

APPENDICES

Echoes of Sand: an interactive exhibit to raise awareness
of and stimulate reflection on physical mortality

Yara Boom

Master Graduation Thesis Appendices
March, 2025

This appendices report has been written to support the graduation thesis by Yara Boom (2025). This report has been created to be read on a (large) screen and it can therefore not be guaranteed to be readable when printed on A4. Many images include post-its with a lot of information. Only digitally this is readable.

TABLE OF CONTENTS

1: PROJECT BRIEF	2	27: MOODBOARD LOOK AND FEEL	55
2: DEATH ATTITUDES CATEGORIZED	5	28: AUDIO GUIANCE FOR FIRST VERSION OF THE DESIGN CON- CEPT	56
3: ARTWORK ANALYSES	6	29: ARDUINO SET-UP SERVOMOTOR AND LED STRIP	57
4: SUMMARY OF ROPPOLA'S FRAMEWORK (2023)	12	30: PROTOTYPING	58
5: TESTING THE TOOLKIT	13	31: SYMBOLISM OF PEBBLES	59
6: INTERVIEWS WITH MUSEUM VISITORS	14	32: POEM, EXPLORING INTERACTION STEP 'GIVE MEANING'	60
Interview answers	16	33: GUIDELINES OFR MUSEUM PERSONNEL	61
7: INTERVIEWS WITH MUSEUM VOLUNTEERS	17	34: TEST PLAN FINAL TEST	63
8: VISITOR JOURNEY MAPS OF THE INTRIGUED AND LEISURELY ONE	18	35: FINAL TEST QUOTES AND ANALYSIS	64
9: CONTEXT MAPPINGL BOOKLET AND COLLAGING MATERIALS	20		
10: EXPERT INTERVIEW	21		
11: ANALOGIES AND FINAL INTERACTION VISION	22		
12: GENERATING IDEAS	24		
13: THE BEST IDEAS FROM 100 IDEAS	25		
14: CO-DESIGN RESULTS EXERCISE 1 AND 2 WITH QUOTES	26		
15: CONCEPT DIRECTIONS AFTER CO-DESIGN	28		
16: MEASURING THE CONCEPT IDEAS TO LIST OF REQUIREMENTS	29		
17: QUESTIONNAIRE CONCEPT IDEAS	30		
18: NEW ROUND OF IDEATION AFTER QUESTIONNAIRE	41		
19: THREE NEW CONCEPT IDEAS PRESENTED TO THE CLIENT	42		
20: SAND MANDALA REFLECTION	45		
21: INTERACTION VISION INSPIRING THE INTERACTION STEPS	46		
22: FOUR DESIGN ELEMENTS FOR INTERACTIONS STEP 'AWARENESS'	47		
23: TEXT AUDIO RECORDING MINIMUM VIABLE PRODUCT TESTING	50		
24: ORIGINAL ANSWER FORM MINIMUM VIABLE PRODUCT TEST	51		
25: QUOTES FROM 10 PARTICIPANTS MVP TEST	52		
26: AFFINITY CLUSTERING AFTER MVP TEST	54		

APPENDIX 1: PROJECT BRIEF




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	Boom	IDE master(s)	IPD <input type="checkbox"/>	Dfi <input checked="" type="checkbox"/>	SPD <input type="checkbox"/>
Initials		2 nd non-IDE master	<input type="checkbox"/>		
Given name		Individual programme (date of approval)	<input type="checkbox"/>		
Student number		Medisign	<input type="checkbox"/>		
		HPM	<input type="checkbox"/>		

SUPERVISORY TEAM

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

Chair	Arnold Vermeeren	dept./section	Human Centered Design	! Ensure a heterogeneous team. In case you wish to include team members from the same section, explain why.	
mentor	Marieke Sonneveld	dept./section	Human Centered Design		
2 nd mentor	Laura Cramwinckel				
client:	Museum Tot Zover			! Chair should request the IDE Board of Examiners for approval when a non-IDE mentor is proposed. Include CV and motivation letter.	
city:	Amsterdam	country:	The Netherlands		
optional comments	I chose two members from the same department, because they have different and specific expertise matching my assignment perfectly. Arnold's expertise includes museum experience and Marieke's expertise includes designing for the end of life / death.				! 2 nd 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 Date Signature




Personal Project Brief – IDE Master Graduation Project

Name student Student number

PROJECT TITLE, INTRODUCTION, PROBLEM DEFINITION and ASSIGNMENT

Complete all fields, keep information clear, specific and concise

Project title

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)

Museum Tot Zover has the goal to create openness around the topic of death. Since this year, 2024, the museum had a name change from a funeral museum to a museum about life and death. The museum wants to include the phase of dying (sterffase) and the end of life in their permanent exhibition and as a start to the museum visit. They will use the entrance corridor for this (image 1). The museum's core values are to educate, inspire and touch and they aim to do that lovingly (liefdevol), lighthearted (luchtig) and with courage (lef). The museum want to include the dying phase and end of life in their permanent exhibition to meet the expectations of the visitors and since they view that ignorance around the proces of dying creates fear, insecurities and false imaginations. People have questions surrounding death. Therefore it is important to become more death literate, which entails having skills to understand end of life. Having those skills can then help act in future situations surrounding death [1].

Opportunities are to discover the current visitor experience and envision a new one. Research to existing exhibitions and artistic approaches is encouraged. There is freedom in designing what type of intervention/ design/ experience will work. The design is part of the narrative in the museum, with the goal to touch the visitors and reflect on the theme of death. It is important to be aware that the design is part of the introduction of this narrative: Memento Mori. We are dealing with a sensitive topic and visitors, including children, have different reasons to visit the museum and they come from different backgrounds. Therefore, extra attention needs to be paid to performing interviews and tests in a respectful manner.

The main stakeholders are the Museum Tot Zover board, the (envisioned) visitors and the staff.

[1] Noonan, K., Horsfall, D., Leonard, R., & Rosenberg, J. (2016). Developing death literacy. Progress in Palliative Care, 24(1), 31.

→ space available for images / figures on next page

introduction (continued): space for images

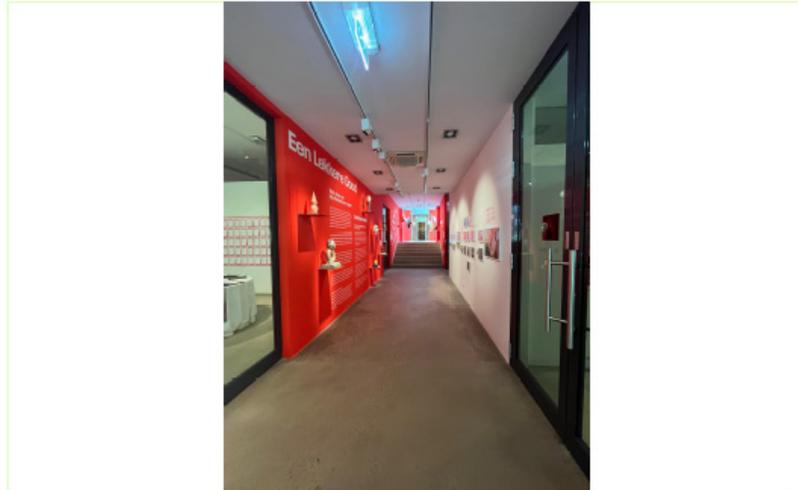


image / figure 1 The entrance corridor.

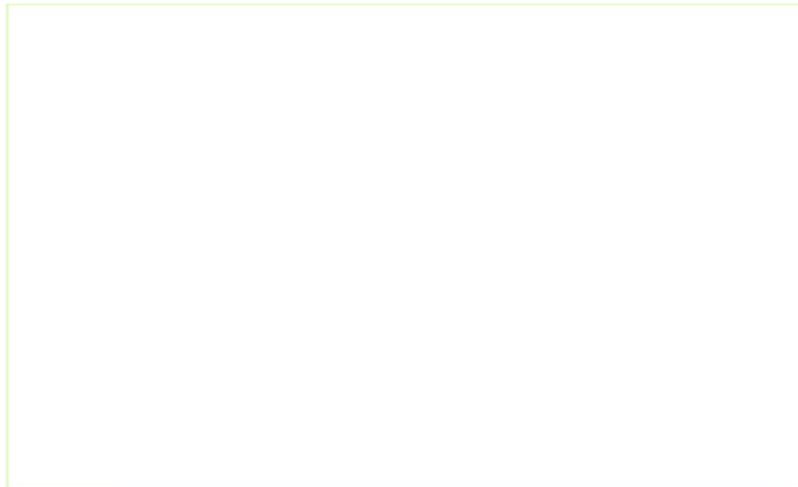


image / figure 2



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)

The Museum Tot Zover is creating their new permanent exhibition. It is currently unknown how the goals, core values and aims (such as approaching the visitor in a loving, but courageous matter) can be implemented. In 100 days I want to understand how people, including visitors, view the end of life and the dying phase and specifically their own death. I want to understand in what mindset they visit the museum and what the right moment is for them to land on this topic. One of the problems is that there is no overview of where the journey of visiting the museum starts for the visitors and where during that visit the best moment for an intervention is. I want to find out how to design an interactive experience to stimulate visitors to personally reflect on the end of their own life. Another problem is that it is unclear where the boundaries or limitations lie in trying to touch/ trigger people on this topic. I want to tackle this problem as a silver lining throughout the project. By talking to people, using trigger material and testing designs I hope to understand and get a feeling of these limits, which can be used as guidelines in the forming of a design vision and direction. I want to make sure that the design is valuable for the museum to better understand the context and that it serves as inspiration. I want the process to result in a developed design concept. Where final implementation of the design is a possibly outcome.

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 an interactive experience, for Museum Tot Zover's entrance corridor, to stimulate visitors to personally reflect on the end of life.

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)

Here are my (design) research questions: 1. How can an engaging museum experience be designed? 2. What should the visitor's museum journey look like? 3. Which part of the journey should be the focus of the design project? 4. How can design encourage reflection on the dying phase of life? 5. How do visitors perceive the end of life and the circle of life, and how can this be integrated into a meaningful experience? My design process which will follow the design thinking method: (1) RESEARCH (2) DEFINE (3) GENERATE (4) TEST and then (5) REDEFINE (6) FINALIZE. The process will include two design cycles. In the first, I will interview experts and visitors, create a visitor journey map, explore death attitudes through context mapping, establish and frame a target group. To end with a design vision, including interaction qualities and affordances. I envision to use 100 sketches, co-design with participants, use trigger material during testing and then eventually c-boxes to measure concept ideas to the requirements and test the potential of these concept ideas.

In the second cycle, I will refine these directions, improve and alter the concepts, test assumptions using experimentation and props; ultimately leading to one final direction and design that I plan to prototype and test to deliver a valuable design.

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	18 Sep 2024
Mid-term evaluation	12 Nov 2024
Green light meeting	21 Jan 2024
Graduation ceremony	25 Feb 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	<input type="checkbox"/>
For how many project weeks	<input type="text"/>
Number of project days per week	<input type="text"/>

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)

APPENDIX 2: DEATH ATTITUDES CATEGORIZED

I categorized the perspectives based on their values, key concerns, priorities, actions and a description of the death attitudes. All information is gathered from the description of the groups by Stichting Stem (Stichting Stem, n.d.).

The pro-active one

Values: autonomy of end-of-life decisions.

Key concerns: dementia, loss of dignity and dependence on caregivers.

Prioritizing: making own decisions surrounding death and having minimal pain.

Resulting in: being well prepared for the end of life with often a funeral insurance, will, euthanasia declarations.

Death attitude: open towards death, no taboo, aiming for control and dignity

The uninhibited one

Values: youthful, control when the time comes

Key concerns: the present

Prioritizing: family, friends, youth, standing out

Resulting in: being uninvolved with death and inactive towards it.

Death attitude: death feels distant, somewhat naive towards death, little experience with deaths and caring for others.

The social one

Values: safety and security, acceptance, help.

Key concerns: fear of death, pain relief, companionship and help from friends and family.

Prioritizing: practical preparations, following trends, comfort, companionship.

Resulting in: likely to have funeral insurance, denial in the final phase of life, but dreaming of a grand experience and unskilled in researching.

Death attitude: denial of mortality, fear of death and dying.

The trusting one

Values: comfort, awareness, good care, traditional and societal norms.

Key concern: deciding moment of death, having an aware moment for goodbyes, no burden to others.

Prioritizing: family, duty in (end of life) care for others, short-term gratification.

Resulting in: rarely discussing death, natural part of life, trust in others and their support network.

Death attitude: accept that death is a part of life and close circle of people will care at the end of life.

The rational one

Values: status, friends and family, wanting to 'let go', shaping their lives.

Key concerns: fear of pain, medical care and privacy.

Prioritizing: working hard, shaping their lives, work-life balance.

Resulting in: They put off showing vulnerability and seeking information, no specific wishes, few arrangements, have life insurance.

Death attitude: death is a taboo they contemplate, but not often discuss. They acknowledge avoiding the topic and thinking about it.

APPENDIX 3: ARTWORK ANALYSES

Figures 1 to 5 shows the artworks analyses. Table 1 shows the overview.

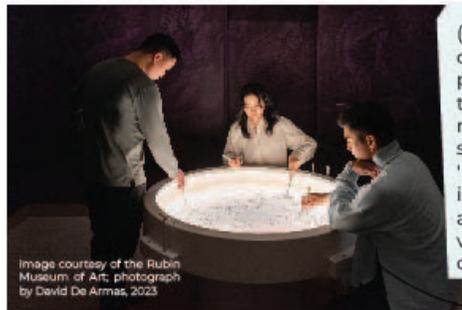
Analysis of 'Death is Not The End' at the Rubin Museum of Art, New York. 2023



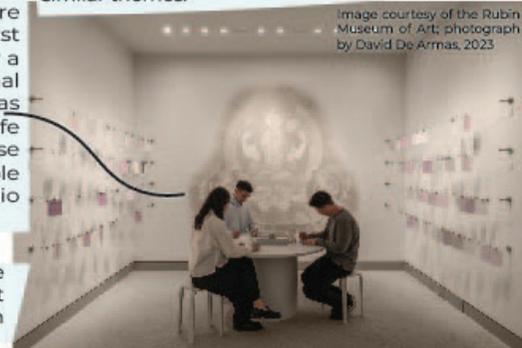
1) 'Death is Not the End' presents views on death and the afterlife through the lens of Tibetan Buddhism and Christianity. The religious artworks invite to think about impermanence and (im)mortality.

2) The collection of Tibetan Buddhistic and Christian artworks are the heritage items in this exhibition.

(5) To immerse the visitors into the narrative, the route along the three themes. Between each theme is a 'passing portal' and death is not the end, as the title of the exhibition depicts. The website of the museum has a press release of the exhibition and has video's and podcast around the theme or similar themes.



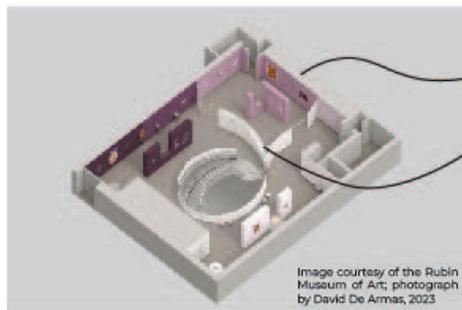
(4) The narrative is told in three themes: the human condition, states in-between and (after) life. There are participatory design elements in the exhibition. At the first theme there is a sandbox to write a name of a lost one, or a memory in the sand to then rake and dissolve it. In the final stage visitors can write their answers to questions such as 'How does believing - or not believing - in the afterlife impact how you live?' or 'What is rebirth to you?'. These answers are hung on the walls around the writing table with cards. Each item has a sign and some have an audio description.



(3) There is an emotional journey from confrontation to hope and elevation (Rubin Museum of Art, 2023). Dealing with 'memento mori' and 'karma' to 'heaven' and 'reincarnation'.

(7) At the sand box and the writing table there are multiple seats: inviting for interaction between different visitors. They can also read each other's answers (when understanding each other's language).

No remarks on 8)



(6) The exhibition is in a physical environment. The walls are gradually going from purple to white, a new colour for each theme to create an immersive experience. A recurring element is white (neon) lights when arriving at a new theme. You only arrive at the title of the exhibit when you take the stairs, not the elevator (Hannon, 2023).

(8) All heritage items are displayed. There are no images of items and no (digital) representations.

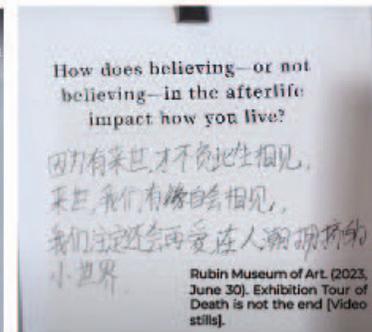
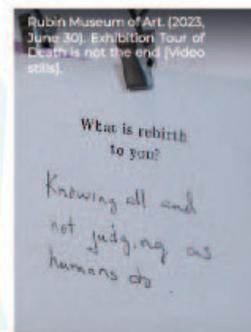


Figure 1: Artwork analysis 1.

Analysis of Living Loonger at Nemo Studio, by Nemo Science Museum, Amsterdam, 2024

(1) The exhibition 'Living Loonger' at Nemo Studio (2024) originates from the longer life expectancy of people. The goal is transformation: to understand your perspectives on life and death issues from your bucketlist to infinite health. The central question is: How do you want to grow old?

(2) The exhibition presents many scientific numbers and has participation elements. The exhibition elements are build around science, people's perspectives and personal reflection. It includes some artworks.

(3) The narrative explores life and death through five themes: being mortal, programming, staying young, living together and getting older

No remarks on 8)

(4) The exhibition has many designed participation and co-creation points. There are multiple 'life hack' points where you can learn something, you can answer questions through post-its, you can measure if your health fits your age through a screen, you can step into a casket and have a loved one give you an eulogy or speech, you can answer if you could die happily now and upload it to a screen, you can vote to what you see as old and more.

(5) When you enter the exhibition you see the title 'Living Loonger', a description of the exhibition titled 'How do you want to grow old?' combined with three tv fragments of people showing their view of growing old and how it influences their life or death. You step through the first 'gate' to get to a square surrounded by five other gates. Each gate is connected to one of the four themes. In the middle of the square is a tree with scientific information signs. You leave through the same gate as you entered.

(6) The income hall is surrounded by white fabric canvasses. Each theme is a space, seperating from another theme by fabric strips . Each fabric is colourful, once you step inside a space, the walls are made from varying colourful canvasses as well. The tree in the middle of the square is made from wooden panels and has a sound of water playing.

(7) The exhibition has many individually aimed interactions, like a cube you can have a seat in and share your story. As well as a seat at a table that is seperated from other seats. It also has places for duo's like a chair with two seating spots facing each other with a book in the middle, containing confronting questions and a casket where one person can climb in, with a lectern at its top where another person can give a speech. There is also a bench that specifically invites to talk to whoever sits with you. It is interesting that no room has walls and you can overhear conversations by visitors in other rooms.

Figure 2: Artwork analysis 2.

Analysis of 'If I die', as part of the exhibition 'Dear' at Galerie Perrotin, Paris, 2013

(1) The installation was part of an exhibition called 'Dear' challenging perceptions of life and controversial topic. So, death, here is seen as a controversial topic. The goal is to stimulate thinking about the societal problems that the artworks of the exhibition depict. In this case the imagined or dreamed afterlife of a woman is shown. It can make a viewer wonder about their own afterlife.

2) This is the artwork, that as part of the exhibition 'Dear' that focusses on the artist's iconic work. Perrotin calls it 'monumental' (Galerie Perrotin, 2013).



IF I Die, 2013, Fiberglass, silica gel, simulation sculpture © Sun Yan & Peng Yu - Photo: Claire Don Courtesy the Artists and Galerie Perrotin



IF I Die, 2013, Fiberglass, silica gel, simulation sculpture © Sun Yan & Peng Yu - Photo: Claire Don Courtesy the Artists and Galerie Perrotin

"Dear" at Galerie Perrotin, Paris, September 12 - November 9, 2013 (PERROTIN, 2013)



(4) (6) the artwork has been exhibited at different locations, this time at the Galerie Perrotin in Paris. Here the artwork had a video of Peng Yu's mother talking about her dreams of the afterlife before her death as an introduction (PERROTIN, 2013). IF I Die' is set in a separate room, with an introduction video. The location was an empty gallery space, the floors or walls were plain around the work.

(7) The work was not only viewable by individuals or groups and neither designed for one. There are no remarks on this part.

No remarks on (5) (8)

(3) The core of the experience: the artwork 'IF I Die' tells the story of how the artist Peng Yu's mother imagined her afterlife. The artwork is based on the extensive interview he had with her before she died (collateral) (contemporary100, 2024) (PERROTIN, 2013)

Figure 3: Artwork analysis 3.

Analysis of 'De Dood Leeft' / 'Death Matters' at Tropenmuseum, Amsterdam, 2011

1) The exhibition 'De Dood Leeft' by Tropen Museum Amsterdam (Now Wereldmuseum Amsterdam) in 2011 shows how world wide perspectives on how next of kin handle the death of loved ones.



(2) The collection showcases hundreds of films, objects and modern artworks (Schenk et al., 2011).



(3) The story is told by the phases relatives experience when someone dies. Death in daily life, dying, laying out, funeral and the hereafter.



(6) The exhibition is a physical one, in the museum building. The exhibition spaces go from dark and low lightning to lighter and brighter lightning. The sections gain different colours through lightning (Christiaanse, 2011).

(5) The experience opens with an artwork by Jan Fabre of a swan and a casket, then walking through the arch towards the dark corridor where the title of the exhibition and its introduction are portrayed (Christiaanse, 2011). There are televisions showing tv fragments about death. Then portraits of five people just before the death and after the moment they died by Walter Schels. It continues into a room with a Ghanese Ashanti laying out service, an Indonesian cremation on Bali and then stories of people's vision of the here-after and burial gifts. Ending with a collection of worldwide tombstones and a place where visitors can write down memories and hang them.



4) When the museum is closed there is an augmented reality app with personal stories (Schenk et al., 2011). The AR experience uses a mobile app. Throughout the exhibition there are stories told on (touch) screens, through headphones with voice recordings, (crying) sounds (Schenk et al., 2011). There is a glass floor over burial gifts.

(8) The exhibition includes many video materials and mostly tangible objects and items. Some items in the lightest rooms are replica's to not damage the originals. What the AR experience included besides stories could not be found.



7) There are multiple seats at the Ashanti service, multiple headphones per item of screen, and participatory cards. The headphones are for individuals, but in one room there is sound and film (Christiaanse, 2011).

Figure 4: Artwork analysis 4.

Analysis of 'stiller Abtrag, as part of the Exhibition 'Sterblich Sein'/ 'Being Mortal' at Dom Museum, Wien, 2023



(1) 'stiller Abtrag' is part of the Exhibition 'Sterblich Sein' 'Being Mortal' at Dom Museum Wien. The goal of the overall exhibition is to present the different meanings of being mortal and death. The exhibition approaches this theme from different contexts: individual, collective and socio-political. It has intimate and personal views, as well as the broader political and public implications. The works include pieces from the Middle Ages to the present. (Dom Museum Wien, 2023a). The artwork stimulates visitors to think about people dying and being buried alone and to commemorate them and their lives.



(2) The artwork has been exhibited on multiple locations since 2006. (Stiller Abtrag – Sybille Loew, n.d.) and is in this exhibition installed around the round staircase at Dom Museum Wien. It is one of the modern works in this exhibition.

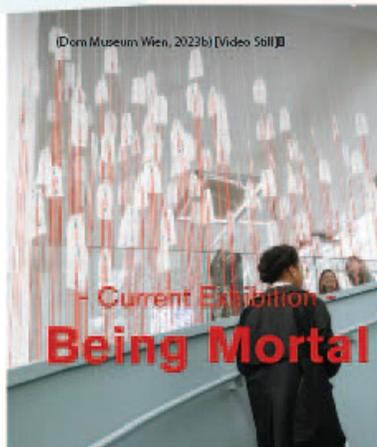


(6) The artwork is a physical installation. The artworks was visible from the stairs, through a glass wall. It was hung from the ceiling surrounded by white walls and grey floors. Some exhibit elements were hung in rooms with different colours.

(7) You can walk through the artwork with a handful of people at the same time and see it from the stairs as well. The participatory activity at the end of the exhibition invites visitors to write to strangers and read each others notes.



(4) At the end of the exhibition a room is created where visitors can write their own perspectives on the theme. These cards hanging on threads are inspired by 'stiller Abtrag'. The visitors could touch the artwork itself and walk through it. The museum has an app and audiotour.



(5) The artwork was visible from stairs to the exhibition, the visitor could walk through the work during the exhibition and at the end was a participatory installation also with names and tags inspired by the artwork (Dom Museum Wien, 2023b).

(3) The overall narrative of the museum's exhibition is to show in a cultural-historical dome the different meanings of mortality and death (Dom Museum Wien, 2023a). This artwork introduces the second part of the exhibition, by being showcased along the stairs to the second floor. The work tells the story of thousand people that died were buried in Vienna alone, without friends and family. Typically identification tags with a person's name, age and date of death are tied to their toes. The embroidery process represents a slow task, taking the time to commemorate the deceased and the artwork also invites the visitors to commemorate them. The red threads represent the thread of life. The title 'stiller Abtrag' represents the name for a silent burial, a funeral without next of kin. (Dom Museum Wien, 2023b)



Figure 5: Artwork analysis 5.

Table 1: Artwork analysis based on the building blocks by Vermeeren (2022).

Artwork (A) title and exhibition (E) title.	Educational goal: learning, inspiration, transformation.	Collection items/heritage.	The core of the experience: narrative, story	Interactions, touch points, touch point technology.	The journey, visiting stages, pre-visit, post-visit.	The physical environment.	The social situation.	(Digital-based) representations of collection items/ heritage elements.
'If I die' (A) at 'Dear' (E)	Stimulate thinking about the societal problems that the artworks of the exhibition depict: death being a controversial topic.	Perrotin calls the artwork 'monumental' (Galerie Perrotin, 2013).	'IF I Die' tells the story of how the artist Peng Yu's mother imagined her afterlife.	Here the artwork had a video of Peng Yu's mother talking about her dreams of the afterlife before her death as an introduction (PERROTIN, 2013).	One visiting stage is seeing the video and then the artwork.	The location was an empty gallery space, the floors or walls were plain around the work like the rest of the gallery.	Not specifically designed for group or individual visit. More suited for the latter due to the quite narrow entrance to the room with the artwork on display.	-
'Death Is Not the End' (E)	The religious artworks invite to think about impermanence and (im)mortality.	The collection of Tibetan Buddhist and Christian artworks and items (58 pieces) are the heritage items in this exhibition.	The narrative is told in three themes: the human condition, states in-between and (after) life.	Sandbox, a writing table and paper card wall, audiotour.	Between each theme is a 'passing portal'. There are participation installations. Post-visit: website video's and podcasts. The museum no longer has an app.	The exhibition is in a physical environment. The walls are gradually going from purple to white, a new colour for each theme to create an immersive experience.	Multiple seats at both participatory installations. Visitors can also read each other's answers (when understanding each other's language).	-
'stiller Abtrag' (A) at 'Sterblich Sein' (E)	The artwork stimulates visitors to think about people dying and being buried alone and to commemorate them and their lives. The goal of the overall exhibition is to present the different meanings of being mortal and death.	The artwork has been exhibited on multiple locations before and is in this exhibition installed around the round staircase at Dom Museum Wien. It is one of the dozens of artworks in this exhibition.	The work tells the story of thousand people that died and were buried in Vienna alone in 2022. The work represents identification tags bound to the deceased one's toes and their lifelines.	Paper cards hanging from the ceiling, inspired by the artwork, are part of the exhibition at the end. The visitors could touch the artwork itself and walk through it. The museum has an app and audiotour.	The artwork was visible from stairs to the second part of the exhibition, the visitor could walk through the work during the exhibition and at the end was a participatory installation also with names and tags inspired by the artwork.	The artwork is a physical installation. The artworks was visible from the stairs, through a glass wall. It was hung from the ceiling surrounded by white walls and grey floors.	You can walk through the artwork with a handful of people at the same time and see it from the stairs as well. The participatory activity at the end of the exhibition invites visitors to write to strangers and read each others notes.	-
'Death Matters' 'De Dood Leeft' (E)	Showing world wide perspectives on how next of kin handle the death of loved ones as education and inspiration.	The collection showcases hundreds of films, objects and modern artworks.	The story is told by the phases relatives experience when someone dies.	The AR experience uses a mobile app. There are touch screens, headphones, sounds, writing paper cards on a wall, walking on top of glass over burial gifts.	There is one (obvious) route to follow to the end of the exhibition. Death in daily life, dying, laying out, funeral and the hereafter. Then ending with tombstones and a memory wall.	The exhibition is a physical one, in the museum building. The sections are lit in different colours: from dark to low.	There are multiple seats and multiple headphones and participatory writing cards. The headphones are for individuals and in the Ashanti room there is a screen with sound for all.	Some exhibited objects are replicas that can handle the light installations and supporting the immersive experience and there is an AR experience (but no precise description could be found online).
Living Looonger (E)	The exhibition 'Living Looonger' at Nemo Studio (2024) originates from the longer life expectancy of people. The goal is transformation: to understand your perspectives on life and death issues from your bucketlist to infinite health. The central question is: How do you want to grow old?	The exhibition presents many scientific numbers and has participation elements. The exhibition elements are build around science, people's perspectives and personal reflection. It includes some artworks.	The narrative explores life and death through four themes: being mortal, programming, staying young and getting older.	The exhibition has many designed participation and co-creation points. There are multiple 'life hack' points, you can answer questions through post-its/cards, you can measure your age/health through screens, you can step into a casket and have a loved one give you an eulogy or speech, you can upload your personal views on dying, there is a cinema area with headphones.	It opens with 'How do you want to grow old?' and perspectives by three people. Through the gate is a square surrounded by four other gates and a three with information in the middle. Each gate is connected to one of the four themes. You leave through the same gate as you entered. There is additional information on the website and there is no app.	The income hall is surrounded by white fabric canvasses. Each theme is a space, separating from another theme by fabric strips. All canvas/fabric walls are colourful, The tree in the middle of the square is made from wooden panels and has a sound of water playing.	The exhibition has many individually aimed interactions: a cube to sit in and individual seats. It also has places for duo's like a chair with two seating spots facing each other with questions in the middle and and you can climb into a casket with a lectern. There is also a conversation bench, you can draw your future at a big table.	-

APPENDIX 4: SUMMARY OF ROPPOLA'S FRAMEWORK (2013)

In brief, framing refers to “what makes a museum a museum”; that is, to the conceptualization of the exhibition environment through visitors’ expectations and ways of participation. Frames are important for visitors’ acknowledgement of the museum as a unique communication medium, but at the same time they constitute important elements for institutional change. Resonating refers to those body and brain encounters of the constitutive elements of an exhibition that make meaning for each visitor. Channeling means the physical, perceptual, and conceptual accompanying of visitors in the vast valley of stimuli of a museum exhibition. It refers to the combination of the “arrangements of stuff” by the museum aimed to help visitors build their experience and their own meaningful narratives. Finally, broadening is the context in which visitors make meaning; it encloses those ways through which visitors “find themselves in relationship with the interpretive content of the museum.”

- Xanthoudaki, 2015 on Roppola 2013.

Figure 6: Xanthoudaki (2015) summarizing Roppola's framework (2013).

APPENDIX 5: TESTING THE TOOLKIT

Before using the toolkit with actual museum visitors (Appendix 6), a first version was tested with Mees (24). This appendix shows the original version and the insights that led to adapting the toolkit (Figure 7) (Figure 8).

- The participant understood how to use the toolkit.
- The participant said the page with all the Dutch and English emotions together was too busy.
- The participant could explain the filled in templates well.
- The participant found a typo.



Figure 7: Templates filled in by participant Mees (24).

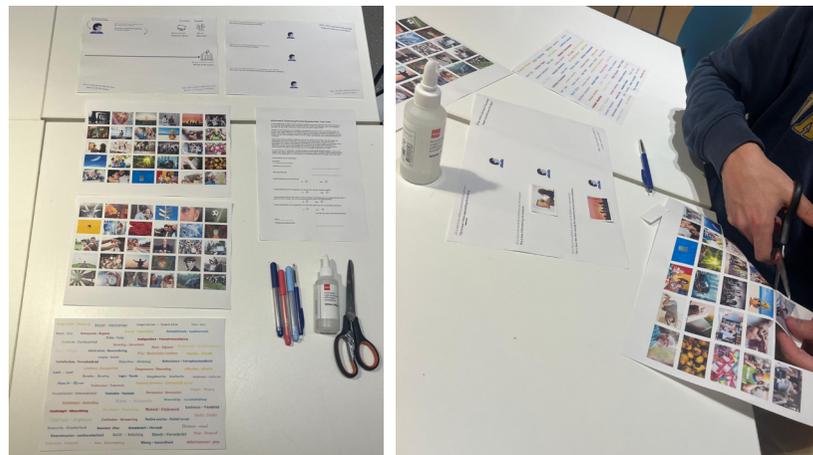


Figure 8: The first test of the toolkit and participant Mees (24) using the toolkit.

APPENDIX 6: INTERVIEWS WITH MUSEUM VISITORS

The interviews with museum visitors and volunteers are planned to answer the research questions:

1. How do the visitors experience the entrance and exit of the museum?
2. What moments or touch points in the current journey have opportunities for design implementation?

and to (partly) answer the following design questions:

3. What should the visitor's museum journey look like?
4. Which part of the journey should be the focus of the design project?

The following questions have been formulated before interviewing:

- a. How is the entrance experience of people visiting the museum?
- b. What expectations and feelings do people have when they enter the museum?
- c. At what moment of what physical place in the museum do they feel the museum visit starts and ends?
- d. Who do people visit with?

The following questions have been formulated before observing visitors:

- e. What path do people take to get to the museum? Find specific points of entrance.
- f. What actions take place from entering the museum café till the first exhibition?
- g. Do people take the audio-tour (and why?)
- h. What is the museum attender's role and what do they do?

Interview set-up

The visitors are interviewed first:

1. What brought you to this museum?
2. What expectations did you have before entering the museum?
3. What did you want to get out of your museum visit?
 3. a. Did you get that out of it?
4. Do you have familiarity with the topic of the museum?
 5. When did the museum experience begin for you? (At the cemetery gate, when buying a ticket, when entering the exhibition, or earlier or later?)
 6. Where did the experience end for you?
 7. Did you use any additional facilities such as an audio tour or a scavenger hunt?
 8. What is usually the reason for you to visit a museum?
 9. Who do you usually go to a museum with?
 10. What is your age?

Then they get to fill in the two templates, using the toolkit (Figure 10):

Materials: scissors, glue stick, the images printed, the templates printed, markers, a pen.

'I want to understand how you experience was visiting this museum. You are the expert of this experience. Do you want to participate in a collage making session to help me understand this? The session will take about 10 minutes, but take your time if you need more.' You get 60 images and 60 words to help you express your feelings surrounding the beginning of the museum experience. You can also write and draw your thoughts and feelings! Afterwards we will walk through your collage together.



Figure 9: Kyle filling out the toolkit.

Dit ben ik! Voornaam: This is me! First name:

Dit is mijn reis van het ontdekken van het museum tot het bezoek: This is my journey from discovering the museum up until the visit.

Voorbeelden Examples

Website bezocht. Visited the website. Met dal! With them!

Aankomst bij het museum Arriving at the museum

Dit is hoe ik me voelde bij binnenkomst via de poort van de begraafplaats: This is how I felt entering through the gate of the cemetery:

Dit is hoe ik me voelde bij binnenkomst van het museum: This is how I felt entering the museum:

Dit is hoe ik me voelde bij verlaten van de tijdelijke en vaste expositie: This is how I felt after leaving the temporary and permanent exhibition:

Draw, write or stick some of the provided images and words around the figure!

Draw or describe the steps you have taken to visit this museum.

Teken of beschrijf de stappen die je hebt genomen om dit museum te bezoeken.

Teken, schrijf en plak wat beelden en woorden rondom het figuur!

Desperation	RELIEF	Inspiration	Hate	Sensory pleasure
Regret	Annoyance	Anxiety	Schadefreude	Worship
Gratitude	Pride	Indignation	ELEVATION	Affection
Fear	Admiration	Serenity	Envy	Jealousy
Satisfaction	Longing	Pity	Reluctance	Disgust
Lust	Loneliness	Rejection	Disappointment	Sadness
Dissatisfaction	Boredom	Anger	Euphoria	Doubt
Tenderness	Distrust	Fascination	Startle	Distress
Excitement	Happy for	Shame	Nervousness	Shock
Insecurity	Resentment	Humiliation	Guilt	Hope
Determination	Frustration	Confusion	Moved	embarrassment
Contempt	Awe	Amusement	Positive surprise	Worry

- | | | | | |
|-----------------|-------------|-------------------|------------------|--------------------|
| Wanhoopt | OPLUCHTING | Inspiratie | Haat | Zintuigelijk genot |
| Spijt | Ergenis | Ongerstheid | Leedvermaak | Aanbidding |
| Dankbaarheid | Trots | Verontwaardiging | VERHEVENHEID | Affectie |
| Angst | Bewondering | Sereniteit | Afgunst | Jaloezie |
| Tevredenheid | Smacht | Medelijden hebben | Terughoudendheid | Walging |
| Lust | Eenzaamheid | Afwijzing | Telurstelling | Verdriet |
| Ontevredenheid | Verveling | Woede | Euforie | Twijfel |
| Tederheid | Argwaan | Fascinatie | Schrik | Nood |
| Opwinding | Blij voor | Schaamte | Nerveusiteit | Verschrikt |
| Onzekerheid | Afkeer | Vernedering | Schuld | Hoopvol |
| Vastberadenheid | Frustratie | Verwarring | Ontroerd | Gêne |
| Minachting | Bewondering | Vermaak | Positief verrast | Bezordheid |



Figure 10: Toolkit for visitor interviews.

APPENDIX 7: INTERVIEWS WITH MUSEUM VOLUNTEERS

Figure 12 shows the answers of a conversation with one of the attendants of the museum. They have been written down on post-its from a voice recording.

Hoelang werkt u al als vrijwilliger bij Museum Tot Zover?

'eh 4 years. Mostly every sunday and friday.' - Assistant C

'I also work at the café.' - Assistant C

Wat is uw rol bij het museum?

'When I work at the café I feel like you have the most of contact with visitors.' - Assistant C

'Receiving people.' - Assistant C

Zou u mij kunnen meenemen met hoe dat er uit ziet zodra u aankomt?

'I say goodmorning or good afternoon to everyone that walks in.' - Assistant C

'I explain what the permanent exhibition is about and what the temporary exhibitions are about.' - Assistant C

'I always walk with them inside, not into the whole museum, but just inside and then I point to what you can see in what room.' - Assistant C

Heeft u veel gesprekken met bezoekers, waar gaat dat dan vaak over?

'We explain what and people do not just come here for the museum and I suppose as a volunteer you can help or not.' - Assistant C

'I want to know why people decide to come here. Especially tourists from other countries. Out of all museums in Amsterdam, why come here?' - Assistant C

'Many people come here because of something that happened in the family or something because they like a collection. They support the cause.' - Assistant C

'There are people that are here often, like every week. They come to exhibitions, sometimes.' - Assistant C

'When it is not very busy you can really take the time for people and to be, that is quite accessible to do.' - Assistant C

'Not everyone can appreciate the humor in the titles. Like 'I'm taking a break' I had a man that was very angry.' - Assistant C

'There was someone that recently went through something and they did not appreciate the jokes.' - Assistant C

'Sometimes people are a bit down when they are here the café, but not very emotional.' - Assistant C

Wanneer vertelt u dat de audiotour of de speurtocht een optie is?

Wat is uw ervaring met de expositie rondom het rouwseries voor de balie van het museum? Gaan mensen hier heen voor het bezoek of erna?

'When we had the exhibition on food, first, back then they did, but now not so much, only when they are waiting in line for a drink or coffee.' - Assistant C

Welke vragen stellen bezoekers vaak?

'Not so much, maybe because I tell them a lot, haha.' - Assistant C

'Sometimes about how long this museum has been here.' - Assistant C

In uw ervaring, welke route nemen mensen meestal door het museum?

'Often begin till end.' - Assistant C

Figure 12: Interview answers from attendant C.

APPENDIX 8: VISITOR JOURNEY MAPS OF THE INTRIGUED AND Leisurely ONE



Figure 13: Visitor journey map of The Intrigued One.

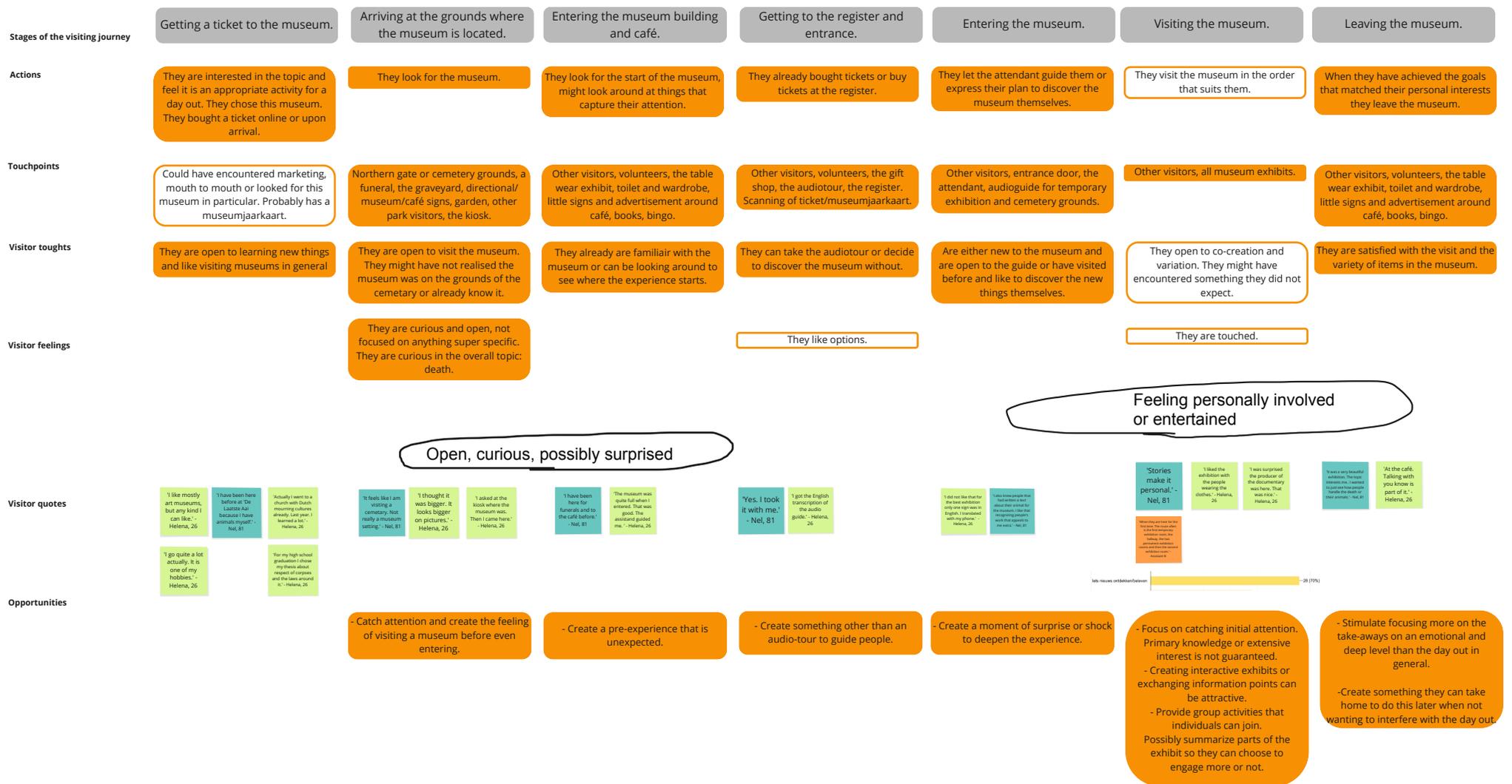


Figure 14: Visitor journey map of The Leisurely One.

APPENDIX 9: CONTEXT MAPPING: BOOKLET AND COLLAGING MATERIALS

Werkboekje

1

Heel! Hier zijn wat dingen die je mag invullen voordat je aan de rest van het werkboekje begint.

Mijn leeftijd: _____

Mijn geslacht: _____

Ik werk in de creatieve industry: Ja Nee

Ik heb een museumjaarkaart oid. Ja Nee

De gelegenheid voor een museumbezoek is meestal: _____

Wat ik meestal uit een museumbezoek wil halen: _____

Meerdere dingen? Schrijf ze gerust allemaal op!

2

Nu mag je op deze tijdlijn van een dag tekenen hoe een goede dag er voor jou uitziet!

Links het begin van de dag en rechts het einde van de dag.

3

Dit is mijn levensfilosofie:

Als je er een hebt!

4

Dit zijn de dingen of mensen die mij steunen als ik een moeilijke tijd heb:

Vul zo veel of weinig cirkels in als je zelf wilt.

Voorbeelden:

Mijn beste vriend:

Mijn hondje!

6

Dit zijn de dingen die ik belangrijk vind en waardeer aan het einde van mijn leven, als ik ga sterven:

Voorbeelden:

Ik laat graag mooie kunstwerken na die ik heb gemaakt.

Ik vind het belangrijk dat ik elke dag mensen om me heen heb tot het einde.

5

Dit zijn de laatste momenten dat ik in aanraking ben gekomen met 'dood':

Vul zo veel of weinig cirkels in als je zelf wilt.

Voorbeeld:

Film: Pink Moon gekken

7

Dit is met wie ik het liefst zou praten over mijn eigen dood:

Dit is hoe comfortabel ik ben om over de dood te praten met mijn familie:

Voorbeelden:

Vrienden Helemaal niemand

Figure 15: The 8 pages of the booklet and the magazines used in the collaging exercise.

APPENDIX 10: EXPERT INTERVIEW

At the beginning of this graduation project, an expert on talking about death has been interviewed. It was Helma Luiten from Luna Liefdevol Afscheid. Mrs. Luiten is a funeral and ritual director and studied Industrial Design Engineering as well. The full interview will not be posted in this appendix. Helma really helped to understand how to talk to people about the topic of death. She also guided me towards designers who have created tools for it and gave me insights in the current trends in the industry. She mostly helped me see that people can have perspectives people have around death. For example about fears and beliefs. Here are some extra quotes, in Dutch, that inspired me. I have not used our interview to support my research or design, but she helped me get comfortable around the topic and defining the target group and understanding if the design goal and assignment can align with children. I placed this in the appendix for readers who might want to design for a similar topic.

3. Wat is een goede manier om een gesprek rondom de dood te beginnen?

'Als we het over volwassen hebben. Je kan natuurlijk goede vragen bedenken. Het is ook mooi om zo'n gesprek met symbolen te voeren. Ik heb wel eens een keertje, gelijk een oplossing, een tafel met allerlei verschillende voorwerpen: een pen, een puntenslijper, een poppetje, een horloge etc, en dan moest je er een kiezen die je bij jezelf vindt passen en dan kan je iets over je eigen leven vertellen. Je moet mensen met een vraag over de dood een beetje uit hun hoofd halen en in hun gevoel krijgen, eigenlijk. Ik heb ook wel eens een keer met een bos bloemen gezeten en dan dat gesprek gevoerd. Elke bloem heeft wel iets, klein of groot, een stekeltje hier, een veertje daar. Dan kan je ook wat over jezelf zeggen. Als ontwerpers zijn wij meer beeldend dan sommige mensen.'

a. Hoe breng je op een juiste manier gevoeligheid en empathie zonder het direct heel zwaar te laten voelen.

'Wat zou kunnen helpen is beginnen met een eigen verlies delen.'

5. Wat is een goede manier om met kinderen over de dood te praten?

'Je kan vragen of kinderen al een keer of ze iets hebben meegemaakt: een huisdier overleden of een opa of oma. Als kinderen iets hebben meegemaakt, praten ze daar over het algemeen veel makkelijker over dan volwassenen. Eigenlijk, moet je heel eerlijk en open tegen ze zijn. Ze vertelde over een gesprek in een schoolklas rondom een overleden moeder: 'Wie ligt hier in de kist?' 'Ze ligt daar echt in, haar lichaam is stuk, haar arm doet het niet meer, het hart doet het niet meer. Het lichaam is er nog, maar het is voor altijd stuk. Het kan niet meer gemaakt worden.' Soms zeggen mensen dat iets een sterretje is geworden. Dat is een symbool en dat mag ook zo gebruikt worden. Mijn theorie is dat je eerlijk moet zeggen wat er gebeurt. Kinderen weten vaak best veel, dat zal je verbazen.'

a. Kun je kinderen vragen stellen over de kringloop van het leven?

'Niet altijd. Ze begrijpen wel dat dingen stuk gaan of dood gaan, maar soms, na een tijdje vinden ze het lang genoeg geweest en dan vragen we wel eens wanneer iemand dan weer terug komt. Volwassenen accepteren het ergens ook niet, soms voelen wij ook dat iemand bij wijze van nog door de deur kan lopen. Kinderen hebben wel meer door dan je soms bent: als iedereen verdrietig is, kun je maar beter zeggen waarom.'

9. Heeft u het idee dat er een taboe rust op de dood en praten over de dood?

'Ik denk dat er een taboe ligt. Dat heeft denk ik te maken met dat 'magische' dat het bij mensen die het erover hebben ook gebeurt. Het lijkt wel dat het er op televisie veel overgaat en dat er veel programma's over zijn, dus dat mensen er wel meer over praten. Maar bij het kopen van rouw zegels zijn mensen er dan niet bewust mee bezig: eerst schrikken en gecondoleerd en dan 'fijne dag hè!'. Het is niet alledaags of een gewoon onderwerp waar men graag over praten. Er zijn landen waar de dood belangrijker is of waar het meer over gaat.'

APPENDIX 11: ANALOGIES AND FINAL INTERACTION VISION

Analogies or metaphors can help during idea generation to find surprising and novel solutions (Van Boeijen et al, 2021). Analogies can be far away from the actual context or quite related. When an inspiring analogy is found, the interaction qualities of that analogy must have relevant relationships to the problem (and later to the solutions as well or it needs to be changed. The analogy can be translated to an interaction vision. Designers need to be careful in forcing qualities from an analogy on a solution. The analogy should inspire and support in finding the right qualities for a design. In my project I used analogies and wrote down what ‘personality’ or ‘interaction qualities’ this analogy had. Figure 16 shows a snippet of this process of finding analogies. Then the idea that the interaction with my design should feel as snorkelling with a dive master came up.

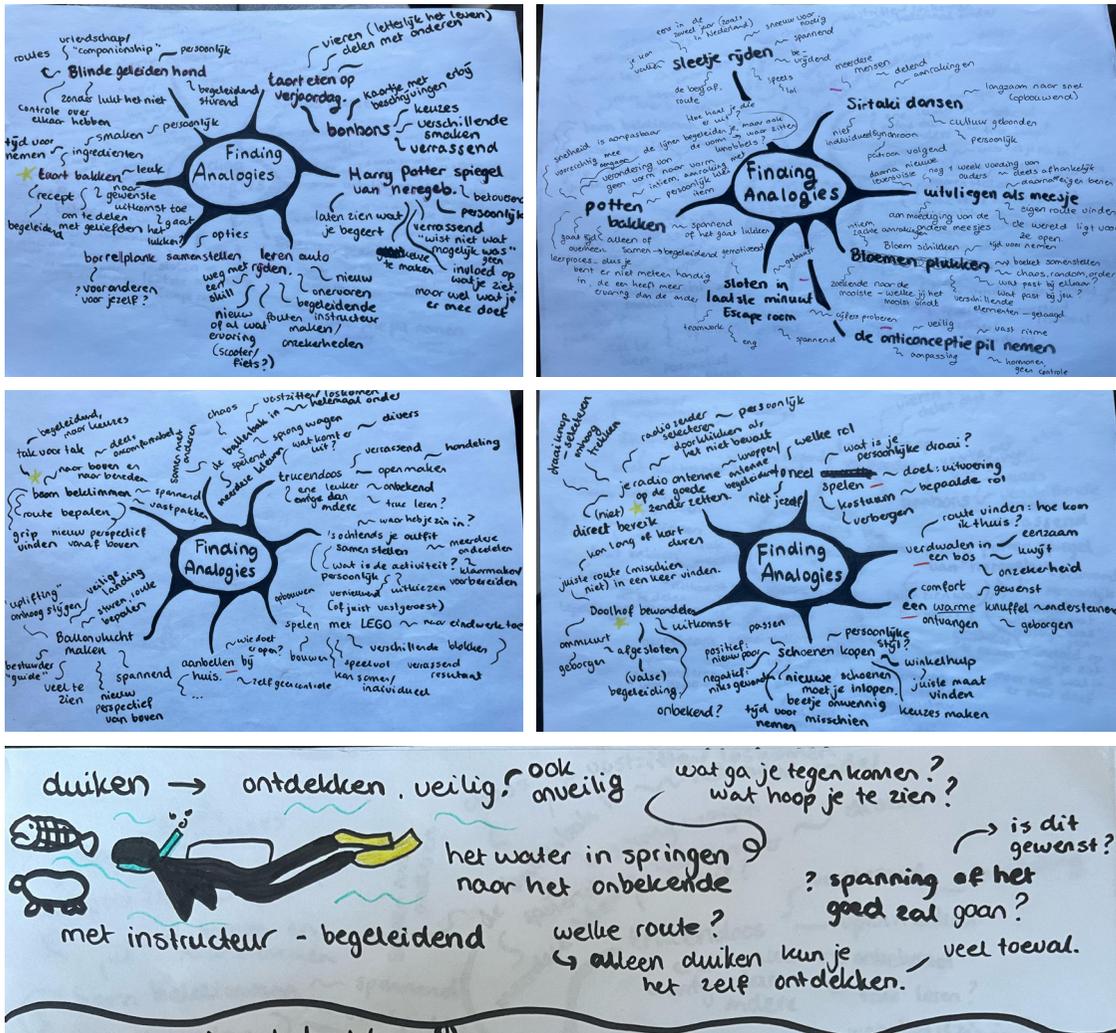


Figure 16: Four of the ten analogy mindmaps that were created and the final idea leading to the interaction vision.

Guiding: The interaction is guiding, the dive master takes you into the water and guides you passed certain spots, guides your experience towards a good one. **Personal:** Even though you are all on this snorkelling tour together, you might be looking for different things, a turtle or a shark of colourful reef. Maybe it is your first time snorkelling and you have no clue what to expect. **Intimate:** while snorkelling you can not communicate with the others in the group and you are all looking at different things, staring into the eyes of colourful fish you might have an intimate, a private, moment and realise that was beautiful or scary to you. **Layered:** you get from one spot to another and might see more and more the longer you are snorkelling. The whole experience might mean something to you as well. It is an individual discovery, but also in a group and you might feel differently before getting into the water than afterwards. **Inviting:** the water looks refreshing and you know that underneath the surface a world is waiting for you. You are curious to see what is up there and are ready to make a jump. **Safe:** You feel safe, that when something unexpected or scary happens, the guide knows how to help you. The guide has a kickboard if you prefer to float.

Snorkelling with a dive master

GUIDING

PERSONAL

LAYERED

INVITING

INTIMATE

SAFE

Image courtesy of: Tourism & Events Queensland (n.d.) ©
Government of Queensland

APPENDIX 12: GENERATING IDEAS



Figure 17: Some ideation activities.

APPENDIX 13: THE BEST IDEAS FROM 100 IDEAS



Figure 18: Best ideas fitting within the theme: 'The essence of now: exploring your mortality.'

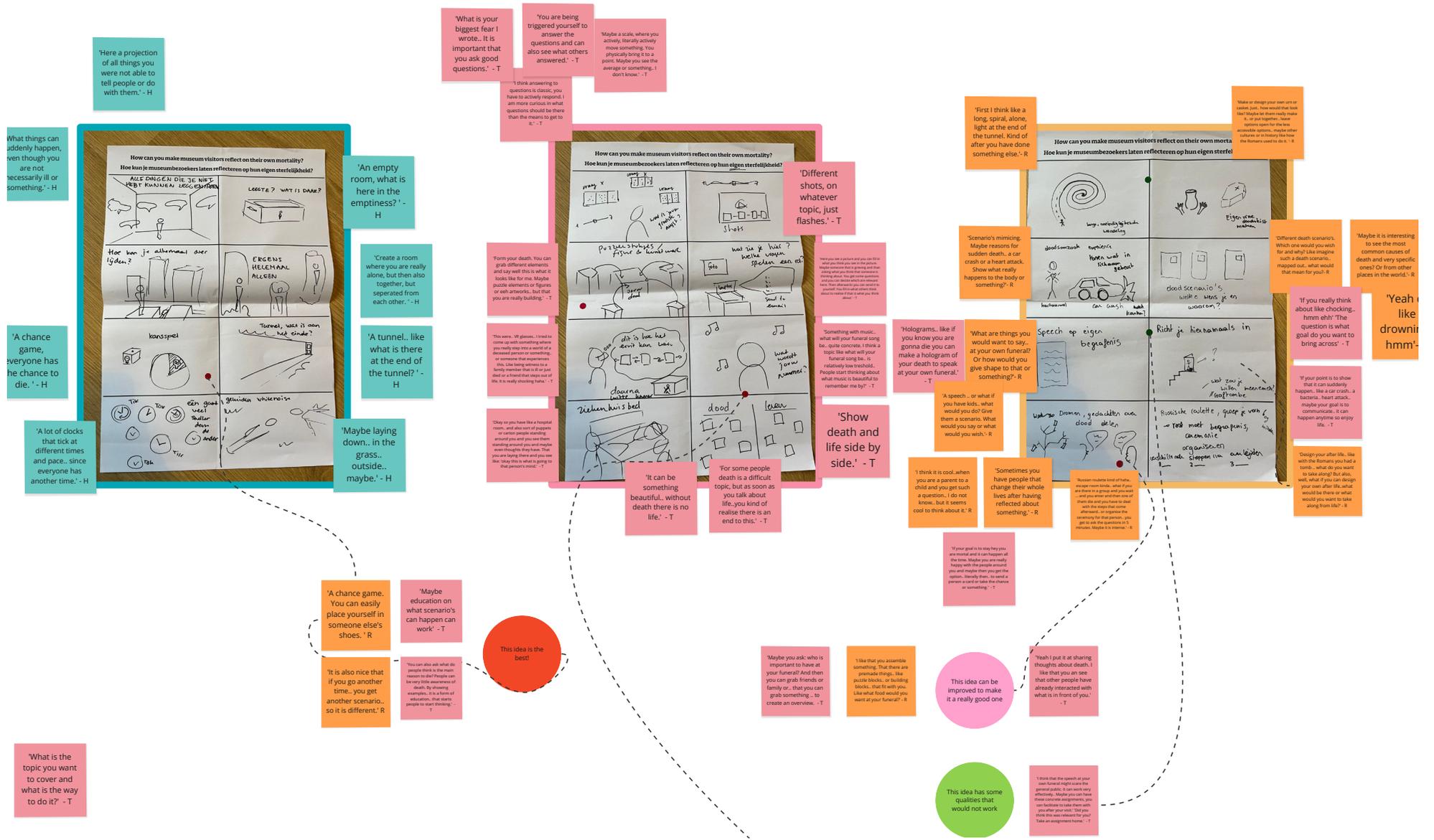


Figure 20: Co-design exercise 2.

APPENDIX 15: CONCEPT DIRECTIONS AFTER CO-DESIGN

After the co-design the elements that need to be considered when designing were: the focus within the theme, the preparation, the trigger and the reflection moment. And for the last three that can be done through different means. The following list shows all conceptual directions, which are the result of the co-design session. They are organised per element.

Preparation

- Putting someone at ease first or having a build up when confronting or shock is desired.
- Using a funny or weird situation to introduce the topic.

Trigger

- Giving a choice that you have to make like a dilemma, picking a category that you fit in, placing yourself in scenario's.

Showing the choices, opinions, visions or perspectives of other visitors or (famous) people (before you).

- Contributing yourself to see other people's contributions. (voort wat hoort wat).
- Hide a serious message in a funny or weird shape or unexpected symbol.

Shocking with intense images (but can also be off putting directly).

- Showing the negative side of avoiding a difficult topic, present disadvantages of not reflecting or not dealing with it.
- Photo, image or artwork instead of words telling a story.
- Videos, music or other media installations sharing musicians, artists perspectives.
- Showing death and life next to each other.
- Being surrounded by the things people wished they still had said to someone or had done with someone.
- Being faced with (common or unexpected) ways in which death can occur and scenario's or situations that can happen to anyone.
- Showing that death can happen to anyone at anytime and that the time (literally) to prepare for it is limited.

Focus within theme

- The first exercise was about difficult topics, but since the participants knew the context of the museum, some themes around death arose:
- Living or dealing with grief.
- Confrontation with unexpected and expected death.
- Feelings of grief prior to losing someone.
- Preparing for saying goodbye to loved ones.
- Education around statistics of dying and ways to die.
- Scenario's of yourself or others dying, that can happen to anyone.
- Envisioning the afterlife.
- Arranging your own funeral/ceremony.

Reflection moment

- A separate room, that is light and comfortable and calming like nature to really create the space and time to reflect. Making use of sounds, lights and soft materials.
 - Having something to take home or receiving something at a later moment as a conversation starter with someone outside of your visit or to stimulate reflection on a later, convenient and comfortable moment. Extending the experience outside of the museum.
 - Create a comfortable and recognizable setting, with tea and cookies, cakes and a home feeling. A moment where you are there for another.
 - Building up reflection with easy questions or topics to eventually get to a deeper level.
 - Creating a safe place to share thoughts and feelings, but that does not feel completely closed off.
 - Physically having to move towards options or choosing options to show choices as a process of reflection.
- Creating individual white, elongated places, inspired by tunnels and 'the white light'.
- Physically moving towards a door or towards 'the end' while making choices along the way.

A means

- Talking with others: strangers in the museum, the people you visit with, people outside of the museum. Preferably people in another phase of life.
- Having a social experience can add value to the overall experience.
- Having to listen first, before being asked or (getting to) answer.
- Create a physical experience where something is actively moved.
- Create a physical or artistic experience to express yourself and create something to take home.
- Selecting, taking or choosing elements to test with, that fit you or to take along.
- Using physical movement to interact with environment and with other visitors.
- Placing yourself literally or imaginatively in someone else's shoes.
- Interacting with a daily reminder to think about the topic, through a diary, rip off calendar or cards.
- Gamify the experience.
- Showing perspectives and feelings of what your loved ones might experience when you die.
- Creating an immersive room surrounded by screens with many perspectives and quotes all around.
- Letting chance decide what museum visitor will (hypothetically end) and how to deal with that. Randomly giving out possible scenario's and having to deal with the consequences.
- Preparing for your own funeral or ceremony and wishes

APPENDIX 16: MEASURING THE CONCEPT IDEAS TO LIST OF REQUIREMENTS

The list of requirements is kept concise to not hinder the creative process. Ranking concept ideas on the list of requirements during this phase of the project can help understand what elements need to be tested to confirm the concept ideas are 'good'. Table 2 shows if the concept ideas meet the requirements. On the right side of this page the requirements are numbered. The requirements have not been ranked on importance or categorised.

Table 2: Do the concept ideas meet the list of requirements?

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
IN TOUCH WITH MORTALITY	R	X	X	X	R	X	X	X	R	R	N	X	O	R
THE LAST STOP	R	X	X	X	R	X	X	X	R	R	X	X	O	R
LIFE, A GIFT	R	X	X	X	R	X	X	X	R	R	X	X	O	R
STORY OF MY LIFE	R	X	X	X	R	X	X	X	R	R	X	X	O	R

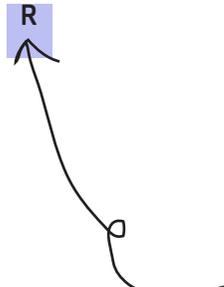
X = meets the requirement for as for as possible in this phase of the design project, meaning there is a realistic assumption the concept design will be possible to be developed to meet this requirement.

R = needs to be researched to confirm it meets the requirements.

O = can not be rated on this requirement during this phase of the design project.

N = does not meet the requirement

R



Requirements:

1. The design should trigger awareness of and reflection on physical mortality.
2. The design should be interactive.
3. The design serves as an introduction to the museum visit.
4. The design should open up to reflect about the moment of life ending to own interpretation.
5. The design should fit within the values of Museum Tot Zover: lovingly (liefdevol) with courage (met lef) and light-hearted (luchtig).
6. The design should not make use of a mobile phone.
7. It should be possible to interact with the design by multiple able-bodied people at the same time, with a minimum of three.
8. The design should be an original concept for a museum about life and death.
9. The design should fit the context of a museum about life and death appropriately.
10. The participatory activity should be clear to participate in.
11. The design should reach participation level 3 (by Nina Simons).
12. The participatory activity brings value to Museum Tot Zover.
13. The design is feasible to realize within the current museum building and budget and should not block escape ways of the building.
14. The design should not need a trigger warning and therefore be intriguing without being shocking.

Wishes:

- a. It should be possible to interact with the design as a wheelchair user, at least one at the same time.
- b. The design is customized to fit the behaviours of the different archetypes.
- c. The design opens up to learn from other visitor's perspectives.
- d. The physical environment for reflection is comfortable and calm.
- e. It is clear for the visitor how their participatory information is used.
- f. The design should stimulate to contemplate meaning.
- g. The design should work for Dutch museum visitors as well as English speaking visitors.

Interaction qualities:

The interaction with the design should feel guided, personal, layered, inviting, intimate and safe.

APPENDIX 17: QUESTIONNAIRE CONCEPT IDEAS

The following pages show the questionnaire test set-up and screenshots from the questions and some of the answers (Figure 21 to 66).

Test set-up: Questionnaire

The goal of the research is to find out **if the concepts for the triggers...**

... (1) resonated with the visitors and raised awareness of their physical mortality?

This is a must, if this was not achieved, the concept is not effective.

... (2) did it in a lovingly (*liefdevol*) and light-hearted (*luchtig*) matter, with courage (*met lef*)? Tot Zover has these values at the same level, and therefore they will be taken into account with the same level of importance. However, since in a general view, physical mortality and death are not light-hearted topics. So, I do not expect people to rate the designs high on being light-hearted. To try and ensure the respondents rate the design in the context of a museum on life and death, I explain what the goal of the designs was, before the respondents can rate it on the museum's values.

... (3) are seen as having a positive approach towards death?

... (4) fit the context of a museum about life and death appropriately?

The order in which the concepts were presented is a conscious choice. The only information the respondents were given at the start of the questionnaire was: *'Museum Tot Zover is een museum over leven en dood en is gelokaliseerd op het gedenkpark De Nieuwe Ooster in Amsterdam.'* (*'Museum Tot Zover is a museum about life and death and is located at memorial park De Nieuwe Ooster in Amsterdam.'*) The concept idea '(on)tastbaar' ('(in)tangible') was presented first, originally named 'in aanraking met sterfelijkheid' ('in touch with mortality'). This concept does not use words like 'death' 'mortality' or 'end of life' in its title or in the description of the assignment. I wanted to test the associations purely based on the description above and the concept itself. The second concept idea was 'De laatste stop' ('The last stop') which hints at the metaphor of life being a journey with a stop/ a final destination/ a destination, but does not name it as such. It does not literally use words like 'life' 'death' or 'mortality'. The third concept idea was 'Het leven, een geschenk', 'Life, a gift' which in its title already hints to the topic. The title in itself can even be perceived as a statement. The question that visitors have answered and get to answer in the end is 'Het leven is anders voor iedereen, wat maakt het een geschenk voor jou?' ('Life is different for everybody, what makes it a gift to you?'). The fourth concept idea was 'Story of my life' which directly asks: 'In het verhaal van je leven, welk leesteken vertegenwoordigt het levenseinde voor jou?' ('In the story of your life, what punctuation mark represents the end of life for you?')

In this order, I hope to not spoil the triggers intention by first showing the, in my eyes, more leading concepts. I considered randomization of the order in which the concepts were represented, but then decided that could and probably would influence the initial thoughts for concepts 1 and 2.

So, the primary goal is to test whether the triggers make people think about their own death or end of life, and which concept they would find most fitting. The latter is to understand why it does or does not resonate with people (why it triggers or not), and to identify areas for improvement that I, as a designer, do not see.

The (content related) questions asked in the questionnaire were the following:

1. What is the first thing that comes to mind when you see this design?
2. What do you think the purpose of this design is?
3. What did you feel with this design? (optional)

4. Did any of these introductions or designs steer your thoughts towards your own life or the end of life?
 - a. Which design did that? (All concept ideas could be selected.)*

Per concept idea:

The purpose of the designs was to guide your thoughts toward your own life and its ending, as an introduction just before you visit the museum exhibitions. I would like to ask you to rate the concepts with this goal in mind. The statements range from disagree (0) to agree (6).

5. I think this design is lovingly.
 - a. Why? (optional)
6. I think this design is light-hearted.
 - a. Why? (optional)
7. I think this design has courage.
 - a. Why? (optional)

Overall:

8. If you could add or improve something for one or more designs, what would it be?
 - a. For design 1, (in) tangible that would be:
 - b. For design 2, The Last Stop that would be:
 - c. For design 3, Life, a gift that would be:
 - d. For design 4, Story of My Life, that would be:

9. Which design do you think fits best as an introduction to a museum about life and death? (All concept ideas could be selected.)

* A disclaimer is that I should have formulated 'which design or designs',

Vragenlijst Interactief Ontwerp Afstuderenden Yara Boom

Goedendag,

Wat fijn dat u ons wil helpen. Dit is een vragenlijst binnen het project 'Interactief Design voor Museum Tot Zover'. Het is deel van een afstudeerproject van Yara Boom binnen de faculteit Industrieel Ontwerpen aan de TU Delft. Voor dit onderzoek vragen wij uw mening over een aantal ontwerpen. De antwoorden die u geeft kunnen gebruikt worden voor het kiezen en verbeteren van de ontwerpen. Wij moedigen u aan eerlijk antwoord te geven. Uw quotes kunnen gebruikt worden, maar wel anoniem.

Museum Tot Zover is een museum over leven en dood en is gelokaliseerd op het gedenkpark De Nieuwe Ooster in Amsterdam.

U krijgt zo vier ontwerpen te zien die dienen als introductie van het museum. Dus zodra u het museum binnen komt, u uw jas heeft opgehangen en een kaartje gaat kopen, is dit de eerste interactie die er plaatsvindt.

Figure 21: Introduction text questionnaire.

1. Ik heb bovenstaande informatie gelezen en geef toestemming voor het gebruiken van mijn antwoorden in deze vragenlijst voor ontwikkeling van het ontwerp.

• Ja 33



Figure 22: Questionnaire question 1
3. Wat is uw leeftijd?

33
Antwoorden

Meest recente antwoorden

- "21"
- "20"
- "24"
- ...

Figure 24: Questionnaire question 3

2. Met welk geslacht identificeert u zich?

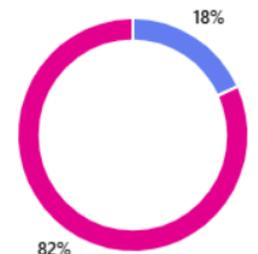
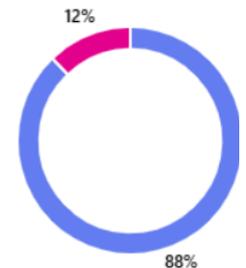
vrouw	29
man	4
non-binair	0
overig	0
zeg ik liever niet	0

Figure 23: Questionnaire question 2

4. Bent u bekend met Museum Tot Zover?

Ja	6
Nee	27

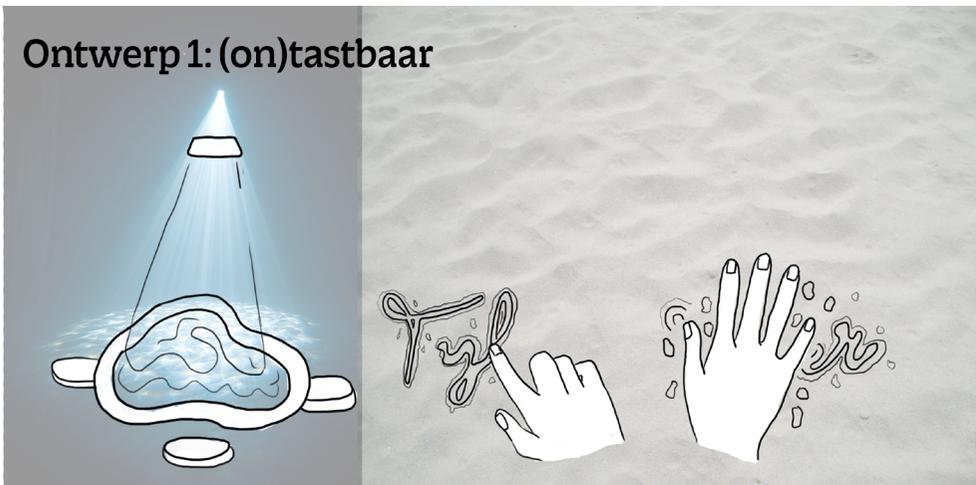
Figure 25: Questionnaire question 4



5. Heeft u Museum Tot Zover bezocht?



Figure 26: Questionnaire question 5



Nadat u een kaartje voor het museum heeft gekocht stapt u door twee deuren. Er staat een organisch gevormde tafel, gevuld met zand en met zitjes er omheen. Op het zand zijn reflecties van water te zien en er klinken rustige watergeluiden.

Dichterbij de tafel staan er instructies: 'Schrijf je naam in het zand en neem een moment daar naar te kijken en er even bij stil testaan. Veeg het met rustige bewegingen weer uit. Wat voelde je?'

Je verlaat de tafel en gaat verder het museum in.

Figure 28: Introducing concept idea 1

6. Zou u Museum Tot Zover, museum over leven en dood, bezoeken?



Figure 27: Questionnaire question 6

7. Wat is het eerste waar u aan denkt bij dit ontwerp?

[Meer deta](#)

32
Antwoorden

Meest recente antwoorden
 "Dat je naam weg wordt gewassen en plaats maakt voor een nieuwe naam"
 "De tijdelijkheid van het leven"
 "tijdelijk & vervagen"

Figure 29: Questionnaire question 7

8. Wat denkt u dat het doel van dit ontwerp is?

32
Antwoorden

Meest recente antwoorden
 "Acceptatie van je eigen dood"
 "Bewust worden van die tijdelijkheid van het leven"
 "De tijdelijkheid van het leven"

Figure 30: Questionnaire question 8

9. Wat voelde u bij dit ontwerp? (optioneel)

20
Antwoorden

Meest recente antwoorden
 "..."

Figure 31: Questionnaire question 9

Ontwerp 2: De Laatste Stop



Bij aankomst in het museum koopt u een kaartje aan de kassa. Bij deze aankoop krijgt u een treinkaartje. Daarna mag u de eerste hal van het museum in.

Zodra u het museum binnenloopt hangt er een bord zoals in een vertrekhal. Op dit bord staan quotes onder het kopje 'bestemming'. Hier kunt u zelf ook een bestemming delen. Daarna vervolgt u het bezoek in de rest van het museum.

Figure 32: Introducing concept idea 2

Ontwerp 3: Het leven, een geschenk



Bij aankomst in het museum krijgt u een papieren vierkantje met 'Een geschenk voor' waar u uw eigen naam op kunt schrijven. Dit papiertje is uit te vouwen tot een doosje en er staan instructies op om er na het bezoek iets mee te doen.

Zodra u door de deuren het museum instapt ziet u een cilindervormig geschenk, waar u in kunt stappen. Op allerlei kaartjes hebben mensen de volgende vraag beantwoord: **Het leven is anders voor iedereen, wat maakt het een geschenk voor jou?** U kunt al deze kaartjes lezen en na het bezoek zelf toevoegen. Daarna vervolgt u je bezoek het museum in.

Figure 36: Introducing concept idea 3

10. Wat is het eerste waar u aan denkt bij dit ontwerp?

32

Antwoorden

Figure 33: Questionnaire question 10

11. Wat denkt u dat het doel van dit ontwerp is?

Meest recente antwoorden

"Harry Potter"

"Vragen over wat we na de dood komt"

"je doel in het leven"

[Meer details](#)

32

Antwoorden

Figure 34: Questionnaire question 11

12. Wat voelde u bij dit ontwerp? (optioneel)

Meest recente antwoorden

"Je voorbereiden op je eigen dood"

"Op een interactieve manier bezoekers na laten denken over wat de dood vo..."

"Na laten denken wat je doel is in het leven"

26

Antwoorden

Figure 35: Questionnaire question 12

13. Wat is het eerste waar u aan denkt bij dit ontwerp?

Meest recente antwoorden

"_"

32

Antwoorden

Figure 37: Questionnaire question 13

14. Wat denkt u dat het doel van dit ontwerp is?

Meest recente antwoorden

"Nalatenschap?"

"De betekenis van het leven"

"verschillende perspectieven"

[Meer details](#)

32

Antwoorden

Figure 38: Questionnaire question 14

15. Wat voelde u bij dit ontwerp? (optioneel)

Meest recente antwoorden

"Ik begrijp deze niet goed, ik merk dat het dubbelzinnig is. Het geschenk voo..."

"De bezoekers laten lezen wat het leven betekenis geeft volgens veel verschil..."

"verschillende perspectieven op het leven op een positieve manier belichten"

21

Antwoorden

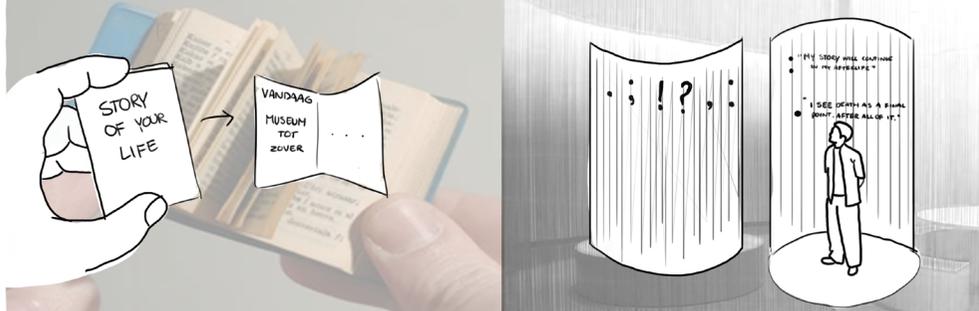
Figure 39: Questionnaire question 15

Meest recente antwoorden

"Troost"

...

Ontwerp 4: Story of my life



Bij aankoop van een kaartje aan de kassa, ontvangt u een klein boekje met 'Story of Your Life' er op en binnen in staat 'Vandaag Museum Tot Zover' geschreven en daarna volgen er lege pagina's. Vervolgens stapt u het museum binnen waar een cilinder vormige ruimte is neergezet. Het is wat transparant en er op staan de volgende leestekens: ., !? ; .

Daarna stapt u de cilinder in en staan er quotes van andere bezoekers naast een van deze leestekens. Op de vloer staat de vraag: **"In het verhaal van je leven, welk leesteken vertegenwoordigt het einde voor jou?"** U kunt deze later ook beantwoorden. Nu gaat u het museum bezoek verder vervolgen.

Figure 40: Introducing concept idea 4

19.

1. Gingen uw gedachten bij een van deze introducties of ontwerpen naar uw eigen leven of levenseinde?

● Ja	30
● Nee	1
● Andere	1

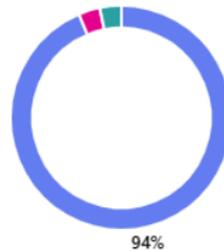


Figure 44: Questionnaire question 19

16. Wat is het eerste waar u aan denkt bij dit ontwerp?

[Meer details](#)

32

Antwoorden

Figure 41: Questionnaire question 16

17. Wat denkt u dat het doel van dit ontwerp is?

[Meer details](#)

32

Antwoorden

Figure 42: Questionnaire question 17

18. Wat voelde u bij dit ontwerp? (optioneel)

[Meer details](#)

20

Antwoorden

Figure 43: Questionnaire question 18

20. Bij welk ontwerp was dat?

[Meer details](#)

● 1. (on)tastbaar	17
● 2. De laatste stop	16
● 3. Het leven, een geschenk	18
● 4. Story of my life	20

Figure 45: Questionnaire question 20

Meest recente antwoorden

"Zelfmoord/ selfharm"

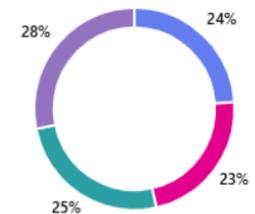
"Ideeën over het hiernamaals en of de dood het einde is"
"wat betekent het einde van het leven en wat komt er daarna"

Meest recente antwoorden

"Weten dat de dood niet het einde is van je herinnering en nalatenschap"
"Bewustwording over de verschillende visies van mensen over in hoeverre de ..."
"Nadenken over hoe jij en anderen het einde van het leven zien en wat de ve..."

Meest recente antwoorden

"Verbaasd en verwonderd. Voor mij was de dood een punt, leuk om te beden..."



21. Het doel van de ontwerpen was om uw gedachtes te sturen naar uw eigen leven en uw eigen leven(seinde), als introductie net voordat u de tentoonstellingen van het museum bezoekt.

Ik zou u willen vragen om de concepten te scoren met dit doel in gedachten. De beoordelingstatements gaan van oneens (0) tot eens (6). [Meer details](#)

Ontwerp 1: (On)tastbaar

Ik ben het hier mee oneens (0) 1 2 3 4 5 Ik ben het hier mee eens (6)

Ik vind dat dit ontwerp **liefdevol** is

Ik vind dat dit ontwerp **luchtig** is

Ik vind dat dit ontwerp **leef** heeft

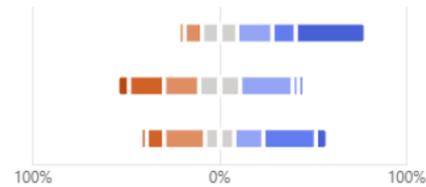


Figure 46: Questionnaire question 21

23. Ontwerp 2: De laatste stop

[Meer details](#) 24. Waarom? (optioneel)

Ik ben het hier mee oneens (0) 1 2 3 4 5 Ik ben het hier mee eens (6)

Ik vind dat dit ontwerp **liefdevol** is

Ik vind dat dit ontwerp **luchtig** is

Ik vind dat dit ontwerp **leef** heeft



Figure 48: Questionnaire question 23

25. Ontwerp 3: Het leven, een geschenk

[Meer details](#) 26. Waarom? (optioneel)

Ik ben het hier mee oneens (0) 1 2 3 4 5 Ik ben het hier mee eens (6)

Ik vind dat dit ontwerp **liefdevol** is

Ik vind dat dit ontwerp **luchtig** is

Ik vind dat dit ontwerp **leef** heeft

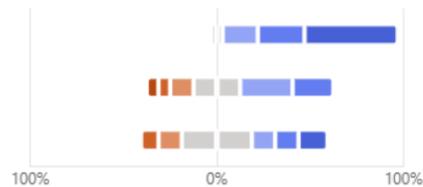


Figure 50: Questionnaire question 25

22. Waarom? (optioneel)

6

Antwoorden

Figure 47: Questionnaire question 22

Meest recente antwoorden

...

[Meer details](#) 24. Waarom? (optioneel)

[Meer details](#)

7

Antwoorden

Figure 49: Questionnaire question 24

Meest recente antwoorden

"Luchtig vond ik het niet. Toch gaf het zware een toegevoegde waarde. Dat ... "

...

[Meer details](#) 26. Waarom? (optioneel)

[Meer details](#)

6

Antwoorden

Figure 51: Questionnaire question 26

Meest recente antwoorden

"Ik snap het tweede deel niet helemaal. Ben nieuwsgierig naar hoe het werkt"

...

27. Ontwerp 4: Story of my life

[Meer details](#)

Ik ben het hier mee oneens (0) 1 2 3 4 5 Ik ben het hier mee eens (6)

Ik vind dat dit ontwerp **liefdevol** is

Ik vind dat dit ontwerp **luchtig** is

Ik vind dat dit ontwerp **leef** heeft

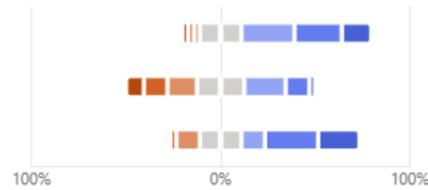


Figure 52: Questionnaire question 27

29. Als u iets zou willen toevoegen of verbeteren aan één of meerdere ontwerpen. Wat zou dat zijn?

[Meer details](#)

Voor ontwerp 1 (on)tastbaar is dat: (optioneel)

11

Antwoorden

Figure 54: Questionnaire question 29

Meest recente antwoorden
"De dood van een andere geliefde ipv je eigen dood mag er meer in verweve..."
...

31. Voor ontwerp 3 Het leven, een geschenk is dat: (optioneel)

9

Antwoorden

Figure 56: Questionnaire question 31

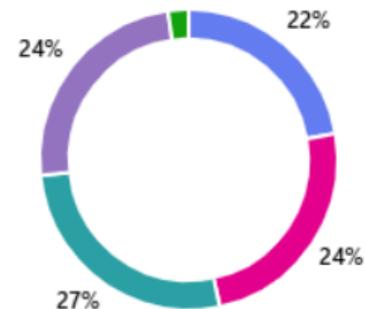
Meest recente antwoorden
"Hierin iets verwerken met de dood van een ander"
...

33. Welk ontwerp vind u het best passen als introductie voor een museum over leven en dood?

[Meer details](#)

- 1. (on)tastbaar 10
- 2. De laatste stop 11
- 3. Het leven, een geschenk 12
- 4. Story of my life 11
- Andere 1

Figure 58: Questionnaire question 33



28. Waarom? (optioneel)

[Meer details](#)

7

Antwoorden

Figure 53: Questionnaire question 28

Meest recente antwoorden
"Het heeft lef omdat meerdere mensen dit associëren met zelfmoord. Toch g..."
...

30. Voor ontwerp 2 De laatste stop is dat: (optioneel)

[Meer details](#)

10

Antwoorden

Figure 55: Questionnaire question 30

Meest recente antwoorden
"_"
...

32. Voor ontwerp 4 Story of my life is dat: (optioneel)

8

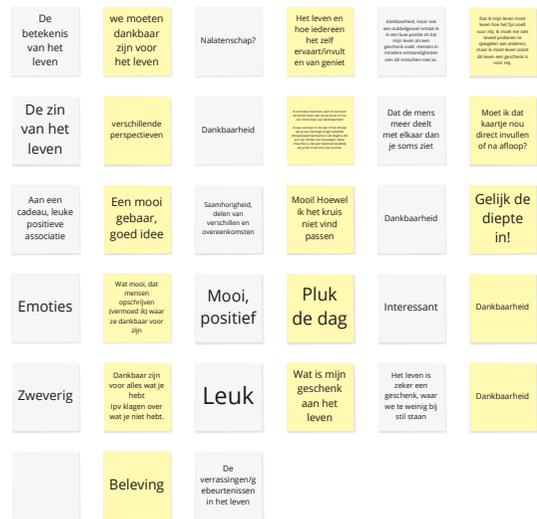
Antwoorden

Figure 57: Questionnaire question 32

Meest recente antwoorden
"_"
...

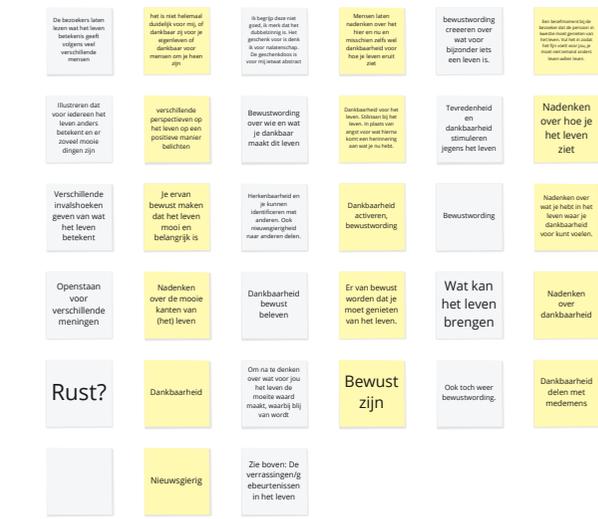
Het leven, een geschenk

Wat is het eerste waar u aan denkt bij dit ontwerp?



Het leven, een geschenk

Wat denkt u dat het doel is van dit ontwerp?



Het leven, een geschenk

Wat voelde u bij dit ontwerp? (optioneel)

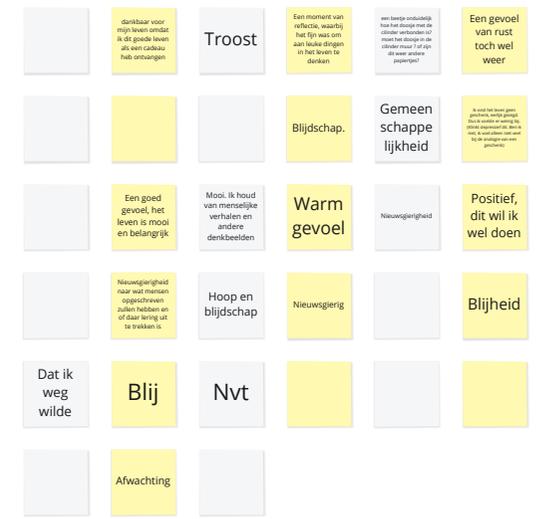


Figure 61: Answers to questionnaire questions 13,14,15

Story of My Life

Wat is het eerste waar u aan denkt bij dit ontwerp?



Story of My Life

Wat denkt u dat het doel is van dit ontwerp?



Story of My Life

Wat voelde u bij dit ontwerp? (optioneel)

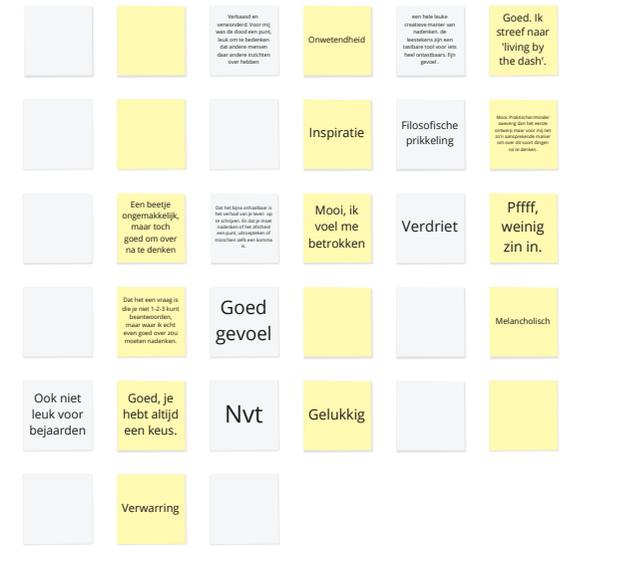


Figure 62: Answers to questionnaire questions 16,17,18



Figure 63: Answers to questionnaire questions 21 and some quotes from question 22

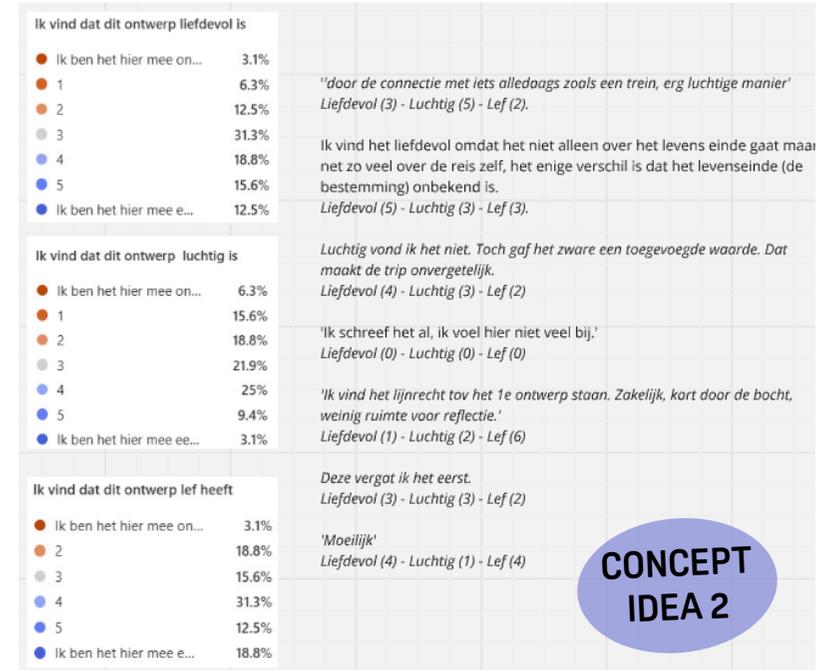


Figure 64: Answers to questionnaire questions 23 and some quotes from question 24

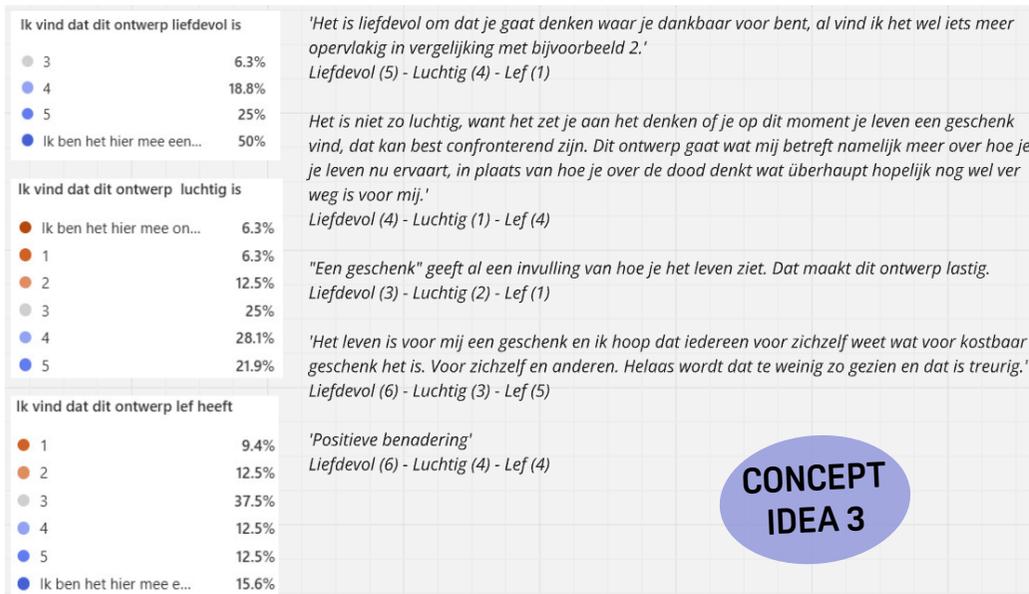


Figure 65: Answers to questionnaire questions 25 and some quotes from question 26

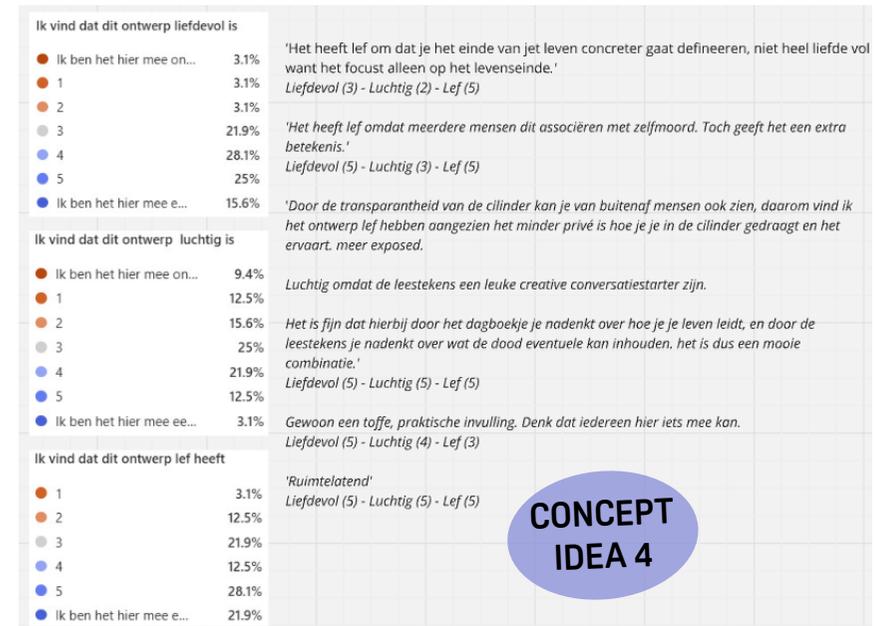


Figure 66: Answers to questionnaire questions 27 and some quotes from question 28

APPENDIX 19: THREE NEW CONCEPT IDEAS PRESENTED TO THE CLIENT

The following pages show the questionnaire concept ideas in sketches and in descriptions of their touch points in the museum.

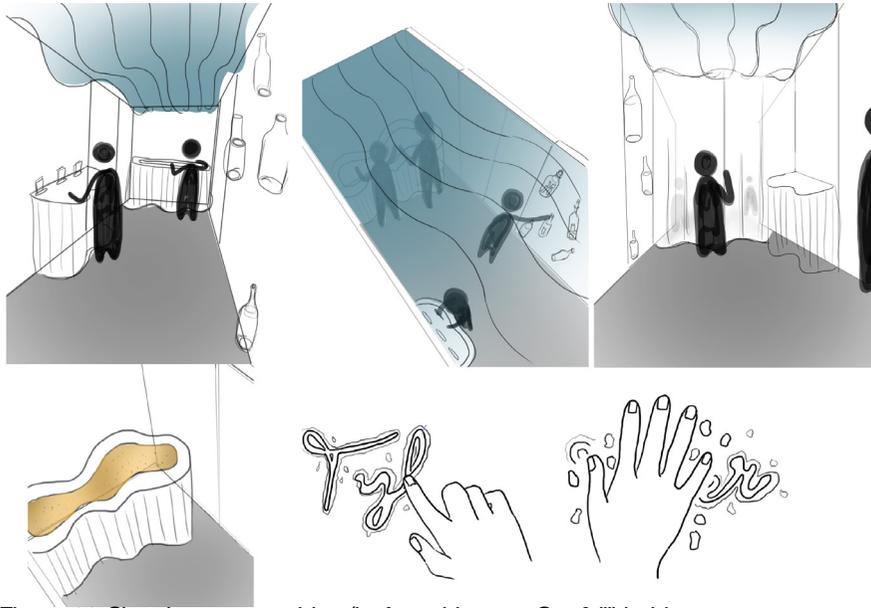


Figure 68: Sketches concept idea: 'In Aanraking met Sterfelijkheid'

1 Tafel van (on)tastbaarheid

Na het kopen van een kaartje betreedt de bezoeker het museum door de dubbele deuren. Daar staat een organisch gevormde tafel met zand en een opdracht om uit te voeren: "Tekenen of schrijven met je vingers of je handen je naam of een symbool dat jou representeert." "Neem een moment om hier rustig naar te kijken. Veeg daarna je markering weer uit in trage of vlotte bewegingen, met je vingers of je handen." "Neem een moment om hierbij stil te staan, hoe voelde dit voor jou?" Vanaf boven de tafel schijnt reflecterend licht. Zoals het wateroppervlak van de zee en er klinken rustgevende zee geluiden. Dit suggereert een (letterlijk) reflectie moment.

2 Brievenpost blaadjes

Vervolgens kan de bezoeker naar een volgende organische tafel lopen, waar diverse ongeschreven briefjes liggen. Hier zijn verschillende mogelijkheden. "Als je wil stilstaan bij hoe je je voelt of voelde, probeer het op te schrijven of te tekenen. Bewaar dit zelf of deel je bericht met andere bezoekers doormiddel van flessenpost en lees wat anderen eerder schreven of neem het mee naar om later te bespreken."

3 Brievenpost muur

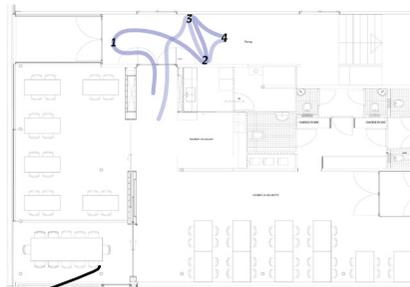
Aan deze muur hangen allemaal gerecyclede glazen flessen met kurken er op, waar mensen hun opgerolde brievenpust in kunnen stoppen. Op deze manier voelt het veilig en als het toevertrouwen van een geheim en door elkaars brieven te kunnen lezen, verbindt het bezoekers met elkaar, zonder uitgesproken woorden. De briefjes kunnen ook na het bezoeken van de tentoonstellingen en de vaste presentatie ingevuld worden, want de bezoekers komen er tweemaal langs.

4 Overgang

Over het plafond is een glinsterende hele lichte en wat doorschijnende lichtblauwe doek, die overgaat in een wit gordijn. Het symboliseert een overgang van leven naar dood, waarbij de bezoeker letterlijk een overgang moet maken tot de vaste presentatie: de sterffase. Het gordijn biedt meer afsluiting om de (on)tastbare tafel te ervaren en biedt een moment van nieuwsgierigheid voor de rest van het museum. Het houdt bovendien mogelijk het geluid van de installatie wat tegen. Door door het gordijn te moeten stappen of rollen, wordt de onvermijdelijkheid van het vergaan gerepresenteerd, maar op een serene en lichte manier.

De bezoeker gaat ook weer terug door het gordijn, om zo mogelijk het museum ook weer achter zich te kunnen laten en het dagelijks leven in te gaan. Als herinnering dat het moment van fysiek sterven er nu nog niet is.

Figure 69: Description, matching the route on the museum map of concept idea: 'In Aanraking met Sterfelijkheid'



Strengths:

Simplicity in design, message and level of participation of the '(on)tastbaarheidstafel' is powerful.

Decay of everything can be a confronting, but at the same time a comforting feeling.

The interaction of erasing your own name of having it be erased, triggers instant thoughts and reflection.

People can leave each others messages afterwards.

The sand and the poetic depth that sand has matches thinking about impermanence.

Marking your visit, by writing a name in the sand, like a temporary guestbook, fits the vision of the museum.

A calm beginning and moment to ground is a fitting atmosphere in at the entrance of the museum.

Weaknesses and opportunities:

The overall concept had lot of stimuli in terms of look and feel and it 'less is more' needs to be considered for the moment of introduction in the museum.

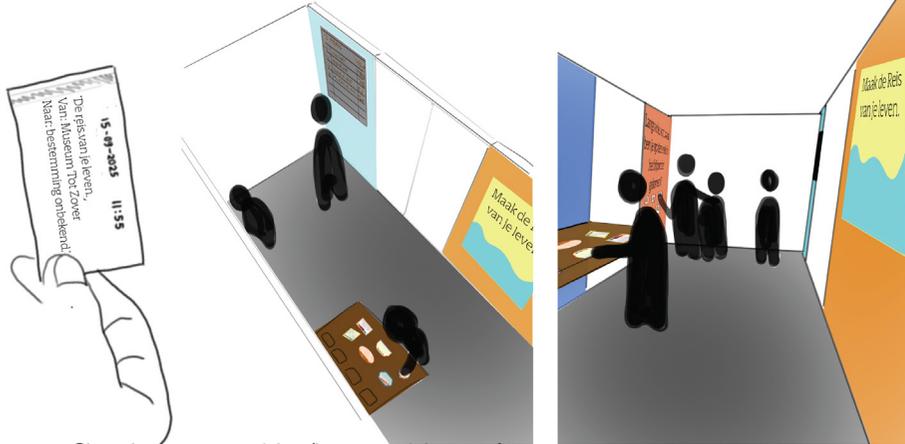
The concept is very literally linked to the sea with 'message in a bottle' and it can be considered to make it less literal and easier and thus on a low threshold to interact with.

Participation might not have to be in every part of the museum, how would it fit here and what makes it effective?

The curtain towards the permanent exhibit of the dying phase is not needed and it might refer to heaven or transience.

The practical matters of table size, type of sand, placement in museum and different visitor groups, needs to be considered.

TUJ	BESTEMMING	CHECK-IN
11:03	"IK HOOP DE HEMEL"	TODAY
11:15	"OMRINGD MET LIEFDE"	17/09
11:26	"IK ZOU HET NIET WETEN"	10/01
11:34	"WELL... IF YOU ASK ME... I THINK ..."	12/11



Strengths:

The metaphor of life is a journey and standing still at this journey is beautiful. The narrative of life and the museum visit being a journey can be taken further to every room of the museum. The idea of 'destinations' in life and appreciation of destinations along the way match the positive approach the museum has. The title 'Levensreisbureau' is a very nice pun.

Weaknesses and opportunities:

The idea has a lot of elements and brings a narrative for the whole museum with it, rather than the introduction. The contextuality of this concept is a bigger barrier to implement into the museum and the ideas together are too complex as just an introduction.

Figure 70: Sketches concept idea 'Levensreisbureau'

1 Kaartje kopen

Bij het kopen van een kaartje aan de aankoopbalie, krijgt de bezoeker een ticket, opgemaakt zoals een metro of treinkaartje: 'De reis van je leven. Vandaag, van: Museum 'Tot Zover, naar: bestemming onbekend.'

2 Wereldkaart

Naast de giftshop hangt een wereldkaart, waarin bezoekers optioneel met een pin, matchend met hun leeftijd, kunnen aangeven waar ze vandaan komen. Zo krijgt het museum inzicht in de leeftidsgroepen en verdeling van toeristen en Nederlandse bezoekers.

3 Kaart van het museum

Hier hangt een kaart van het museum in de stijl van een reiskaart, waar de suppoost kan uitleggen welke expositie zich waar in het museum bevindt, zonder mee te lopen door het gehele museum. Hierdoor kan de bezoeker het eventueel zelf ontdekken.

4 Bestemmingsbord

De trigger in dit ontwerp is een bestemmingsbord, geïnspireerd op vertrekborden zoals ze er uit zien bij een vliegtuighal, treinstation of cruiseboot havens. Dit is omdat het concept een reisbureau is voor de reis van je leven, waar de bezoeker stil kan staan bij de dood als bestemming, maar ook bij mooie bestemmingen tot zover. Onder dit digitale bord, staat een computer, waar de bezoeker zelf antwoord kan geven op de vraag: 'Welke bestemming hoop/denk/wil jij dat er volgt na dit leven?' Hierdoor kunnen bezoekers hun gedachten met elkaar kunnen delen en ze stil staan bij hun fysieke sterfelijheid, maar er tegelijk hoop kan zijn voor een hiernaams.

5 Dankbaarheidsmuur

Nadat bezoekers bestemmingen van anderen hebben gelezen en eventueel gedeeld, is er een prikboard met polaroidvormige papertjes, waar bezoekers stil kunnen staan bij waardevolle momenten in het leven. De vraag: 'Langs wie/wat/waar ben je op deze reis in het bijzonder gekomen?' Dit dient als een liefdevol en positief opvangmoment na de trigger van het bestemmingsbord.

6 Koffertje

Na het bezoeken van de vaste presentatie en de tentoonstellingen, kan de bezoeker hier een klein kartonnen koffertje pakken om te vullen met diverse reisstickers met daarop vragen zoals: 'Wat hoop/wil/ga je achter te laten of Wat hoop/wil/ga je meenemen?'. Zodat mensen in het café of thuis nog verder kunnen reflecteren op wat de fysieke sterfelijheid voor hun kan betekenen en dat onder woorden kunnen brengen.

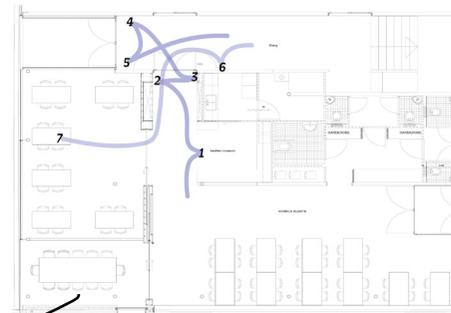


Figure 71: Description, matching the route on the museum map of concept idea 'Levensreisbureau'

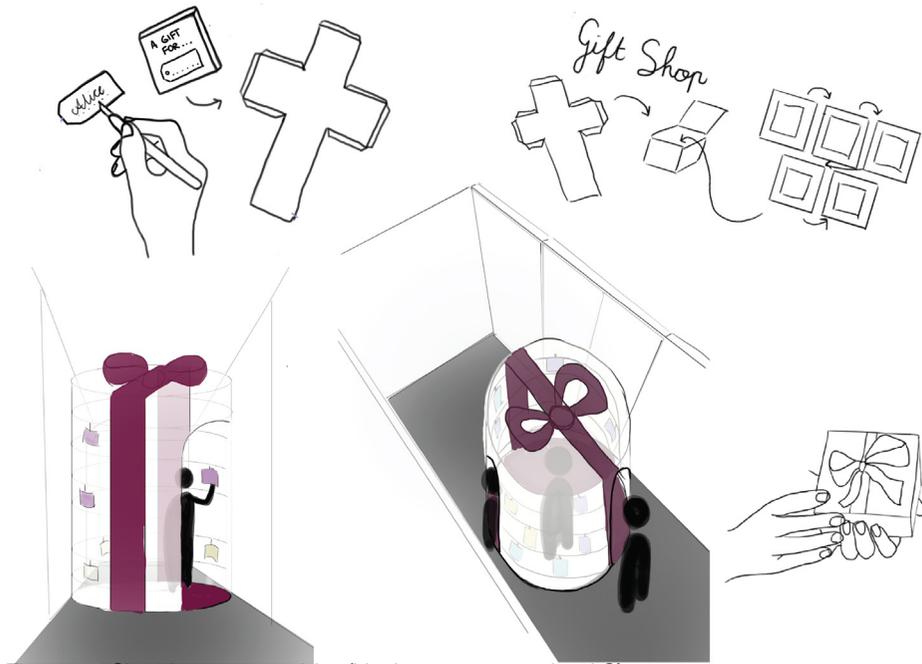


Figure 72: Sketches concept idea 'Het leven, een geschenk?'

1 Geschenkkabel en uit- en opvouwbaar geschenk

Bij de aankoopbalie in het museum ontvangt de bezoeker een opgevouwd papiertje met daarop een geschenklabel, waar de bezoeker aan de balie zelf hun (bij)naam mogen opschrijven. Ze weten nog niet waarom ze zichzelf een geschenk geven. Als je het papier openvouwt, nodigt het uit om *na het bezoek* te reflecteren op *Momenden* uit het leven. Momenten die geïndigt zijn of zullen eindigen. Er staan vijf vragen op om over na te denken en op te reflecteren.

2 Levensgroot geschenk met antwoorden van andere bezoekers

Vervolgens betreedt de bezoeker het museum door de dubbele deur, waar een levensgroot cilindervormig 'cadeau' staat. Aan de buitenkant zijn door het doorzichtige wit doek, dat dient als wand, gekleurde kaartjes te zien. De bezoeker kan dit cadeau betreden.

3 Eigen bijdrage leveren aan museum

Op de vloer van de cilinder, staat in het tapijt te vraag: 'Het leven is anders voor iedereen, wat maakt dit leven een geschenk voor jou?' In de cilinder staan twee kleine tafeltjes, met daarop kleurrijke kaartjes en stiften om hier antwoord op te geven. De bezoeker kan door de andere kant aan de cilinder stappen en de rest van het museum betreden.

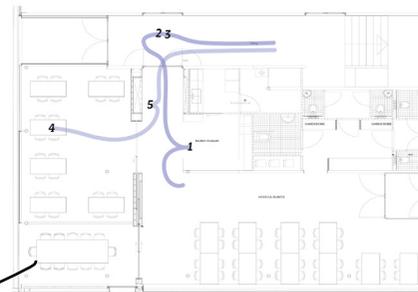
4 Momend kaarten te verzamelen in de Gift Shop

In de gift shop van het museum staat ook een kleine *Gift Shop*, waar setjes van vijf kaartjes te pakken zijn. Deze kaarten bevatten dezelfde vragen als in het introductie papiertje staan. Dit papiertje is te vouwen tot een geschenkdoozje en de kaarten passen hier precies in.

5 Opvouwbaar geschenk met Momend reflectievragen in te vullen

Dit geschenkdoozje kan in het museumcafé, op een zelf gekozen plekje, gevouwen en gevuld worden. De bezoeker kan het papiertje en de *Momend* kaarten ook mee naar huis nemen om op een later moment te reflecteren.

Figure 73: Description, matching the route on the museum map of concept idea 'Het leven, een geschenk?'



Strengths:

The gift storytelling has layers, actions to do during, before and after the visit, which gives depth.

Giving visitors a gift as a thank you for their visit and as an appreciation for coming is nice, especially when they felt restraint to visit or difficulty in the topic.

The reflection using MomENDs, getting to a deeper reflection step by step and starting with the good and positive moments of that day fits the vision of a positive and lovingly approach that the museum has in their positioning as a museum about life and death.

The idea of collecting moments to gift yourself is a positive interaction.

Weaknesses and opportunities:

The idea might be more fitting as a stand alone piece at another location in the museum, possibly as part of an exhibition or in the museum café.

The amount of layers means more participation from the visitor is needed and the higher the participation level, the higher the treshold to participate.

The look and feel in terms of festivity and what the installation communicates needs to be developed.

In itself it does not trigger awareness of mortality in the design of the trigger: the gift.

APPENDIX 20: SAND MANDALA REFLECTION

Figure 75 shows the idea for a deeper reflection exercise after visitation. The goal of this idea is to stand still at 'MomENDS', which are moments that come to an end. The focus lies on the positive moments, the moments that make life good. It is a moment of shedding a light on life after being triggered with mortality at the sand table. This idea came forth by combining the concept ideas 'In Touch with Mortality' and 'Life, a Gift' (Figure 69) (Figure 73) and using the design method 'SCAMPER' (Van Boeijen et al., 2021). In this method seven heuristics are used to adapt an existing idea. They are: Substitute, Combine, Adapt, Modify, Put to another use, Eliminate and Reverse. The second step combined the MomENDs cards from the concept idea 'Life, a Gift' with the material sand. When reading about the creation of sand mandalas, this idea got the shape of a circle. Unfortunately, the idea of deeper reflection falls outside of this graduation project. I still think it is a very cool idea and therefore it is placed in this appendix. Figure 74 shows the first sketches of the idea and Figure 75 shows a simple 'storyboard'.

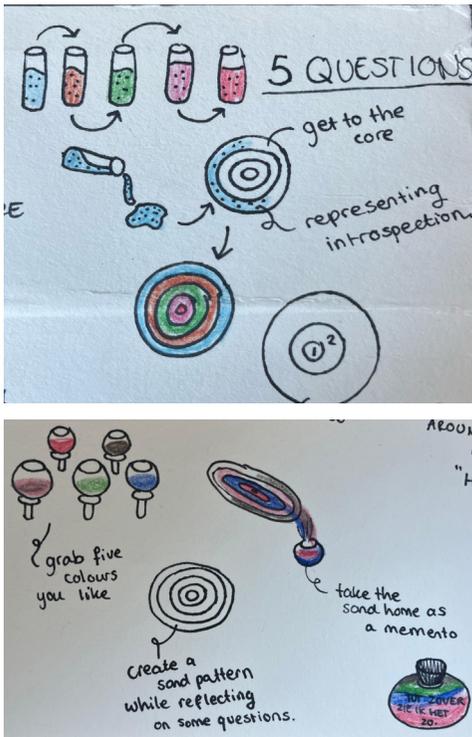


Figure 74: Original sketches for this idea.

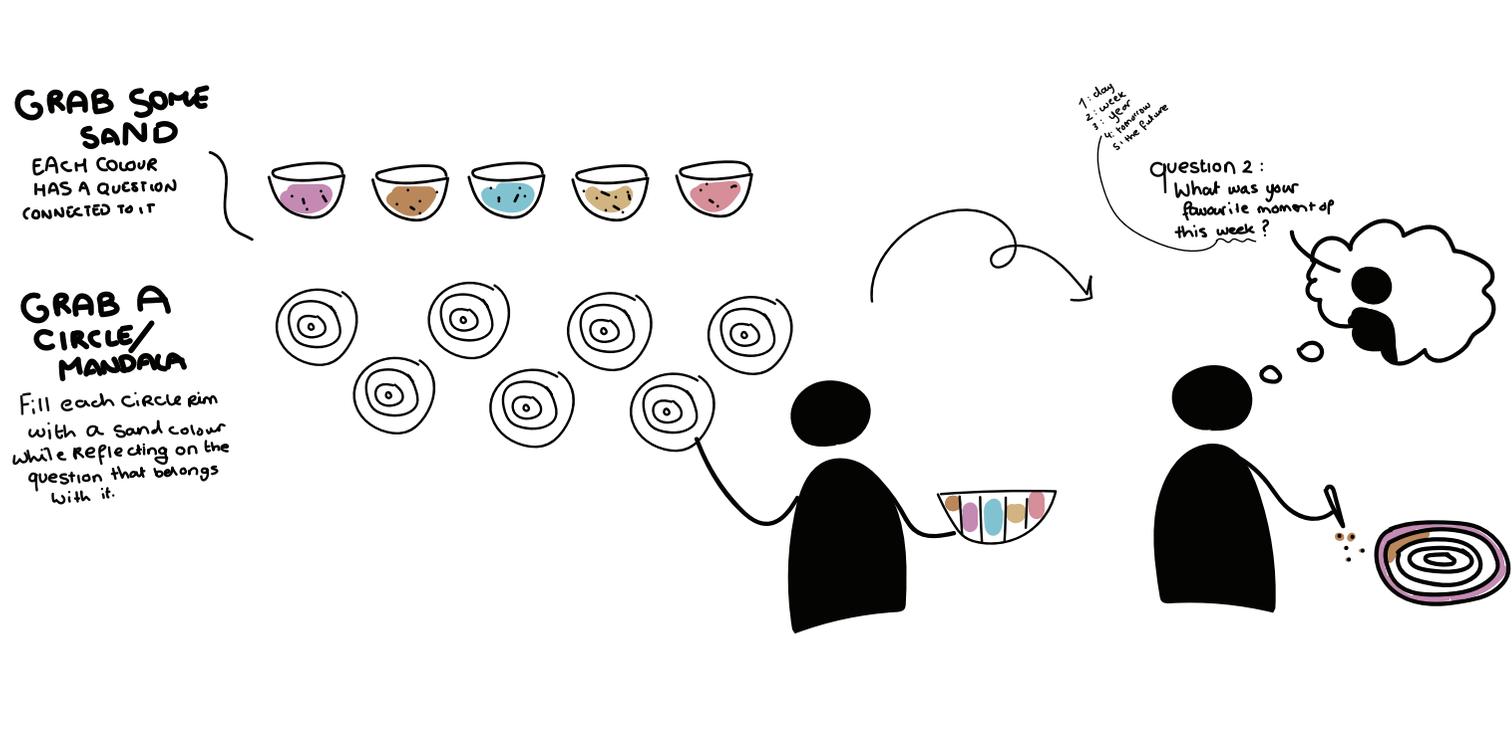


Figure 75: Reflecting on questions while creating an introspection sand mandala: a visualisation.

APPENDIX 21: INTERACTION VISION INSPIRING THE INTERACTION STEPS

INSPIRATION FROM INTERACTION VISION

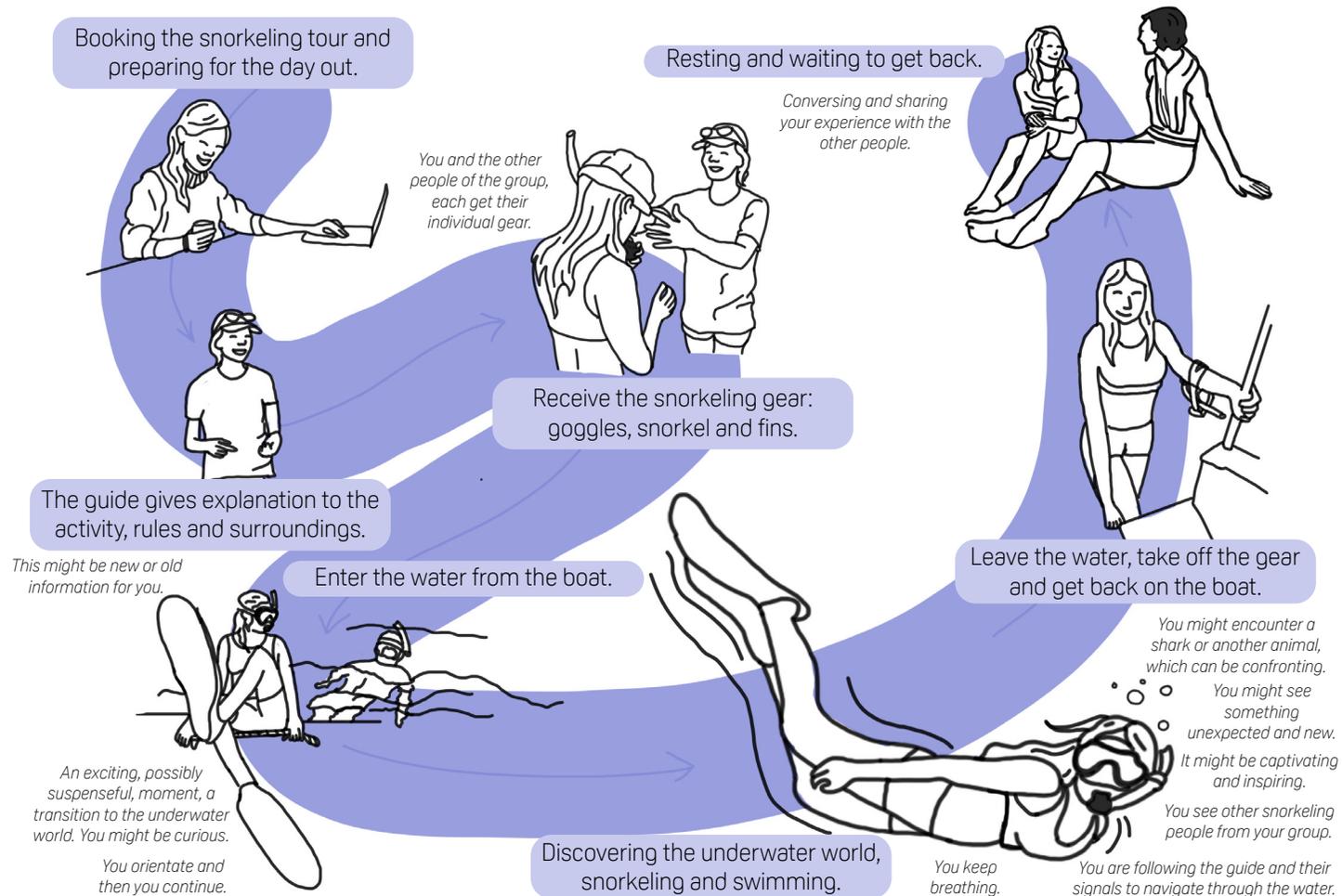
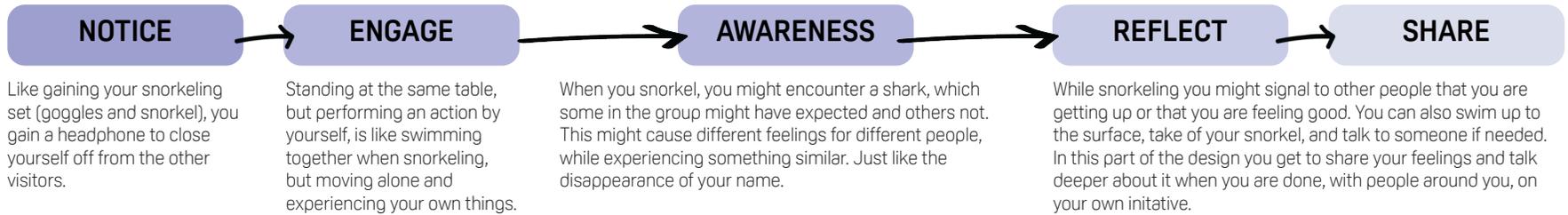
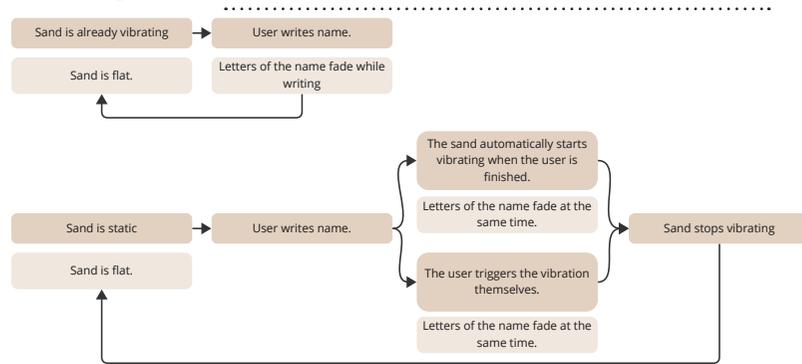


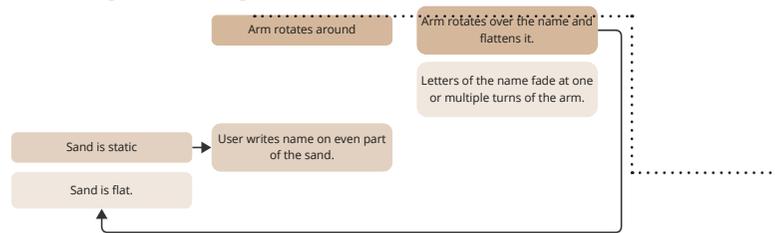
Figure 76: The steps of the interaction vision: snorkelling with a dive master (here guide).

APPENDIX 22: FOUR DESIGN ELEMENTS FOR INTERACTION STEP 'AWARENESS'

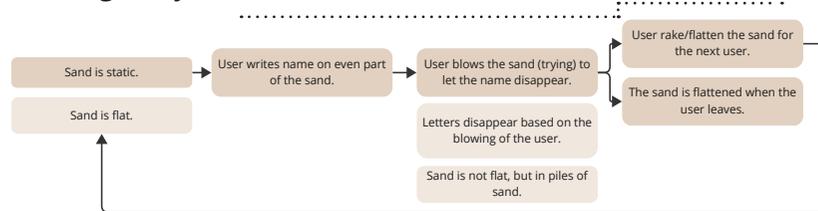
Vibrating sand table



Rotating flattening arm



Blowing away the sand



Wiping away the sand

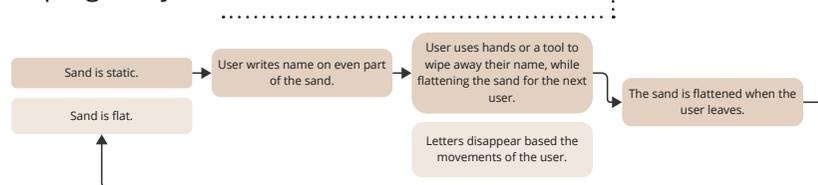


Figure 77: The four design elements and their flow.

ANALYSIS OF THE FOUR DESIGN ELEMENTS, BASED ON THE NARRATIVE THEY TELL.

When the sand is already vibrating the user does not get a moment to stand still at their name. There is no moment where their name is written in the sand, untouched. However, for the interaction I envision the name to be written, marked and stay untouched for a while. This moment represents the moment in the museum, marking your presence, but in the bigger picture, it represents your time on this earth. Therefore this interaction does not match my vision as a designer. The user might write the name, in all concepts, with their fingers or a tool. When the sand starts vibrating after the user has written their name, it matches the bigger picture of life and death: there is a moment when the name is there, untouched and then a moment it disappears, representing living and the moment of death. When the user gets to 'decide' when the sand starts vibrating it shows that the user is in control of when the name disappears, while I envision it to happen outside of the user's control, since death often comes out of our control. The stimulation to make your name disappear, might be more confronting than having it disappear, it steers towards accepting the disappearance. What works better needs to be tested. What is strong about the vibrating happening 'suddenly' is that it is a surprise, the user might not have expected for their name to disappear.

The flattening arm, a rotating movement, is visible in approaching the user's written name, it is turning towards it. This represents that our physical death is approaching, just as it is in real life. You can write your name as far away from the arm, it will come, inevitably.

The act of blowing sand away comes from the idea of breathing your last breath. When the user gets to 'decide' when to blow the sand, the user is in control again. Having the user flatten the sand after their act, gives an extra step, which can represent the circle of life, having room for another human, another person. It can also be a step too much, since the last thoughts or feelings might shift during the act of flattening, while the next step of the experience is to share your thoughts and feelings.

The flattening of the sand by wiping the name away, leaves the control, again, in the user's hands. The step to flatten the sand for the next user, while making the written name disappear can represent the circle of life as mentioned above. The idea to use your hands, creates, I imagine, an intimate feeling and reminds of playing with sand. Some people are highly sensitive to the touch of sand, and therefore a tool to wipe it away can be offered.

VIBRATING SAND TABLE

Test 1: I attached an Arduino Grove Vibration Motor to a piece of cardboard, covered the cardboard with sand, wrote 'name' in the sand and then turned on the vibration motor. I also kept the vibration motor turned on and wrote the name during vibration as a second test. Figure 78 shows this test.

Insights:

- The name disappears before it is finished when writing during vibration.
- The name disappears smoothly into the sand, as if the shape had not been there before.
- The vibration will create a pattern in the sand when not distributed equally across the bottom plate/table and therefore end up in sand piles. The vibration steers the sand away from the point of vibration: moving the sand away and revealing the bottom plate/table
- The vibration with the current motor was too fast. I tested it on 100% power, which made the name disappear in less than a second. I imagine a more gentle and slow interaction. I tested it on 33% power, using pulse width modulation, which made the name disappear slower, but still within a second or two.
- The current motor makes a relatively soft sound, but very hearable in a silent room, like in a museum.

Test 2: I placed a layer of sand in a tupperware container with sand. I wrote 'test' and rotated the container in a sifting movement to mimick the effect of vibration. Figure 79 shows this test.

Insights:

- The name disappears smoothly into the sand, as if the shape had not been there before, but requires quite some movement to completely disappear. This depends on the sizes of the letters.
- The movement has to be countered to keep the sand distributed evenly.

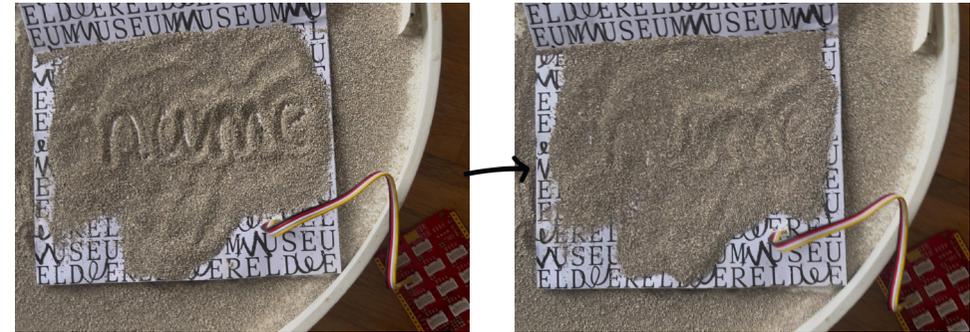


Figure 78: The test set-up for the vibration table, test 1



Figure 79: The test set-up for the vibration table, test 2

ROTATIONAL ARM

Test 1: I covered a round tray with sand, wrote 'name' in the sand and turned a candle, representing the arm, around to flatten the name. I also tried it with a flat piece of cardboard as arm. Figure 80 shows this test.

Insights:

- The arm needs to hover precisely at the height of the original layer of sand. By turning around, the layer of sand eventually restores itself, and pushes higher levels of sand forwards.
- The name disappears after multiple turns.
- The turning mechanism will create piles of sand at the beginning and the end of the arm, which can be kept to a minimum.
- The name does not disappear as smooth as with vibration, but it does disappear in a smooth manner, while flattening the sand.
- Controlling and turning the arm manually was too difficult for me, but I tried to mimick the movement of a rotating arm. Therefore I tested it another time by connecting an Arduino Analog Servo to a piece of cardboard, having it turn 180 degrees. This flattened out the text way more evenly than I manually could.

BLOWING AWAY

Test 1: I covered a round tray with sand, wrote 'name' in the sand. Then I blew away the name. I took no pictures of this test.

Insights:

- I had to blow quite close by or very hard to make the name disappear.
- The blowing of the sand created piles of sand around it and the name did not disappear smoothly.
- When blowing close by, it is not possible to read the name. The act of blowing the name from the sand takes the attention from the disappearance of the sand.
- I tended to close my eyes, close to the sand, out of reflex to sand blowing up. Therefore I did not see the name at all anymore. blowing really hard created sand to fly all around and outside of the tray.



Figure 80: The test set-up for the rotational arm, manually and electrically turned.



Figure 81: The test setup for wiping away the name.

WIPING AWAY

Test 1: I covered a round tray with sand, wrote 'name' in the sand and wiped away 'name' with my hands. Figure 82 shows this test.

Insights:

- The feeling of flattening the sand, using my hands, felt very natural to me, personally. Especially after writing with my fingers as well.
- The sand was not restored as flat as it was at the start; you saw the imprints of my palm or fingers.
- I wiped it away with a tool as well: using a cardboard tool made it possible to flatten the sand quite well.

APPENDIX 23: TEXT AUDIO RECORDING MINIMUM VIABLE PRODUCT TESTING

'Hallo, welkom in Museum Tot Zover en bij de installatie Echo's van zand. U begint uw bezoek met het markeren van het huidige moment. (5 sec)

The music behind this text were the first 10 minutes of the song 'Relaxing Music with Water Sounds for Stress Relief ' by Peter B helland of Soothing Relaxation (Soothing Relaxation, 2025).

*Voor u staat een tafel. Deze tafel is volledig gevuld met zand. Zoek een plekje aan deze tafel, zodra er een vrij komt. (15 seconden)**

Nu u aan de tafel staat, is het tijd om even stil te staan bij dit moment, jouw moment. De tafel is gevuld met zand, een verzameling van zandkorrels. Neem nu rustig een minuut om jouw naam in een egaal stuk van deze zandbak te schrijven. Gebruik je vingers, je handen of een hulpmiddel om elke letter van jouw naam op te schrijven. Kijk wat er gebeurt. (20 seconden)

Aangepast naar 1 minuut voor de tweede en derde testronde.

Je hebt je naam opgeschreven en Echo's van zand laat het nu langzaam verdwijnen. Neemeenmomentomhierbijstiltestaan;Welkegedachtesengevoelenskomenbijjeop? (3 seconden)

Misschien wil je je gevoelens of gedachtes voor jezelf opschrijven. Misschien wil je ze delen met anderen. Neem alle tijd die je nodig hebt om hierover na te denken en vervolg daarna het museum bezoek. Bedankt voor jouw tijd.

Deze begeleiding duurt 3: 45 minuten.

Het duurde 4:45 bij de tweede en derde testronde.

[Het uitwissen van de naam zou idealiter dus ook een minuut duren. De naam moet langzaam verdwijnen. Als dat gebeurt door de tafel, zoals in dit geval, dan zou de naam of langzaam in een minuut verdwijnen door vibratie of langzaam doordat de arm niet in een ronde de naam uitveegt, maar in twee. Misschien dus twee rondes van 30 seconden.]

Rustgevende natuur- en watergeluiden zetten voort tot 10 minuten en daarna (of eerder) kan de hoofdtelefoon ingeleverd worden.

**In het ideale ontwerp wordt hier een afstandsmeter gebruikt om vast te stellen dat de bezoeker een plekje aan de tafel heeft gevonden.. waardoor de begeleidende audio verder afspeelt.*

APPENDIX 24: ORIGINAL ANSWER FORM MINIMUM VIABLE PRODUCT TEST

Figure 82 and 83 show the answer form used in the first two test rounds. In the third round the likert scales have been taken out of the test.

Antwoordformulier Test Echo's van zand

Het schrijven van mijn naam voelde persoonlijk:

0	1	2	3	4	5	6
Helemaal niet mee eens	Mee oneens	Enigszins mee oneens	Niet mee oneens/eens	Enigszins mee eens	Mee eens	Helemaal mee eens

In welke mate was voor u de interactie via een hoofdtelefoon begeleidend?

0	1	2	3	4	5	6
Helemaal niet begeleidend	Niet begeleidend	Enigszins niet begeleidend	Neutraal	Enigszins begeleidend	Begeleidend	Heel begeleidend

In welke mate was voor u de interactie van het schrijven en verdwijnen van uw naam intiem?

0	1	2	3	4	5	6
Helemaal niet intiem	Niet intiem	Enigszins niet intiem	Neutraal	Enigszins intiem	Intiem	Heel intiem

Het schrijven van mijn naam in het zand en het uitvegen ervan deden mij denken aan fysieke sterfelijkheid:

0	1	2	3	4	5	6
Helemaal niet mee eens	Mee oneens	Enigszins mee oneens	Niet mee oneens/eens	Enigszins mee eens	Mee eens	Helemaal mee eens

In welke mate was de interactie gelaagd tot het aanzetten van reflectie over uw fysieke sterfelijkheid?

0	1	2	3	4	5	6
Helemaal niet gelaagd	Niet gelaagd	Enigszins niet gelaagd	Neutraal	Enigszins gelaagd	Gelaagd	Heel gelaagd

Welke manier van verdwijnen zet bij jou het best aan tot het nadenken over fysieke sterfelijkheid (kruis deze aan) en waarom?

<input type="checkbox"/> Het uitvegen met mijn eigen handen.	<input type="checkbox"/> Het verdwijnen doormiddel van vibratie.	<input checked="" type="checkbox"/> Het uitvegen doormiddel van een roterende arm.
--	--	--

Waaron:

Hierby heb je het zelf niet volledig in de hand waardoor je meer tijd hebt om + het duurt langer erover te reflecteren en je af te vragen hoe je je verhoudt t.o.v die arm

Wat zou u zelf willen toevoegen of verbeteren aan het ontwerp?

Arm vragen laten roteren + misschien nog een extra vraag oid om het reflecteren te stimuleren

Figure 82: Answerer form, first page, filled in by Rhode (23).

Over de invulkaartjes:

Wat maakt het voor u aantrekkelijk om gedachtes en gevoelens rondom fysieke sterfelijkheid te delen met andere bezoekers?

~~verschil het~~ Niet zoveel, ik vind het lezen interessanter maar ja voor wat, hoort wat door

Wat maakt het voor u aantrekkelijk om gedachtes en gevoelens rondom fysieke sterfelijkheid te lezen of te ontvangen van andere bezoekers?

Interessant, ook om de verschillen te zien

Hoe vond u het om uw gedachtes en gevoelens op te schrijven?

Lastig, maar deed me beter voelen wat ik ervan vond

Figure 83: Answerer form, second page, filled in by Rhode (23)

APPENDIX 25: QUOTES FROM 10 PARTICIPANTS MVPTTEST



Figure 85: Quotes test round two.

Figure 84: Quotes test round one.

APPENDIX 28: AUDIO GUIDANCE FOR FIRST VERSION OF THE DESIGN CONCEPT

Water sounds begin when headphones are put on.

(2 sec)

"Hello, welcome to Museum Tot Zover and to the installation Echoes of Sand. You will begin your visit by marking the present moment.

(3 sec)

Now that you are standing at the table, take a moment to stand still, take your moment.

The table is filled with sand, a collection of countless grains. Take half a minute to write your name in a free place in the sand. Use your fingers, your hands, or a tool to form each letter of your name. Observe what happens.

(30 sec)

In a moment, we will take the time to reflect on your thoughts and feelings. You saw how your name disappeared from the sand. There is a small container with two cards for you to write down your thoughts and feelings.

What comes to mind as your name disappears?

What do you feel?

Take as much time as you need. When you're ready, you can hang the cards on the circles by the window, allowing you to share your words with others if you wish."

Water sounds continues for 5 minutes and stops when headphones are taken off.

Figure 89: English version of the text of the final voice guidance.

APPENDIX 29: ARDUINO SET-UP SERVOMOTOR AND LED STRIP

Figure 90 shows the code used to control the servo speed and the led strip. Figure 91 and 92 shows how the led strip and servo are connected to the arduino.

```
1  #include <Servo.h>
2  #include <FastLED.h>
3  #define NUM_LEDS 125
4  #define LED_PIN 5
5  #define SERVO_PIN 6
6
7  Servo myservo;
8  int position = 85;
9
10 CRGB leds[NUM_LEDS];
11
12 void setup() {
13     FastLED.addLeds<WS2812B, LED_PIN, GRB>(leds, NUM_LEDS);
14
15     myservo.attach(SERVO_PIN);
16     myservo.write(position);
17
18     for (int i=0; i<NUM_LEDS ; i++) {
19         leds[i].setRGB(220, 218, 79); // Setting colours to a yellowish white
20         FastLED.show();
21         FastLED.setBrightness(100);
22         delay(10);
23     }
24 }
25
26 void loop() {
27     // myservo.write(position);
28     // delay(500); // make this delay longer to increase average speed
29     // myservo.write(90);
30     // delay(500); // make longer to decrease average speed
31 }
32
```

Figure 90: Arduino code for first prototype for final design concept.

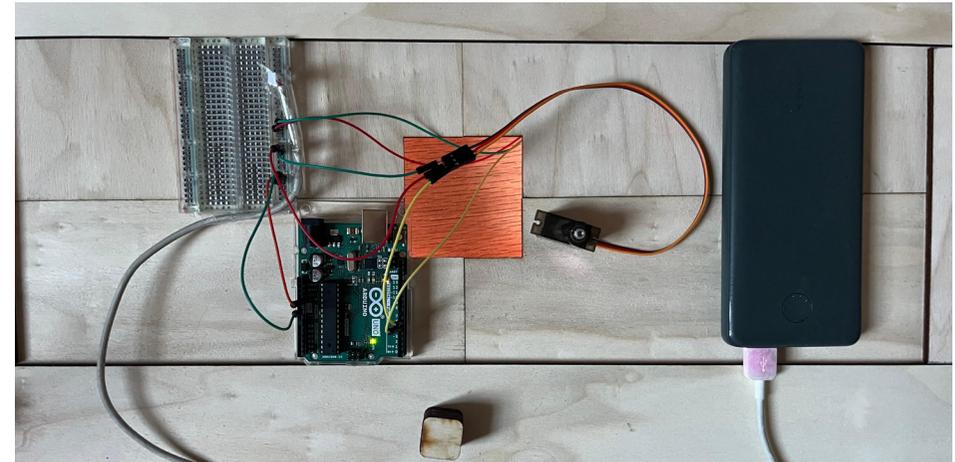


Figure 91: Servo and LED strip (see Figure 92) connected to the powerbank and connected to the Arduino Uno (Red/Orange = 5V, Yellow= pin, Green/Brown= ground).

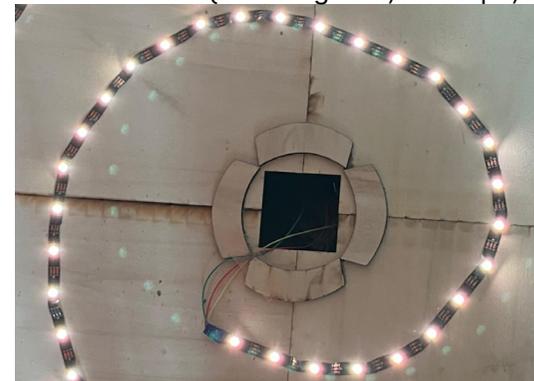


Figure 92: LED strip connected to breadboard connected to powerbank and connected to the Arduino Uno (Red = 5V, Yellow= pin, Green= ground).

APPENDIX 30: PROTOTYPING

Figure 93 shows pictures of prototyping, including pictures of the different arms that were tested in the sand.



Figure 93: Different arms tested to see how the name disappears into the sand.

APPENDIX 31: SYMBOLISM OF PEBBLES



Figure 94: Symbolism of stone.

APPENDIX 32: POEM, EXPLORING INTERACTION STEP 'GIVE MEANING'

Erosie

Bergbeekjes dragen de stenen
op hun reis richting de zee
via kreekjes naar rivieren
neemt de tijd ze met zich mee

Van rotsen tot een kiezel
langs warme en koude stromen
ietwat afgeschuurd
ietwat gepolijst
ietwat ruw
ietwat glad
hoopvol
langs al hun dromen

Figure 95: Poem written to explore the narrative of the last interaction step

APPENDIX 33: GUIDELINES FOR MUSEUM PERSONNEL

In this appendix some bullet points with guidelines for the museum personnel has been written.

- If visitors take a stone along rather than placing them in the small sandtable, it is fine. Visitors are allowed to take a stone to open up reflection over a longer period of time: for the rest of the visit or even after.
- If the wall full of answer cards becomes too full, some answer cards must be removed and replaced with new stones. Some stones from the small sandtable must be removed as well. Preferably, the amount of cards on the answer card wall is the same as the amount of stones in the sand. Removing cards or stones can never be done during the day, but always after closing of the museum.
- The museum attendant is not allowed to explain the installation to visitors. This way visitors can explore the installation themselves. If visitors approach the attendant specifically to explain the installation that is allowed. Please take the visitor to a separate part of the museum or back to the gift shop to not interrupt other visitors.
- At the end of the day the sand is preferably inspected on unwanted objects or contaminants. The answer cards can be checked as well, to make sure they contain no offensive answers that go against the values of Museum Tot Zover.
- Alcohol wipes and pumps must be present at all times to clean the headphones and respectively visitor's hands.
- At the end of the day, the wireless headphones must be charged and at the start of the day they must be placed at the installation.

APPENDIX 34: TEST PLAN FINAL TEST

So, the focus for the final test lies on the interaction quality 'caring' and testing the interaction step 'Give Meaning'. The participant is invited to wait around the corner of where the prototype is positioned. The test set-up is shown in Figure 96 and Figure 97

They get the following introduction:

'Hello, welcome. You are standing at the entrance of Museum Tot Zover in Amsterdam. This is a museum about life and death. You have just bought your ticket and hung your clothes, you are entering the museum.'

Then they are observed when interacting with the prototype. I check what actions they do:

(H) - Using the headphones.

(WS) = Writing in the sand.

(WC) = Writing on the cards.

(HC) = Hanging the cards.

(GS) = Grabbing the stone.

(PS) = Placing the stone.

Afterwards they are asked the following questions:

1. So, this was the first thing you encountered in this museum. With what feeling will you continue to the rest of the museum visit?
2. I saw you did/did not (H, WS, WC, HC, GS, PS), can you explain why?
3. May I ask what you have written down? Can you elaborate on that?
4. I saw you exchanged the card for a stone, why?
5. What did you think or feel when placing the stone?

To analyse this test and answer research question 1.a, the cards and quotes will be compared to the MVP test.

Figure 98 to 101 show participants during the test and filled in answer cards.

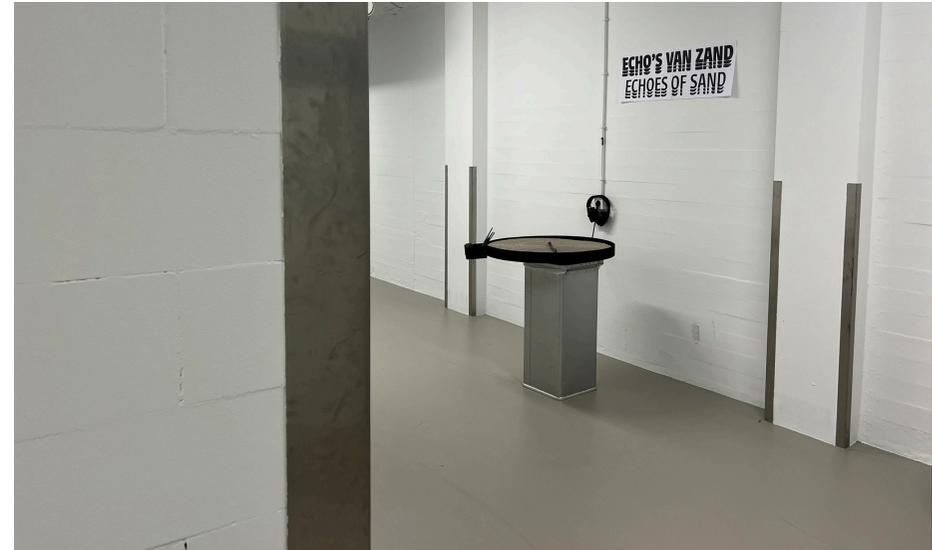


Figure 96: Test set-up prototype. When you turn around the corner this is what you might see: the title, headphones and the big sand table.



Figure 97: Test set-up prototype. When you come closer you might also see the left side with the small sand table.



Figure 98: Anne writing her name.



Figure 99: Hannah seeing her name disappear.



Figure 100: Answer card filled in by Anne (23)



Figure 101: Answer card filled in by Fee (21)

APPENDIX 35: FINAL TEST QUOTES AND ANALYSIS



1. So, this was the first thing you encountered in this museum. With what feeling will you continue to the rest of the museum visit?



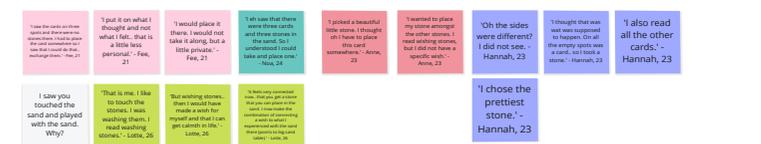
2. I saw you did/did not (H, WS, WC, HC, GS, PS), can you explain why?



3. May I ask what you have written down? Can you elaborate on that?



4. I saw you exchanged the card for a stone, why?



5. What did you think or feel when placing the stone?

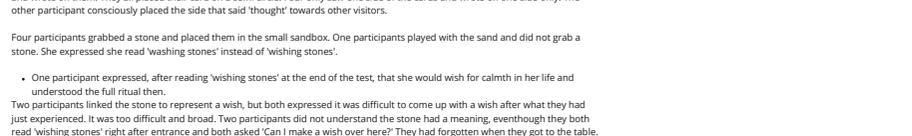
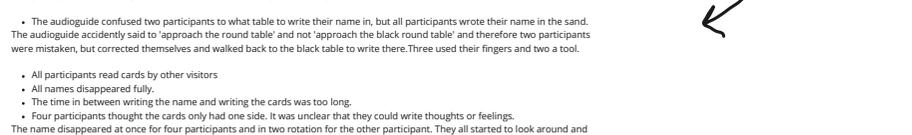
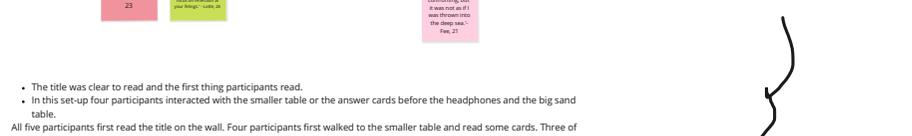


Figure 102 Participants' quotes on post-its at the questions.

Figure 103: Analysis of quotes.