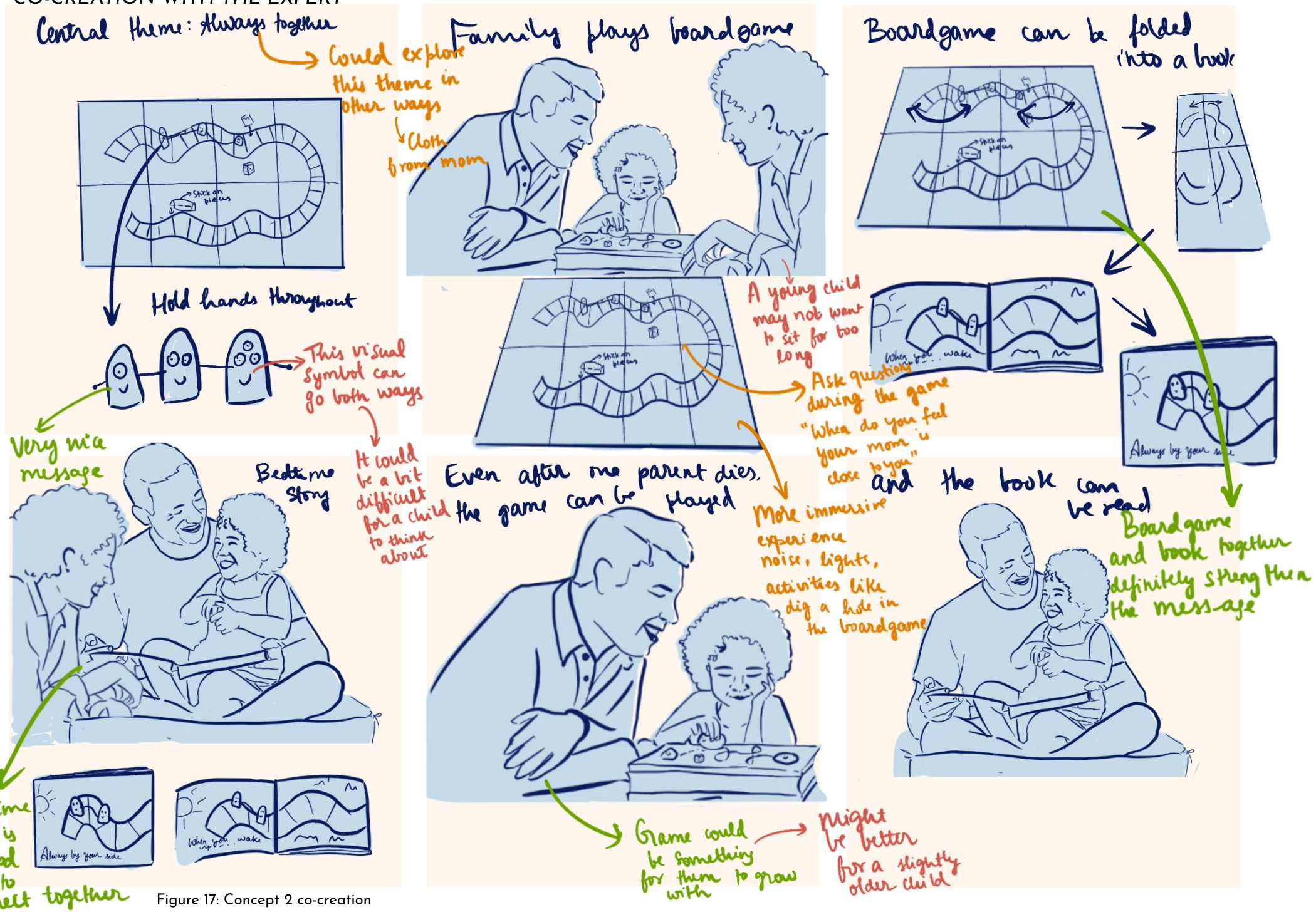


Figure 17: Concept 2 co-creation

CONCEPT 3 : MEMORIES ARE TREASURE

REDISCOVERING STORIES FROM YOUR RELATIONSHIP

Collecting memories like treasures.
The parent places stickers on objects of meaning from their relationship. For instance, a toy they liked playing with or a book they liked to read. Children are given a scavenger hunt card with all the stickers they have to find. Children go around the house finding these 'treasures'.
When the child finds a 'treasure', they come back to their parent with it and their parent tells them a story about it. That story gets recorded in the box and the 'treasure' goes into the box.
The child can revisit their treasure chest at any point and revisit their treasures and listen to the stories their parent told them about their relationship.

Figure 18: Concept 3 prototype

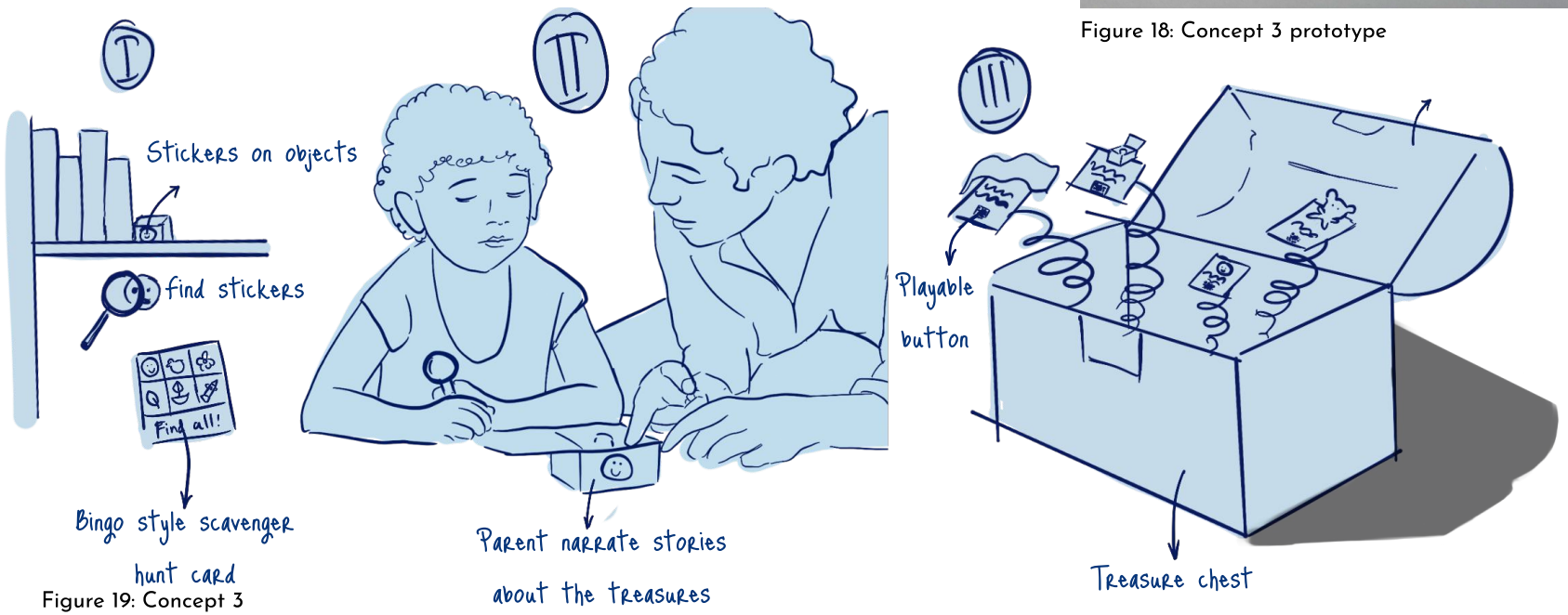


Figure 19: Concept 3

CO-CREATION WITH THE EXPERT

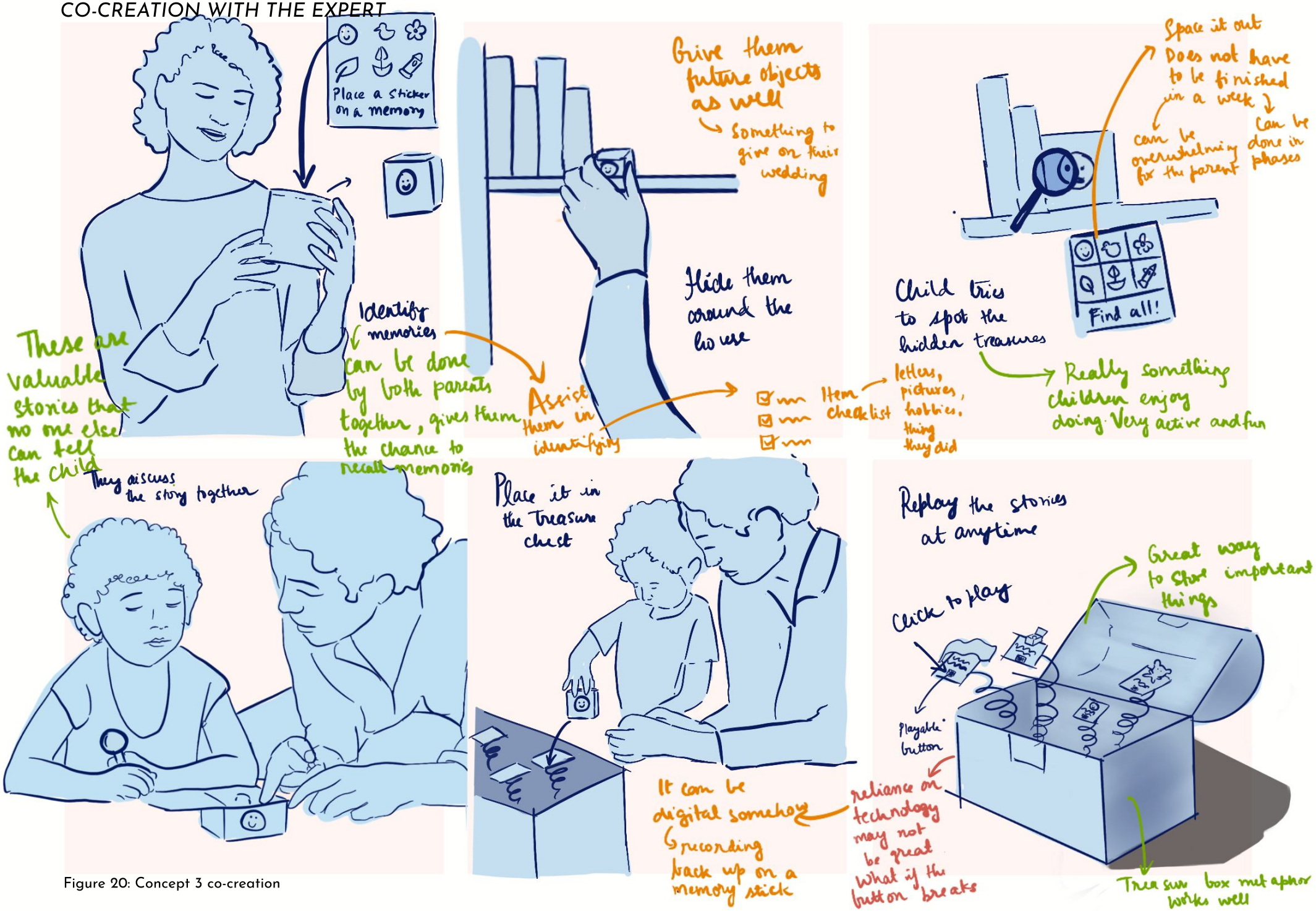


Figure 20: Concept 3 co-creation

CO-CREATION TAKEAWAYS

GROWING WITH THE CHILD
An interesting proposition from the co-creation process was the possibility of having the product grow with the child. Since the parent may not be able to watch the child grow and be with them through milestones in their life, the product could present the opportunity for the parent to leave messages that the child receives in the future. Alternatively, the child could discover new aspects of the product as they grow up.

CREATIVE INCLINATION OF DIFFERENT CHILDREN
Some concepts rely on the creative inclination of children. It is important to note that not all children are creatively inclined. A child who is not particularly creatively inclined may not be willing to participate in a creative activity.

ATTENTION SPAN OF YOUNG CHILDREN
Following the creative inclination, another consideration to be made is the attention span of young children. Children may not want to sit for too long doing a single activity, whether it is a creative task or a board game. The activity needs to be flexible and allow children to stop midway if they are no longer interested.

USE OF PLAY IN CONCEPTS
Play is a great way to involve the child. Different children enjoy different types of play. Some prefer active play where they can run around and engage in physical activities, while others enjoy board games and puzzles. Allowing interaction through different kinds of play might appeal to a wider audience of children.

METAPHORS AND THEIR COMPLEXITY
Some metaphors are better suited for young children than others. For instance, the metaphor of memories as a treasure is easier for children to understand than the metaphor of characters holding hands. The message of a parent always being with a child might be difficult for a child to grasp since it is not literally true.

PARENTS AND THEIR INVOLVEMENT TOGETHER
A concept that also brings parents together to discuss memories is a good addition to any product. In this process, parents also begin to cope with the loss of a partner and are able to express their needs and feelings to one another.

WHAT DOES THIS MEAN FOR THE CONCEPT?
Recognizing the importance of the product growing with the child, the design is shaped to include features that evolve over time, future messages from the parent. Understanding the diverse creative inclinations and attention spans of children leads to incorporating flexible, engaging play activities and providing more than one option such as scavenger hunts and board games. The use of simple, relatable metaphors ensures the concept is accessible to young children. Finally, emphasizing parental involvement by encouraging shared memory-making activities helps address the holistic needs of the family, fostering mutual support and coping during difficult times.

CONVERGED CONCEPT

The converged concept is a modification on concept 3 with some elements from concept 1 and 2 added to it based on the co-creation session. The core of the concept converged on lies in the creation of memory tiles.
A memory tile is a wooden block with a small transparent case in the front and a frame at the back. The front of the block also has some boardgame spaces that help turn the tiles into a boardgame. The product comes with eight such empty memory tiles.
The product also comes with a set of 20 prompt cards which serve as letters the parent leaves for the child. These prompt cards have a small heading which is the prompt and space for the parent to write in.
The parent picks a few of the prompt cards and writes in them and slides it at the back of the tile(figure 21).
The prompts on these cards reflect on various different aspects of the parent and child's relationship such as daily activities like games they like to play, songs they like to sing or deeper aspects of their relationship such as things that make them think of each other or something they are proud of their child for.

Some of the prompt cards are aimed at the future, for instance for the child to discover on their 18th birthday or wedding. This gives parents the chance to leave something behind for milestones in the child's like that they may not be around for.

In the front of each tile, there is a small transparent case. The parent then puts some pictures, souvenirs, toys or objects that relate to the letter at the back in the small box in the front.
This is how a memory time is created. (figure 21)

Based on the child's age and personality, the parent can choose to play with the memory tiles in different ways.
They can have a scavenger hunt with it where the child has to find the memory treasures. On finding the treasure, they talk to their parent about what is in the tile and discuss the memory together.

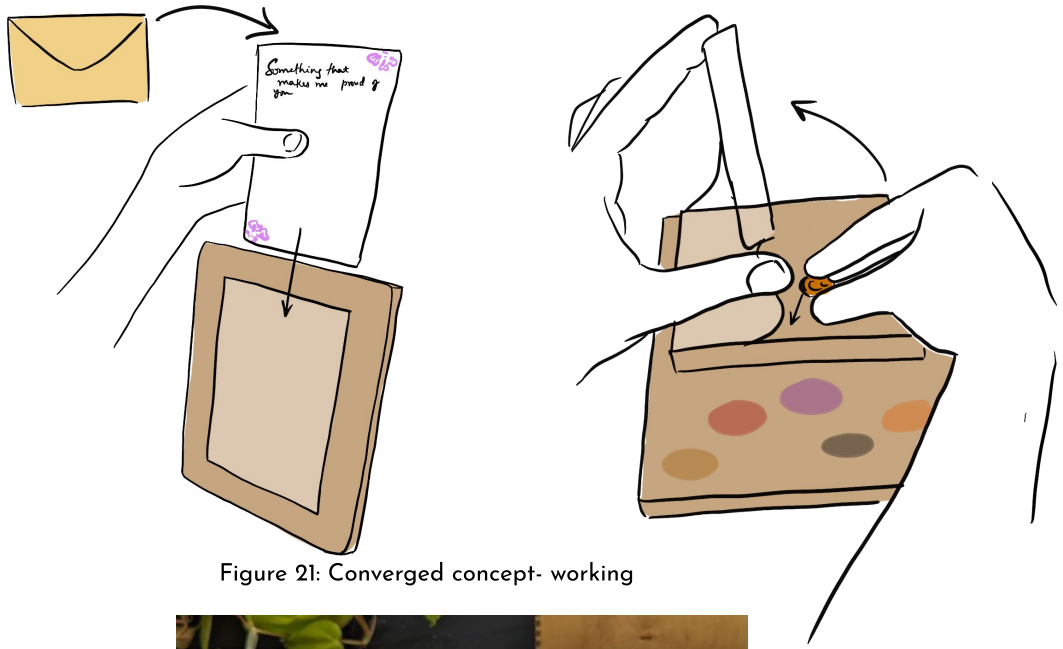


Figure 21: Converged concept- working

Figure 22: Converged concept prototype

Another potential way to play with the tiles is through a boardgame. The goal of the boardgame is to take a walk through memory lane together and recollect the memories in the memory tiles.
To assemble the board, 6-8 memory tiles are joined together to create a personal board game. (figure 23).
Before beginning the game, every player picks a character to be their pawn. Each pawn has a magnetic back surface.
The players start at the first space. Every player rolls the dice to move forward in the game.
There are two types of special spaces in the game(Figure 24):

- The memory capture
- The nightmare pirate

Memory capture: Every space with the small camera on it is a memory capture space. On each of these spaces there are a few memory tokens placed.
A memory token is a small magnetic disc that can be earned if a player lands on the memory capture tile and says something about the memory in the corresponding memory tile.
When a memory token is earned, it can be stuck on the magnetic back of the player's pawn.

Nightmare pirate: Every space with a small pirate on it is a nightmare pirate space. When a player lands on a nightmare pirate space, they can defeat the pirate by placing a previously collected memory token on him. If the player has no tokens, they must go back to the last memory capture space.
The presence of the nightmare pirate gives players an incentive to share and collect tokens.

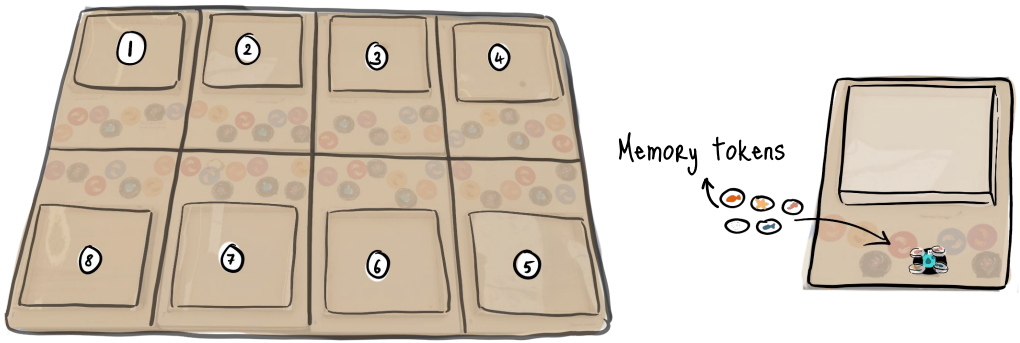


Figure 23: Boardgame

Figure 24: Boardgame prototype

The game facilitates the recollection of memories in a natural and organic way, encouraging players to share their stories and moments together. It aims to bring the family closer, allowing them to relive the story of their relationship without putting pressure on parents to deliberately create or share specific memories. The design ensures that the natural flow of gameplay achieves this goal.
However, as a board game, it may limit some of the imaginative elements that children often enjoy and that could be beneficial in their coping journey. Instead of focusing on imaginative play, the game aims to transform their shared story into an engaging and exciting experience. While this approach has its merits, tests will reveal if it is engaging enough for young children.

Figure 25: Prototype game play

Finally, The entire product is packaged as a treasure chest (figure 26). This is meant to convey the message that your memories are your personal treasures.

Figure 26: Treasure chest prototype

Figure 27: Converged concept storyboard

PROTOTYPE

Figure 28: Converged concept prototype

DISCUSSION

CONVERGED CONCEPT, DESIGN GOAL AND DESIGN DRIVERS: A SELF EVALUATION

During the ideation phase, I decided to narrow the focus of the design goal. The topic of personal meaning-making is complex, and the project timeline did not allow for an in-depth exploration of this aspect in young children. Instead, the focus shifted to creating stories of the relationship between parents and children, which satisfied most of the design goal and design drives and more importantly, would help in the coping journey of a young child and their family.
Initially, the concepts were quite rigid, offering limited interpretation by the family. However, as the ideas progressed, they evolved to allow families more freedom to create and document their own stories in personalized ways. Although this approach does not fully facilitate personal meaning-making in the context of death, it provides a starting point for creating a re-tellable story of their relationship and a consistent element throughout their coping journey. Further evolution of the concept occurred through the co-creation process. Expert opinions helped identify the most critical aspects of the concepts, allowing for the combination of these elements into a cohesive final product.
Revisiting the design drivers as a method of self-evaluation, the concept creates opportunities for families to bond and share stories. While the support it offers comes in the form of tangible records of memories, it is designed to stay with the family even after the death of a parent. The product does not explicitly address death or loss but instead focuses on the positives in the journey. While it allows parents and children to form their own interpretations of their relationship, it does not deeply explore meaning-making in the context of loss. Finally, one significant challenge is the product's setup, which requires effort to create each memory tile. While modularity allows for incremental progress, each tile takes some time to make.

DESIGN DRIVERS REVISITED

FOSTER BONDING
Actively create opportunities for parents and children to bond and spend time together

PROMOTE STORY SHARING
Encourage everyone to actively share their stories and build stories together

PROVIDE CONSTANT SUPPORT
Be present and act as a sense of constant support through the coping journey

INVITES PERSONAL MEANING
Encourage individuals to find their own interpretations and significance and meaning in stories

EASY DOES IT
Make it effortless for parents to engage and participate in between their hectic schedules

Does not satisfy design driver

Satisfies design driver

DELIVER

This chapter covers details on the evaluation of the concept discussed in the previous chapter. It then dives into how the evaluation shaped the final concept and covers the details and prototyping of the final concept. The chapter then reimagines Zoe's story with the final concept and how it would play a role in Zoe's coping journey. The chapter then concludes with some recommendations for the concept and a discussion answering the initially proposed design question.

EVALUATION APPROACH

OBSERVATION AND INTERVIEW

Participants

A family with healthy parents and two children aged four and eight.
A conscious choice was made to test the product with a family with all healthy individuals instead of a family with a seriously ill parent. This was done for two reasons. Firstly, the concept designed was not limited to families with illness. It was a product that could be presented to any family as the main focus was memories and their time together. Secondly, families with seriously ill parents are a very sensitive testing group and an area that falls out of my area of knowledge. As someone very new to this area of study, it was not a good idea to get involved in a sensitive target group without professional support.

Time

The prototype was left with the family for them to interact with it and get comfortable with it for five days.
The observation and semi-structured interview five days later lasted 1 hour and 15 minutes.

Materials

- Prototype
- Instruction manual- product
- Test instructions
- Consent forms
- Semi- structured interview script
- Notepad
- Audio recorder/ phone

Goals

The goal of this evaluation was divided into three sections.

- The message: Validating if the message behind the treasure chest comes across clearly, validating the clarity of the metaphor
- Practicality: Validating if the family is able to capture the story of their relationship with the product, learning what the child needs more help with and where they are able to engage independently, learn about the child's interest in engaging with the product, learn which elements of the product are very distracting or take focus away from the goals.
- Materialization: Validating the choice of material and shapes and structures of different components of the product.

Method

- The prototype was delivered to the mother, accompanied by an instruction manual. The family was asked to interact with the product at their own pace.
- After five days, a follow-up session was conducted, which included an observation session and a semi-structured interview.
- The session began with the parent providing initial impressions and feedback, lasting about 15 minutes.
- This was followed by a 30-minute observation session where the parent and children were observed playing the board game. During this time, as the observer, a passive presence was maintained, noting the children's engagement, distractions, and any questions that arose.
- The session concluded with a semi-structured interview focusing primarily on the parent's experiences, with occasional input from the children. The interview was recorded for analysis, and the recording was deleted after processing. The insights gained were used to identify areas for improvement in the prototype and overall concept.

EVALUATION TAKEAWAYS

FILLING IN THE MEMORY TILES

The initial design envisioned the tiles to be something the parent filled up and left behind for the children. During the test, the parent mentioned that they did not want to fill up the tiles by herself and rather wanted it to be a family activity. The parent even mentioned that there was a lot of emotional value from filling in the tiles together. They created more memories together and also shared old ones. They shared things important to each other together and it gave rise to very meaningful times together. When the children were asked about this, they also mentioned that they liked finding pictures and drawing some little pictures out to put in the tiles.

It was also pointed out that since the children had a shorter attention span, they could fill up one or two tiles and then stop. It was good for the tiles to be separate and independent of each other.

However, the family did encounter some practical hurdles. Firstly, they were unable to find relevant pictures or items for each of the prompts they picked. These were still very important memories to them, and they wanted to write in the prompt cards. They felt that the written part of the card encapsulated the memories well enough and did not necessarily need the box for every card. However, for some of the other prompts, they had some great pictures or souvenirs to put in. They wanted to find the right balance here. Secondly, each of the memory tiles has a part of the board game on it. The family however, was not sure what it was meant for until they played the game. They only felt like they had used the product fully after they played they game. It did not feel like a choice.

GAMEPLAY

The parent and the children were engaged and excited about the game. The children were very excited about picking their characters and landing on tiles with memory tokens and pirates. The parent mentioned that even for them, the payoff was good and satisfying to be able to use the tokens again in the game.

The older child(8 years old) was able to play more independently and was able to share immediately when they reached a tile with a memory token, but the younger child (4 years old) had to be prompted more. The game is something that the entire family needs to engage with together. It is unlikely that the children pick it up and play on their own.

The parent mentioned that one thing she really liked was the fact that this was a game about them and their memories and times together. She said that it was like turning their photo wall into a board game they could relive, and she really enjoyed that aspect.

The game overall promotes sharing together. When one person shares, they all tend to do so. They all re-look at things they wrote or put inside, they are inclined to share, sing and laugh together.

TREASURE HUNT

The treasure hunt right now did not have any physical component to support the gameplay. Some suggestions were mentioned on the instruction book but the family did not read it so the family did not see it as a potential way to engage with the product. Having a tangible component as a part of the product for it allows it to be noticed as a possibility.

FINAL PROTOTYPING APPROACH

INCORPORATING FEEDBACK FROM EVALUATION

Based on the evaluation feedback, adjustments were made to the concept. This involved another round of ideation focused on refining the different elements of the product and ensuring they fit together cohesively. Through this process, the final concept was developed, which was then ready for prototyping.

LOW-FI PROTOTYPE

Goal
The goal of creating this prototype was to test the basic mechanisms of product such as simple interlocking and fitting of the different elements together, defining the scale and size of all the elements to create a higher fidelity prototype and to understand the best way and materials required to make the higher fidelity prototype.

Materials
Cardboard

MID-FI PROTOTYPE

Goal
The goal of this final prototype is two-fold. Firstly, it is in future going to be tested with real-world families through the support of KIEZO. Secondly, it will be used for publicity through the KIEZO network and in their media.

Materials
Plywood, Acetate sheets, hinges, magnets, adhesive sheets for custom stickers

Methodology
The memory tiles were created by laser-cutting and attaching a few frames together with a hinge. The transparent sides of the frame were created by carefully cutting acetate sheets to fit the dimensions.
The treasure chest was also laser-cut and attached together. Handles and a latch were later attached.
The treasure hunt board was also laser cut and the flags were handmade.
The boardgame was traditionally machined and attached to a flexible cloth to allow it to fold easily and to allow flexibility while playing the game as well. All the stickers were illustrated and printed on adhesive sheets.

FINAL CONCEPT

The final product is called 'Treasured Moments'. Similar to the previous iteration, it is shaped like a treasure chest to metaphorically express that your memories are your greatest treasure.

The treasure chest opens to reveal the following:

- Eight memory tiles
- An envelope consisting of prompt cards
- A board game and small box containing coins and pawns for the boardgame
- A scavenger hunt bingo-board and eight flags
- Cards with instructions and rules

Figure 29: Final concept : all components

MEMORY TILES

Each memory tile is a thick framed box with a transparent centre. The box can be freely opened and closed allowing the family to put pictures, postcards, letters, souvenirs, trinkets and the prompt cards in them.

The space at the centre of each tile is designed to perfectly accommodate postcards, pictures and Polaroids.

The tile is independent of the boardgame to ensure that the pressure on engaging with the board is lifted. The new design of the tile also allows the prompt cards to be visible along with the other things kept in the tile to circumvent the practical difficulties that were present in the previous iteration.

The tile itself is constructed with wood, acetate sheets, a hinge and a magnetic strip. This ensures that the tile can be opened easily but still holds everything in the tile without accidentally opening.

The wood construction makes the tile sturdy and does not let it break very easily.

The tiles come in empty and leave space for families to fill them up together.

Figure 30: Final concept: memory tile opened

Figure 31: Final concept: memory tile filled

PROMPT CARDS

The chest contains an envelope of 16 prompt cards. These prompt cards have a small heading which is the prompt and space for the parent to write in. These cards cover four broad topics reflecting on various different aspects of the parent and child's relationship. The topic of a card can be identified by the colour coded pattern on the border of the card.
Some of the cards are aimed at the future, for instance for the child to discover on their 18th birthday or wedding. This gives parents the chance to leave something behind for milestones in the child's like that they may not be around for.
The envelope also contains some blank cards if the family wants to write about something that is not covered by the existing cards.

Figure 33: Final prototype: Prompt cards

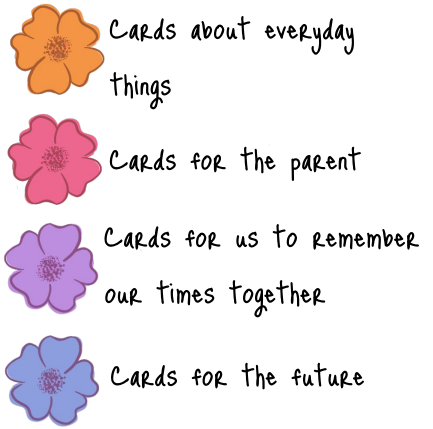


Figure 32: Colour coding for prompt card themes

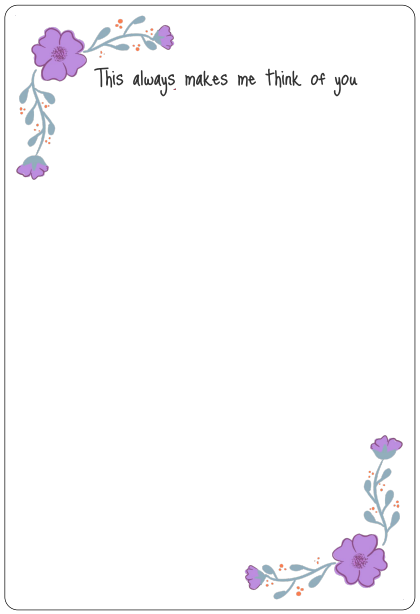


Figure 34: Prompt card sample

FILLING IN A MEMORY TILE

Each memory tile is meant to reflect a certain aspect or story of the family's relationship with each other. To fill in a memory tile, the family chooses one of the prompt cards, writes in it together and places it in the tile. They can also add to the tile, by finding pictures, postcards or trinkets that are associated with that memory or story.
For instance, if the family took a memorable holiday they can put in ticket stubs, postcards and pictures from their trip along with a prompt card.

The family can choose to fill in as many ever tiles as they would like to at a time. The tiles can always be added to or modified easily if they want to.
Each tile is meant to be a framed encapsulation of a memory in their lives that they can look back at.

Figure 35(a),(b): Final prototype: Filling up a memory tile

BOARDGAME

Construction, Assembly and Parts

The boardgame is separated from the memory tiles and comes as a separate attachment instead of being part of the memory tiles. This gives the family more freedom to choose whether they would like to engage with it or not.
The boardgame is made up of a few components:

- 4-6 Memory tiles
- The board
- Pawns
- Memory tokens
- Dice

To put the boardgame together, 4-6 memory tiles are places together and the opened board is placed on top to lock it into place.
The board is constructed to have back panels that fit into the spaces in to memory tiles thus turning the game into a seamless part of the tiles.

Game mechanic

The game stayed the same as that as the previous iteration where the family moves through a board game of their memories together and shares these memories to collect tokens and uses these tokens to defeat the pirate.
From the evaluation, however, it is possible to more closely examine the gameplay for a 3-5 year old.
For a young child, the game starts with them choosing a pawn. They have five different pawns to pick from. Once they pick one, they roll a dice and their parent or sibling moves their pawn across the board.

Figure 36: Final prototype: board game components

Figure 37: Final prototype: board game assembly

When they land on one of these tiles,

They get to pick a small token and stick it on the back of their pawn. Their parent also ask them a small question about something they do together like, "What is a song that mamma sings to you?" or "Can you show me your toy that you like to play with me?" and they sing a song or show everyone their toy and everyone claps and seems happy.

If they land on the scary pirate, everyone cheers when they have a little token on their pawn and says they defeat the pirate. They then put one of the little circles from their pawn on the pirate. Sometimes, when they have no tokens on their back, the parent moves them to a place with a token and lets them stick it on their back and asks them a small question again.

To a young child this game is more about something the whole family does together. They need the support of their parents of siblings to play and the rules of the game are not necessarily something they grasp easily. They still have a good time but it is not necessarily because of their understanding of the game.

For an older child however(7-9 years), the game brings more joy from the ability to defeat the pirate with a token they have earned earlier in the game, they also enjoy rolling higher number on the dice and asking people to share stories or asking them questions or answering questions that are also posed at other participant. While the game is not something for a 3-5 year old to independently enjoy yet, it is something they are likely to grow into as they grow up.

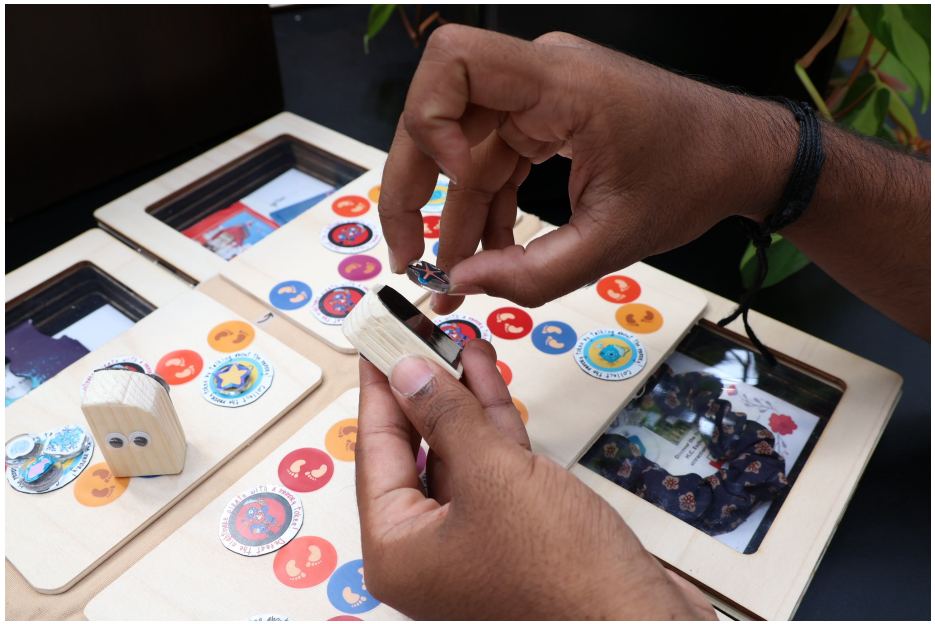


Figure 38(a),(b): Final prototype: Game play

TREASURE HUNT

Construction, Assembly and Parts

In the previous iteration, the treasure hunt went unnoticed because there were no tangible elements presented that showed this game as a possible way of engaging with the product. This iteration makes sure that it is noticed by introducing some components like:

- Magnetic bingo board
- Flags

The magnetic bingo board consists of 8 small magnetic pieces with different illustrations on them. The illustrations match those on the flags.

Game mechanic

The game works like any other scavenger hunt where the players have to go in search of the hidden treasures.
The parent places a flag in few of the memory tiles and hides them around. The flag is meant to identify the tile even from afar, it is brightly coloured and stands out from most settings.
The child is given a little bingo board, it contains pictures of all the flags that they must find.

Figure 39: Final prototype: Treasure hunt set up

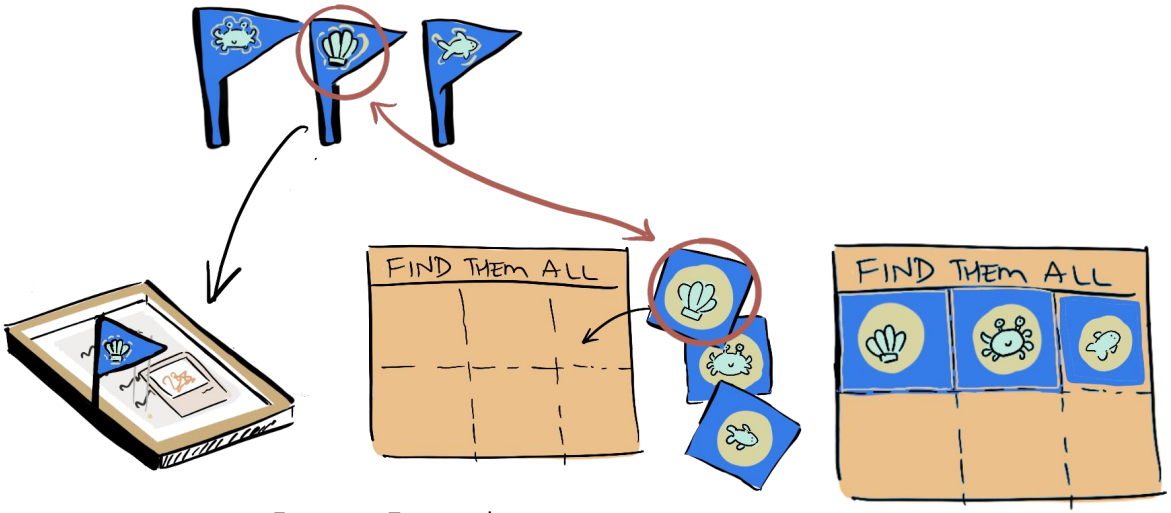


Figure 40: Treasure hunt set up

The child goes around and finds these flags and memory tiles and brings them back to their parent. The parent and child can then discuss the memories in the tile.

This game is envisioned to give the child more freedom and the chance for more fantasy play. While it is still not an opportunity in free play, it might allow children to take on roles like a detective or someone on a quest. They would take on that role and try and search for the tiles. It is a lot more active and they would go around and be excited every time they discovered a treasure.

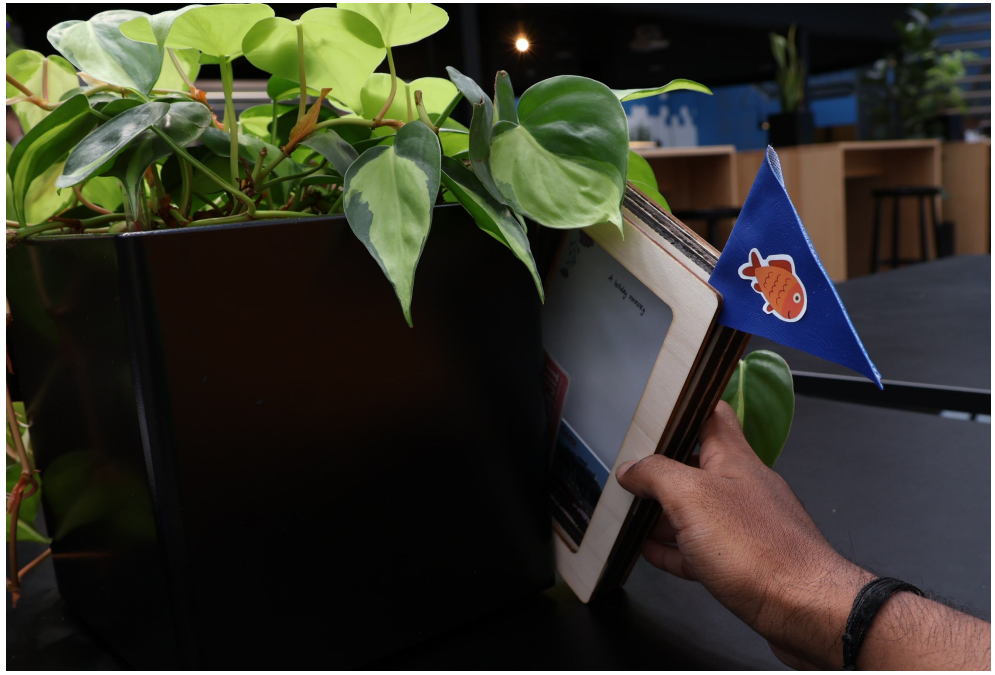


Figure 41(a). (b): Final prototype: Treasure hunt game play

Along with all of the components there are three cards which contain the instructions as well as explain what everything in the treasure chest is for and what they do.
These are present to ensure that the product can completely stand alone and so the family can navigate it without any issues.
The cards are separate from each other for a few reasons. Firstly, it shows that both of the games are independent of each other, reinforcing the idea that there is a choice and that they can be done separately.
Secondly, it is aimed to improve the ease of reading and understanding. The initial rule card for the previous iteration was one larger folded card with the instructions for every component together. While there was no direct complaint on this front, the evaluation showed that improvements could definitely be made to reduce any confusion on where each of the rules were written.

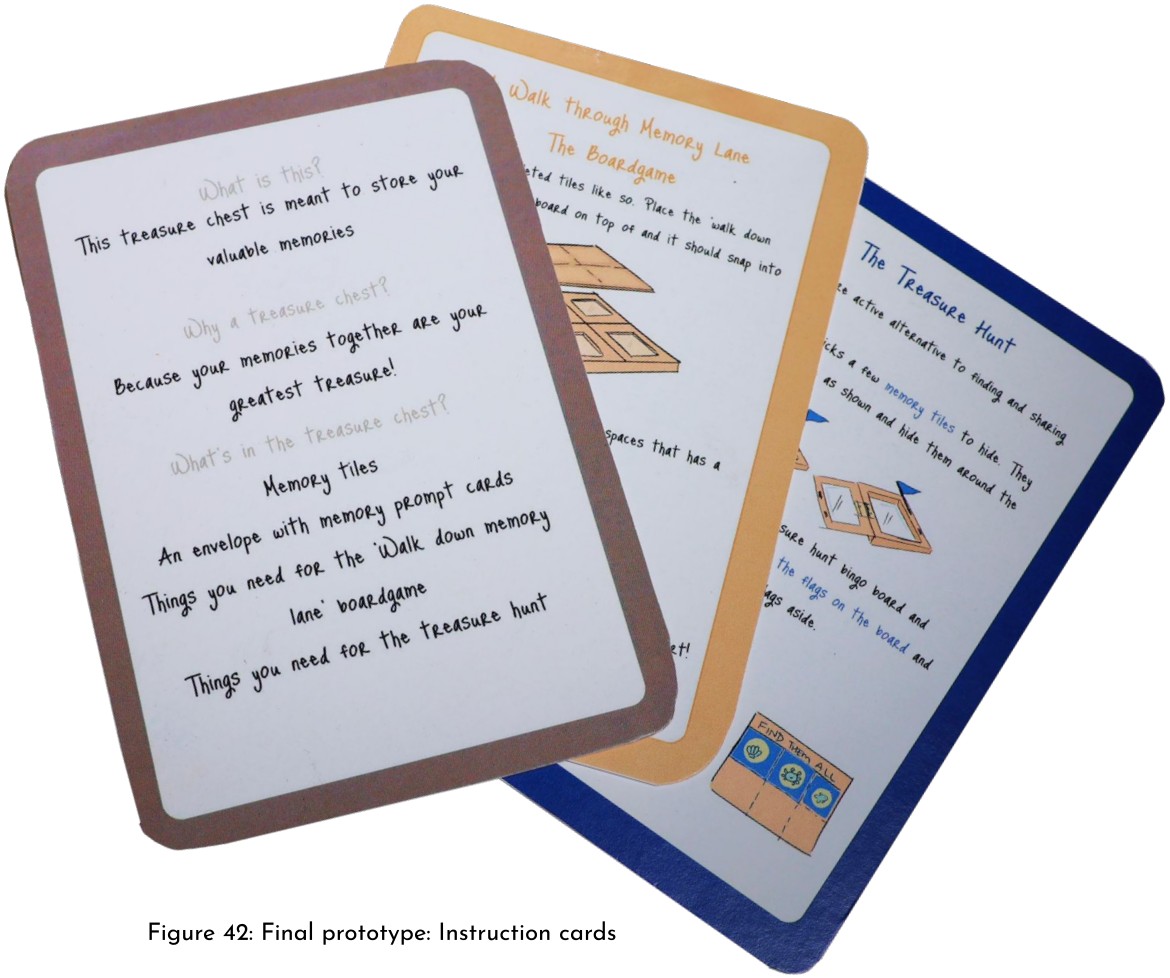


Figure 42: Final prototype: Instruction cards

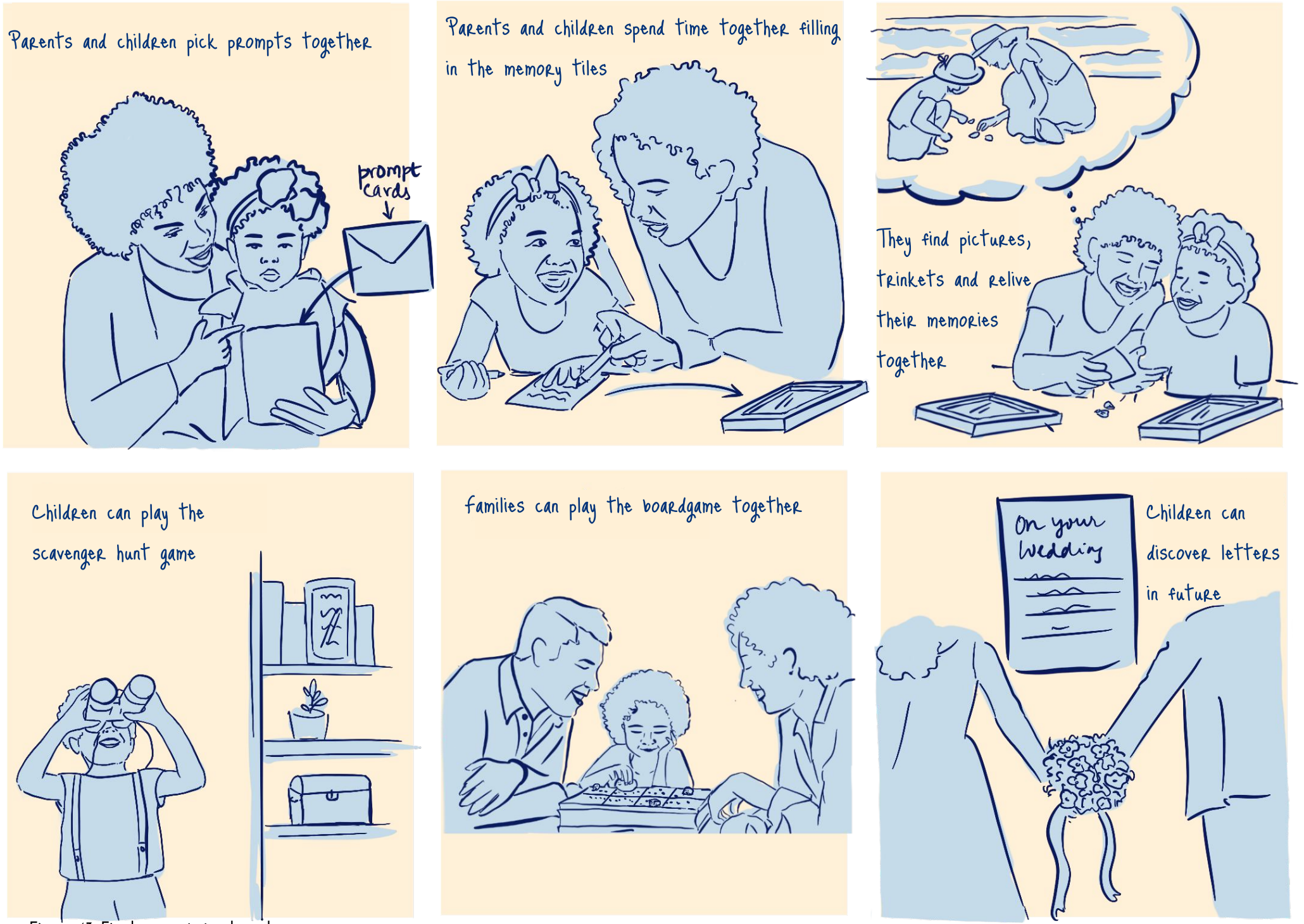
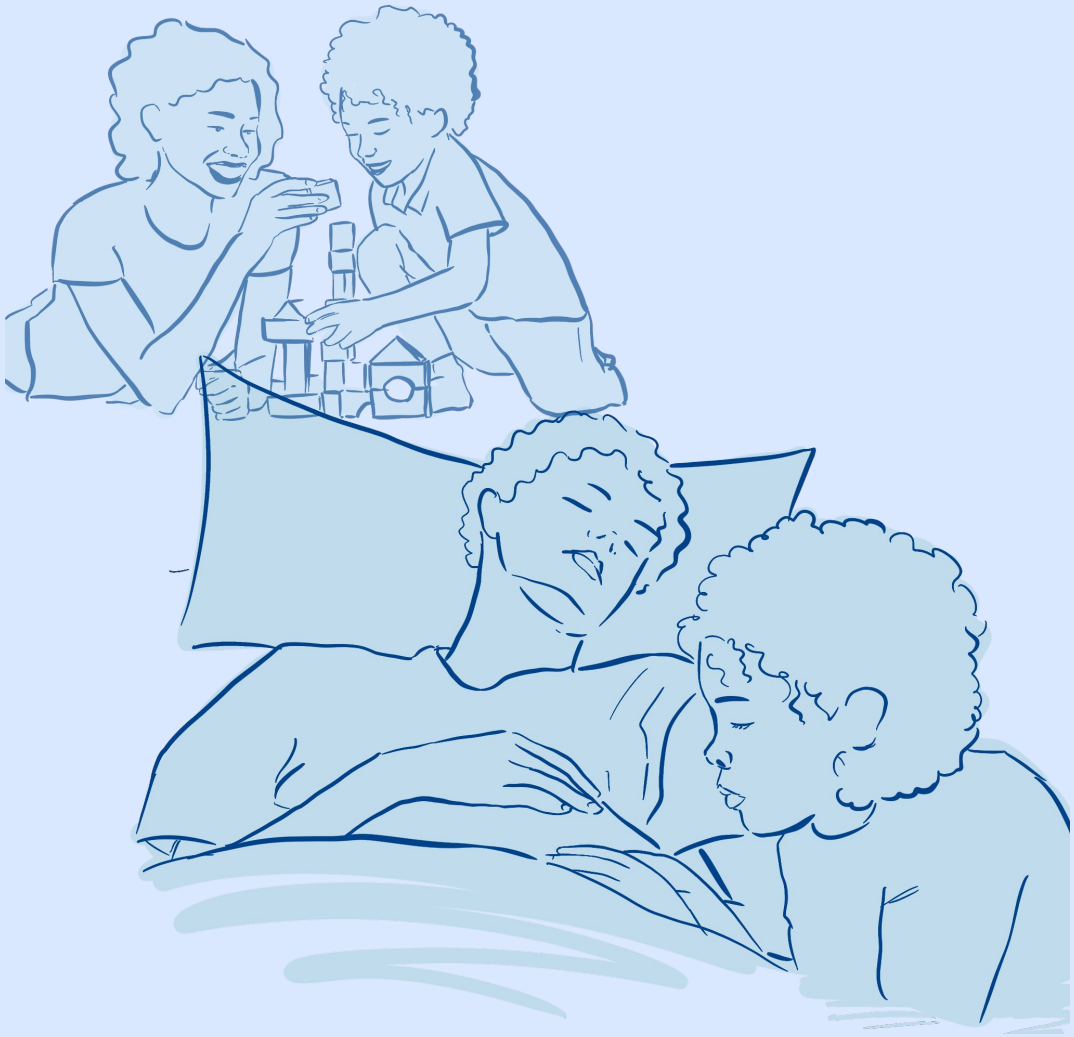


Figure 43: Final concept storyboard

ZOE'S STORY REIMAGINED

This section goes back in time to the point where Zoe's parents learnt about the illness, discovered that the medicine was not having the desired effect. It reimagines the story with the product in their lives and presents an envisioned product use scenario as an alternate story of Zoe's journey.



One day Zoe's mum was feeling very ill and was having trouble breathing, she went to the hospital. Zoe was very scared. She didn't like the hospital.

The doctors said that medication was not having the effect that they would have liked and the cancer was spreading to other parts of the body. Her doctor said that there was no way to cure it and suggested that they look at palliative care. Zoe's parents were heartbroken and made the decision to make the most of the time they had left together.

The psychologist that the family visited recommended 'Treasured Moments' to them. She said that it would allow them capture to the story of their relationship and stay connected to each other.
Taking her advice, the family brought home the treasure chest shaped box.

Zoe was curious about the box and once they got home, the family sat together and opened it up. They saw some wooden tiles, a boardgame and some brightly coloured flags. Zoe really liked the flags.
Zoe's father took out the instruction cards and read them out to the family. He told them that they could try to fill up the tiles with some of their memories together.
Zoe was excited to try it out. She liked playing with new toys.

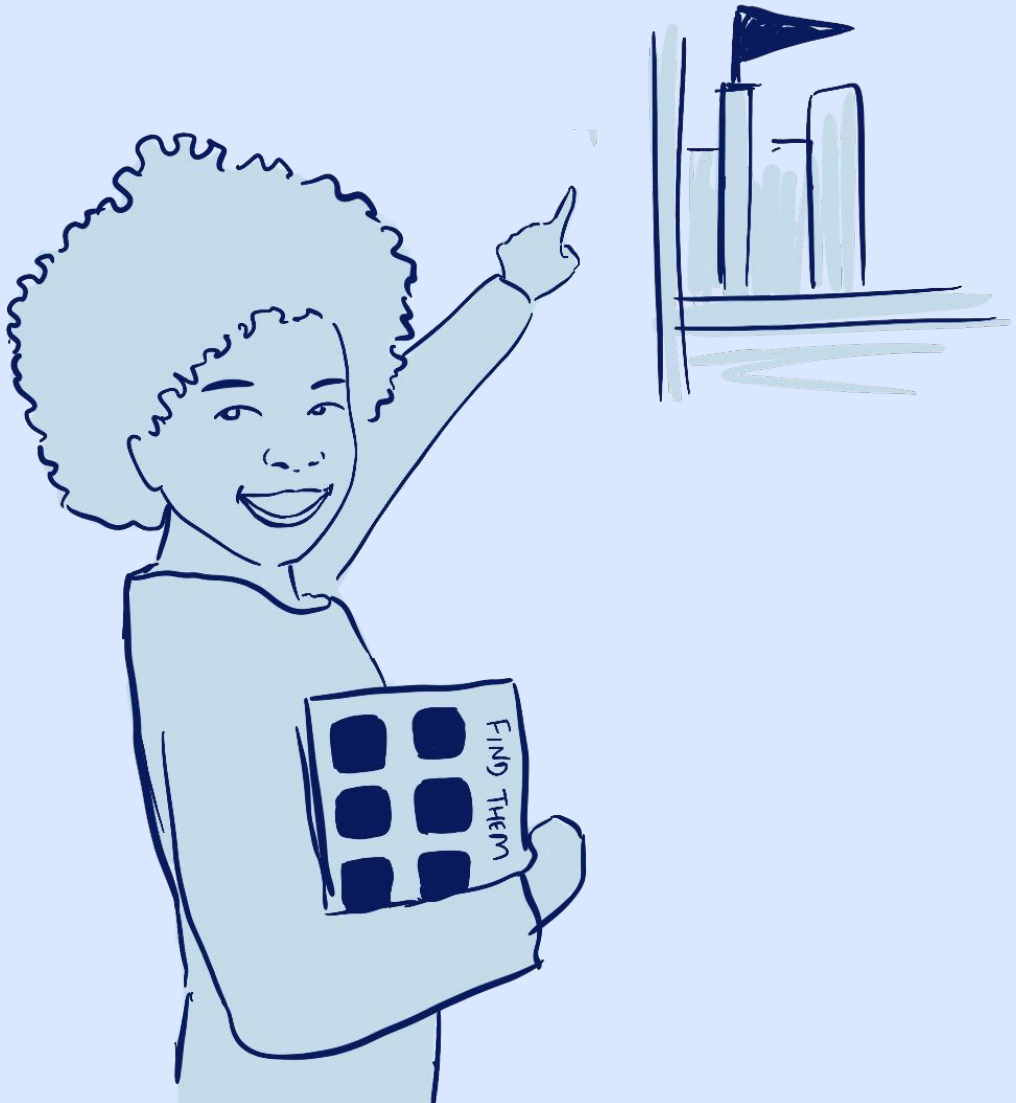
Zoe sat down with her mom and picked out her favourite cards. She wanted to do the one about their holiday. The family had gone to Spain sometime back and Zoe loved the beach. Zoe started telling her mom about the sand and the shells on the beach and her mom wrote it down. Her mom also wrote down her favourite things from their trip. Zoe then wanted to draw a ball and colour it because they played with a ball at the beach. They both sat down and drew together.

They then wen through some of the pictures they had taken together. Zoe loved doing this. She liked pointing at her favourite pictures and saying what she saw. Zoe picked out her favourite pictures to put in the tile. She had also picked up some seashells from the beach that she wanted to put in the tile. They also had some postcards from their trip and put all of it in the tile

In a few days, Zoe and her mom had filled up four tiles with different things.

The next morning Zoe woke up and went back to the treasure chest. She wanted to play with the flags this time. Zoe's mom told her that she would hide some of the tiles they made and Zoe would have to find them. She said she would put a little flag in all the tiles she was hiding and give her a board with all the flags that she would have to find.
Zoe's mom then hid the four tiles that they had made together, around the house.

Zoe was excited to go on a treasure hunt and took her little magnifying glass and set out on an adventure. She ran around everywhere trying to spot all the flags on her board.



Sometime later, Zoe found her first flag! She was excited and called out to her mom and said, "Look ma! I found one!". Her mother helped her reach it and gave it to Zoe.

Zoe's mom asked Zoe if she wanted to know what it said inside and Zoe said yes. They looked inside the tile and it was a tile about the songs they liked to sing together. They sang their songs again as Zoe continued her quest of finding all the tiles.

The weekend meant that everyone was home. Zoe had been waiting to play the boardgame for a few days now. She ran up and brought the box.
The family sat together first choosing their pawns and setting up the game.
Zoe's dad explained how the game worked to everyone and they started to play.
Every now and then someone would land on a memory capture space and share a memory and soon the family was singing and laughing together.

Zoe's mom couldn't always get up to play with her. Some days she was too tired and was unable to get out of bed. Those days, Zoe would take a filled tile up to her bed and ask her to tell her their stories together. She would ask her mom to tell her about how she pet the cat outside their hotel in Spain or how she sang a song to her dad on his birthday.
Zoe's mom would sit up on her bed, hold Zoe in her arms and tell her the stories from the tile and show her pictures.

A few weeks later, Zoe's mum's health dipped even more and everyone was very sad. A few days later, she died. Everyone was heartbroken.

Zoe's dad spoke to Zoe and told her that her mother had died. Zoe did not fully understand what was happening. Zoe was confused. "How can we get her back?", she asked, "Does it hurt?" Confounded by the depth of Zoe's questions, Zoe's dad did his best to try and talk to her.

He told Zoe about the funeral and Zoe wanted to bring the memory tiles she made with her mother and sing a song that they sang together for her.

When they came back home Zoe held on to the tiles. She asked her father if they could play scavenger hunt again.
She went looking for the tiles and when she found one, she saw a picture of her mother holding her inside the tile.
She went back to her father and hugged him tight.

RECOMMENDATIONS

TESTING

Based on the feedback from the first prototype, some changes were made, resulting in a new prototype. However, this new version has not yet been tested. It is necessary to evaluate whether these changes positively affect the interaction and achieve the desired results. It would also be interesting to see what new interactions and feelings the treasure hunt game brings in.

The test was conducted with a family with healthy parents. While the goal of ensuring that the prototype facilitates family bonding and is engaging for children was met, the concept's effectiveness in helping a child cope with loss has not been tested. Further testing is required to assess how well the product supports children in dealing with grief.

On a more practical level, smaller details such as the number of memory tiles that offers an optimal experience would have to be investigated. The present number (eight) is a result of one evaluation session, noticing how long the family took to complete one tile, ensuring it was not too time consuming yet gave enough room to tell the story of their relationship. This number would have to be tested again with a family with an ill parent as their energy constraints are bound to be different.

Another important test to conduct is a test that lasts a longer period. This would be to investigate a few things. First, to see a child's interaction with the product and see when and how they use it. Second, to test the aspect of how the child grows with the product and test if the cards for the future play a role in their lives.

The tests with families with a seriously ill parent would be done with the support of KIEZO and their psychologists, ensuring that at any point they can intervene if necessary and offer their support in any way needed.

PRODUCT

Regarding the product, it is advisable to consult a psychologist to further refine the prompt cards. Currently, these cards were developed through personal reflection, references, and discussions with an expert; however, they have not undergone a formal review by a psychologist. An expert's input could enhance the cards, making them more impactful and aligned with the psychological needs of children coping with loss.

For future iterations of similar products, further research is necessary, particularly in understanding young children's meaning making the context of loss. Although the existing research touches on the importance of fantasy and role play, more in-depth studies are needed to explore how to effectively facilitate this type of play to foster meaning-making in this sensitive area.
More iterations of the product would also be needed to incorporate learnings from this new research as well as the tests.

MANUFACTURING

The goals of the current prototype do not cover manufacturing and assembly of the product. Production in larger quantities requires an analysis of manufacturing methods for the chosen materials and costs. This prototype focused on testing and hence production of a single piece. This afforded different prototyping techniques and more manual work. A production prototype has to be developed in order to take into account any changed in shapes or finish.

For this, it would be recommend a study of different manufacturing techniques with wood and mass production of children's toys.
While the current laser-cutting files exist for most component, they need to be developed for the others as well.
It might also be prudent to contact an existing toy manufacturer both for the boardgame and other aspects of the product.

DISCUSSION

1. *HOW CAN I SUPPORT A CHILD TO COPE WITH PERSONAL LOSS TOGETHER WITH THEIR FAMILIES?*
    a. *HOW CAN I LEVERAGE PLAY AND STORYTELLING TO HELP A CHILD COPE WITH LOSS?*

One possible way to support a child in coping with personal loss is through personal stories that are unique to each family. Families have unique experiences and attribute personal significance to different things. Allowing them to create, tell, and relive their own stories can support a child and the family to slowly process the loss. It is essential to leave enough room for freedom and not push a story onto them, so they can make and find meaning in a way personal to them. Personal stories help children feel connected to their lost loved ones and provide a way to honour and remember them.

Fantasy, role-play and free play give children the most space for expression and in turn have the highest impact on a young child in their coping journey. By combining fantasy play and storytelling, children can symbolically express their grief, work through their emotions, and integrate the loss into their ongoing life story(Frost et al., 2000).

For young children, talking to express their feelings is not very effective as speech is not their primary means of communication. A more effective way of allowing them to express and process their feelings is through role-play and storytelling(Capurso & Ragni, 2016). While items in the chest and items inside the memory tiles could potentially give children a space for this, the boardgame itself does not give too much room for free-play or role-play. There could also be some potential for fantasy and role-play with the treasure hunt, allowing children to take different roles in searching for the treasure however, there is still not too much room for free-play with the design of the product itself.

Creating a supportive environment where children feel free to express themselves through these mediums is key. Encouraging them to share their stories, participate in playful activities, and explore their emotions at their own pace can significantly aid their coping process. This can be done by creating an environment of sharing together and bringing everyone together through a joint family activity focusing on the positives and the stories of their relationship.

PRODUCT RELATED CHOICES AND THEIR EFFECTS ON THE DESIGN DRIVERS

Several choices were made during the product development, each with potential benefits and drawbacks concerning the design drivers and goals. For instance, the decision to focus on capturing the story of the family's relationship supports coping with grief (Lewis, 2022). This choice was reinforced by expert opinions and literature suggesting that preserving memories and unique stories allows them to be immortalized, fostering bonding through story sharing. However, this approach limits fantasy play, which might not contribute significantly to meaning-making in the context of death at a very young age. The product is designed to grow with the child, becoming more treasured as they age, but at three years old, the focus remains on positive memories and happy moments rather than meaning making after loss.

The decision to create a board game, rather than something more open to fantasy or free play, or something more active, stems from the desire to involve parents and foster bonding. An ill parent might not be physically able to engage in more active or physical play with the child. Therefore, the product was designed to have a low cognitive and physical load, making it accessible for both the parent and child to engage in together. While this choice supports family bonding and shared storytelling, it might not offer the same level of imaginative or physical engagement that other types of play could provide.

The treasure hunt, part of an earlier idea, continued into the final concept to allow for more active engagement while maintaining a low strain on adults. This reasoning was also reinforced by the expert during co-creation session.

The product's shape as a treasure chest was chosen both for its metaphorical significance and to spark curiosity and imagination in children. The box size was also chosen to ensure everything as a part of the product fit in perfectly and also allowed some more room for any additional items that the family might want to store.

Prompt cards were designed to ease some cognitive load for parents, providing suggestions for what to store and preserve, thus alleviating the intimidation of recalling and choosing valuable memories. Some cards were intended for future messages, a concept supported by experts, allowing parents to leave messages for their children as they age. While it could emotionally difficult for parents, it gives them a space to reflect with their partners and offers ongoing support to the child even as they grow up.

The iterated design of the memory tiles allows it to be opened and is more inviting to change. It also has a larger volume, being more adaptable to more types of objects, pictures and letters.

Physicality and materialization were crucial product choices along the way. For instance the choice between something more physically comforting like a blanket versus something emotionally comforting. The current product form stemmed from co-creation insights and personal reflection. An interactive product that continually engages with memories was preferred over a product physically comforting with very little reflection on the memories.

In summary, every design choice, from the inclusion of a treasure hunt to the use of prompt cards and memory tiles, was made with the goal of creating a product that fosters family bonding, supports emotional coping, and allows for flexible, ongoing interaction with cherished memories. While these choices reflect well on some of the design drivers there is always a trade-off with some others.

MATERIAL EXPLORATION OF THE PROTOTYPE AND FEASIBILITY

The primary material used for the entire product is plywood. This was chosen due to a few reasons. Firstly, plywood is very durable and hence more sustainable. Durability is crucial as the product is intended to stay with the child throughout their life. It is also safer and non-toxic(MerchantPro, 2024). Wood is sturdy yet gentle, with no sharp corners as they have all been filleted or sanded for safety.

While the final prototype does not exactly reflect the manufacturing prototype in terms of manufacturing methodology and finish, plywood is the envisioned choice. Most components in the final prototype were also laser cut, which ensures feasibility in terms of production. While more investigation is required, laser cutting could also be a potential manufacturing process (Digital, 2020).

Using plastic might make it easier to mass-produce, but it could be more prone to breaking. Given the niche audience for this product and the importance of durability, wood is a better choice despite being harder to mass produce.

Cost considerations also play a role. While plywood might be more expensive than plastic, its durability and the emotional value it adds justify the investment. The natural look and feel of wood enhance the sensory experience, making it more comforting and engaging for children.(Nguyen, 2023)

Other components of the concept, such as prompt cards and the board game, already have established manufacturing methods that can be leveraged.

CONCLUSION

This chapter concludes the report with a dream for the future and a reflection on the product, process and a personal reflection. The report ends with a small conclusion to Zoe's story set a little in the future and the envisioned role of the product in her life then.

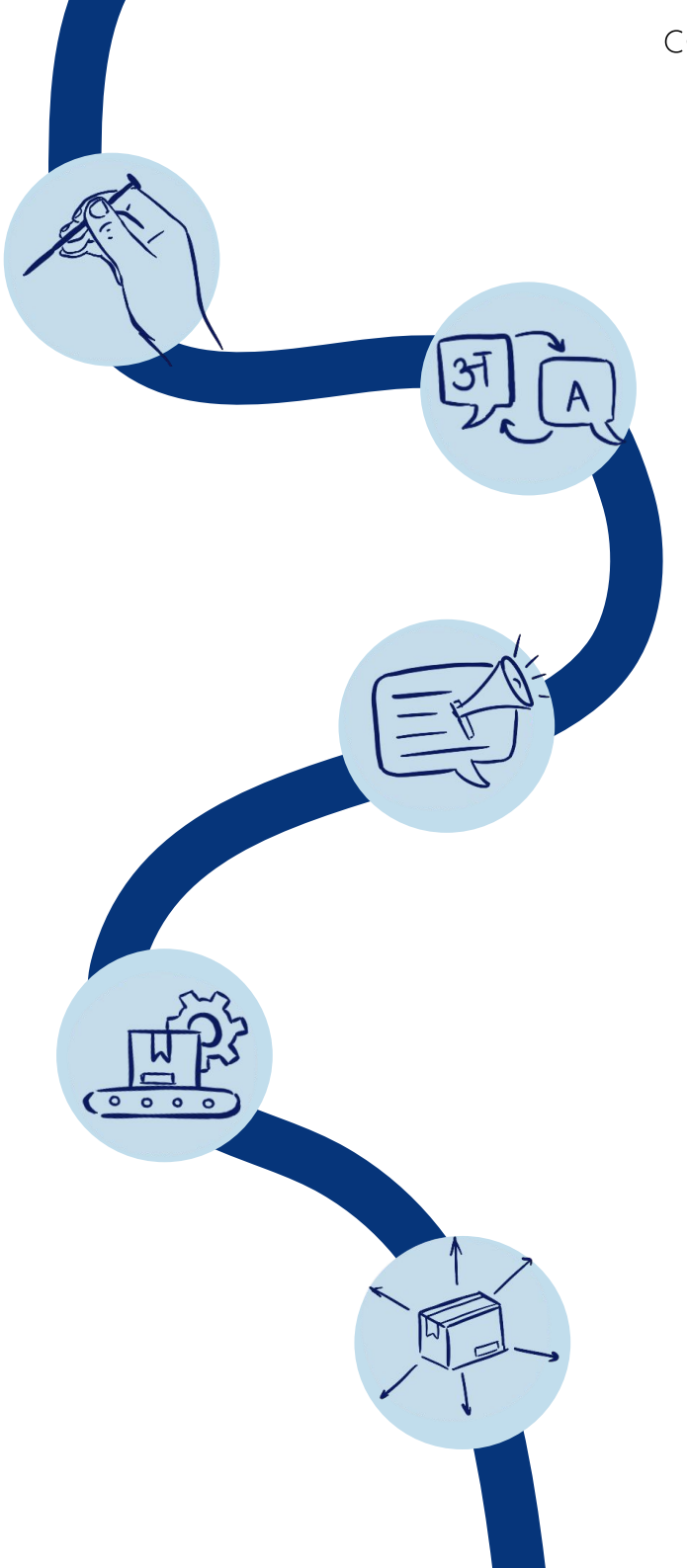
FUTURE DREAM

The KIEZO group has expressed a strong interest in taking this product into production. They have offered their assistance with marketing, translating the materials into Dutch, and distributing the product through their extensive network. This partnership is invaluable, providing the necessary support to bring the product to a broader audience.

The immediate goal is to design the product for manufacture, establishing a reliable production chain. This process includes refining prototypes for production, setting up efficient manufacturing processes, implementing quality control measures, and planning logistics to facilitate distribution through KIEZO's channels.

Looking ahead, the vision for this product is to become a source of comfort and connection for families experiencing loss. The goal is for it to be a cherished tool that helps parents and children navigate their grief together, fostering deeper emotional bonds. The enthusiastic support from KIEZO is a significant validation of the product's potential impact, reinforcing the belief that it can make a meaningful difference in the lives of those it touches.

Ultimately, the dream is for this product to become an integral part of the support systems available to families dealing with loss, offering a tangible way to create and preserve meaningful memories. The collaboration with KIEZO is a major step toward realizing this vision, paving the way for the product to reach and support families during their most challenging times.



REFLECTION

PRODUCT REFLECTION

Taking the final concept and looking back at the design goal and design drivers, I notice that while I have created a product that families can engage with together and create a re-tellable story of their relationship, there is little explicit emphasis on the personal sense making. This was part of a choice made earlier on in the project to ensure that timelines could be met as the domain of personal sense making in 3-5 year old children, although very interesting to explore would require a lot more time and research. While the choice did not entirely mean to remove this goal, the goal was in part altered to satisfy part of this goal by creation stories of their relationship. I believe that this new focus however, has been fulfilled. This notion was also in part validated by KIEZO's interest in taking the product forward and giving it to their clients.

Critically reflecting on different aspects of the final concept, the first aspect is the memory tiles. It was a challenge to create something that gave families enough freedom to create their own stories and yet guide them through that creation. The memory tiles along with the prompt cards, I believe gives families the opportunity to reflect on their memories together and tell a story of their relationship.

Moving on to the boardgame, the boardgame is a little complicated for a 3-5 year old and might be better suited for a slightly older child around 7-9 years old. It was also appreciated by the parent so there is some evidence that the gameplay could be interesting for children 7 and up. While this aspect of the product better suits the goal if it providing constant support by growing with the child, it may not play a big role in the coping in the present or contribute much to meaning making in the present for a 3-5 year old.

Finally the treasure hunt. This aspect of the product was not able to be tested. I envision that it allows more imaginative play and active play for a young child and I envision that it is an aspect of the product that they enjoy more. I also hope that the children treating these memory tiles as treasures in their gameplay leads them to similarly view as valuable outside of the play as well.

BRINGING BACK THE DESIGN GOAL

WHY?

I want to support parents and children to support each other in coping with losing

HOW?

By making personal sense of what has happened through play and storytelling, allowing them to align and begin to build a story together

WHAT?

By designing a product they can engage with together, allowing them to start to create a story before the loss of a parent to serve as a re-tellable, constant story through the coping journey

BRINGING BACK THE DESIGN DRIVERS

FOSTER BONDING

Actively create opportunities for parents and children to bond and spend time together

PROMOTE STORY SHARING

Encourage everyone to actively share their stories and build stories together

PROVIDE CONSTANT SUPPORT

Be present and act as a sense of constant support through the coping journey

INVITES PERSONAL MEANING

Encourage individuals to find their own interpretations and significance and meaning in stories

EASY DOES IT

Make it effortless for parents to engage and participate in between their hectic schedules

Does not satisfy design driver

Satisfies design driver

Looking back at both the literature as well as the design goal, I would have liked have more opportunity for children to engage in fantasy and free play with the product. While creating a story of their relationship is valuable as they age, for a 3-5 year old something more imaginative might have been more ideal.

The design of a product can always be iterated and modified and more tests could help identify both issues and more opportunities for modification. I wish I could have done more tests however, due to time constraints and a language barrier I was only able to do one.
However, with the support of KIEZO, I hope to conduct more tests in the coming months.

Finally, the product is still at a mid-level prototype because of the fact that the manufacturing has not been thought about. There are components that can be laser-cut in larger numbers however, some components are still traditionally machined. These might have to take slightly different shape when manufacturing constraints are introduced.

DESIGN PROCESS REFLECTION

The project began with some uncertainties, particularly regarding the involvement of KIEZO. When they indicated they would not formally participate, I was concerned about both the research phase and the overall progress of the project. Despite their limited involvement, I believe I achieved the desired results.

Initially, the topic was entirely new to me. To familiarize myself, I visited museums and watched related media, which helped me mentally prepare for this emotionally heavy subject.
Early in the research phase, Romy, the network coordinator for kinderzorg, was instrumental in setting up two interviews. I also leveraged personal connections for additional interviews.
Conducting all interviews online presented challenges, especially when using visual cues. I found that presenting the cues and asking interviewees specific questions about them helped facilitate effective communication.

After conducting the interviews, I used a statement card analysis to categorize insights into themes. This involved transcribing interviews, extracting quotes, and coding them into themes. A challenge here was ensuring that previous themes did not influence the processing of subsequent interviews. I had to consciously avoid force-fitting quotes into existing themes, allowing new themes to emerge as needed. Naming the themes was also difficult, but I eventually chose representations with a first-person perspective rather than overly specific terms that required extensive explanation. (Appendix A2)

Creating a journey map became valuable as I delved deeper into the complex and emotional experiences of both parents and children. This tool helped me understand the context better and facilitated communication with interviewees. I will definitely use this again, moving forward. (Appendix A3)

Formulating the project goals towards the end of the research phase was particularly challenging. Initially, my goals were convoluted and hard to understand. Using the golden circle approach clarified my goals and made them more comprehensible for readers. Simplifying the language and making the design drivers more active and verb-oriented further refined my objectives. (Appendix A4)

The ideation and prototyping process was my favourite part. I enjoy making things, and this phase allowed me to tap into my creativity.(Appendix A5) Early ideation was challenging, with many similar ideas that did not particularly address the goals. I was putting a lot of pressure on myself to be able to achieve all the design drivers and unfortunately, it was not working out. However, a collective decision to narrow the focus and goals at the mid-term opened up new possibilities. Setting aside initial ideas, I started exploring new concepts and creating low-fidelity prototypes, which inspired my creativity and improved idea communication. The making of prototypes also greatly boosted my enthusiasm and creativity.

Although I almost removed the co-creation session during the mid term but I am glad I was encouraged to proceed with it. It was something completely new to me and one of the things I was hoping to learn through this graduation project. I prepared for it quite well and rehearsed my plan with a pilot test and refined it a few times. The session went on great and once again thanks to KIEZO and Romy's enthusiasm I had some great insights to work with. Co-creation as an ideation and evaluation technique is something I am excited to use again.

Creating the final concept and prototype was enjoyable. The final test, however, was daunting. I left the prototype with a family, unsure if they would understand it without support or if it would break. This was my first test without being physically present to answer questions or fix issues, so I knew it had to be completely self explanatory and robust.

The final interview and observation were rewarding, seeing the family interact with my creation, playing and laughing.

Around this time, KIEZO expressed interest in taking the product forward, making it feel like everything was coming together. This motivated me to create the final prototype.

Throughout the project,I was very organized. I kept a log of all my progress on a single file and tried to prepare for meetings and keep a note of everything I wanted to discuss. I believe that I managed my plan and time well too, estimating tasks and making room for things to take time or fall through, resulting in a smooth journey.

Figure 44: Entire process documentation on FigJam

PERSONAL REFLECTION

I always wanted my graduation project to be on a topic that was deeply passionate to me and be something I was proud of. I knew I would put my best foot forward to try and get there. I am very happy with what I have today. I know that I did the best I could, and I know I worked very hard throughout.

When I started, I remember that I was not very confident, I remember being afraid of saying the wrong thing in a sensitive environment. I still remember my first conversation with my uncle about this. I was almost afraid of saying something that would make him more upset but I realised soon that all he wanted was an empathetic ear and a space to share his story.

It took some consoling for me in the early stages to tell myself that it is alright for me to not know and give myself the room to learn and grow. While I am still only uncovering this subject, now I feel much more confident in my ability to step into a sensitive environment that I know little about and slowly learn and grow.

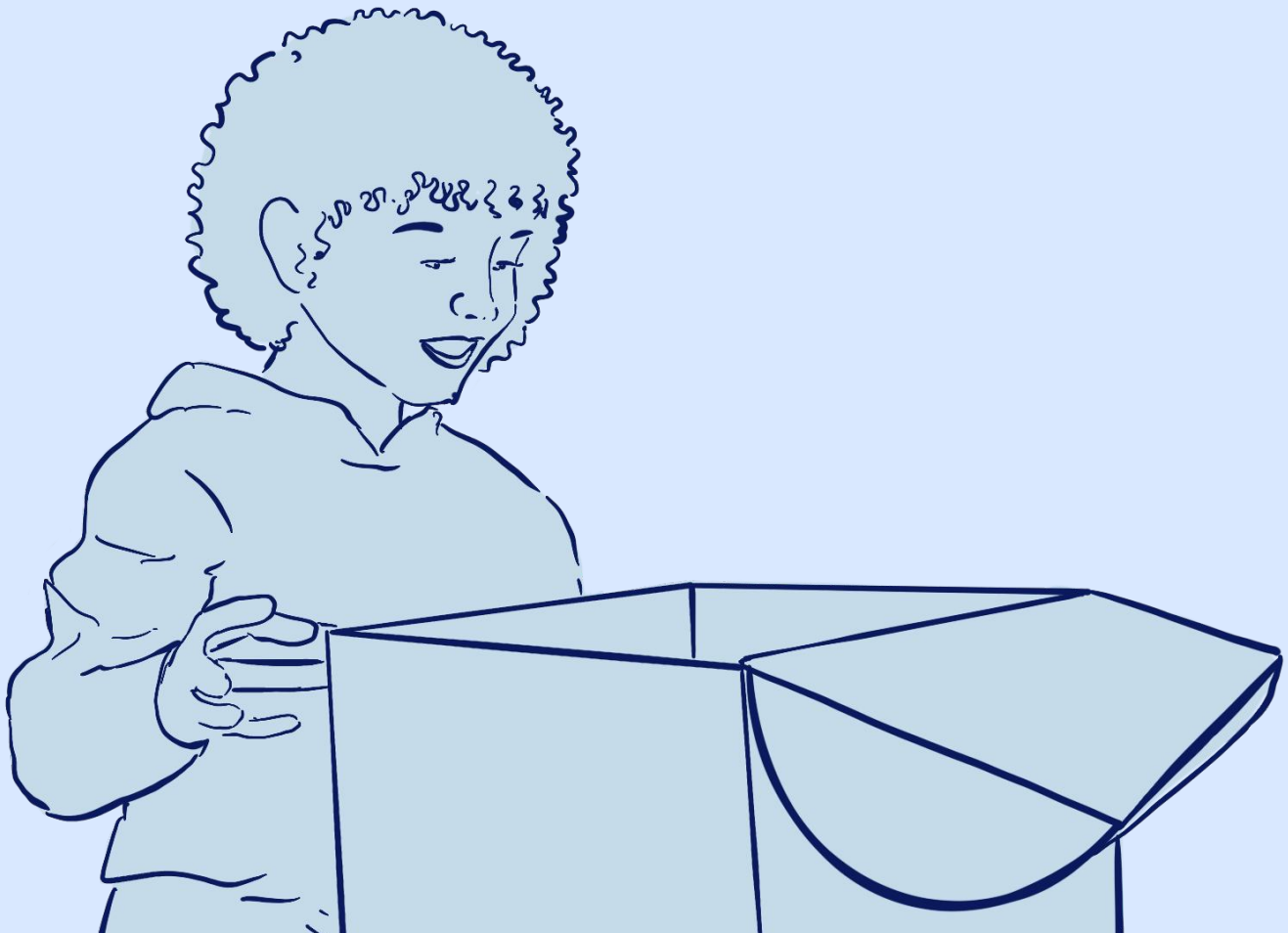
Through the course of this project, I had to find my own meaning of death and coping. I had to let myself feel everything I was feeling and let the weight of the topic sink in. It has taken me through an emotional roller-coaster and allowed me to connect better with some people in my family. I have had to have some very difficult conversations, some very moving conversations and some conversations that nearly made me cry. These conversations not just helped my project but also helped me personally reflect on my relationships and the meaning of everything I am working towards.

One thing I still need to get better at is being decisive and being confident in my choices. I sometimes see myself not knowing what to do and immediately seeking support. I am working hard to be more decisive and take a stance on something I am confused about and get feedback on that stance. It will help me learn more and know how to navigate situations on my own more easily.

Through the course of this project I was able to explore not only new topics, themes and areas of research but also new methods and techniques. These have pushed my boundaries on what I can do as a designer and helped improve my confidence as a designer. I was able to explore co-creation for instance which has shown me what it takes to inspire creativity in another individual, to get them to open up and explore a little and have some fun.

When I came into this program as an electronics engineer, I could have never imagined finding myself here just two years later. I let myself explore some new things I found an interest in concept design and eventually also learnt about design for play and it got me to a place where I have learnt a lot more about myself and my aspirations. Today, I stand here with a deep interest in discovering more in the domain of play and design for children. I am excited to see where this journey takes me next and I am so thankful for this experience.

Zoe's mom had left behind a treasure chest of their memories. After her mom died, Zoe would go back to the treasure chest her mom and her used to play with. It was in her room, she would open it up and look inside.
She would pick up a tile, look at it and hold it in her hands.
Inside she saw a picture of her mom and her at the beach.
She held the tile close to her and thought about her mom.



Every year on the anniversary of her death, Zoe and her dad now had a tradition. They would open up the treasure chest and set up the board game. They would take a walk through memory lane, remembering everything they did and laughing together. It was their way of celebrating Zoe's mum and their memories together.

Many years into the future, Zoe was leaving for college. Right before she was about to leave, Zoe's dad ran inside and got something for Zoe. It was a tile that Zoe's mom had left for Zoe for the day she was leaving to college.
Zoe knew in her heart that her mom never left her side. She knew that she always wished her well and would always cheer her on in her own way. Zoe, smiled and said to herself, "I love you too, mom".

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APPENDIX

A1: PROJECT BRIEF

7043

TU Delft

DESIGN FOR our future

IDE Master Graduation Project

Project team, procedural checks and Personal Project Brief

In this document the agreements made between student and supervisory team about the student's IDE Master Graduation Project are set out. This document may also include involvement of an external client, however does not cover any legal matters student and client (might) agree upon. Next to that, this document facilitates the required procedural checks:

- Student defines the team, what the student is going to do/deliver and how that will come about
- Chair of the supervisory team signs, to formally approve the project's setup / Project brief
- SSC E&SA (Shared Service Centre, Education & Student Affairs) report on the student's registration and study progress
- IDE's Board of Examiners confirms the proposed supervisory team on their eligibility, and whether the student is allowed to start the Graduation Project

STUDENT DATA & MASTER PROGRAMME

Complete all fields and indicate which master(s) you are in

Family name	Krishnan
Initials	S
Given name	Swetha
Student number	5724910

IDE master(s) IPD ✔ Dfl ☐ SPD ☐

2nd non-IDE master

Individual programme (date of approval)

Medisign ☐

HPM ☐

SUPERVISORY TEAM

Fill in he required information of supervisory team members. If applicable, company mentor is added as 2nd mentor

Chair	Dr. Marieke Sonneveld	dept./section	HCD/ AED
mentor	Mathieu Gielen	dept./section	HCD/DCC
2nd mentor			
client:	KIEZO Group (interested party)		
city:	Leiden	country:	Netherlands
optional comments	KIEZO group is an interested party in the project		

! Ensure a heterogeneous team. In case you wish to include team members from the same section, explain why.

! Chair should request the IDE Board of Examiners for approval when a non-IDE mentor is proposed. Include CV and motivation letter.

! 2nd mentor only applies when a client is involved.

APPROVAL OF CHAIR on PROJECT PROPOSAL / PROJECT BRIEF -> to be filled in by the Chair of the supervisory team

Sign for approval (Chair)

Name M.H. Sonneveld Date 29/2/2024 Signature

CHECK ON STUDY PROGRESS

To be filled in **by SSC E&SA** (Shared Service Centre, Education & Student Affairs), after approval of the project brief by the chair. The study progress will be checked for a 2nd time just before the green light meeting.

Master electives no. of EC accumulated in total ____ EC

Of which, taking conditional requirements into account, can be part of the exam programme ____ EC

	YES	all 1st year master courses passed
X	NO	missing 1st year courses

Comments:

ID4170 Advanced Concept Design (21,0)

Sign for approval (SSC E&SA)

Name Robin den Braber Date 08-03-2024 Signature RdB

APPROVAL OF BOARD OF EXAMINERS IDE on SUPERVISORY TEAM -> to be checked and filled in by IDE's Board of Examiners

Does the composition of the Supervisory Team comply with regulations?

YES	V	Supervisory Team approved
NO		Supervisory Team not approved

Comments:

Based on study progress, students is ...

V	**ALLOWED** to start the graduation project
	NOT allowed to start the graduation project

Comments:

S. Krishnan is a MVE student, therefore the above mentioned missing course should be finished before the green light meeting

Sign for approval (BoEx)

Name Monique von Morgen Date 12/3/2024 Signature

DESIGN FOR our future

TUDelft

Personal Project Brief – IDE Master Graduation Project

Name student Swetha Krishnan **Student number** 5724910

PROJECT TITLE, INTRODUCTION, PROBLEM DEFINITION and ASSIGNMENT

Complete all fields, keep information clear, specific and concise

Project title Design of a Tool to support Children in Coping with Personal Loss

Please state the title of your graduation project (above). Keep the title compact and simple. Do not use abbreviations. The remainder of this document allows you to define and clarify your graduation project.

Introduction

Describe the context of your project here; What is the domain in which your project takes place? Who are the main stakeholders and what interests are at stake? Describe the opportunities (and limitations) in this domain to better serve the stakeholder interests. (max 250 words)

The project at hand addresses a critical need within the sensitive domain of palliative care, focusing specifically on supporting children coping with loss. The emotional turmoil experienced by these children, dealing with a seriously ill parent, sibling or close-by-relative in palliative care, can lead to feelings of depression, anger, and anxiety [1]. It's crucial to recognize that during this challenging period, these children not only face emotional struggles but also lose a vital source of compassion. Drawing from the ideals of compassionate communities, it is paramount to provide these children with the compassion they need during this period, supporting their emotional well-being at a difficult time.

Other important stakeholders in the project include the patient, families, and healthcare professionals at palliative care centres, including psychologists, nurses, and the KIEZO group. The patient seeks support navigating their illness with their families while families require resources to support their children cope effectively while balancing the demands of caregiving and maintaining family stability. Palliative care professionals aim to provide comprehensive care addressing the emotional needs of the entire family unit alongside medical treatment. The KIEZO group wants to strengthen the care for these children and increase awareness of the importance of this[2]. Despite these efforts, it is crucial to acknowledge the limitations such as resource constraints, varying access to support services, and the complexity of emotions involved. However, within this context, significant opportunities emerge to enhance support for these children.There is a critical gap in providing targeted support for children navigating the challenges of parental illness and potential loss. These children face a unique set of emotional struggles that require specialized attention and resources.Children, in their unique way of processing experiences and emotions, often turn to play, including fantasy play involving storytelling, as a means to cope with the challenges they face. Recognizing this aspect is crucial in understanding their emotional needs and providing effective support.

[1]Ehmke, R., & Saltz, G., MD. (2023, October 30). Helping children deal with grief. Child Mind Institute. https://childmind.org/article/helping-children-deal-grief/

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DESIGN FOR our future

TUDelft

Personal Project Brief – IDE Master Graduation Project

Problem Definition

What problem do you want to solve in the context described in the introduction, and within the available time frame of 100 working days? (= Master Graduation Project of 30 EC). What opportunities do you see to create added value for the described stakeholders? Substantiate your choice.
(max 200 words)

When a parent faces a serious illness and receives care at palliative care centres, the predominant focus often centres on addressing the needs of the ill parent[2], highlighting a systemic issue within the healthcare system that is primarily patient-focused. This approach creates a blind spot for the essential care and support required by families and caregivers, casting a shadow over the children of seriously ill parents and sometimes perceiving them as burdens rather than integral members of the care unit. This blind spot results in a lack of awareness, knowledge, and developed skills surrounding the needs of these children, leading to a deficiency in support services.

It's imperative to recognize that when a patient is involved, their families are equally involved and should be treated as a cohesive system to ensure comprehensive care. Excluding any part of this system risks neglecting essential needs. Furthermore, children have unique needs and perceive situations differently, making it challenging to devise a rigid, one-size-fits-all solution. This complexity underscores the necessity for a flexible and tailored support system to effectively address the diverse emotional and psychological needs of children in such circumstances.

[2]Werkgroep KIEZO Kinderen van ernstig zieke ouders. (n.d.). https://demoppies.com/werkgroep-kiezo-kinderen-van-ernstig-zieke-ouders/

Assignment

This is the most important part of the project brief because it will give a clear direction of what you are heading for. Formulate an assignment to yourself regarding what you expect to deliver as result at the end of your project. (1 sentence) As you graduate as an industrial design engineer, your assignment will start with a verb (Design/Investigate/Validate/Create), and you may use the green text format:

Design a tool/product to support coping with loss and processing complex emotions for children facing parental illness in palliative care settings.

Then explain your project approach to carrying out your graduation project and what research and design methods you plan to use to generate your design solution (max 150 words)

By the end of this project, I expect to deliver a compassionate and effective concept tailored to the emotional needs of children coping with parental illness in palliative care. The concept will help children personally process parental illness and cope with potential loss. The concept is likely to be a physical object/ activity or product as my interest and expertise lies within designing and crafting physical products/ activities. This tool will be informed by thorough research through literature reviews and interviews and designed through iterative processes of prototyping and testing.My project approach will involve a systematic process encompassing research and design phases to answer my design and research questions.

Design Questions:
- How can I help a child cope with personal loss in an individual way?
- How can I leverage play and storytelling to help a child cope with loss?
- What are the feasibility challenges and resource constraints associated with the context?
- How can I assess if the tool will positively impact the child cope with loss?

Research questions: - How do children understand death and loss?
- How do children cope with loss?

Project planning and key moments

*To make visible how you plan to spend your time, you must make a planning for the full project. You are advised to use a Gantt chart format to show the different phases of your project, deliverables you have in mind, meetings and in-between deadlines. Keep in mind that all activities should fit within the given run time of 100 working days. Your planning should include a **kick-off meeting, mid-term evaluation meeting, green light meeting** and **graduation ceremony**. Please indicate periods of part-time activities and/or periods of not spending time on your graduation project, if any (for instance because of holidays or parallel course activities).*

Make sure to attach the full plan to this project brief.
The four key moment dates must be filled in below

Kick off meeting	22 Feb 2024
Mid-term evaluation	23 Apr 2024
Green light meeting	19 Jun 2024
Graduation ceremony	18 Jul 2024

In exceptional cases (part of) the Graduation Project may need to be scheduled part-time. Indicate here if such applies to your project

Part of project scheduled part-time	
For how many project weeks	
Number of project days per week	

Comments:

Motivation and personal ambitions

Explain why you wish to start this project, what competencies you want to prove or develop (e.g. competencies acquired in your MSc programme, electives, extra-curricular activities or other).

Optionally, describe whether you have some personal learning ambitions which you explicitly want to address in this project, on top of the learning objectives of the Graduation Project itself. You might think of e.g. acquiring in depth knowledge on a specific subject, broadening your competencies or experimenting with a specific tool or methodology. Personal learning ambitions are limited to a maximum number of five.
(200 words max)

The motivation to undertake a project is deeply personal and rooted in understanding the impact of childhood grief on individuals and families. I witnessed the effects of loss within my own family, as my father experienced the early loss of his mother. Although he does not bring up his experiences very often, every time he does, I can see that it was the most painful time in his life. Starting from there and exploring my interest in designing for children and leveraging principles of play for greater emotional impact, I crafted this project to explore themes deeply meaningful to me.
Competencies I would like to prove:
- Ability to process emotional responses
- Application of Theory on Design for Children's Play and Child Development
- Rapid Prototyping to Test Concepts
- Processing User Research to generate concrete insights
- Display competency in IPD concept design skills

Personal learning goals:
- Working with sensitive topics and interviewing and designing for grief and loss.
- Broadening competencies in working with children and design for children
- Co-creation as an ideation technique
- Learning to present about topics with deep empathetic impact

A2: INTERVIEWS TO THEMES

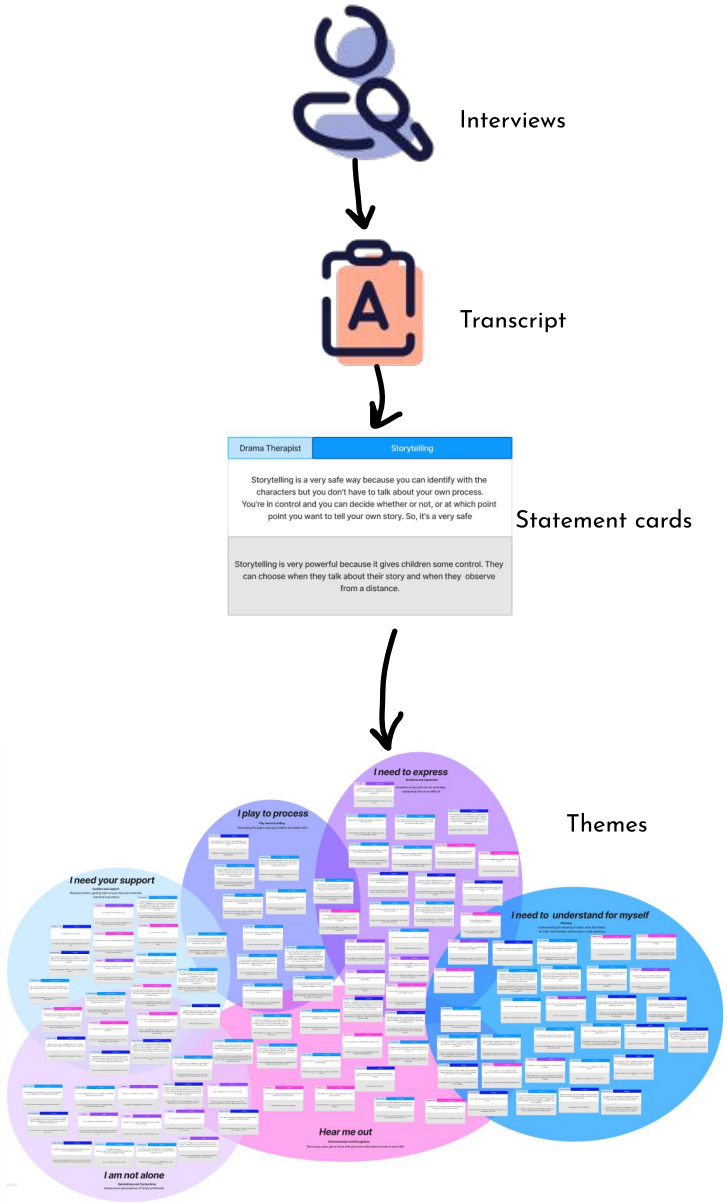
Four participants were interviewed through the course of this project.

PRIVACY AND COMFORT

Each interview was handled with a lot of care. There was a high emphasis on confidentiality and comfort of all the participants because of the sensitivity of the topic. All personal information was redacted and complete freedom of choice was given to all the participants on what was published and what was held back.
All the quotes in this thesis have been pre-reviewed by the interviewee to ensure that they are comfortable with it being published. A consent form was given in the beginning but another round of reviews and permissions were taken before anything was put outside.

PROCEDURE

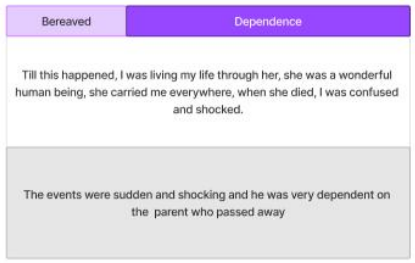
Before each interview, the participant was told about the project, how I plan to use the interviews and asked about their privacy preferences. After this, a consent form was given to every participant. Every interview was audio recorded in order to transcribe it. All the audio recordings were deleted within 3 days of the interview after they were transcribed. Each interview was transcribed. From each transcript, specific quotes were selected and statement cards were generated. These statement cards were then used to classify into themes. The themes generated were then used to form the 'Themes related to grief'.
At a later stage when quotes were added to the journey map and when the report was being written, redacted versions of the journey map were sent to each participant (redacted to only allow them to see their quotes). The participants made any changes that they saw fit and got back to me. Only after this was this published.

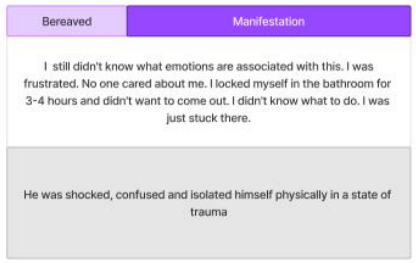


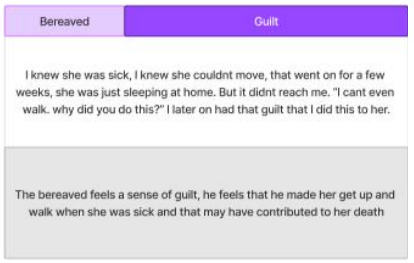
STATEMENT CARDS

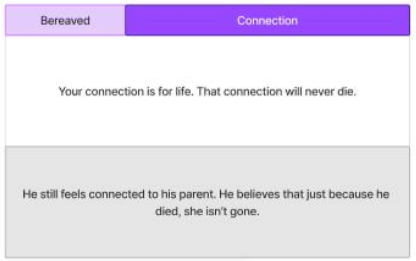
Some participants wanted their quotes to stay private and special permission was taken for the quotes in the report and journey map. Two of the participants consented to their quotes being shared anonymously. The coded quotes from these two interviews are presented below.
These are some examples of statement cards that were created for the creation of codes.

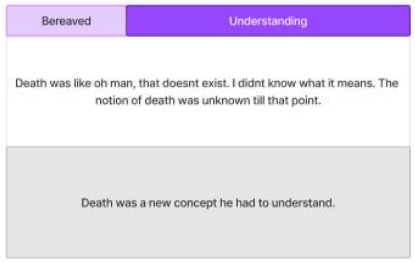
Interview : Lost parent at the age of 5

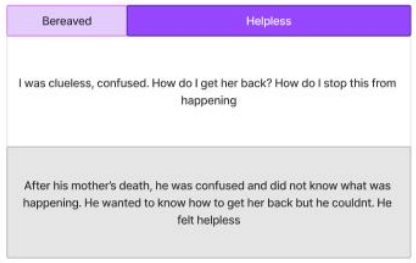


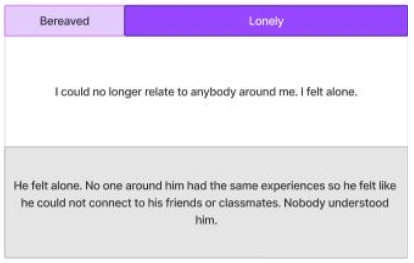


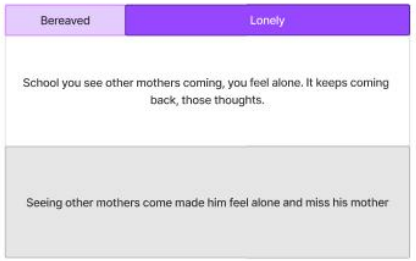


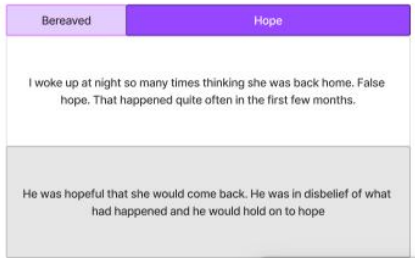


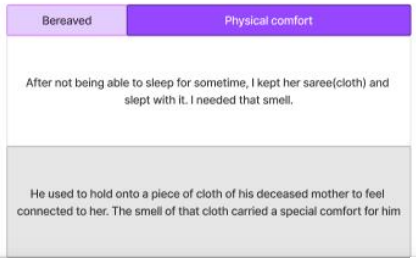


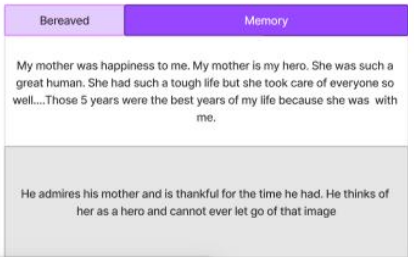


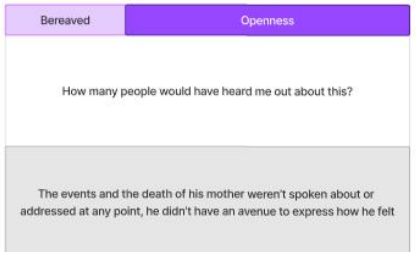


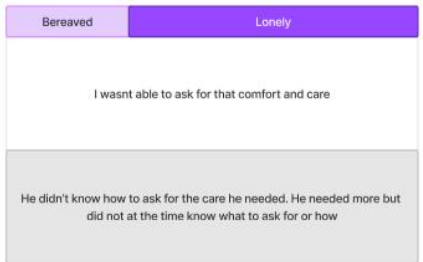


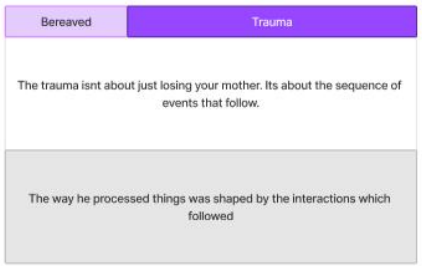


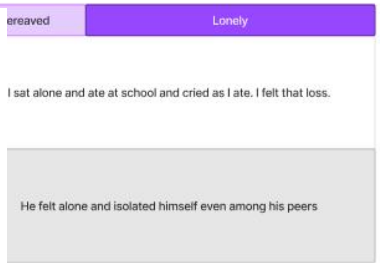


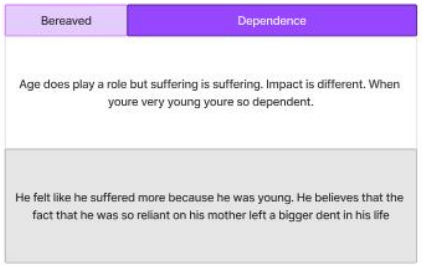












Interview: Lost partner when they had young children

Bereaved parent | Trauma

It was a big shock for me, I never thought I would recover from this

The parent is very shocked and needs support as well

Bereaved parent | Responsibility

It was tough but I did know that there were small children. My youngest child was 5 years old. I knew that I had to take up responsibility. But it was not easy.

Parent knows that the young child is very vulnerable and concludes that they have to take responsibility and be strong

Bereaved parent | Responsibility

I knew if I show my losses to my children it would affect them. I knew I had to put aside my losses and be supportive for the children.

Parent felt like if they show their emotions it might be too much for the kids to take so they put aside their feelings to support their children

Bereaved parent | Understanding

We used to say that if someone passes away they reach god. It gives comfort

The meaning and understanding of death is very different for everyone. Spirituality and religion can play an important role in that understanding

Bereaved parent | Openness

I myself was going through a tough time and it was not easy for me to put that aside and talk about it.

The parent was emotionally not in a place to be open about what had happened. It was too much for them too

Bereaved parent | Dependance

My youngest child was in a state of shock. Before my wife passed away he was extremely close to her. For him she was everything. I was focused on my work and I didnt realise that. I suddenly not only had to work but also be supportive parent

Children can sometimes be quite dependant on one parent and after their loss, it becomes increasingly difficult for the other parent to play the role of both parents

Bereaved parent | Responsibility

I dont know if my children realised that it is not going to be an essy journey. I tried to be supportive in whatever way.

Parent feels like the children may not have fully understood the gravity of what had happened but he also knew that he would be supportive of them through this

Bereaved parent | Manifestation

I am not someone who openly shows my emtions. It was not in my nature to do that.

Not all parents/people want to openly express their emotions

Bereaved parent | Our Mindset

The sooner the better theres no point pushing this away
Maybe the initial months is when I would have liked to talk about it

Addressing the loss of a parent is best done sooner rather than later

Bereaved parent | Guilt

Maybe I didnt take her to the right doctor on time. There was guilt

The parent felt guilty as well for their partner's death

Bereaved parent | Comfort

For me support came from family

Support and comfort can come from the side of the family back to the parent

Bereaved parent | Openness

We never talked about it. It was more like if we dont talk about it it was not an issue anymore

They avoided the whole conversation related to death even after it had happened

Bereaved parent | Language

No one brought it up and I didnt talk about it. I didnt know how to.

The children did not bring it up and the parent did not know how to address what had happened either

Bereaved parent | Our Mindset

Try and provide a way to carry a positive state of mind about it.
Share positive stories, nice things to hear
Do little things that make them go into a positive world. Creare little moments of joy

Creating moments of joy for children can be important. It is important to continue to give them a positive state of mind and speak to them about positive things

Bereaved parent | Openness

I didnt know it was even possible for people to think about this. I havent shared this with anyone. No one asked me.

People are rarely given a place to tell their story

Bereaved parent | Language

If I had known how to communicate that without hurting or affecting the childrens mental state then I may have done that

The parent was not sure how to communicate this with their children

Bereaved parent | Helpless

I cant take this .Why is god puninshing me
For a month I didnt go out or do anything.

The parent was not able to comprehend what had happened. They blamed god, they couldnt go anywhere or do anything

Bereaved parent | Responsibility

My friend told me I had to start working again for the sake of my children

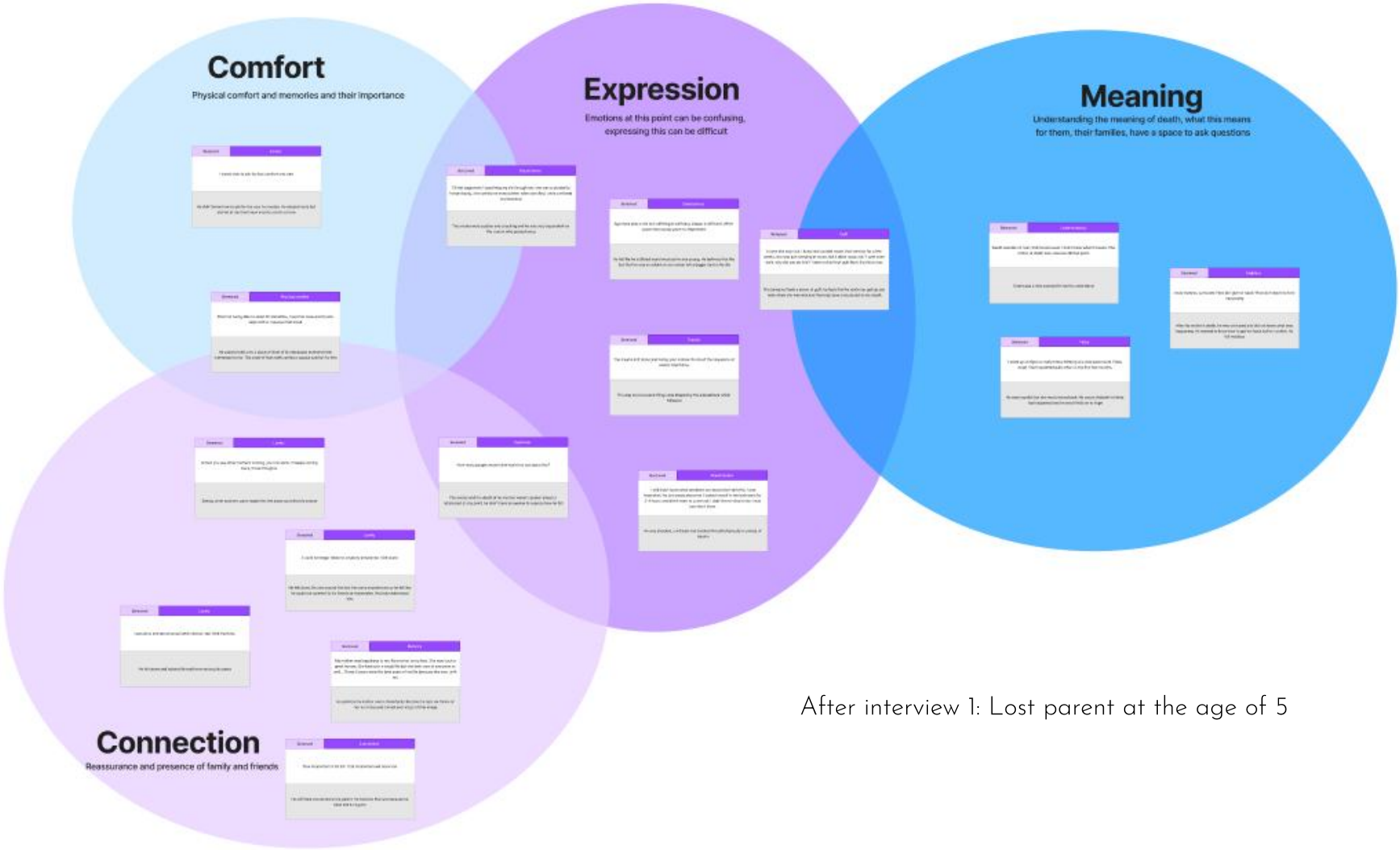
The parent was unable to get back to their life but realised that they have to for the sake of their children

Bereaved parent | Mindset

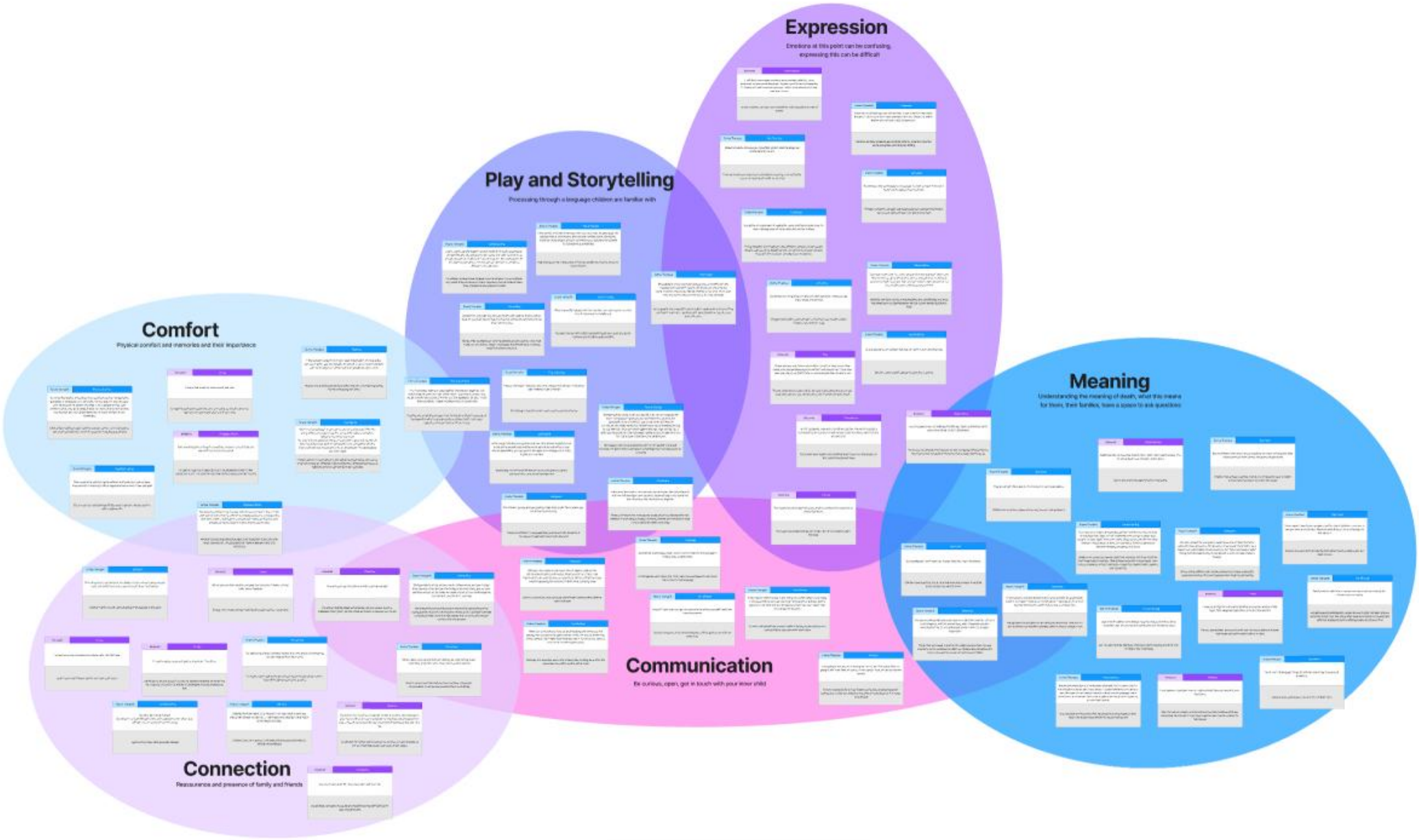
I think you need to be nice to your children. They are already going through a lot.

It is important to be patient with the child and not get easily angry. They child is already emotionally vulnerable

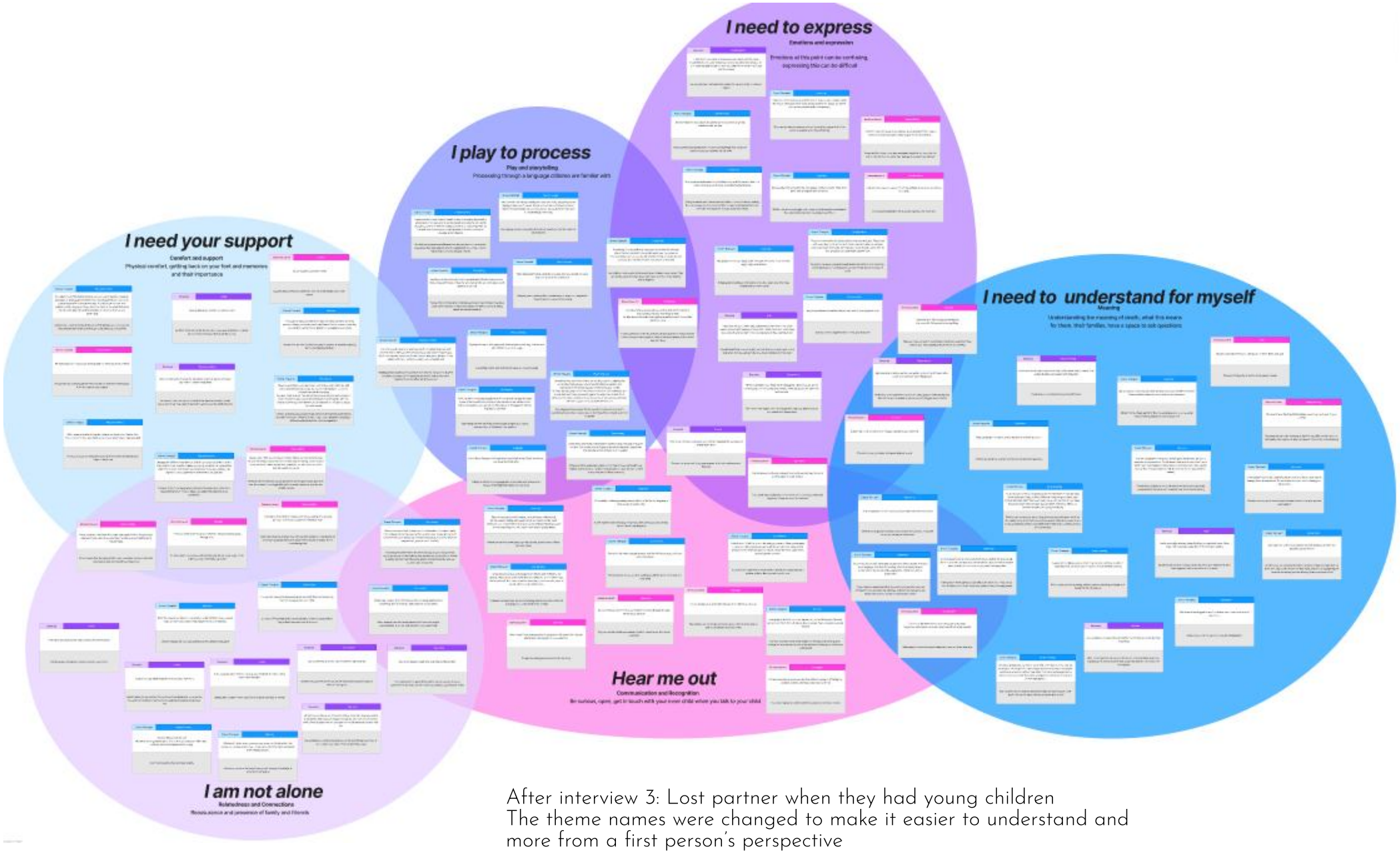
Every interview brought changes to the themes and the themes varied throughout the process and quotes were moved around to create new themes and the themes were renamed and changed till the final interview. This is the journey of the themes.
These images are not meant to show each of the quotes but rather the progression of the themes itself.



After interview 1: Lost parent at the age of 5



After interview 2:Drama therapist

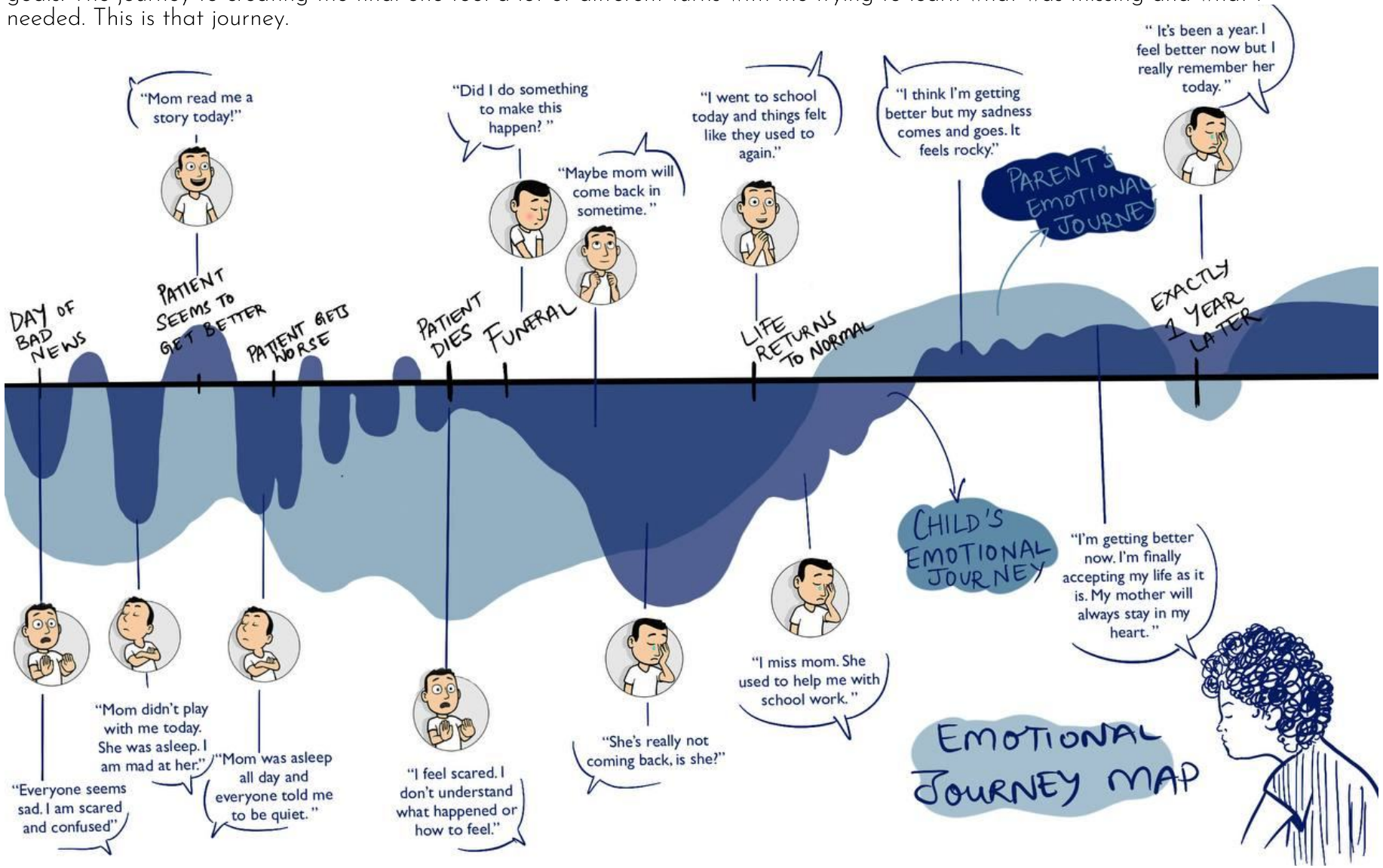


After interview 3: Lost partner when they had young children
The theme names were changed to make it easier to understand and more from a first person's perspective

After interview 4: Network coordinator kinderzorg

A3: JOURNEY OF THE EMOTIONAL JOURNEY MAP

The emotional journey map served as a useful tool for me to graphically represent my learnings as well as identify gaps in my learning. Developing it would help to be a comprehensive communication tool as well as with personally identifying my goals. The journey to creating the final one tool a lot of different turns with me trying to learn what was missing and what I needed. This is that journey.



GOES TO THE DOCTOR
DOCTOR TELLS THEM
BEGIN TO PLAN NEXT STEPS
hopeful, looking forward to memories
confused
confused
anxious
"I will die because of this disease"

Healthy Parent
child
Ill parent

THE DAY OF BAD NEWS

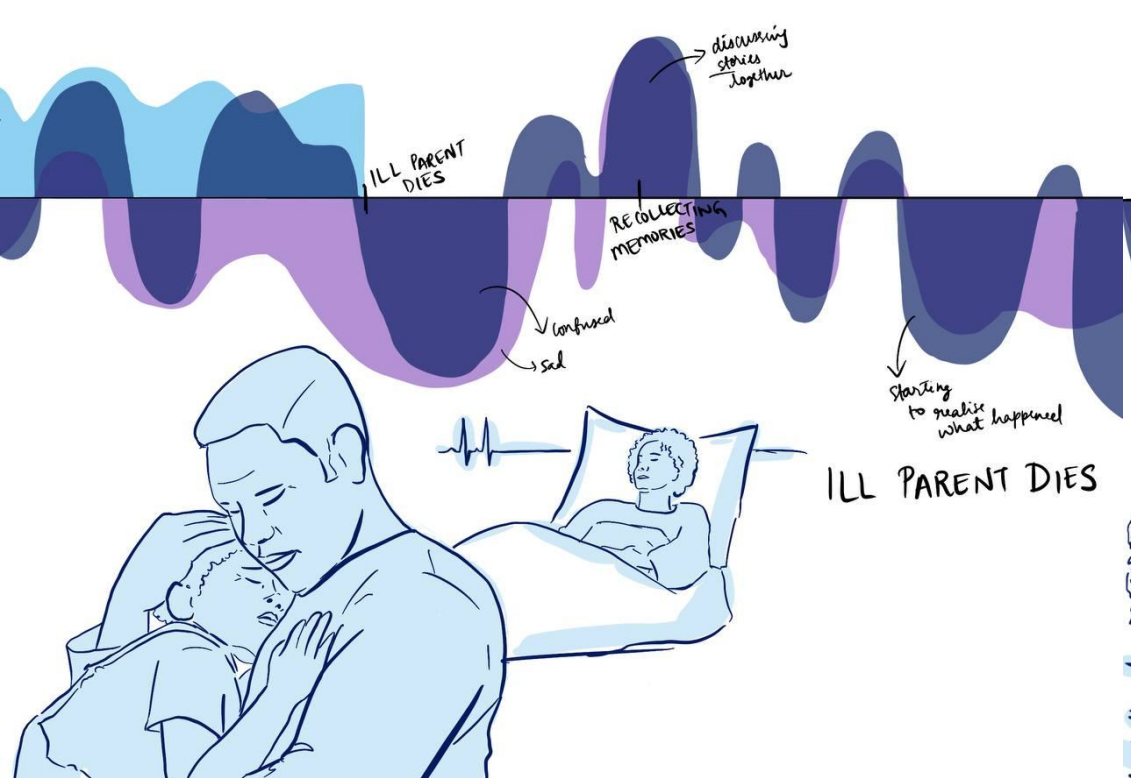
FAMILY AT VACATION
creating memories
ILL PARENT'S SYMPTOMS MANIFEST
worried
having together, happy together
MAKING MEMORIES
hopeful
ILL PARENT SEEMS TO FEEL BETTER
ILL PARENT IS SICK
partner very worried

THE UPs & DOWNs

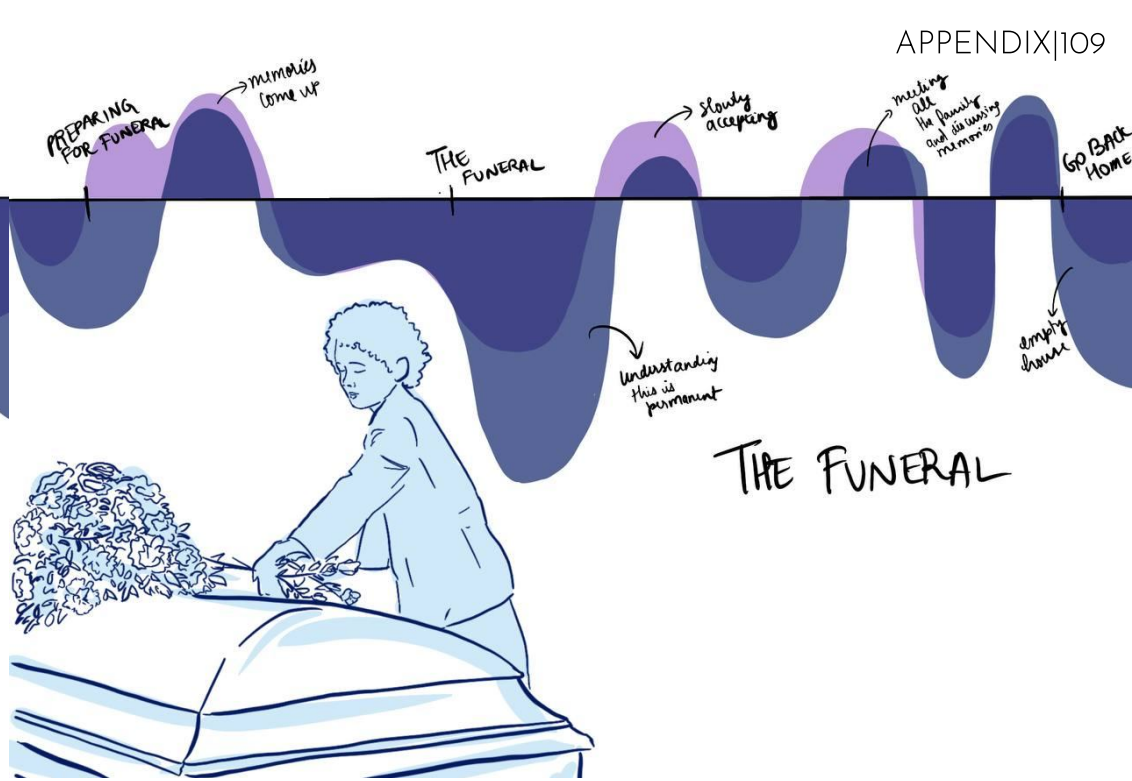
ILL PARENT GETS VERY SICK
ill parent spending time with child
ILL PARENT HAS TO GO TO A PALLIATIVE CARE CENTRE
ILL PARENT GOES TO HOSPICE
child comes home from school and parent isn't there
FAMILY VISITS
They can go visit
Family is together
Family visits
healthy parent is worried
"No one is playing with me"
They Know they won't go home again
They can't play loudly
sees partner sick

THE FINAL DECLINE

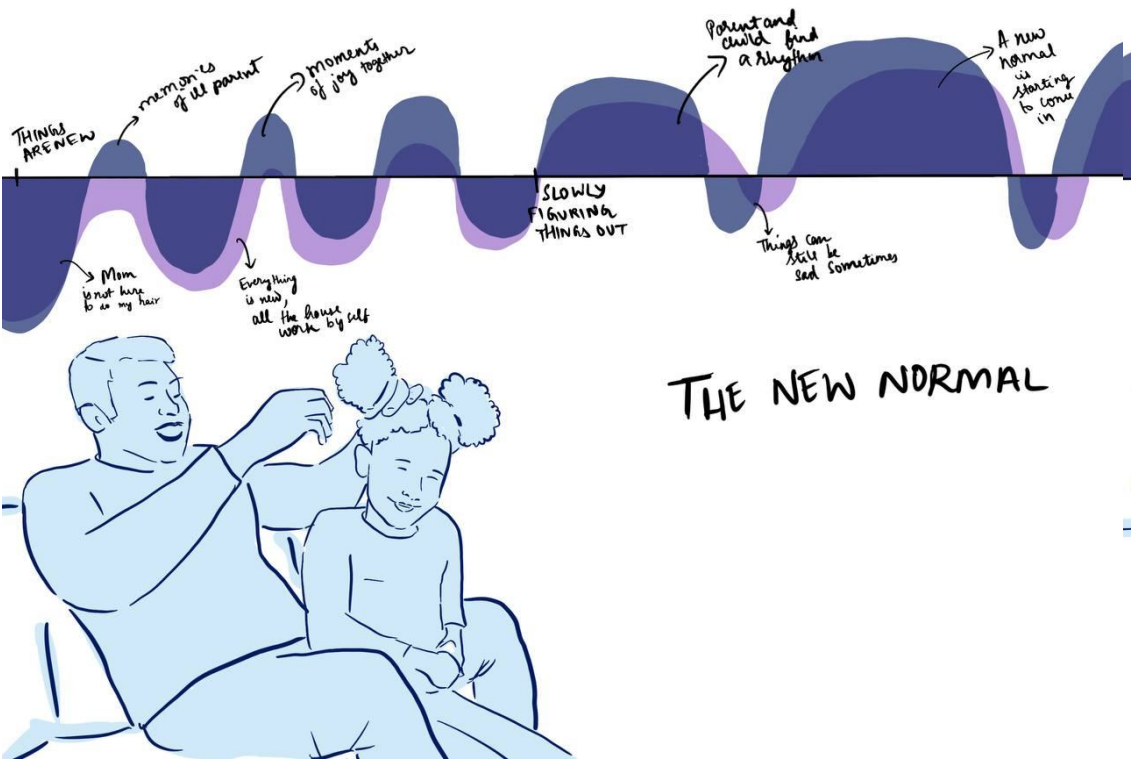
ILL PARENT LEAVES HOME



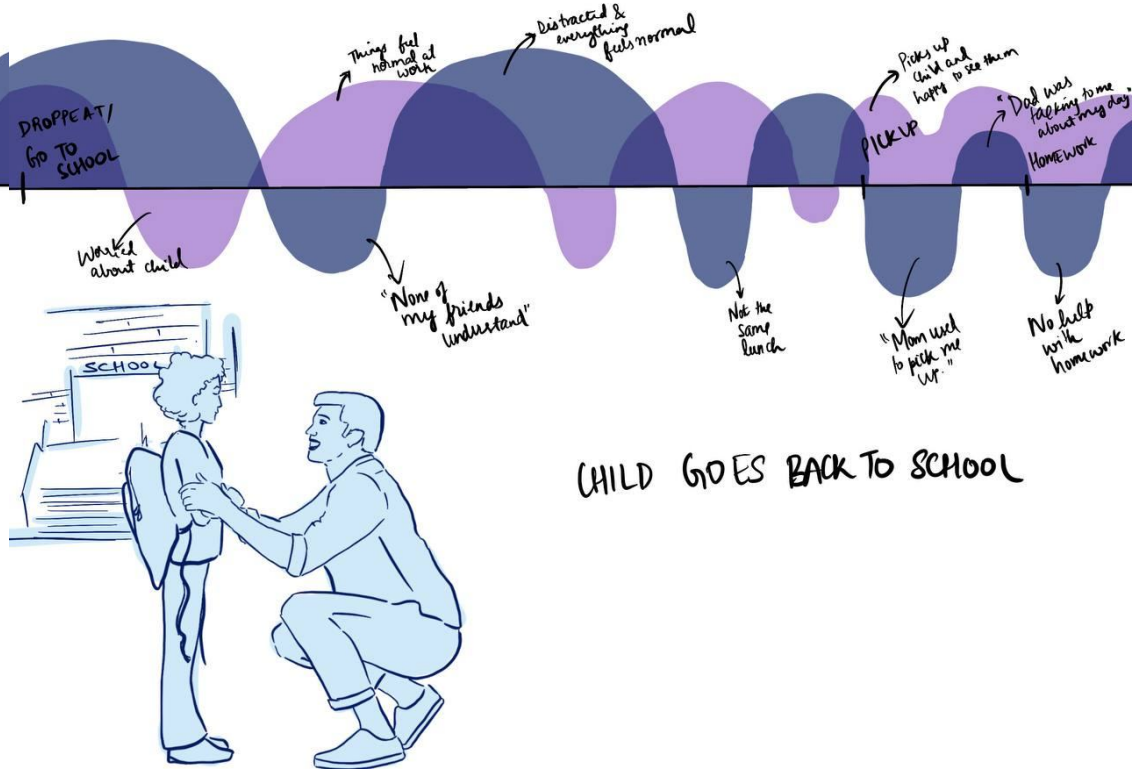
ILL PARENT DIES



THE FUNERAL



THE NEW NORMAL



CHILD GOES BACK TO SCHOOL

MOM IS GETTING VERY ILL

PHASE

Ups and Downs | Ill parent's health dips | Ill parent goes to the hospice

MOMENTS

Moments of hope

Worried when parent is too sick to be present

Moments of joy caused by child's actions

Family is worried

Family spending more time together

"Who is going to pick me up from school or help me with homework?"

Ill parent has to leave home

DESCRIPTION

There are ups and downs in the ill parent's health. Family still holds out hope and is happy when the parent appears to be doing better

The ill parent's health begins to decline and they are very ill. They are taking rest a lot and the child is asked to be quiet a lot more. However, the child always brings in moments of joy for the family with their concern and charm.

Parent has to go to hospice care and the child is upset that their parent isn't going to be home when they get back from school.

MOM DIED...

PHASE

Ill parent is not getting better | Ill parent dies | Family discusses memories | Slowly understanding what has happened

MOMENTS

Family spending time togther

Healthy parent is upset and worried

Child is confused

Family is happily talking about their most happy moments

Child is helping plan the funeral

DESCRIPTION

Ill parent is not getting better and the end is near. The family spends time together and the ill parent is happy that everyone is together.

The ill parent dies. Everyone is immediately very sad. The child is confused as they don't fully understand what has happened but everyone around seems very upset.

The family fondly remembers the ill parent and talks about memories they have together.

The child slowly begins to understand that their parent has died. The healthy parent and child talk about everything and begin to plan the funeral together

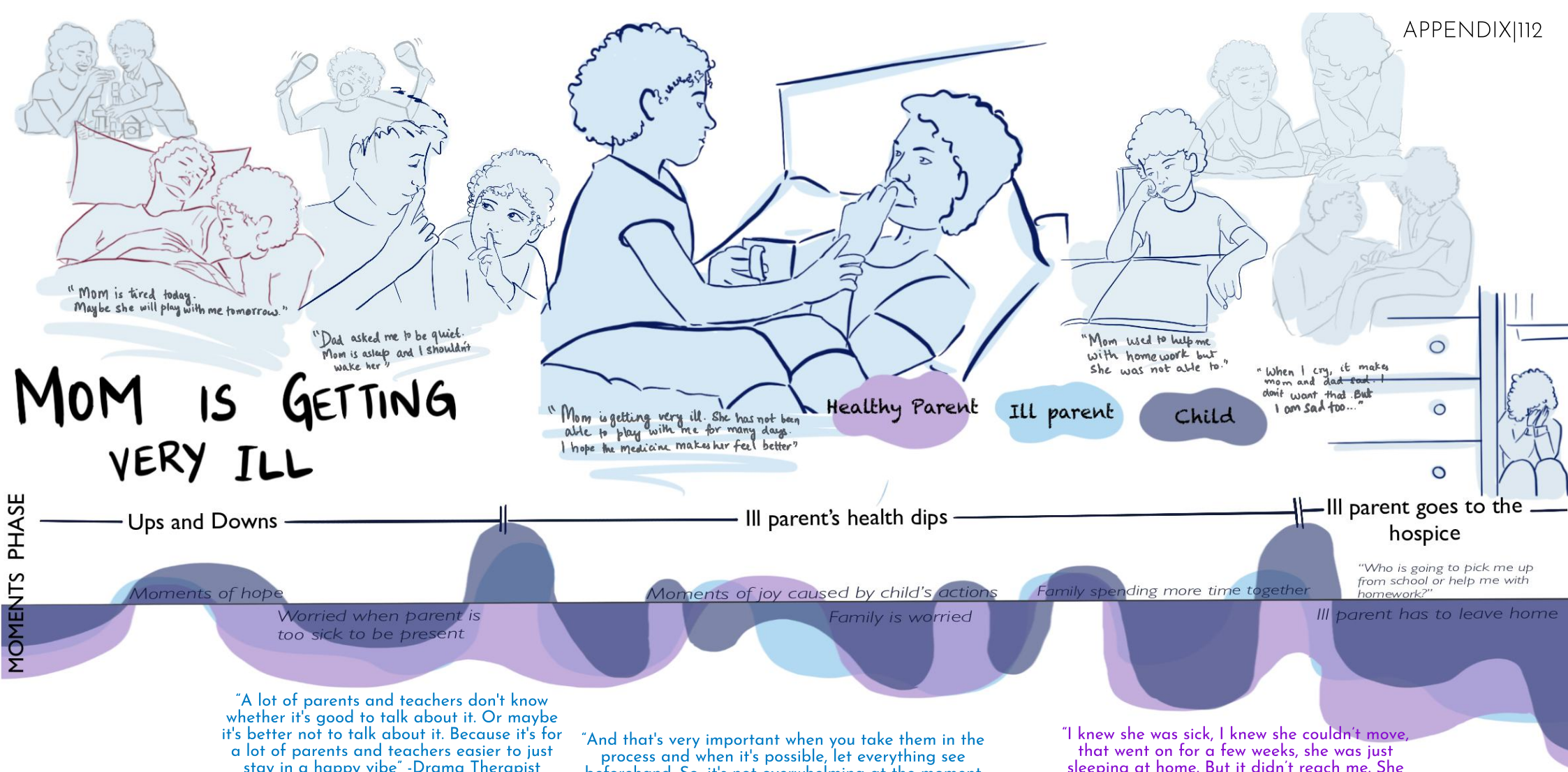
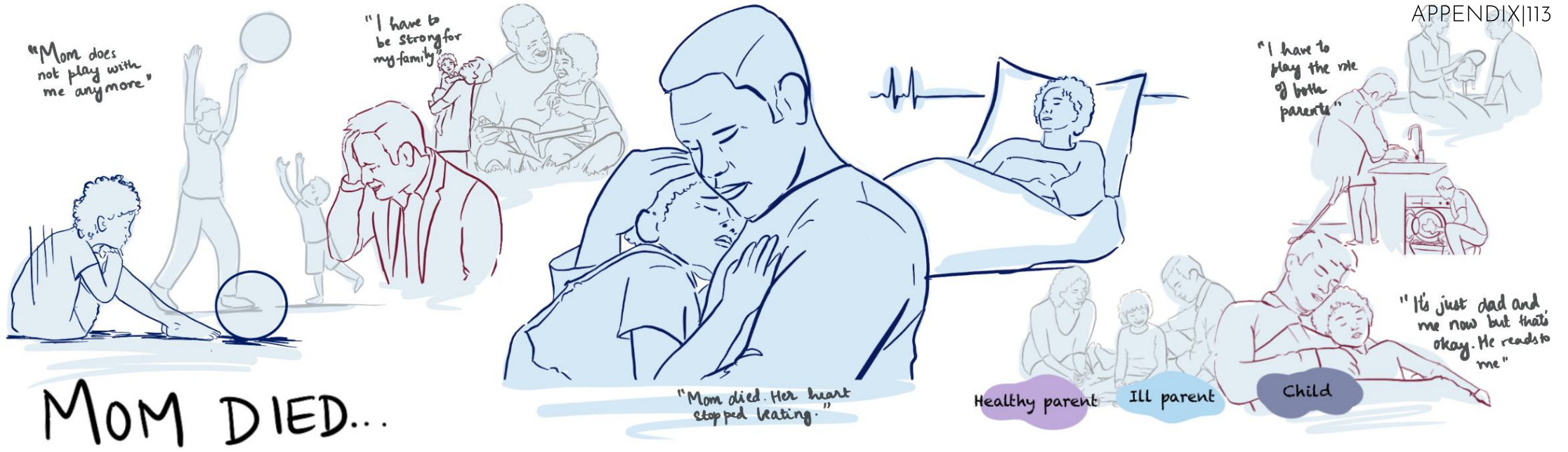


Figure 4(a): Representation of themes from interviews in the timeline



MOM DIED...

PHASE

Ill parent is not getting better | Ill parent dies | Family discusses memories | Slowly understanding what has happened

MOMENTS

Family spending time togther
Healthy parent is upset and worried
Child is confused
Family is happily talking about their most happy moments
Child is helping plan the funeral

"Well, children have a lot of imagination and possibilities. So, when you don't tell them the truth, they will make it on their own and it's very important that you stay close to the facts and it will help." - Netwerkcoördinator Integrale Kindzorg

"I wasn't able to ask for that comfort and care" - Lost their parent at age 5

"There are a lot of feelings, a lot of emotions. To put a word on that within the sea of I don't know how many emotions there are. Chaos. So, within the the mind of each child, that is important."- Drama therapist

"I still didn't know what emotions are associated with this. I was frustrated. No one cared about me. I locked myself in the bathroom for 3-4 hours and didn't want to come out. I didn't know what to do. I was just stuck there."- Lost their parent at age 5

"Whether it's in her heart, your memory or for real, I think within, the energy will always be with her.....That is a very important factor in her healing process." - Drama therapist

"Reading is a very safe way, for also parents and children. It gives words. Yeah, so you don't have to look for your own words, you don't have to talk about how you feel."- Drama therapist

"Try and provide a way to carry a positive state of mind about it. Share positive stories, nice things to hear. Do little things that make them go into a positive world. Create little moments of joy" - Lost their partner when they had a young child

"The sooner the better theres no point pushing this away
Maybe the initial months is when I would have liked to talk about it" - Lost their partner when they had a young child

"Your connection is for life. That connection will never die." -Lost their parent at age 5

"I work a whole lot with duplo..... But when it can be placed on a table. So it's a small enough to put on a table.So a child can look at it, that is important. So the child can experience a certain amount of distance, emotional distance to the situation"- Drama therapist

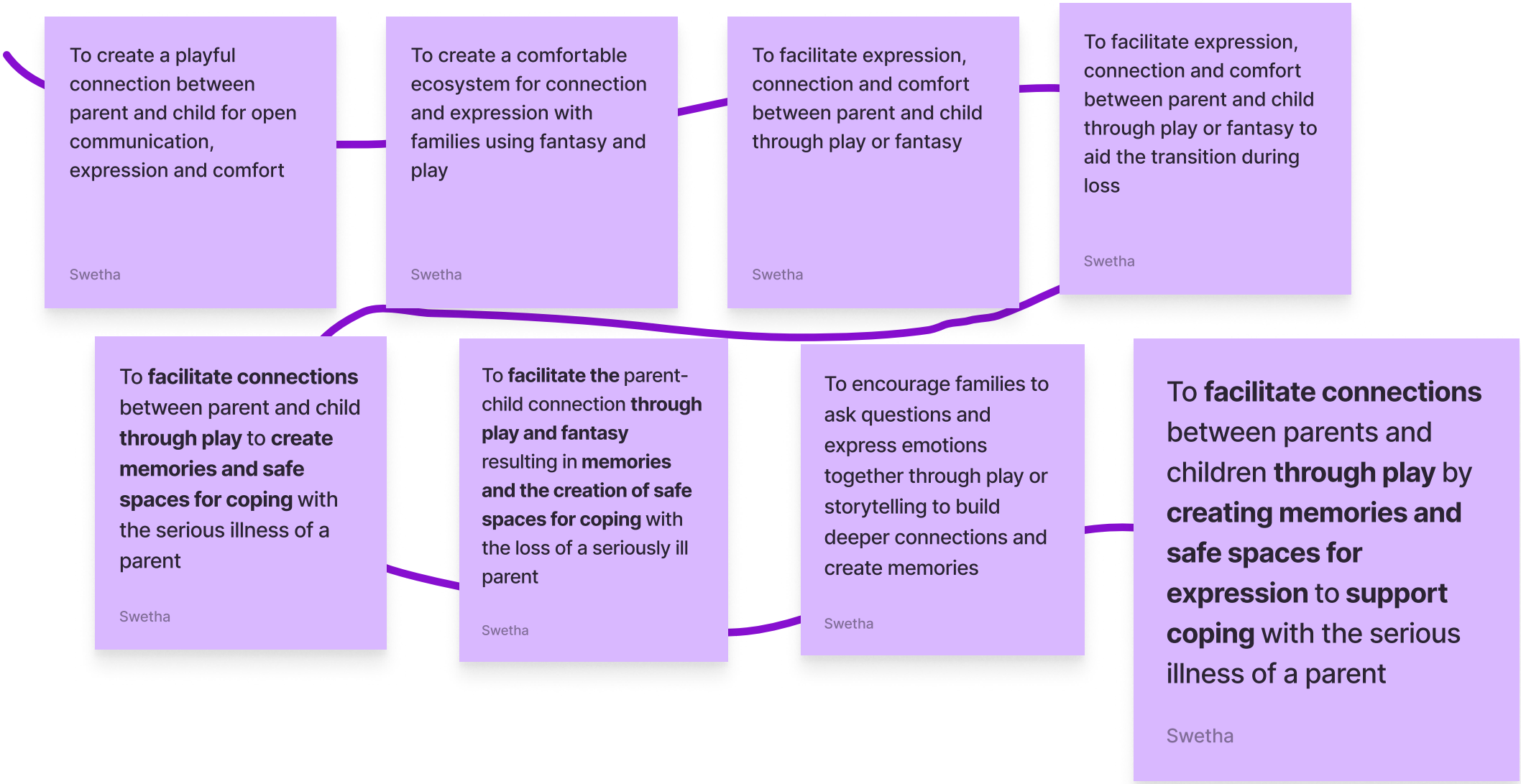
THEMES

HEAR ME OUT
I NEED YOUR SUPPORT
I NEED TO EXPRESS
I NEED TO UNDERSTAND FOR MYSELF
I AM NOT ALONE
I PLAY TO PROCESS

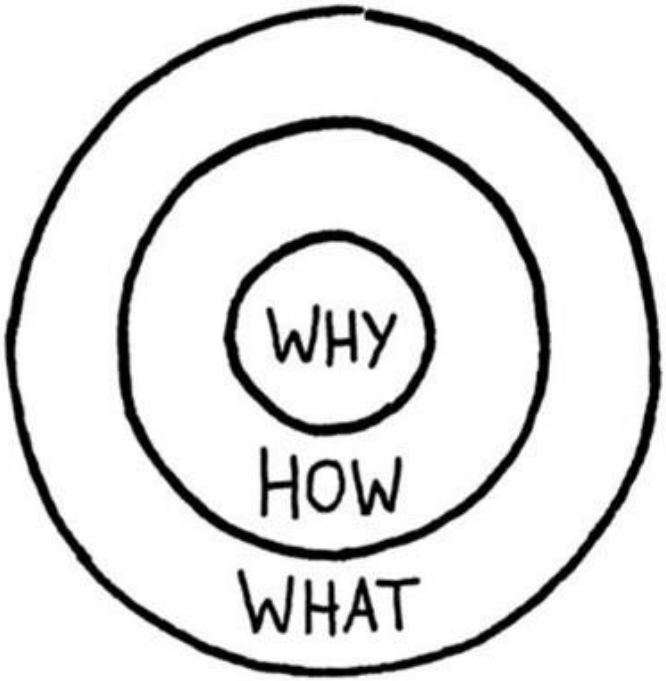
Figure 4(b): Representation of themes from interviews in the timeline

A4: EVOLUTION OF THE DESIGN GOAL

The design goal was a challenging part of this project.



After still struggling with it, I tried a different approach



Why?
To support parents and children in coping with loss

Swetha

How?
Learning to live with the story

Swetha

What?
By allowing them to tell their story and make sense of what has happened

Swetha

Why?
For parents and children to cope with loss

Swetha

How?
Support parents and children in accepting the story together and make personal sense of what has happened

Swetha

What?
Through play and expression

Swetha

Why?
For supporting parents and children in coping with loss.

Swetha

How?
By making personal sense of what has happened

Swetha

What?
Through play and storytelling, allowing them to align and begin to accept the story together

Swetha

Why?
I want to support parents and children to support each other in coping with loss

Swetha

How?
By making personal sense of what has happened through play and storytelling, allowing them to align and begin to accept the story together

Swetha

What?
By designing an activity for them to engage in together, allowing them to recreate the story

Swetha

Why?
I want to support parents and children to support each other in coping with loss

Swetha

How?
By making personal sense of what has happened through play and storytelling, allowing them to align and begin to accept the story together

Swetha

What?
By developing a product or activity they can do together, allowing them to tell the story before the loss of a parent to serve as a re-tellable, constant story through the coping journey

Swetha

Why?
I want to support parents and children to support each other in coping with loss

Swetha

How?
By making personal sense of what has happened through play and storytelling, allowing them to align and begin to accept the story together

Swetha

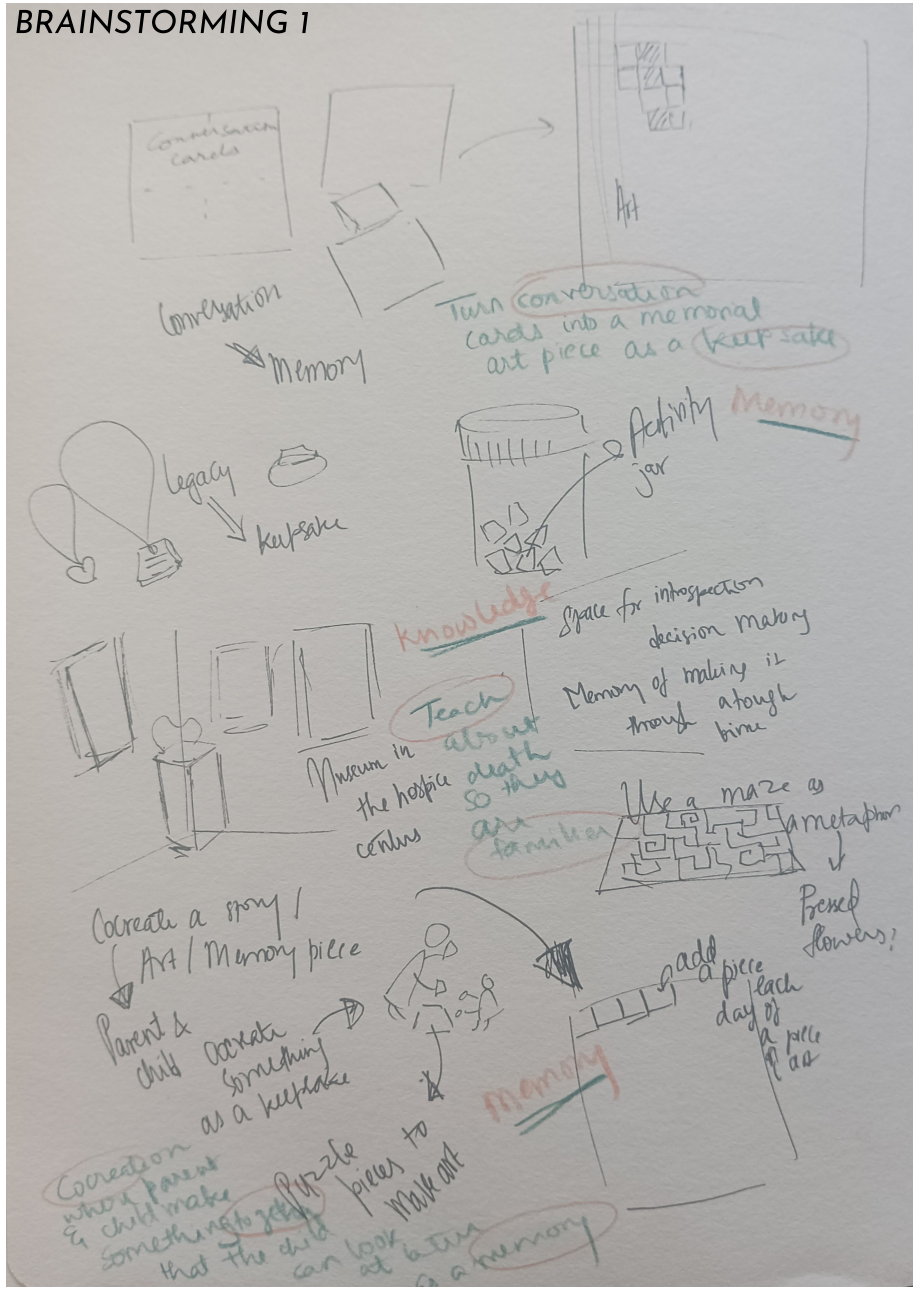
What?
By designing a product they can engage with together, allowing them to start to create a story before the loss of a parent to serve as a re-tellable, constant story through the coping journey

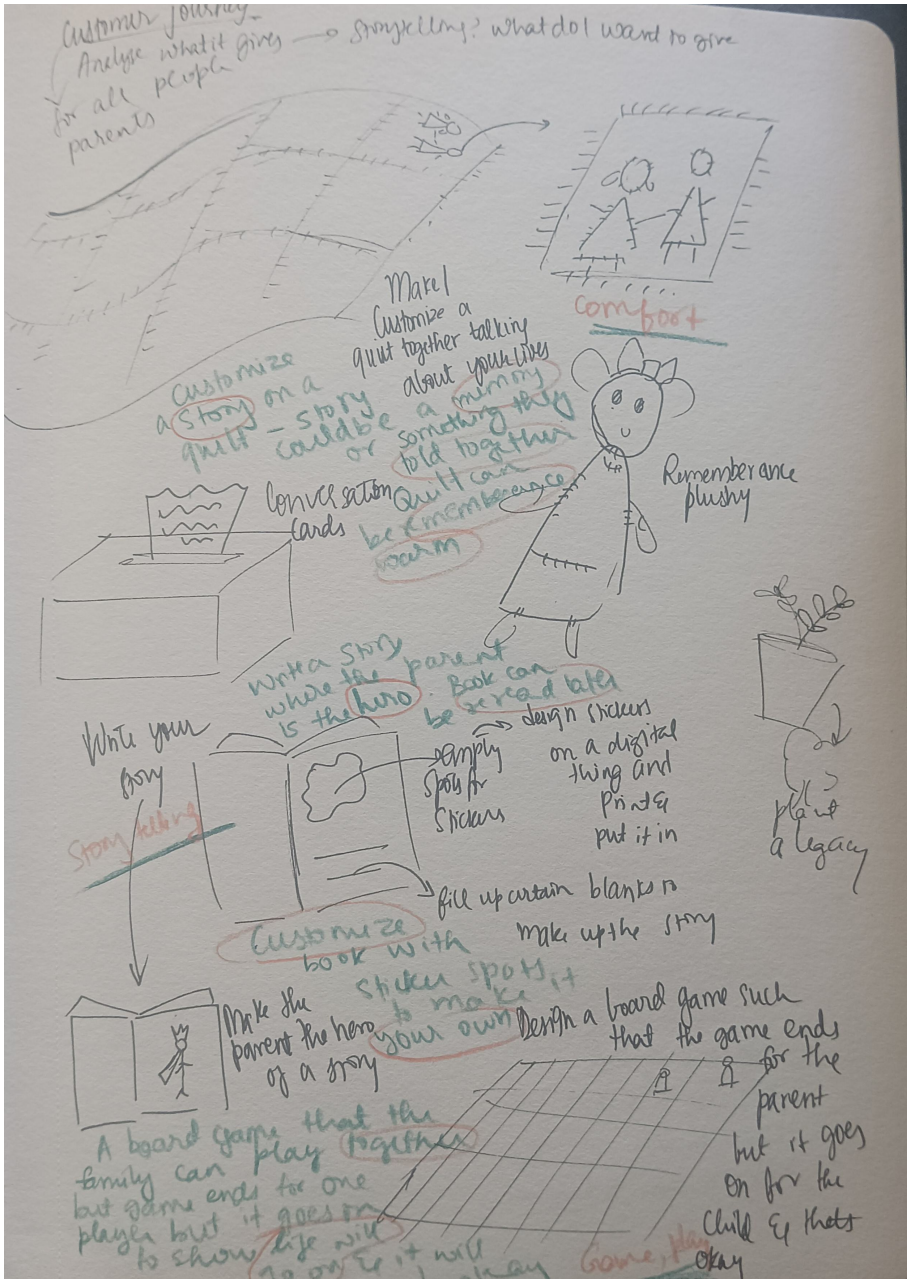
Swetha

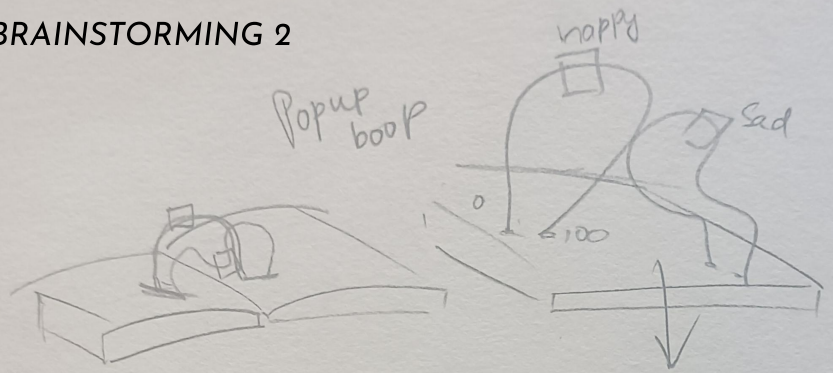
A5: IDEATION AND PROTOTYPING

The ideation process was iterative with many different ideas generated. This appendix goes through the whole ideation process as the main report covers does not dive much into early ideation

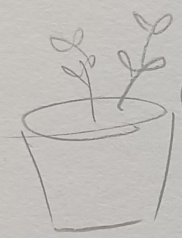
BRAINSTORMING 1



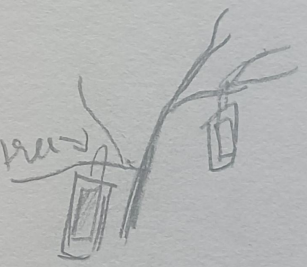




Plushy book + memory album
↓
read, hug, remember



plant + tie together
↓
memory tree



Write a story to read at the funeral

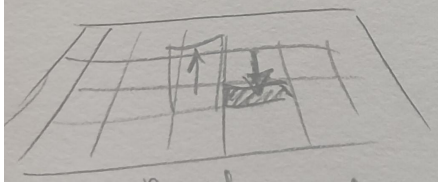
Plan the funeral together

Warmth
↓
Heating doll
↓
Squeeze it for warmth

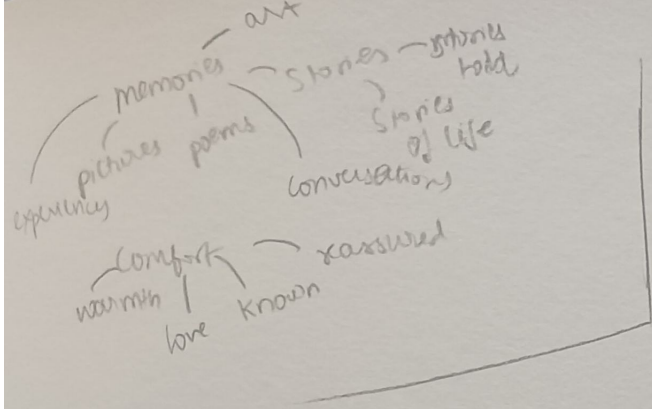
Customize it together
↓
smells, books

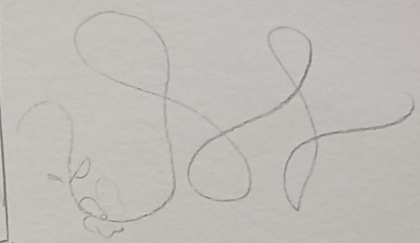
Press it and it gets warm

When I am not here you can hug it & you will feel me



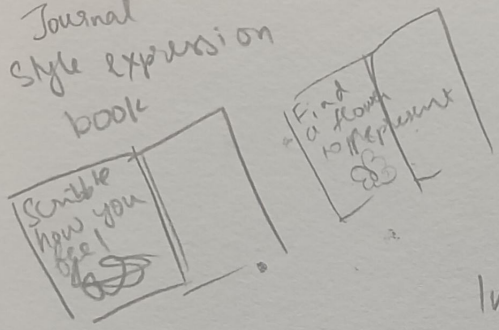
Pop up board game
↓
Different things happen based on the phase



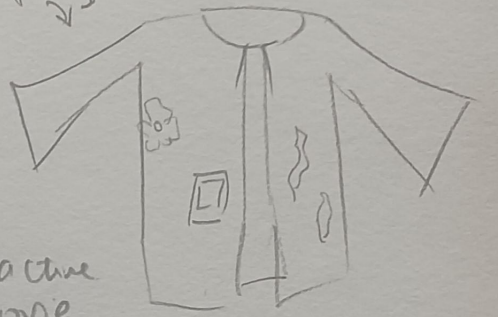


Create a wall of art together.

Work it Journal
style expression book

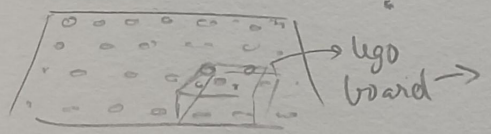


warmth
↓
Jacket

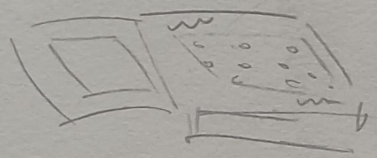


Interactive movie nights

Lego story

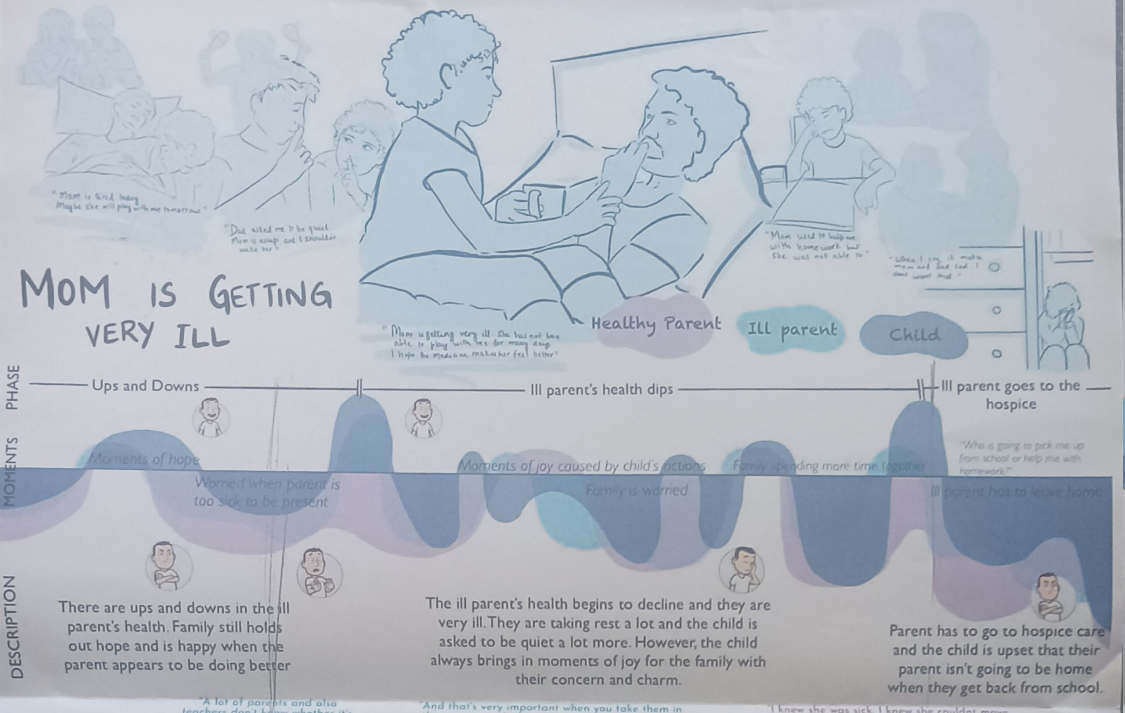


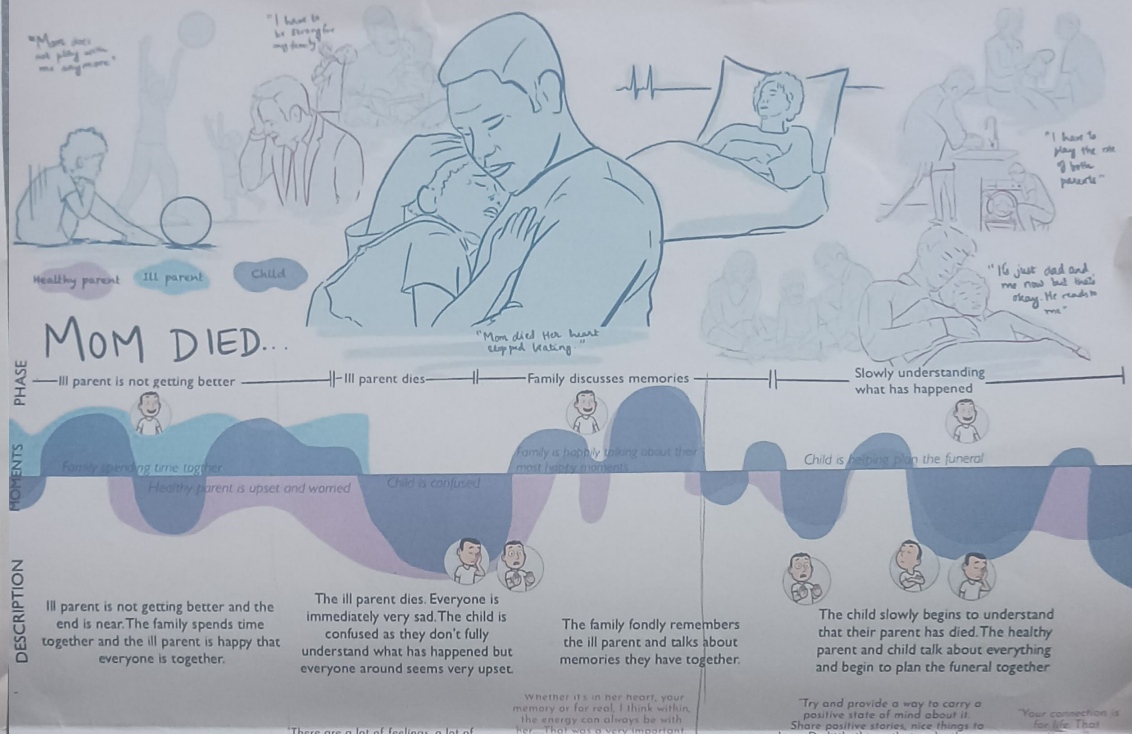
way to record each story told / continue the story



HOW MIGHT I...? QUESTIONS

IDEATION ON THE TIMELINE BASED ON HOW MIGHT I QUESTIONS





CLUSTERS

Clarify
Outlet for expression
Nature for expression activity book
Plan the funeral together
Wreck it journal style expression book
Activity jar to unfold the story
Pop up book with a place to express emotions
A maze metaphor for life's story
Museum to discover & express personal meaning of death
Pebble story kit
Game/Storyboard stones
Shadow puppet stories
Lego Storyboard book
Interactive movie nights
Book turns into a playable game
Puppet show from a book
Boardgame turns into a book as you play
Pop up board game
Clarify
Understanding through Albion
Write a story together to read at the funeral
Memory tree in your house
Customize a remember-me plushy
A story in a locket/jewellery
Warm hug when hugged it gets warm
Book that is also a plushy
Meals together
Plant a tree together
Make a fridge magnet story
Cocreate a jacket together
Clarify
Immortalize a memory/object
Tell your story on a wall
Conversation cards
Write a book where the parent is a hero
Customize your character in a book
Tell your story on a blanket
Pop up Museum box of the parent
Fill up the blanks story book
Parent & child cocreate art as a memory
Clarify
Turn your story into art
Food with culture, meaning
Recipe book that also tells a story

CLUSTER 1

The ideas in this cluster try to centre the story around one object that the child can hold close to them in their coping journey.

For example, the family can spend more time together cooking meals. Food plays a big role in culture and communication. Cooking can also be a way to express emotions and tell stories. It shows love and brings people together. Families could cook together and their journeys could be automatically documented in a cookbook that serves as a keepsake through the coping journey.

For ideas in this cluster, I would design the tool that acts as the centre-piece for the storytelling and expression journey. This would later turn into a keepsake or object of memory.

CLUSTER 2

The ideas in this cluster involve co-creating the story and transforming it into a piece of art. Here story is the object you remember.

For example, the parents and child could work on making quilt together. The quilt would tell stories of their adventures together and these stories could continue beyond the death of one parent, helping the child better process the events.

For ideas in this cluster, I would design a kit to help families craft their stories in a low effort and child-friendly fashion.

CLUSTER 3

Ideas in this cluster involve a very active approach to story-telling. They involve acting it out or playing it out in a way.

For instance, the family could play a symbolic boardgame that helps them convey a story while going through it. The game could end for one play and go one for others, everyone playing the game could have a different perspective as they go through it.

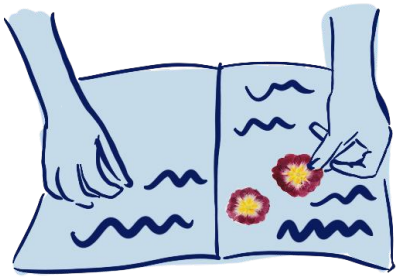
For this cluster, I would design the object that is played with or used to tell the story.

CLUSTER 4

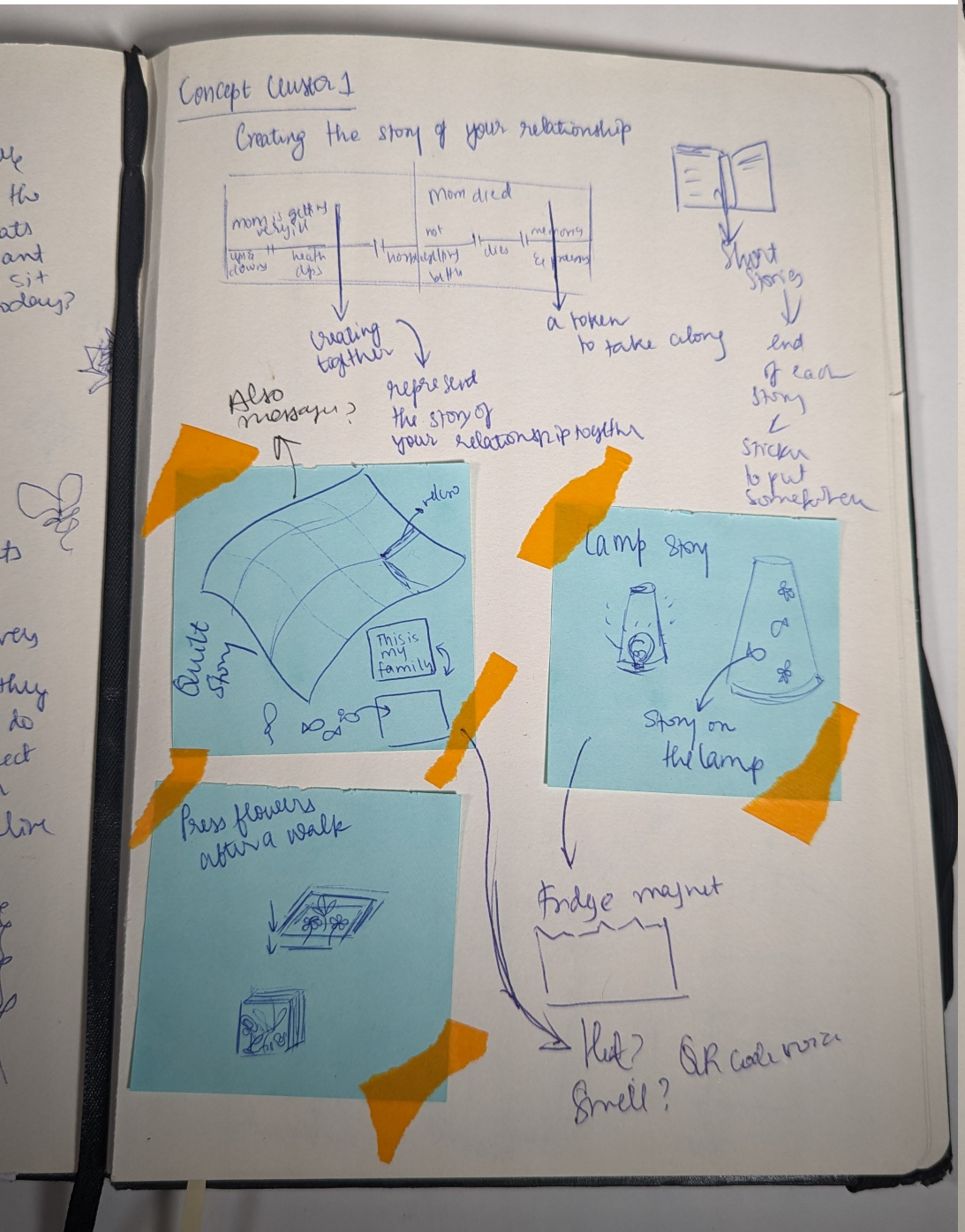
Ideas in this cluster focus on providing outlets for expression to serve alongside storytelling. The present ways for children and parents to express how they feel closely along with telling their stories.

For example, parents and children could go on walks in nature and use plants and flowers around them to express how something makes them feel (Studio DöBra – DöBra.se, z.d.). They could pick out specific things like crushed leaves or flowers to express.

For this cluster, I would design the object that is used for expression or probes about expressing.

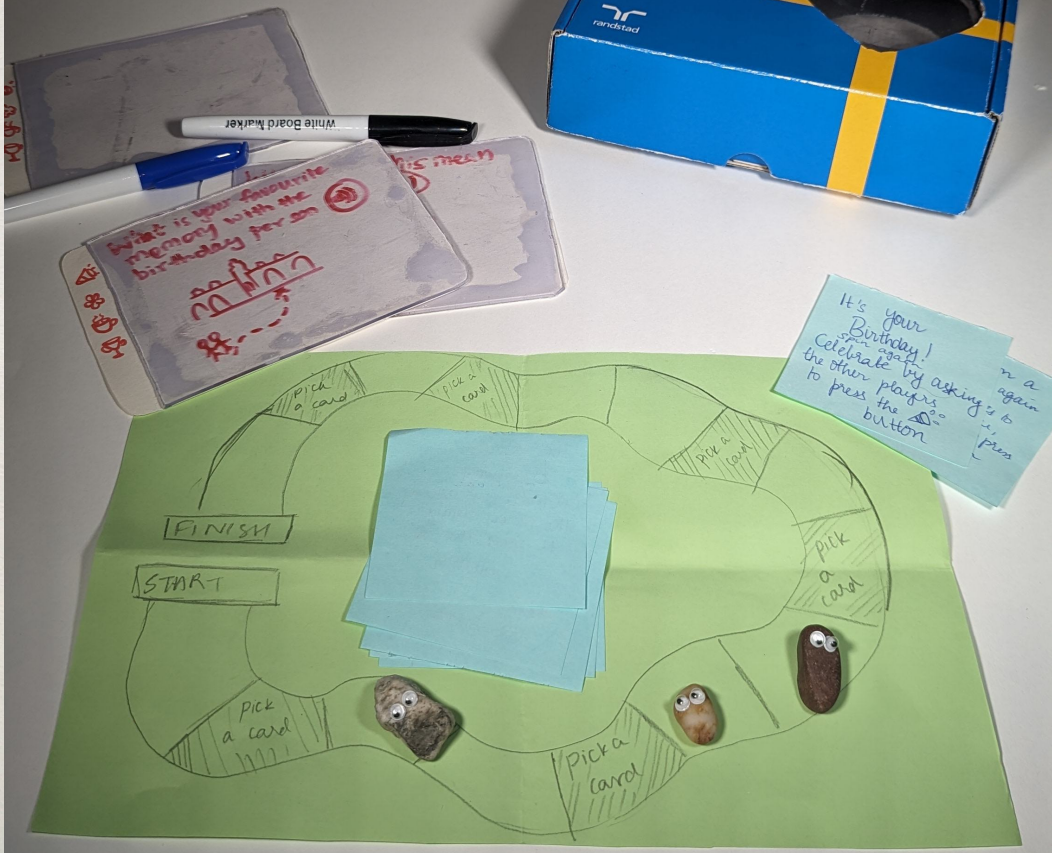


At this stage all the idea clusters seemed very similar and did not really address the design goal.
The design goal was narrowed a little and I went back to ideating and creating new clusters



NEW CONCEPT CLUSTER 1

NEW CONCEPT CLUSTER 2



Cluster concepts 2

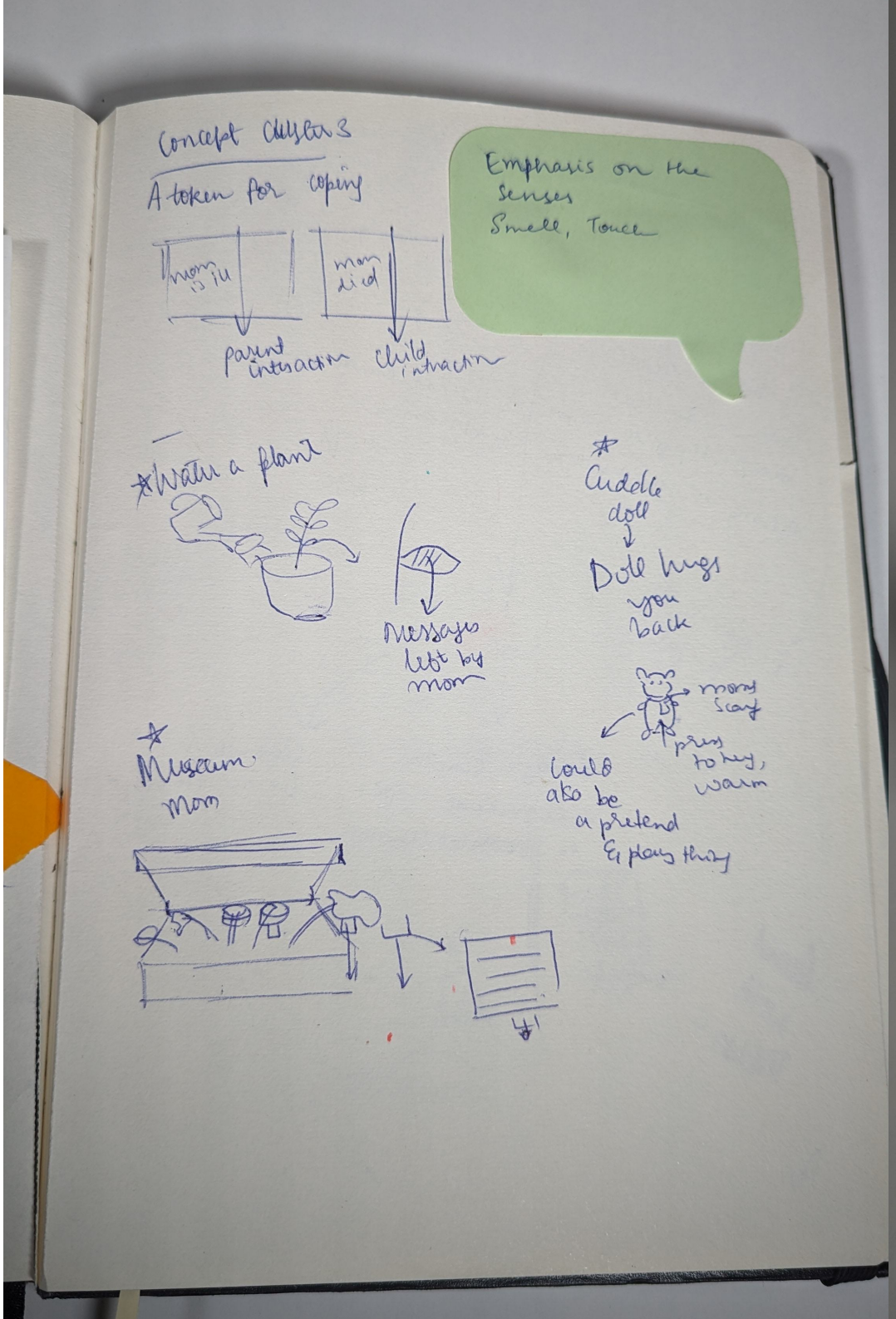
Play and Games as memories & understanding
Active understanding

Question cards
Thinking cards
START
Change cards
Change card
Birthday
Won a prize
Sick
Died

More Active / Active-passive balance

pop up board game
Obstacle course
Mom is still
Mom died
Play
Look at memories
Treasure hunt
Keep the treasure
Book
Game

NEW CONCEPT CLUSTER 3



FURTHER IDEATION TO GENERATE 3 CONCEPTS

Booklet for parents &
A place to listen
Order in the chaos
for childs thoughts
important

① Creating a story of your relationship
Incorporate
Smell, voice, warmth

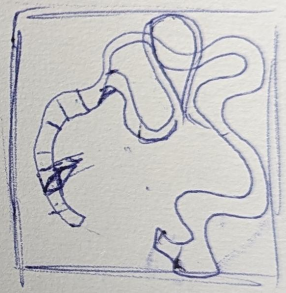
② Active memories & understanding
↳ invisible story

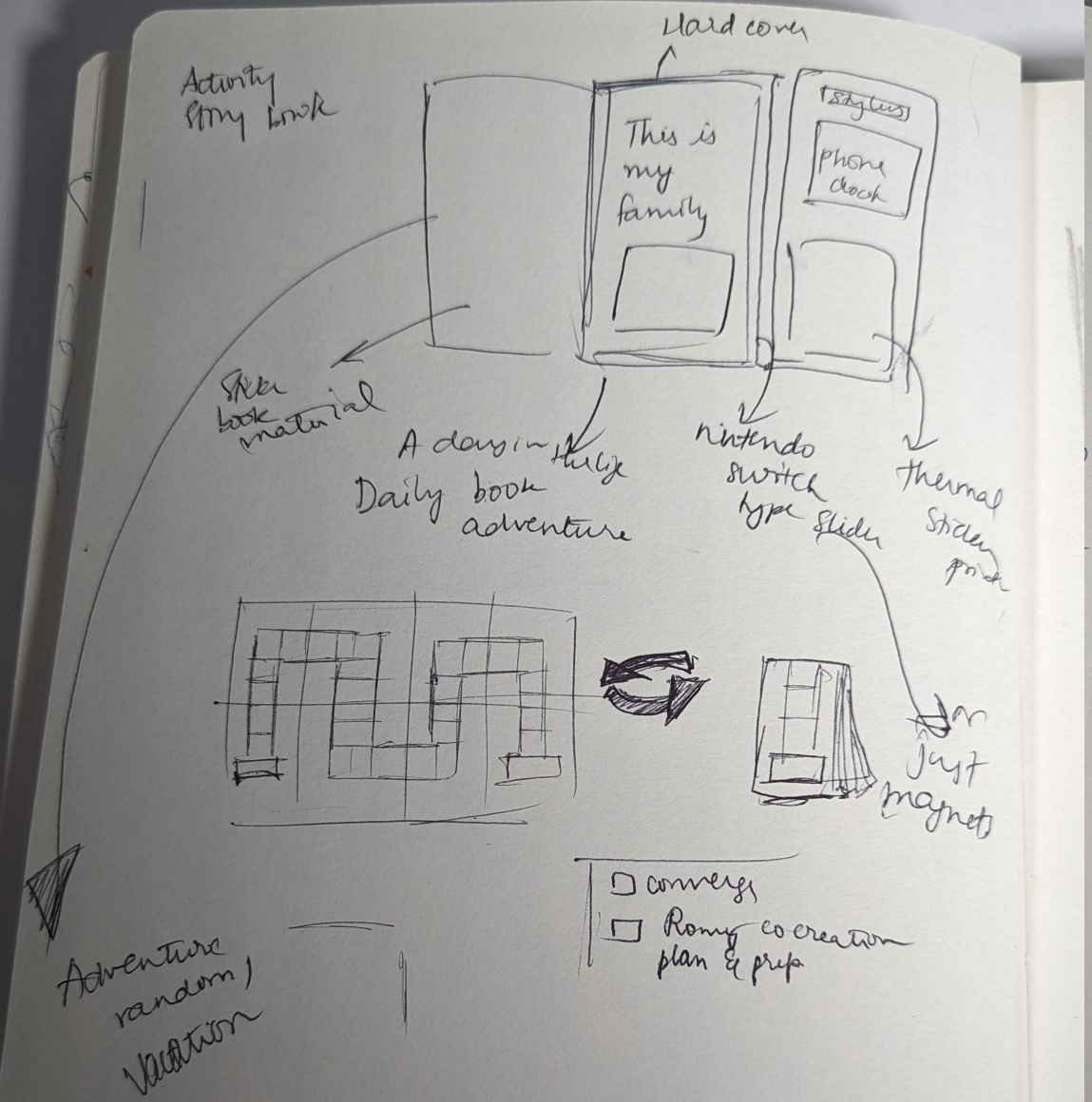
③ Asynchronous | emotion

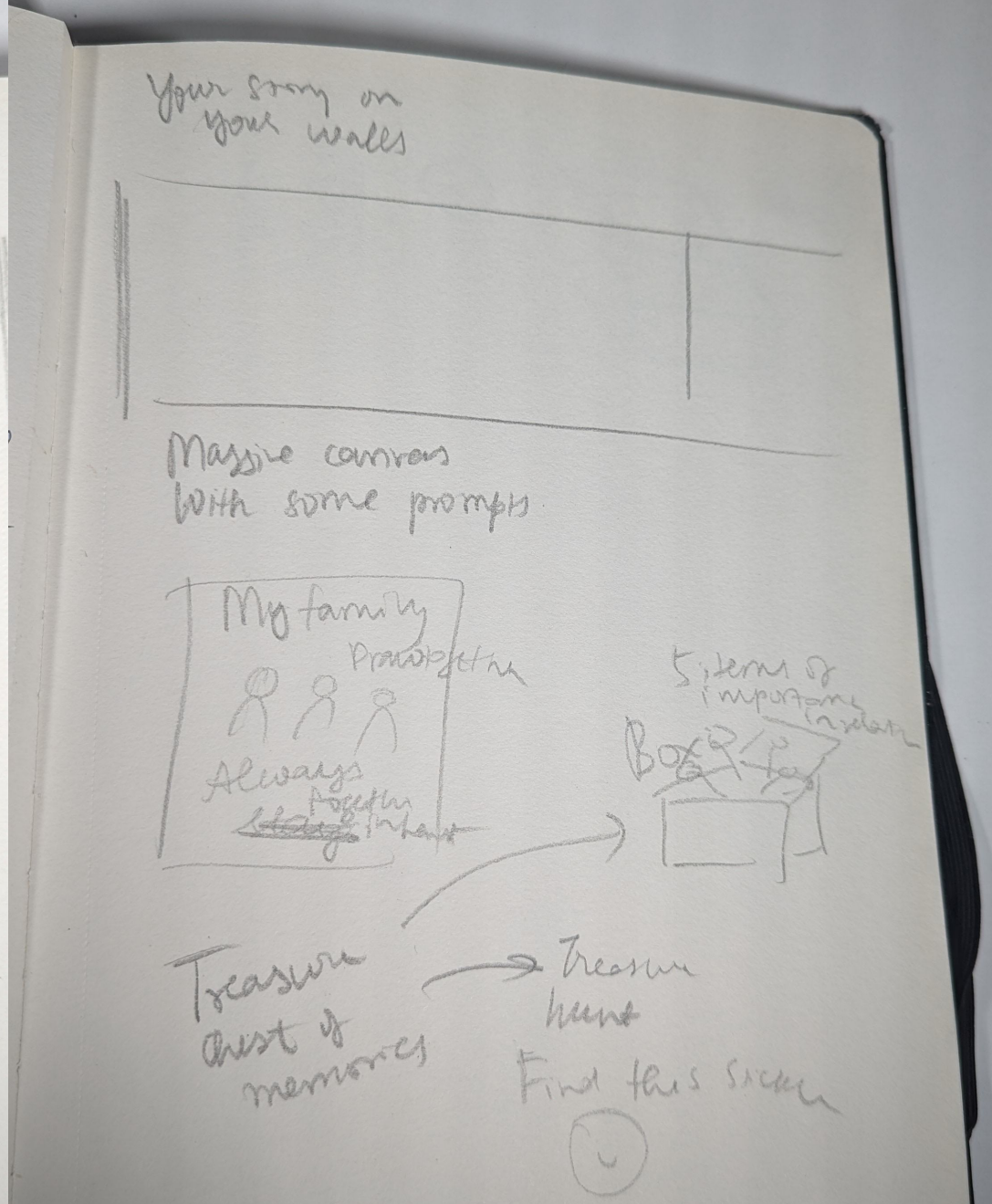
Token

Through ups & downs

Tell the story → Become a book




Activity
Story book
Hard cover
This is my family
Stylus
phone dock
Sticker book material
A day in the life
Daily book adventure
nintendo switch type slider
thermal sticker print
or just magnets
converge
Romy co-creation plan & prep
Adventure random vacation

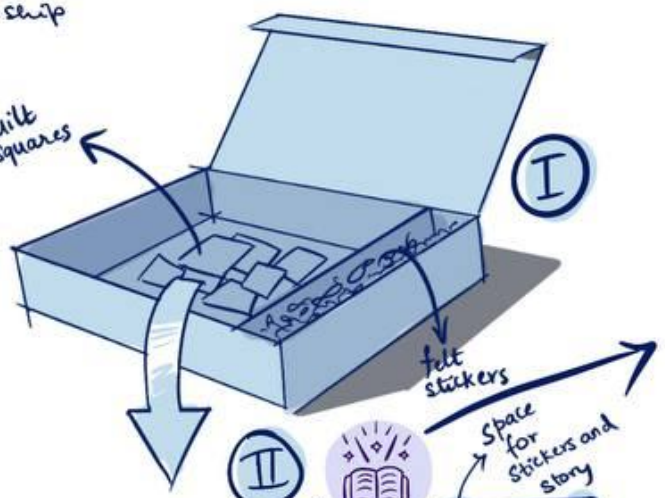

Your story on your walls
Massive canvas with some prompts
My family
Always together
5 items of importance in relation
Box
Treasure chest of memories
Treasure hunt
Find this sticker

CONCEPT 1

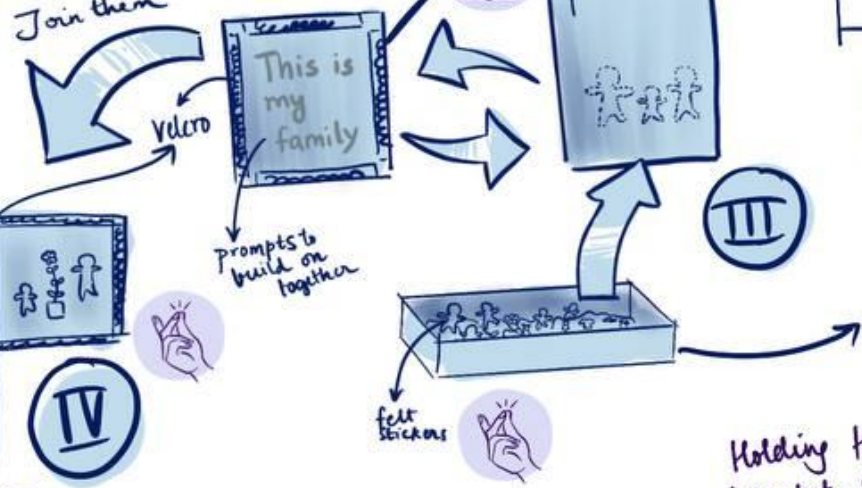
Feelings of warmth and Love

Creating the story of your relationship

Making a Quilt together based on some prompts and stickers to tell the story of their relationship



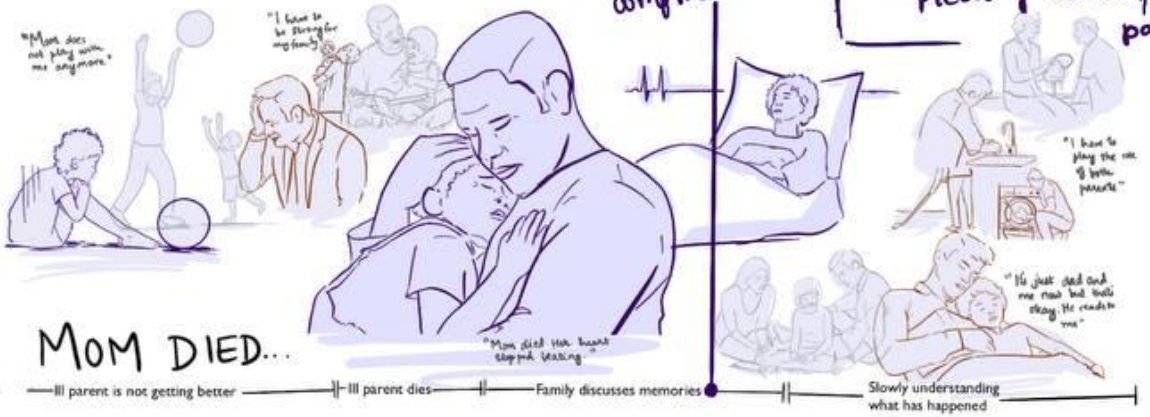
This is my family
This is my favourite thing to do with mum
This is what makes mum happy
This is what makes mum mad
This is our favourite place to



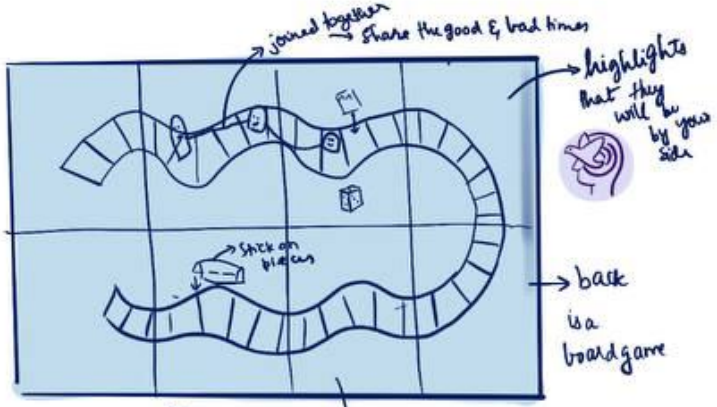
?
Smell
QR code story
Pieces of cloth from parent

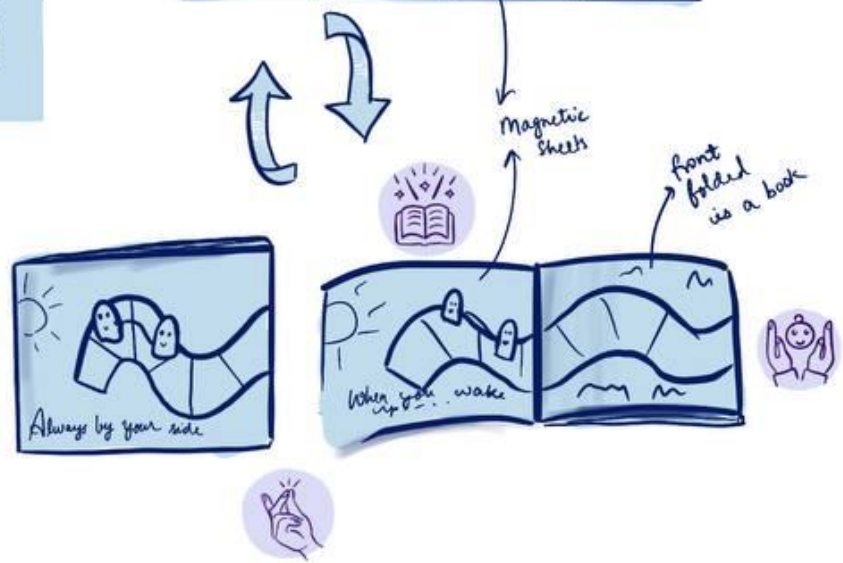
Holding the blanket, sleeping comfort

Making the quilt together



CONCEPT 2



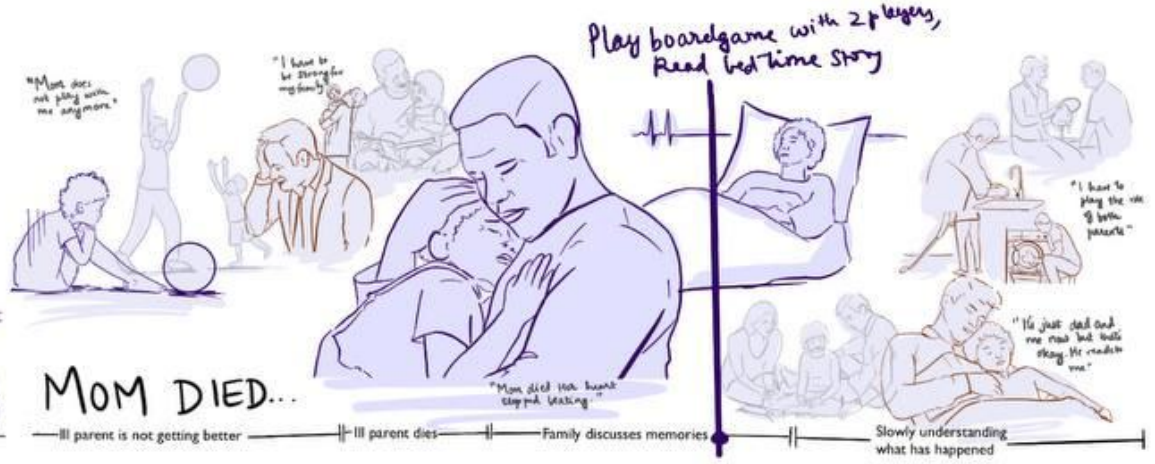


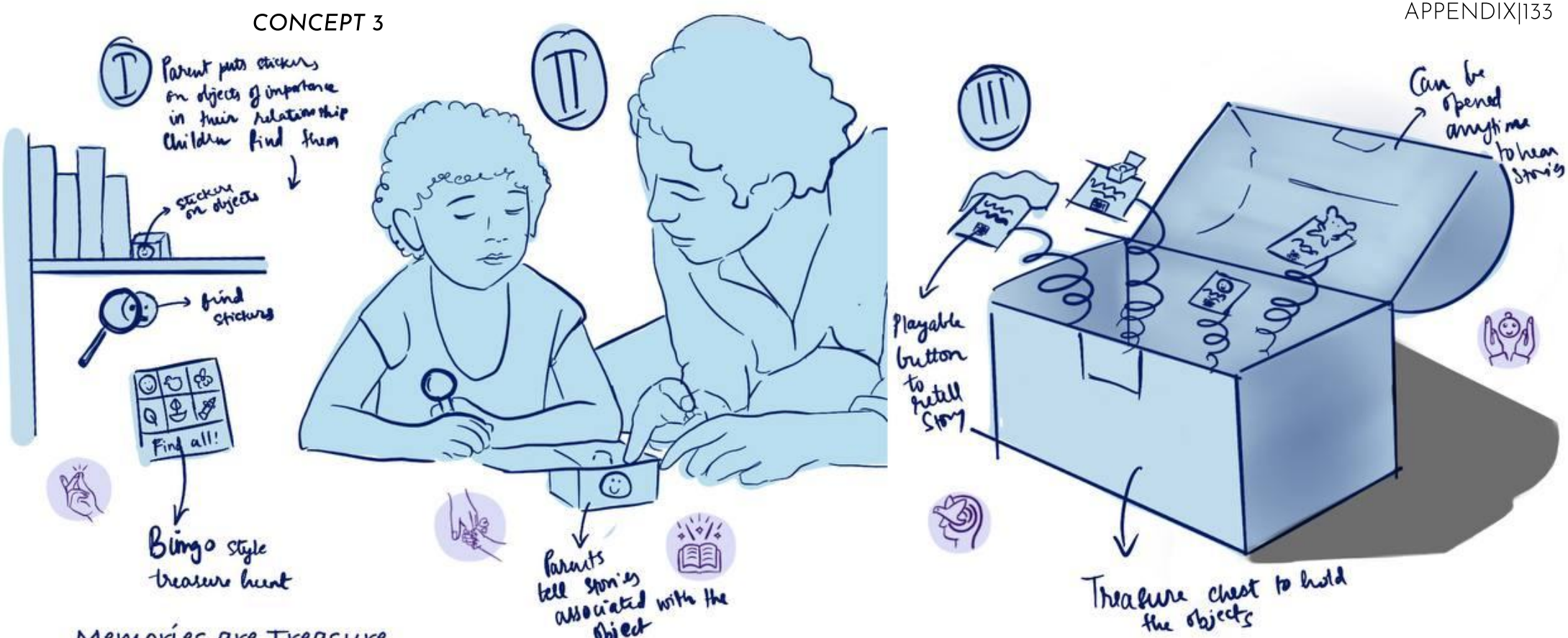
Always by your side

Telling the story of your relationship

A boardgame & story book that higulight that no matter what your parent is by your side.

Boardgame they hold hands and go through everything together

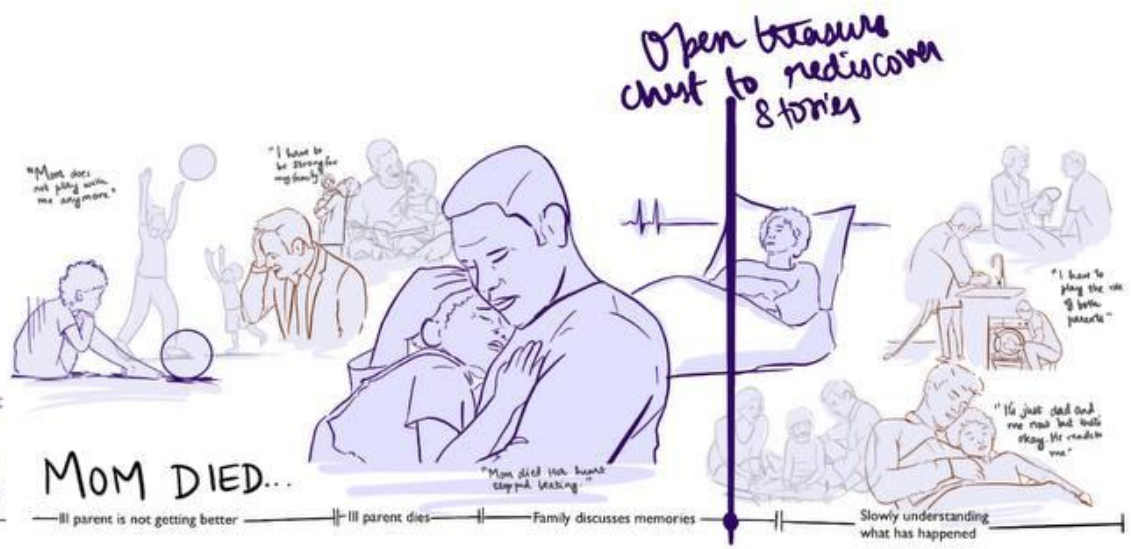




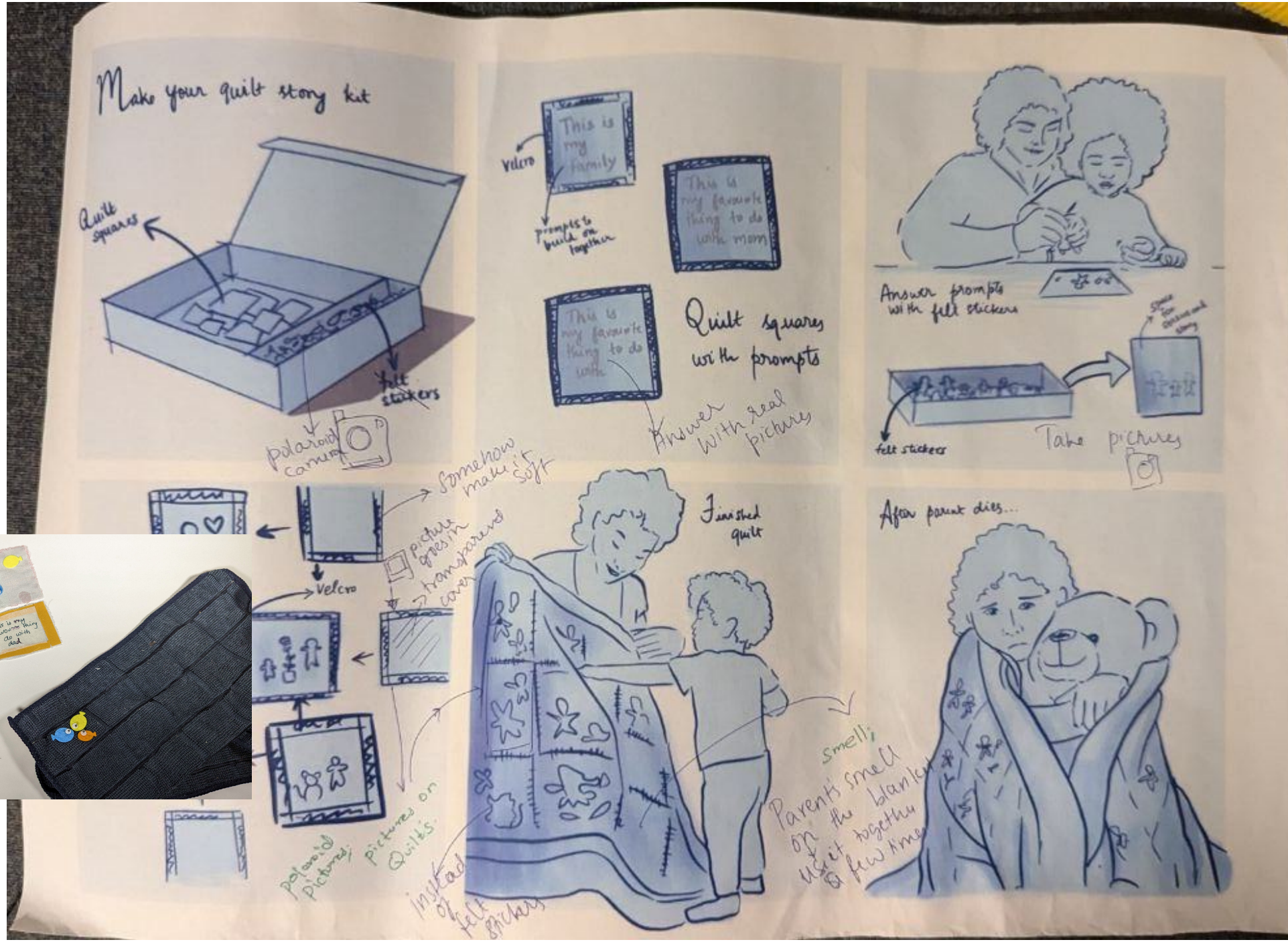
Memories are Treasure

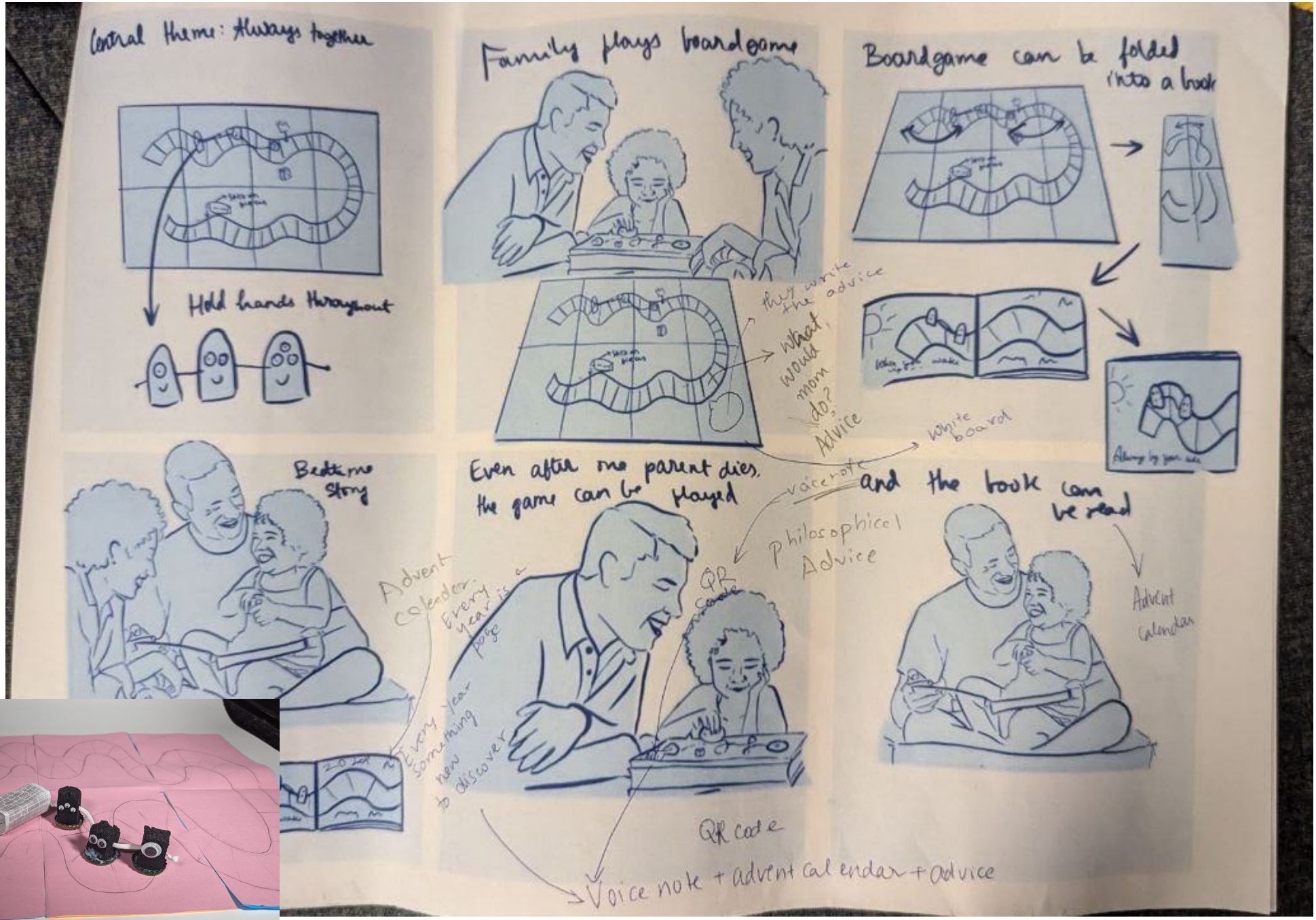
Rediscovering stories from your relationship

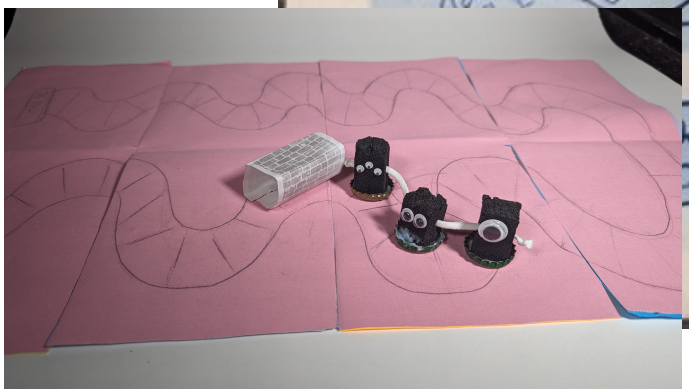
Collecting memories like treasures. Parents keep objects of memory around the house with stickers from a bingo card. Children find it and get told stories from the object. This story can be recorded and played at any point



This is my family
This is my favourite thing to do with dad

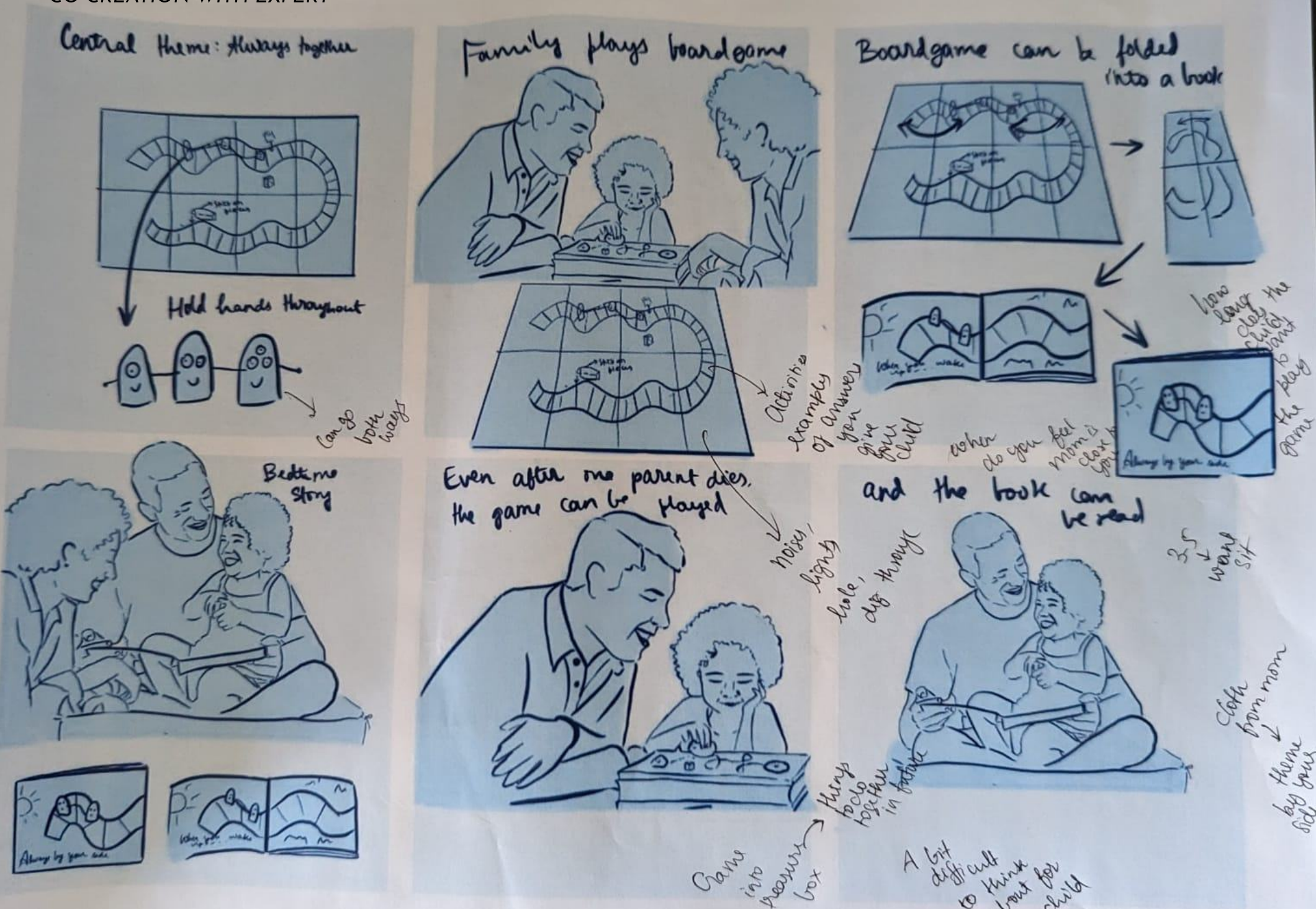

Make your quilt story kit
Quilt squares
felt stickers
polaroid camera
Velcro
prompts to build on together
This is my family
This is my favourite thing to do with mom
This is my favourite thing to do with
Quilt squares with the prompts
Answer with real pictures
Answer prompts with felt stickers
Store for storing and sharing
felt stickers
Take pictures
Somehow make it soft
picture goes in transparent cover
Velcro
polaroid pictures
pictures on Quilts.
instead of felt stickers
Finished quilt
After parent dies...
smell;
Parents smell on the blanket use it together a few times


Central theme: Always together
Hold hands throughout
Family plays boardgame
Boardgame can be folded into a book
they write the advice
what would mom do? Advice
white board
voicenote
Bedtime Story
Even after one parent dies, the game can be played
and the book can be read
Philosophical Advice
Advent Calendar
Every year is a page
Every year something new to discover
QR code
Voice note + advent calendar + advice

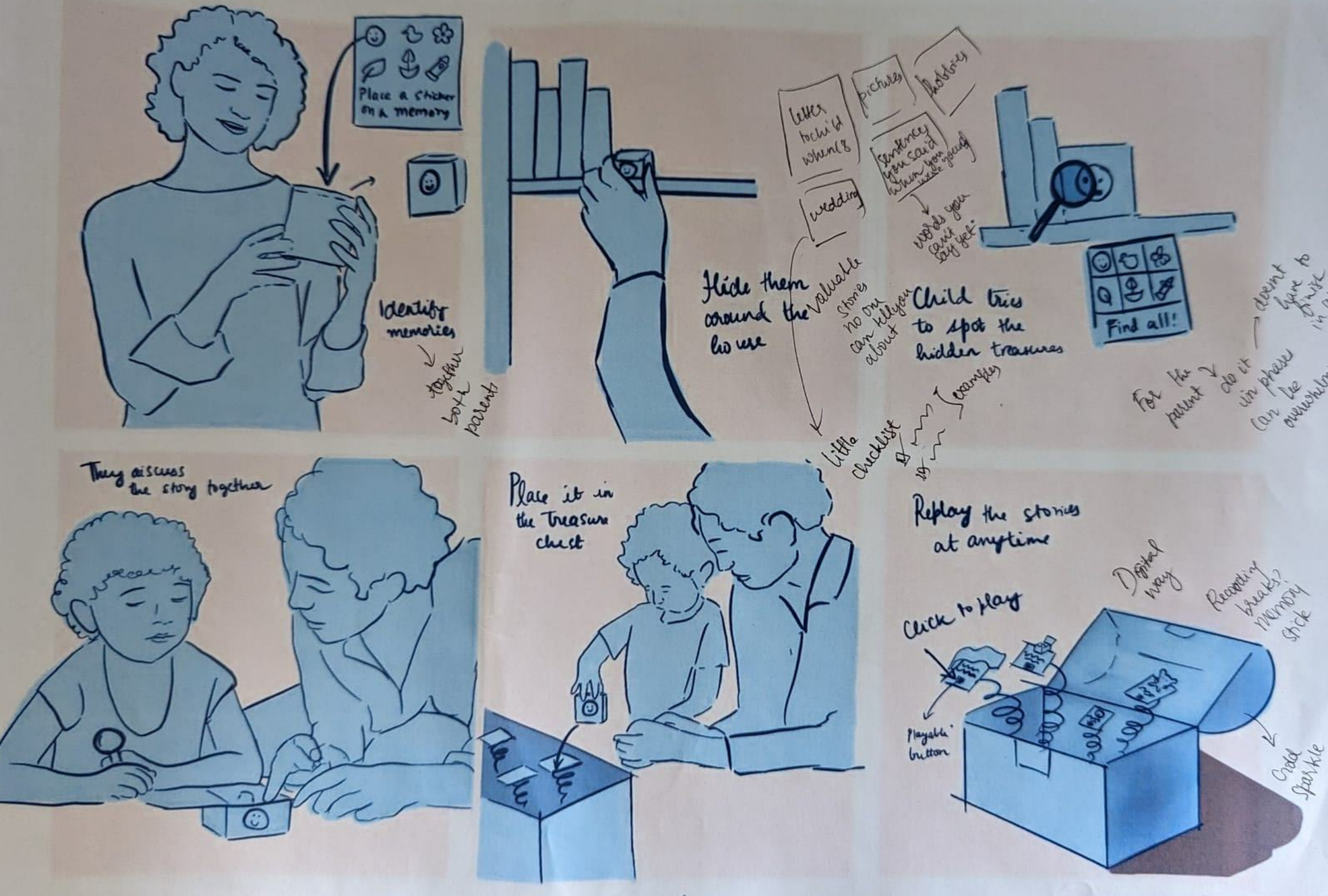


PILOT CO-CREATION

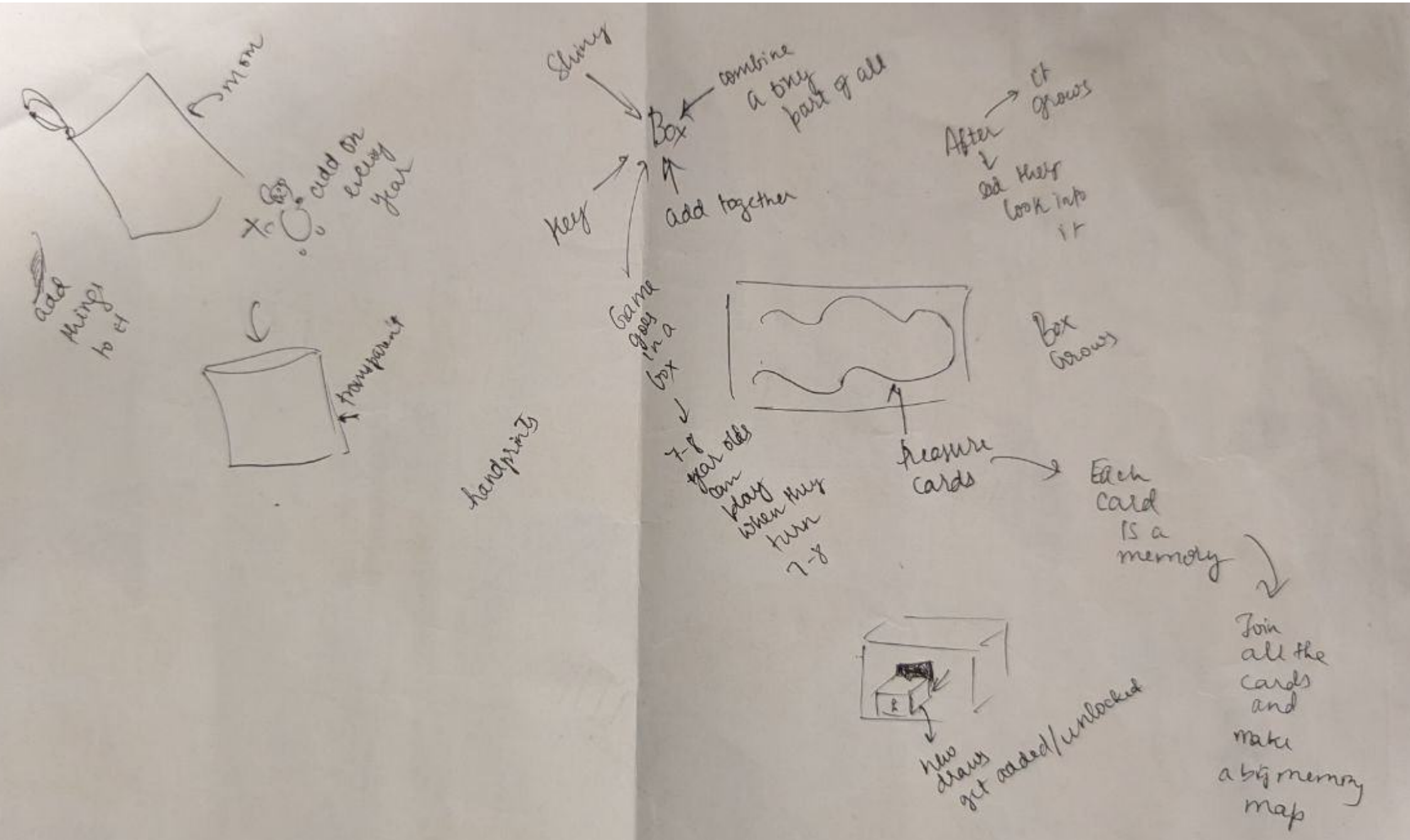
CO-CREATION WITH EXPERT


Central theme: Always together
Hold hands throughout
Can go both ways
Family plays boardgame
Activities examples of answers you give your child
Boardgame can be folded into a book
how long does the child want to play the game
when do you feel mom is close to you
Always by your side
Bedtime story
Even after one parent dies, the game can be played
noises, lights, hole, dig through
and the book can be read
3.5 ↓ want sit
Cloth from mom ↓ theme by your side
Game into treasure box
things to do together in future
A bit difficult to think about for a child

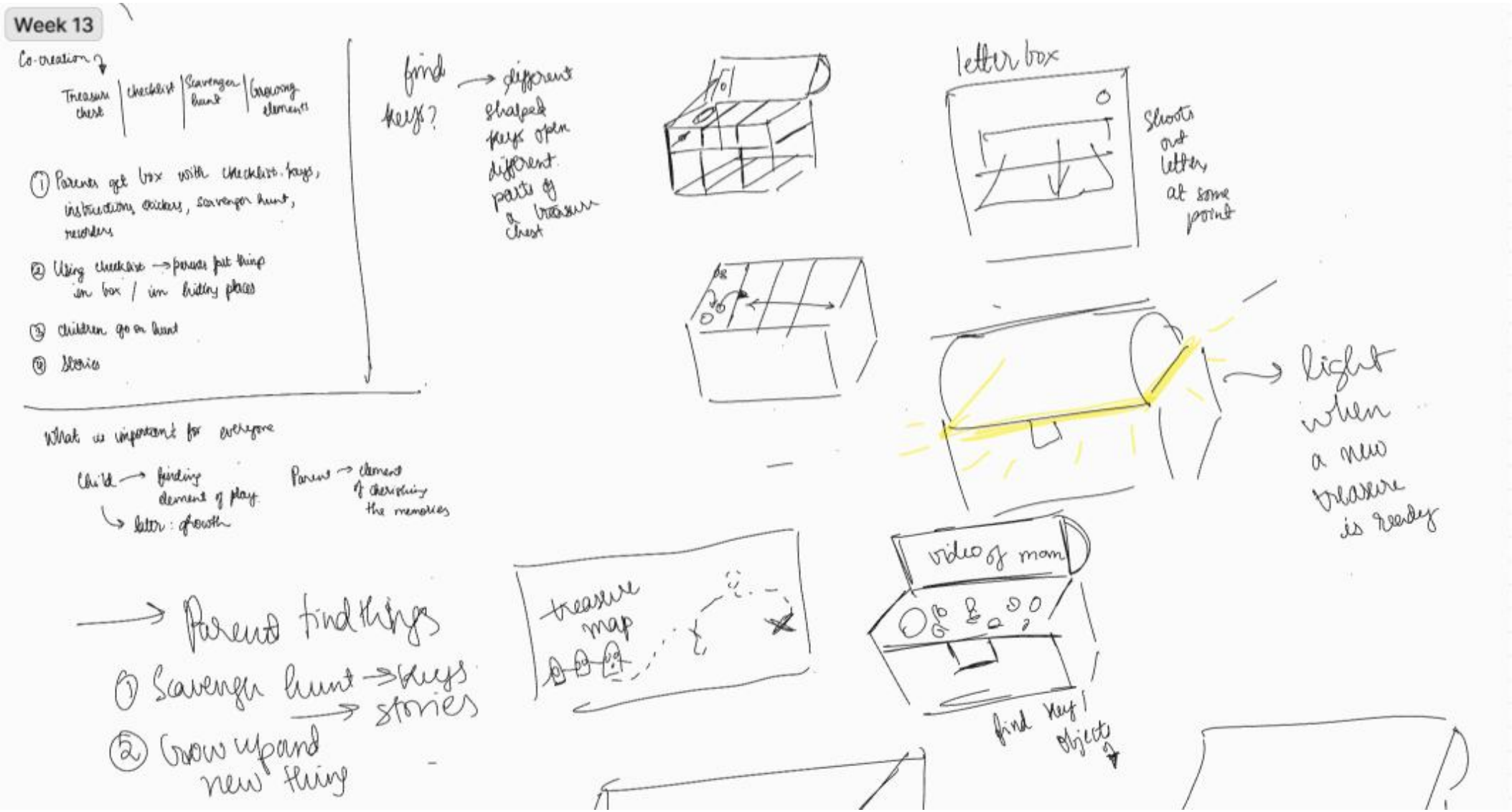
CO-CREATION WITH EXPERT

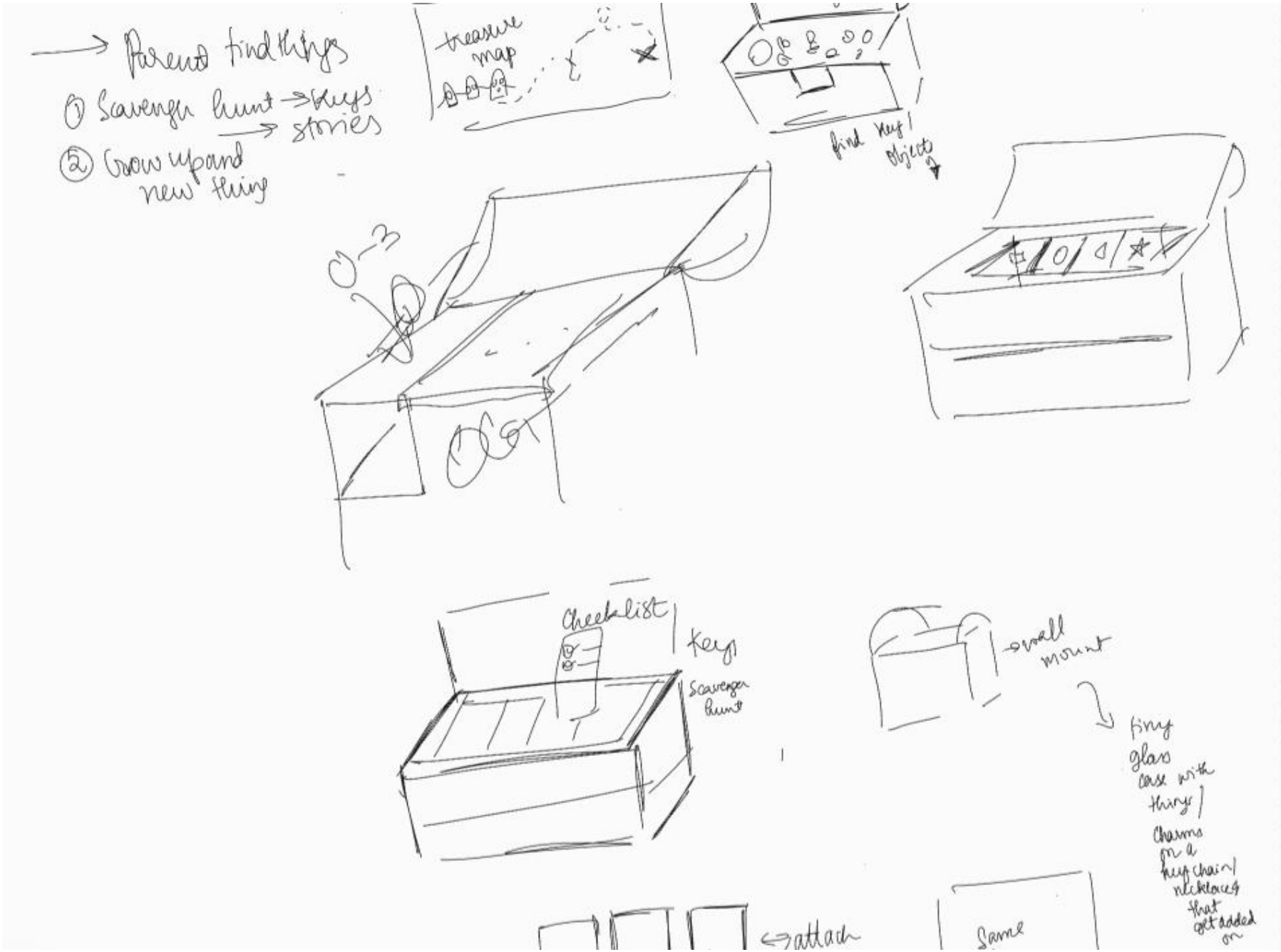


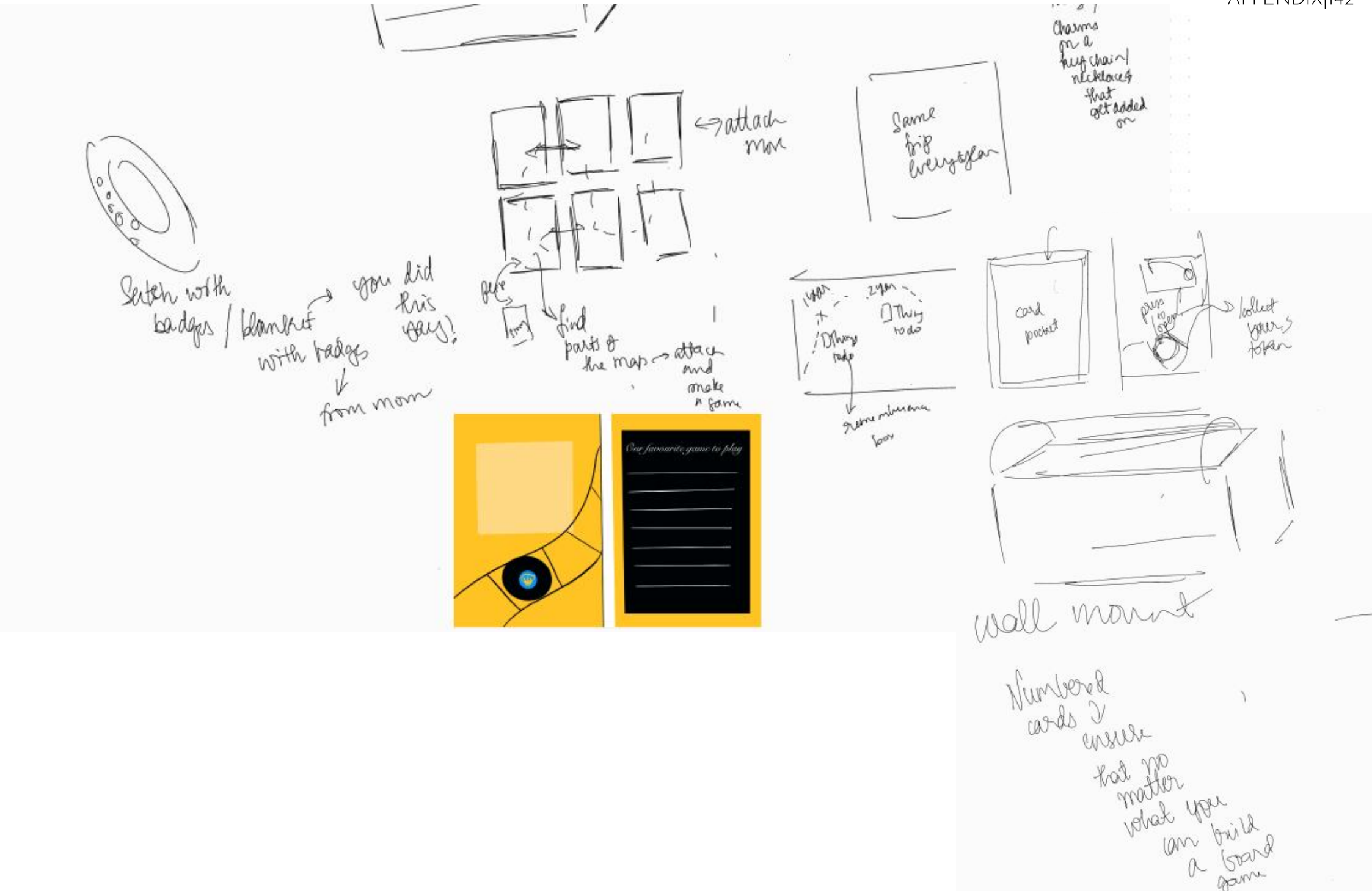
CO-CREATION WITH EXPERT



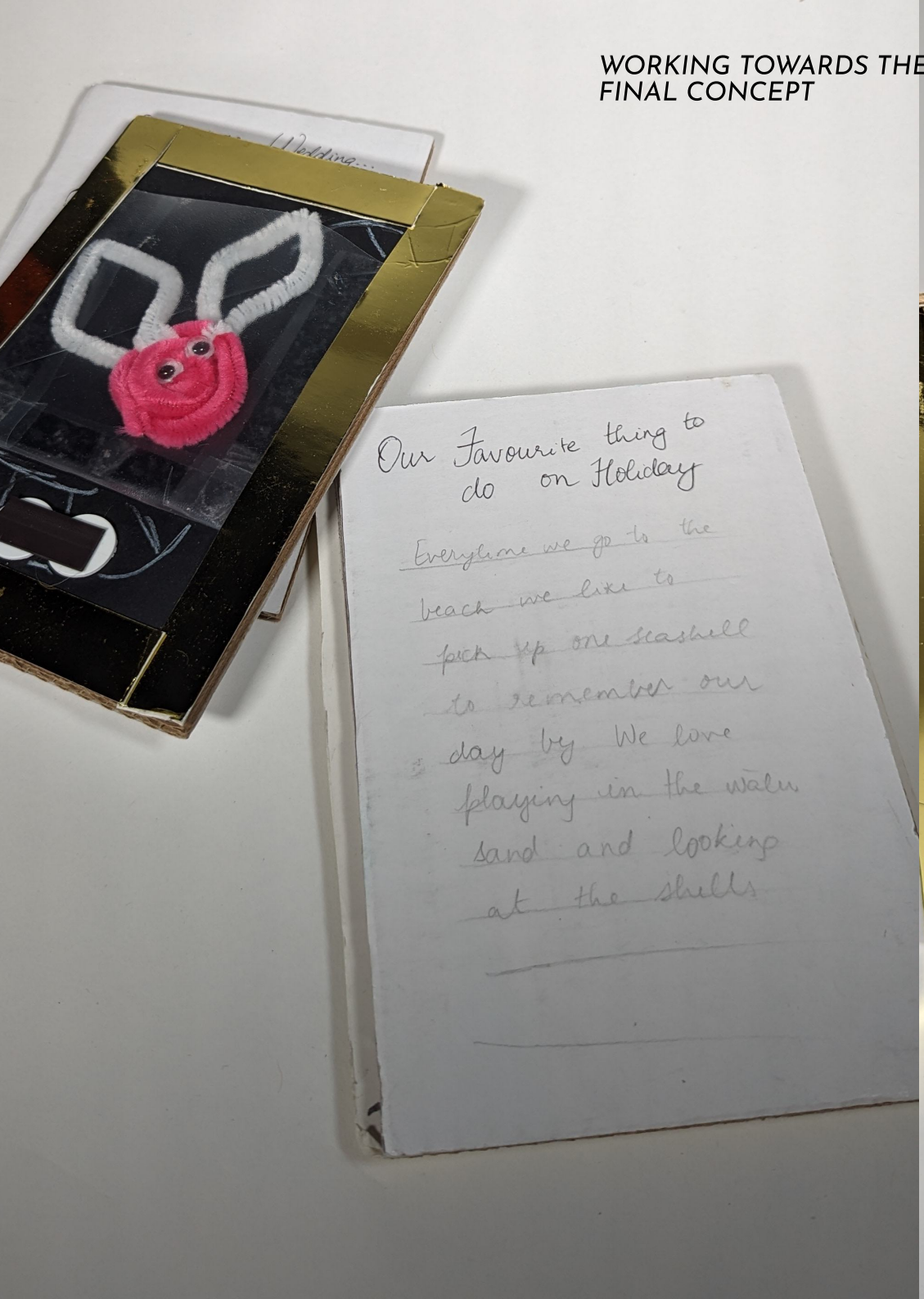
INDEPENDENT IDEATION AFTER CO-CREATION



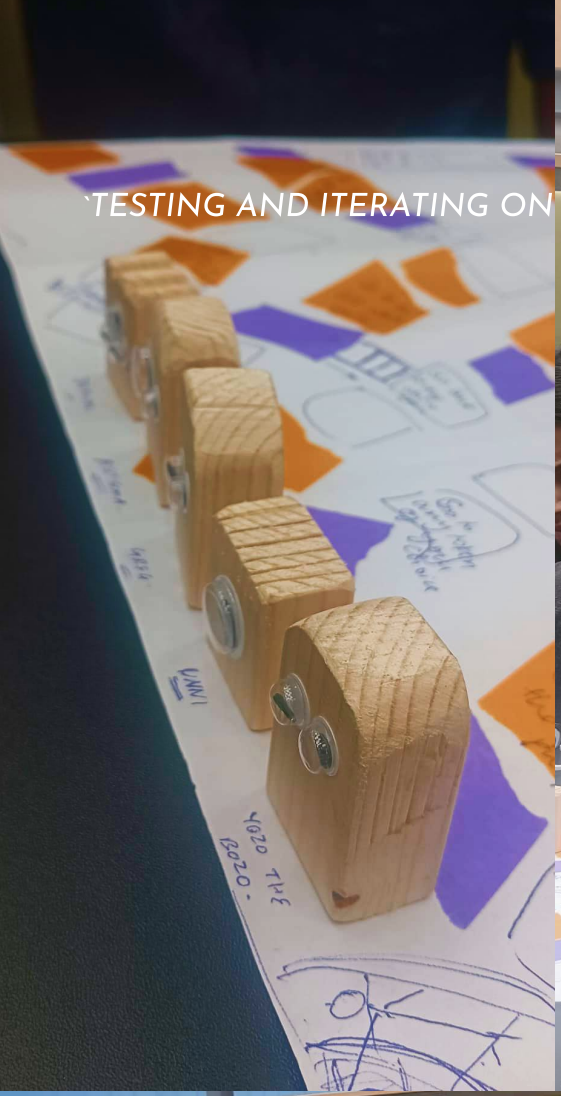

Parent find things
① Scavenger hunt → keys
→ stories
② Grow up and new thing
treasure map
find key/ objects
Checklist
key
Scavenger Hunt
wall mount
tiny glass case with things
Charms on a key chain/ necklace that get added on
attach
same

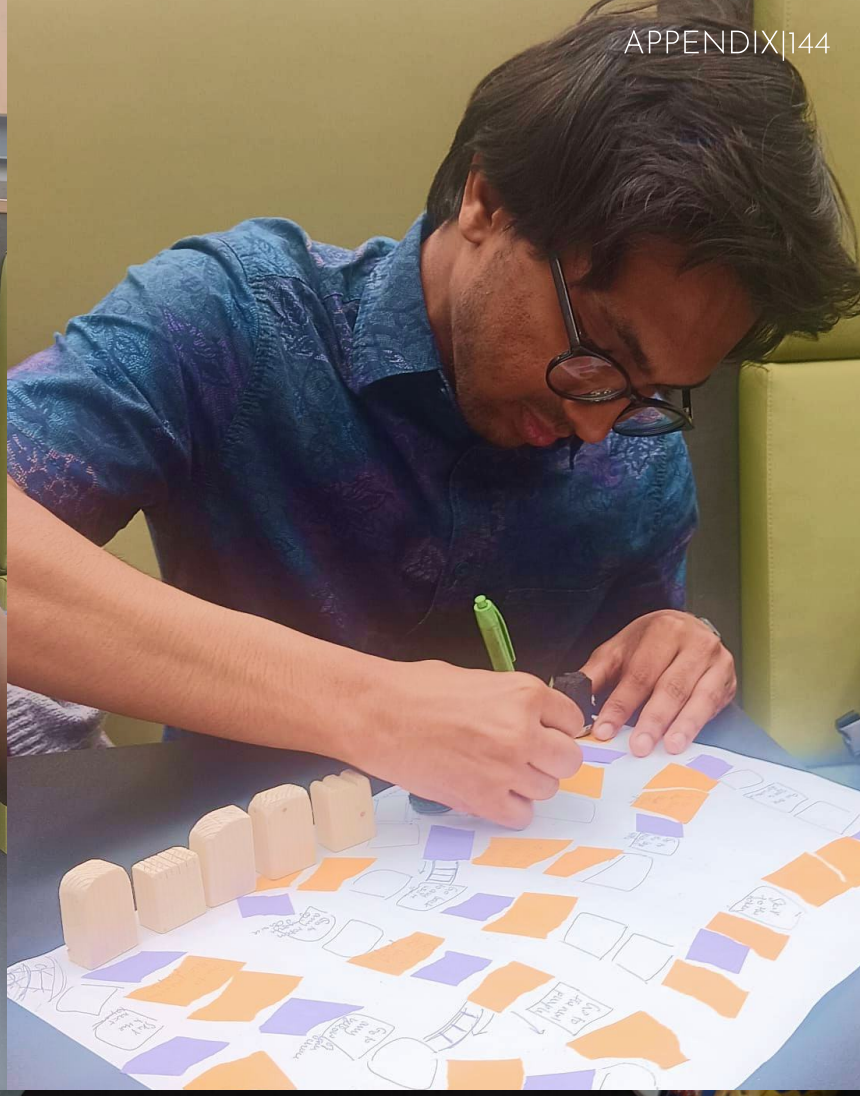

Charms on a key chain/ necklaces that get added on
Same trip every year
attach more
Sketch with badges / blanket with badges
from mom
you did this yay!
find parts of the map → attach and make a game
1 year
2 year
Thing to do
Thing to do
remembrance box
card pocket
press to open
collect your token
Our favourite game to play
wall mount
Numbered cards ↓ ensure that no matter what you can build a board game

WORKING TOWARDS THE FINAL CONCEPT

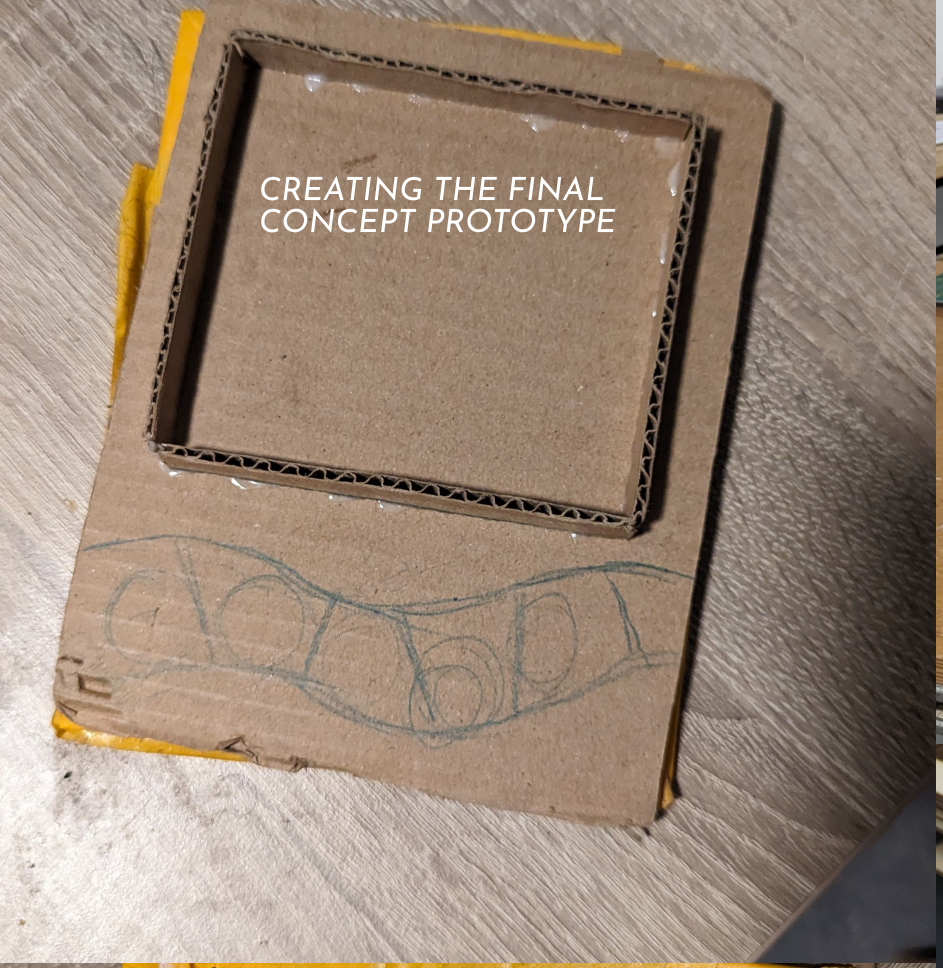


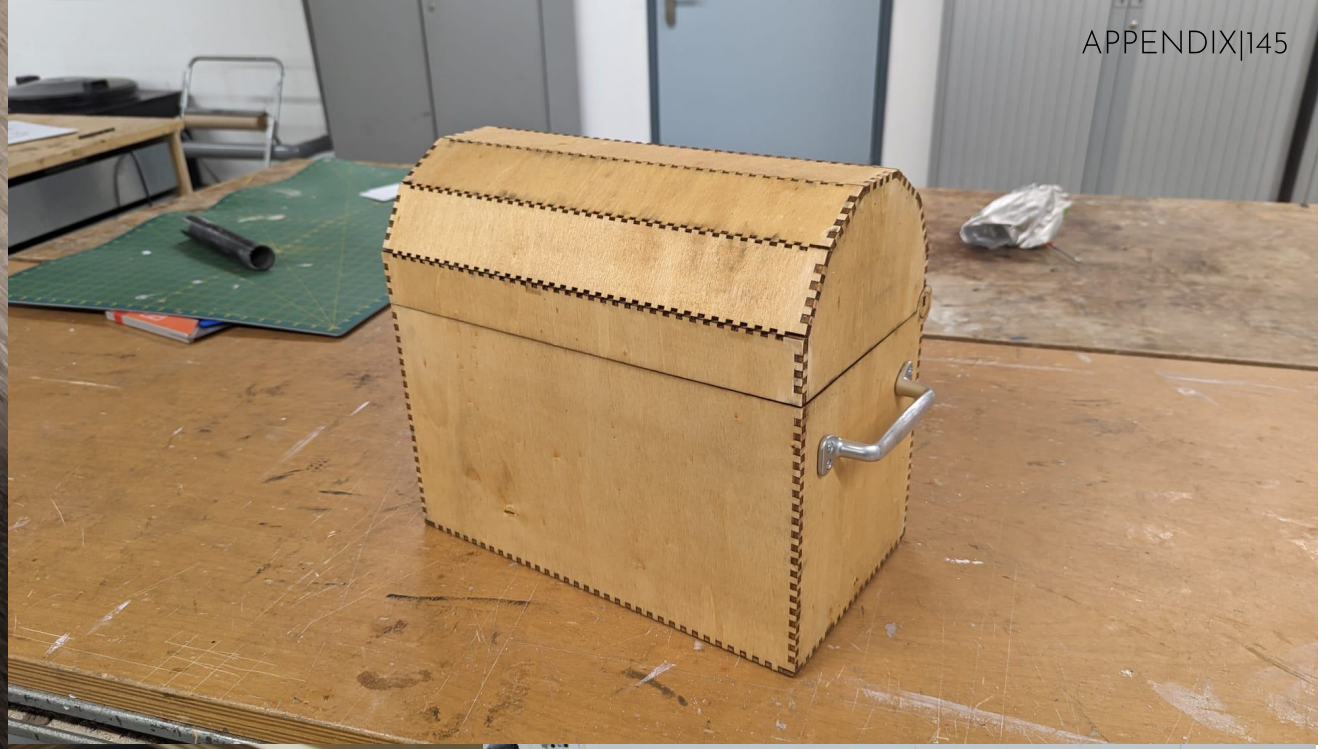
TESTING AND ITERATING ON THE GAME





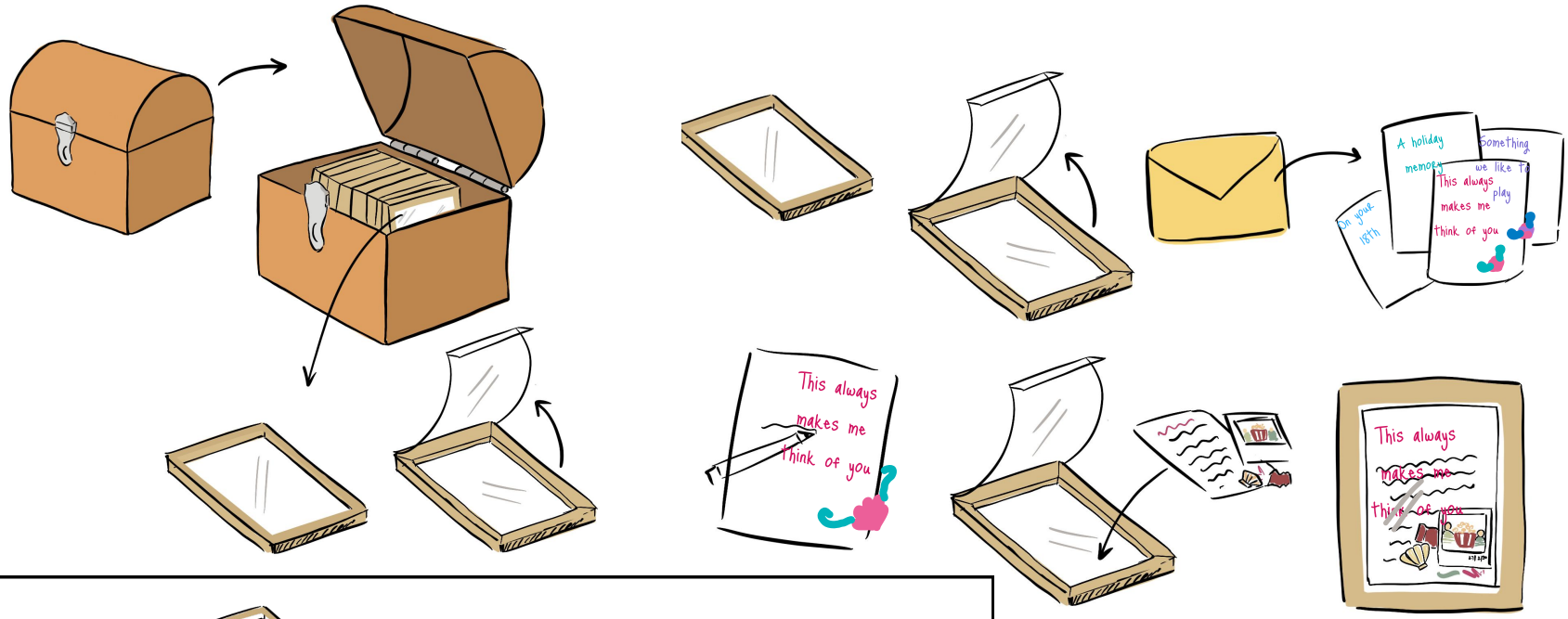
CREATING THE FINAL CONCEPT PROTOTYPE

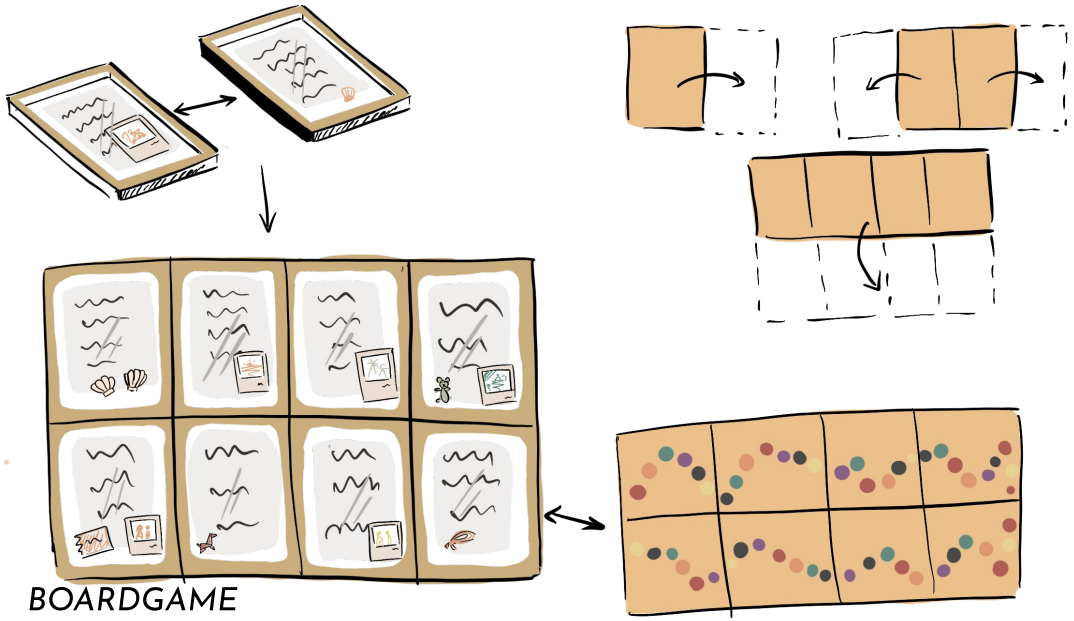




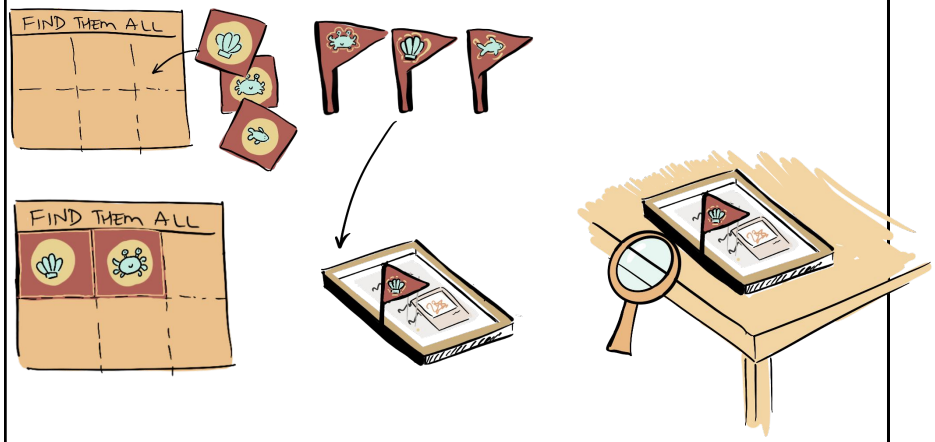
FINAL CONCEPT PROTOTYPE
- READY FOR EVALUATION

CHANGES TO CONCEPT TO INCORPORATE FEEDBACK FROM IDEATION

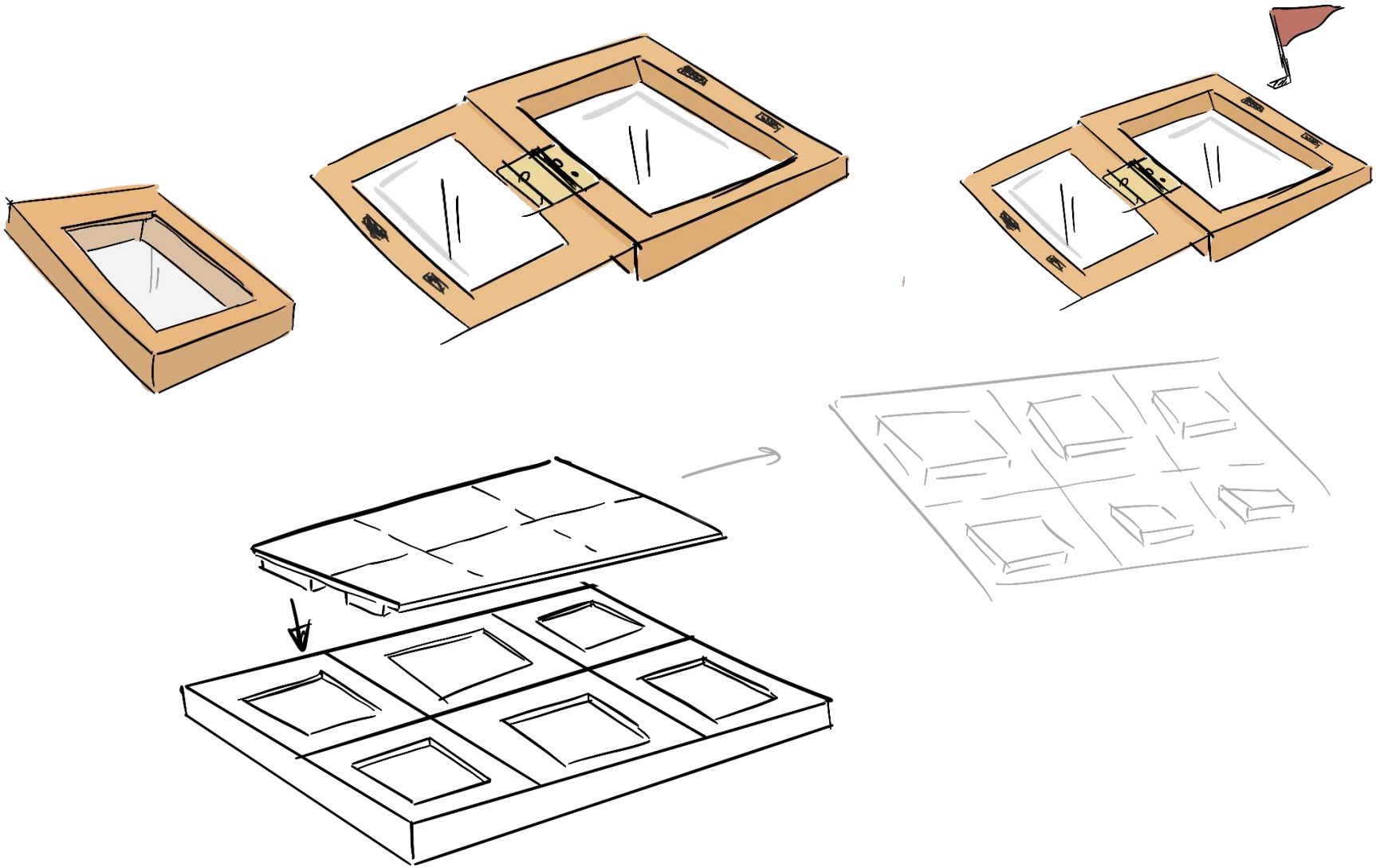




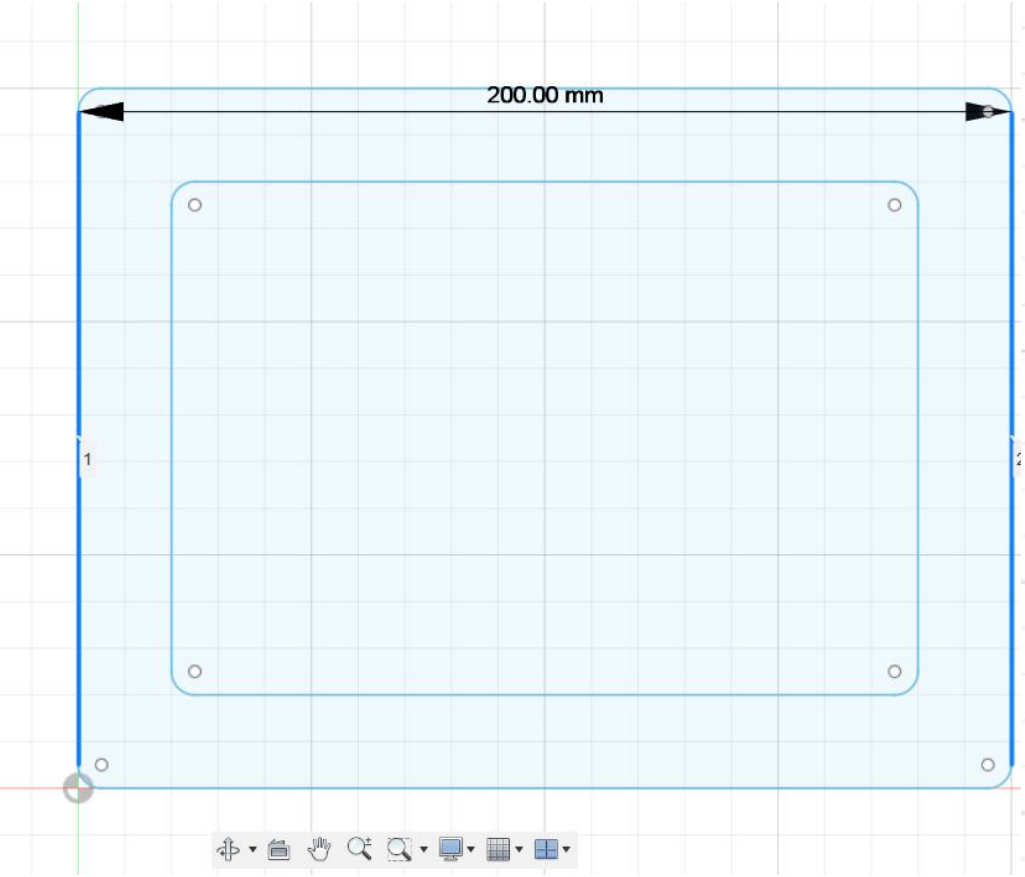
TREASURE HUNT

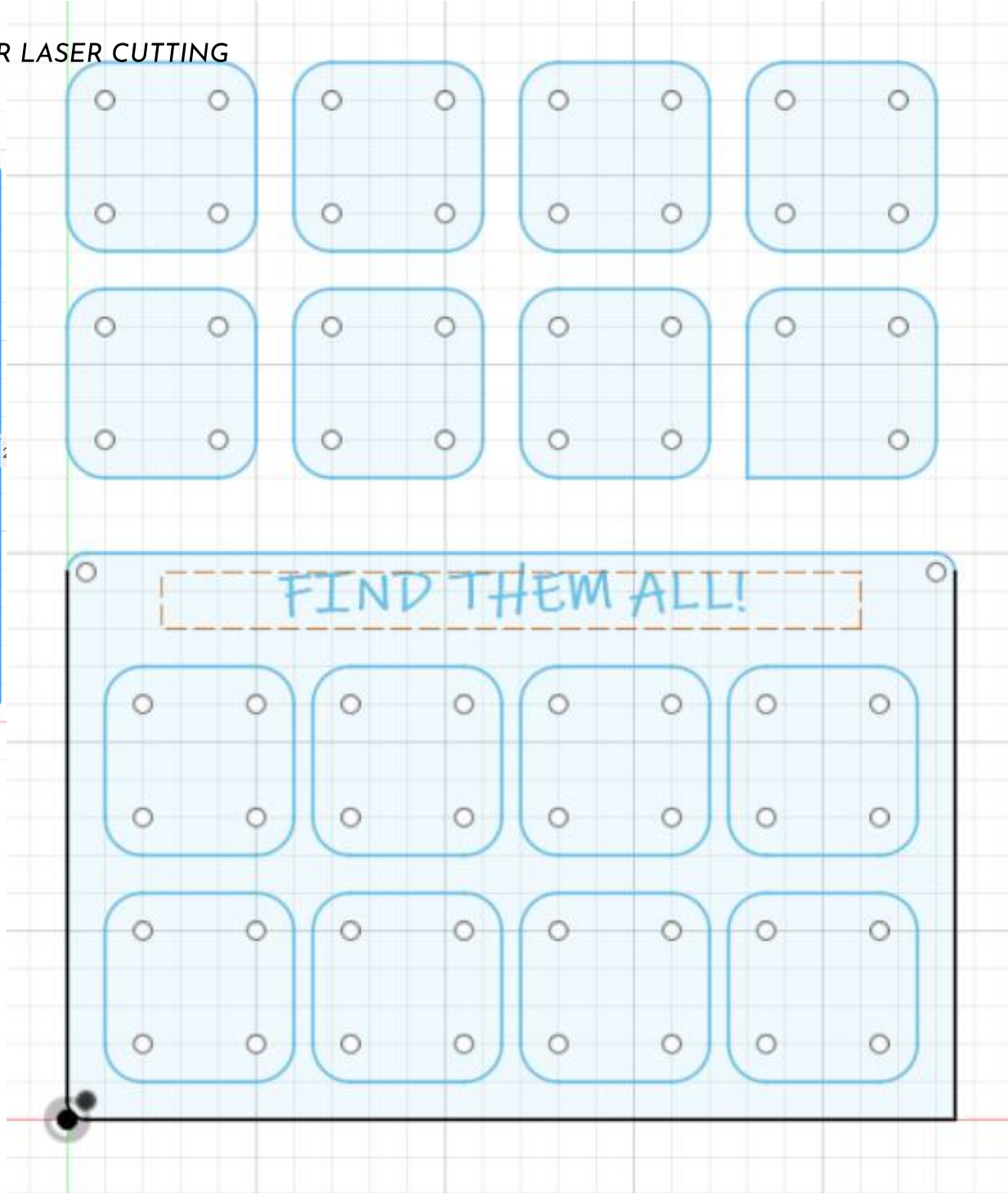


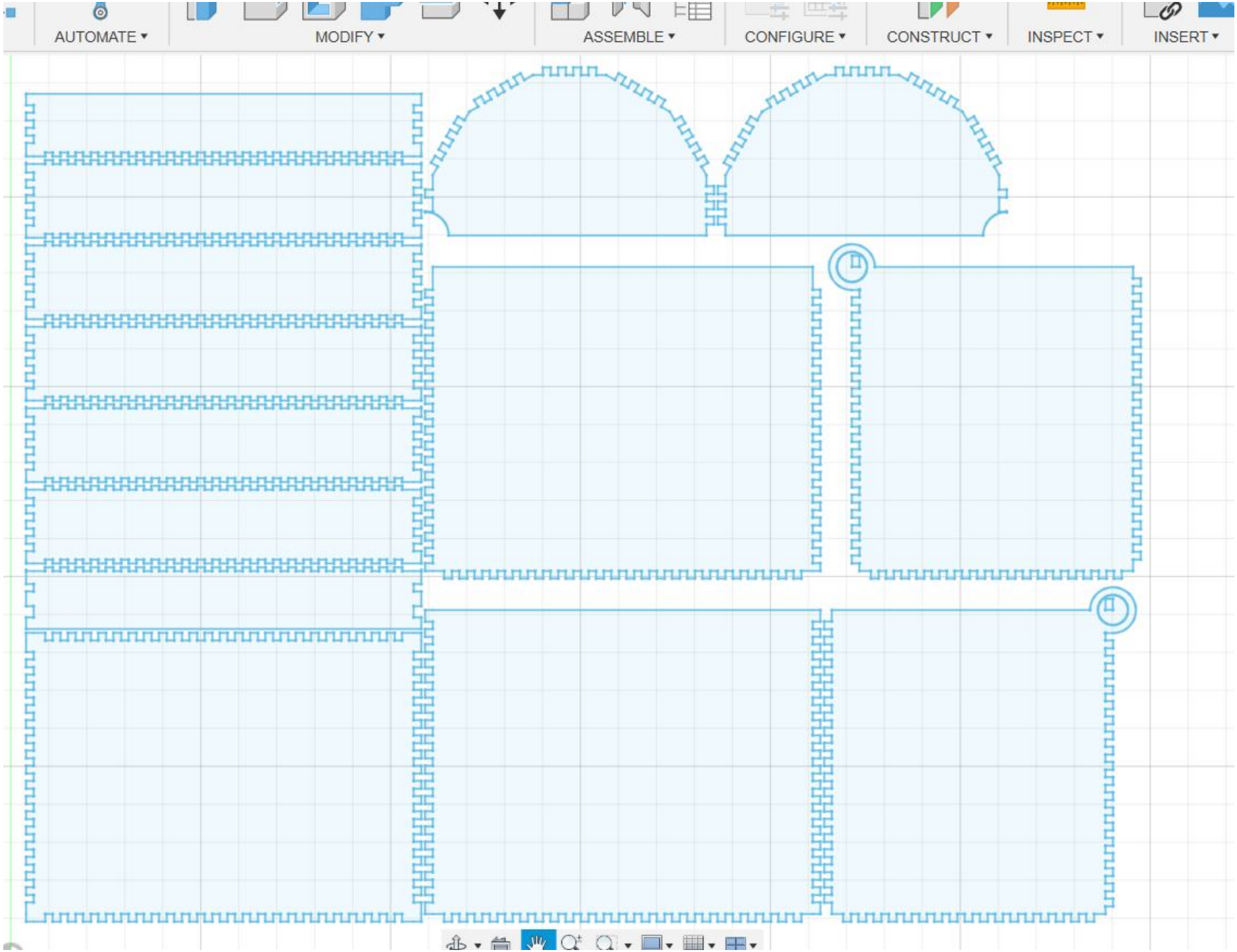
CHANGES TO THE TILE AND BOARDGAME FOR EASE OF ASSEMBLY AND PROTOTYPING



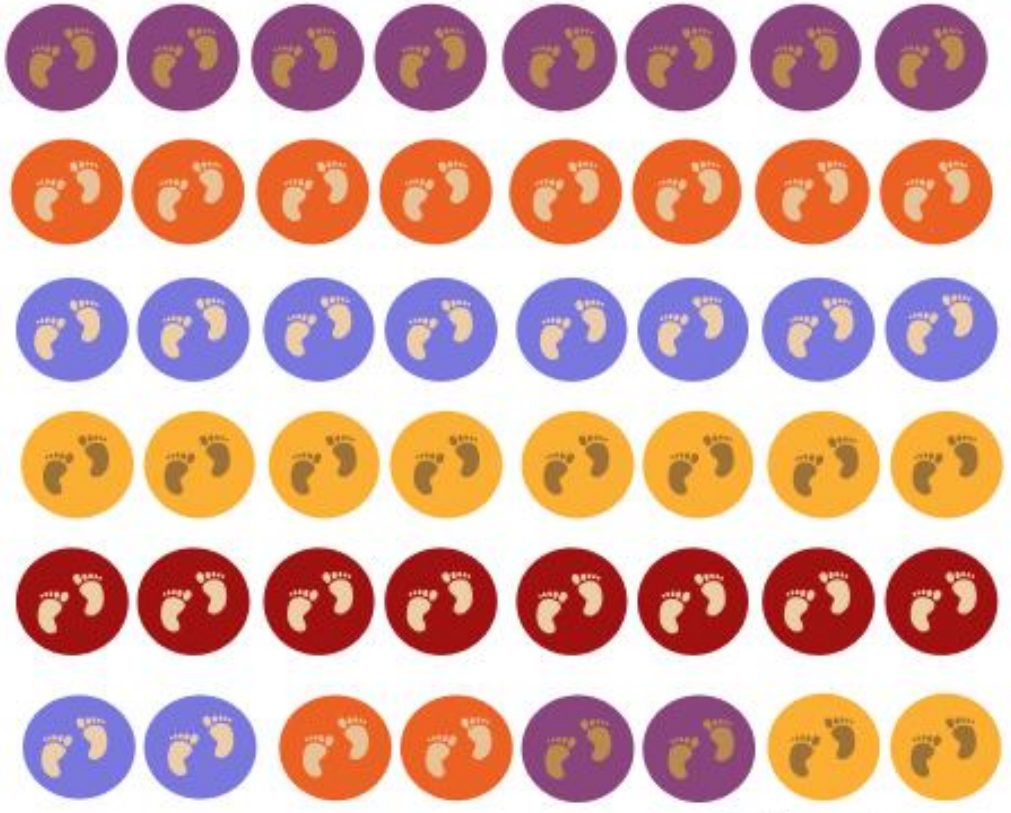
PROTOTYPING FINAL CONCEPT -PREPARING FOR LASER CUTTING

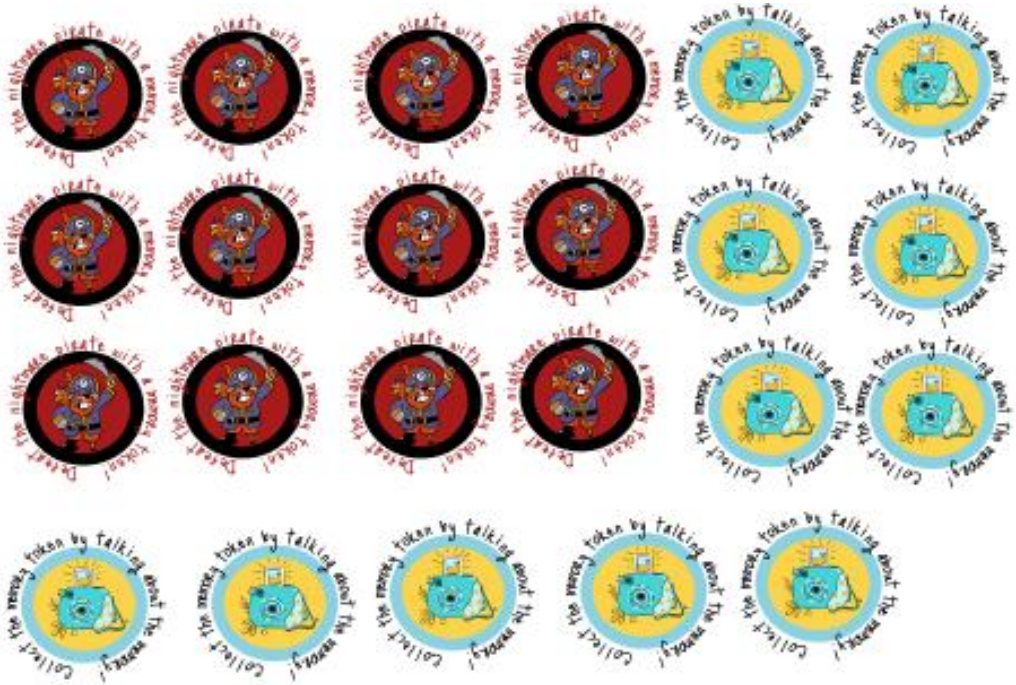


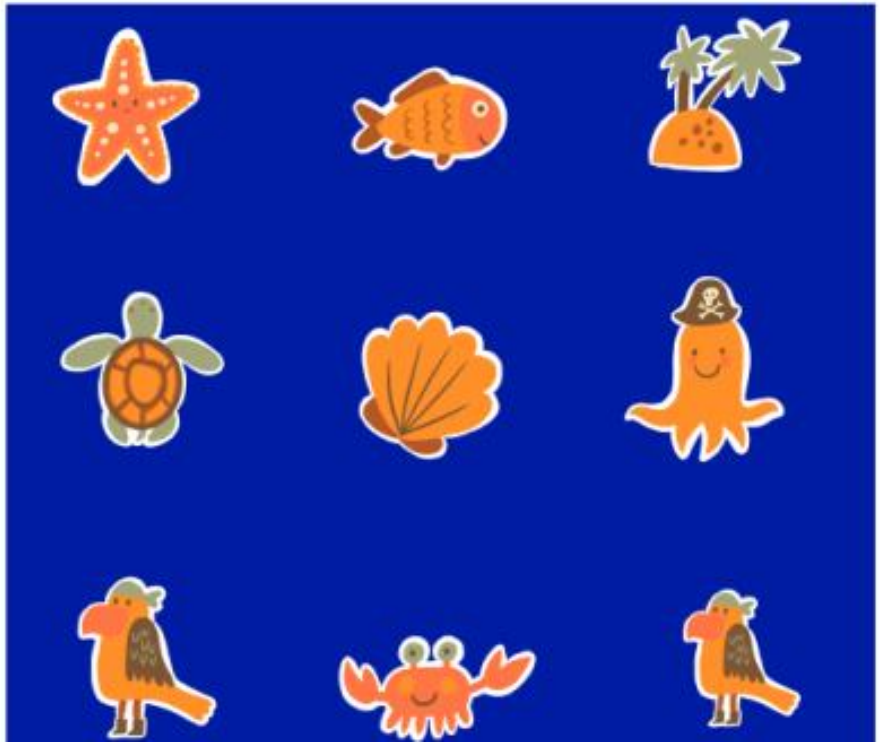



AUTOMATE
MODIFY
ASSEMBLE
CONFIGURE
CONSTRUCT
INSPECT
INSERT

PROTOTYPING FINAL CONCEPT- DESIGN OF BOARD GAME, TREASURE HUNT, PROMPT CARDS AND RULE CARDS







Collect a memory token by talking about the memory!

Got no memory tokens? Go back to the last one

Discovered treasures!

START HERE!

FINISH

How was your walk through memory lane?

FIND THEM ALL!

Songs that we like to sing

Games we like to play

Stories we like to read

The moment you were born...

An everyday activity

food we like to eat together

Something that I am proud of you of

A message for you

A holiday memory

Things we like to do together

On your 18th birthday

On your graduation

Something you do that makes me laugh

This always makes me think of you

On your wedding day

Some advice for you as you grow up

What is this?

This treasure chest is meant to store your valuable memories

Why a treasure chest?

Because your memories together are your greatest treasure!

What's in the treasure chest?

Memory tiles

An envelope with memory prompt cards

Things you need for the 'Walk down memory lane' boardgame

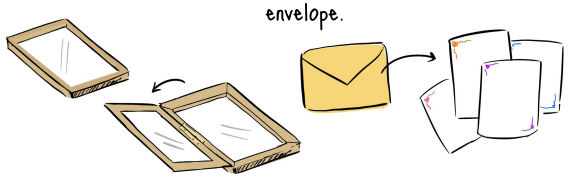
Things you need for the treasure hunt

Memory Tiles

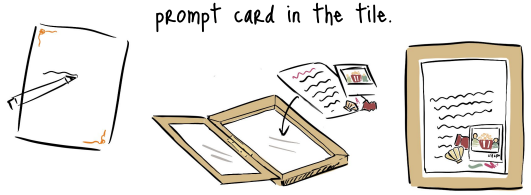
The memory tiles make up the core of this chest. They give you a place to store and recall your most special memories. Once you fill them up, you can play with them in many different ways!

How to fill up the memory tiles?

Pick a prompt card from the envelope (there are some extras, so you can pick the ones that spark most joy for you!). The prompt cards are colour coded with the code also present in the envelope.



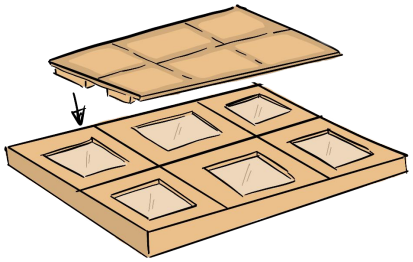
Write in the prompt card and find trinkets or pictures that relate to the prompt. Put everything you can find along with the prompt card in the tile.



A Walk through Memory Lane

The Boardgame

Set up: Join 6 completed tiles like so. Place the 'walk down memory lane' boardgame board on top of and it should snap into place.



and place 4 memory tokens on each of the spaces that has a small camera on it. It should look like this

Every player claims their character and we are ready to start!

Game play

A random player rolls the dice and starts moving ahead.

When a player lands on this

They must say something about the memory in the corresponding memory tile. Once they do so, they claim a memory token that they can stick on their backpack (the magnet on the back of the characters)

If they land on this,

They must place a memory token on the nightmare pirate and defeat the nightmare with a powerful memory.

If a player does not have any memory tokens, they must go back to the last tile on the board with memory tokens and collect one from there.

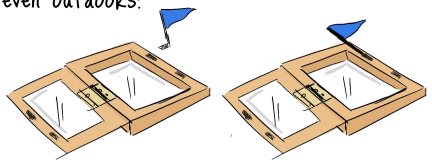
Once a nightmare pirate is defeated, he cannot come back to haunt anyone else!

The game concludes when all players have completed their walk.

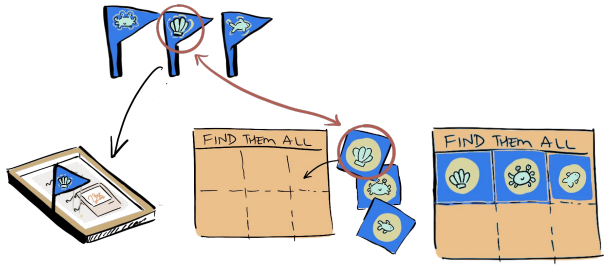
The Treasure Hunt

This game is a more active alternative to finding and sharing memories

Set up: The parent picks a few memory tiles to hide. They insert a flag in the tile as shown and hide them around the house or even outdoors!

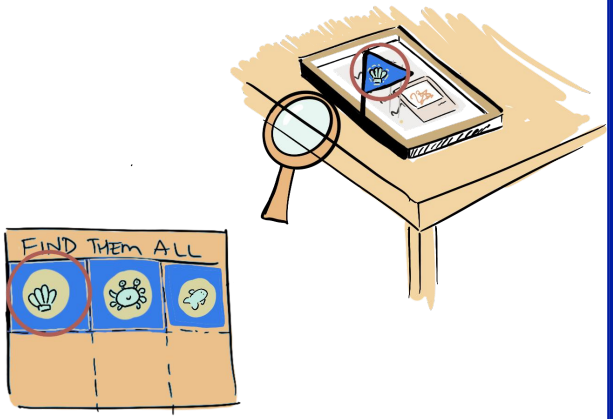


The parent then takes the treasure hunt bingo board and places the pieces corresponding to the flags on the board and keeps the rest of the pieces and flags aside.



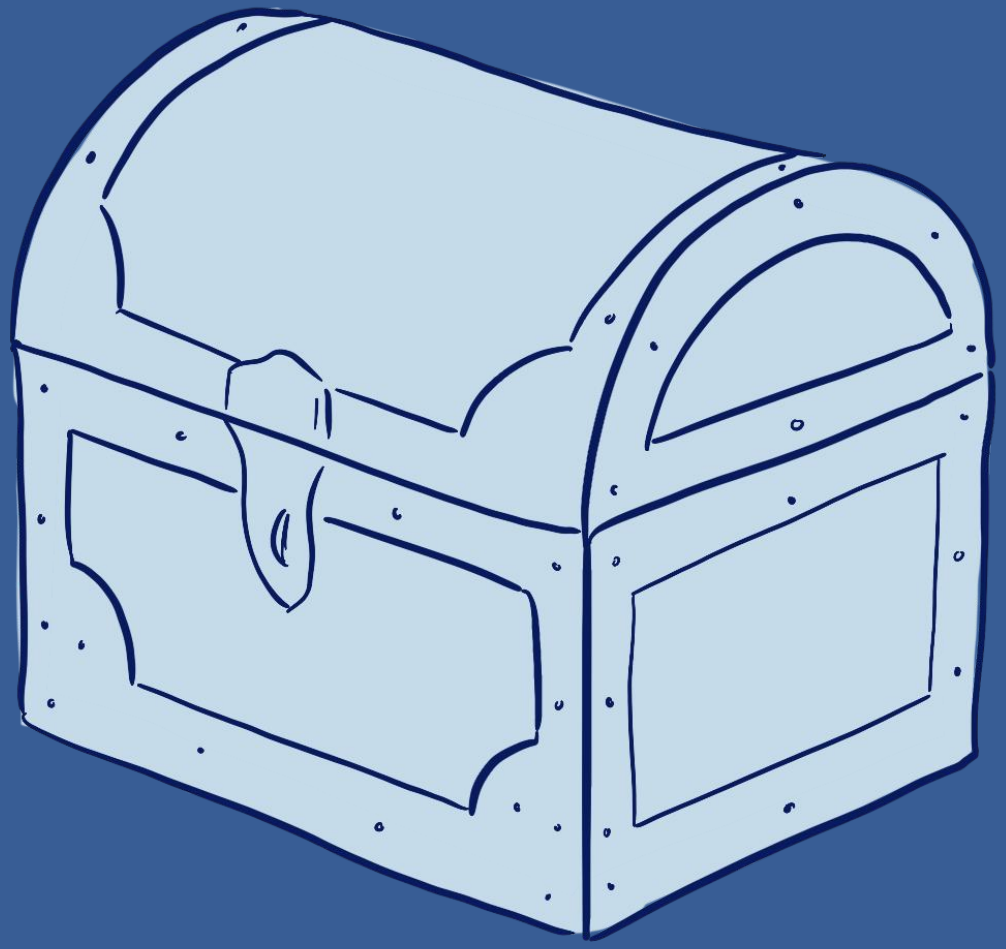
Game play

The child goes on an adventure finding the memory tiles. They can be sure to identify the tiles using the flag on them. They try to match the picture on the bingo board to the picture on the flag. When all the tiles from the bingo board have been collected, you discuss the memories in the tiles together.



PROTOTYPING FINAL CONCEPT- ASSEMBLY AND MAKING

FIND THEM ALL!
Prompt cards
A series of cards for your loved ones



TREASURED MOMENTS

A Master's Thesis By Swetha Krishnan

TU Delft