

Appendices

Designers of the Future

*Engaging children in speculation
through museum experiences*



María Peiró Torralba
MSc Design for Interaction

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MSc Design for Interaction
Master's Thesis

Designers of the Future

*Engaging children in speculation
through museum experiences*

María Peiró Torralba

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Appendix A. Project brief

DESIGN
FOR OUR
future



IDE Master Graduation

Project team, Procedural checks and personal Project brief

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

- The student defines the team, what he/she is going to do/deliver and how that will come about.
- SSC E&SA (Shared Service Center, Education & Student Affairs) reports on the student's registration and study progress.
- IDE's Board of Examiners confirms if the student is allowed to start the Graduation Project.

! USE ADOBE ACROBAT READER TO OPEN, EDIT AND SAVE THIS DOCUMENT

Download again and reopen in case you tried other software, such as Preview (Mac) or a webbrowser.

STUDENT DATA & MASTER PROGRAMME

Save this form according to the format "IDE Master Graduation Project Brief_familyname_firstname_studentnumber_dd-mm-yyyy". Complete all blue parts of the form and include the approved Project Brief in your Graduation Report as Appendix 1 !

family name	<u>Peiró Torralba</u>	Your master programme (only select the options that apply to you):
initials	<u>M</u> given name <u>María</u>	IDE master(s): <input type="radio"/> IPD <input checked="" type="radio"/> Dfl <input type="radio"/> SPD
student number	_____	2 nd non-IDE master: _____
street & no.	_____	individual programme: _____ (give date of approval)
zipcode & city	_____	honours programme: <input type="radio"/> Honours Programme Master
country	_____	specialisation / annotation: <input type="radio"/> Medisign
phone	_____	<input type="radio"/> Tech. in Sustainable Design
email	_____	<input type="radio"/> Entrepreneurship

SUPERVISORY TEAM **

Fill in the required data for the supervisory team members. Please check the instructions on the right !

** chair	<u>Arnold Vermeeren</u>	dept. / section: <u>HCD / HICD</u>
** mentor	<u>Iohanna Nicenboim</u>	dept. / section: <u>HCD / HICD</u>
2 nd mentor	<u>Hanna Piksen</u>	
	organisation: <u>Het Nieuwe Instituut</u>	
	city: <u>Rotterdam</u>	country: <u>The Netherlands</u>
comments (optional)	A. Vermeeren is the head of the Museum Futures Lab, as well as an expert in user experience; I. Nicenboim in more-than-human and speculative design. Both of their expertise is relevant to the project in different ways.	

Chair should request the IDE Board of Examiners for approval of a non-IDE mentor, including a motivation letter and c.v.



Second mentor only applies in case the assignment is hosted by an external organisation.



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

MOTIVATION AND PERSONAL AMBITIONS

Explain why you set up this project, what competences you want to prove and learn. For example: acquired competences from your MSc programme, the elective semester, extra-curricular activities (etc.) and point out the competences you have yet developed. Optionally, describe which personal learning ambitions you explicitly want to address in this project, on top of the learning objectives of the Graduation Project, such as: in depth knowledge a on specific subject, broadening your competences or experimenting with a specific tool and/or methodology, Stick to no more than five ambitions.

I spent most of my childhood visiting museums and other cultural institutions, which sparked my interest for design and art from a young age. Museums played a big part in who I am today! Now, I am observing a shift in the roles that museums can hold in society, and would like to participate in my own small way in this transition. Will the children of today be transformed by museums in different ways that I was? This project will additionally give me the opportunity to see how institutions like Het Nieuwe Instituut work from the inside, which I think will be an incredibly valuable experience.

During my studies as a DFI student, I acquired skills in creative facilitation and context mapping / design research in general. The course Deep Dive into speculative design provided me with the chance to discover this discipline – however, we did not have the opportunity to carry out a participatory process due to time constraints. Since then, this has been something I have been wanting to explore further: collective speculation and the positive impact it can have.

Finally, through this project I would like to broaden my knowledge in more-than-human design, what it means for designers and how it can be applied. Lastly, a challenge I enthusiastically take is learning to design with children, which are a target group I have never worked with before but am excited to learn from.

FINAL COMMENTS

In case your project brief needs final comments, please add any information you think is relevant.

Engaging children in speculation through museum experiences _____ project title

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

start date 16 - 03 - 2023 24 - 08 - 2023 end date

INTRODUCTION **

Please describe, the context of your project, and address the main stakeholders (interests) within this context in a concise yet complete manner. Who are involved, what do they value and how do they currently operate within the given context? What are the main opportunities and limitations you are currently aware of (cultural- and social norms, resources (time, money,...), technology, ...).

The role that museums play in society is changing, as they strive to become not only the safekeepers and disseminators of heritage, but also future-forward institutions involved in societal transformations. As such, museums are actively working to become hubs where new, innovative ideas can be incubated and shared with the greater public. In order to achieve this, they are strengthening the ties with the communities where they are situated, giving voice to the citizens' concerns.

However, there are some small voices that are still rarely heard: those of children. They are not only the ones that will inherit the world we are creating now, but also the ones that have the power to change it. Could museums play a role in encouraging children to speculate about the future in a hopeful way? How do their perspectives differ from those of adults, and what could we learn from them?

This project intends to engage the children of Rotterdam in a participatory process to dream of the future of their city, with the goal of empowering them to create it. More-than-human design is chosen as a specific domain to speculate on: what would Rotterdam look like if it was not made only for humans, but for all of its inhabitants?

The context of this project is Het Nieuwe Instituut, the national museum for architecture, design and digital culture. Within the museum, there is an exhibition in development around the topic of co-designing the future with children. This exhibition will be designed by an agency later in this year. This graduation project means to provide guidelines and inspiration for engaging children in speculation, taking a research through design approach.

Regarding limitations, it has been agreed with the client that the final design of this project will not be conditioned by the direction taken by the design agency; however, communication (and possibly collaboration) with them further down the project will be sought out. Language barrier between the children and myself could potentially be an issue, but it will be dealt with by exploring alternative (non-verbal, translatable) ways of receiving input, as well as recruiting English-speaking children for those activities that require real-time verbal communication.

In terms of opportunities, Het Nieuwe Instituut will provide me with space in the museum to interact and test out small prototypes or interventions with children and their families. Researchers on more-than-human design within the organization will also be invited to give their input to the project.

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PROBLEM DEFINITION **

Limit and define the scope and solution space of your project to one that is manageable within one Master Graduation Project of 30 EC (= 20 full time weeks or 100 working days) and clearly indicate what issue(s) should be addressed in this project.

An interactive exhibition about co-designing the future with children is currently in the very early stages of being developed at Het Nieuwe Instituut. This exhibition should be co-designed with, and for, children from Rotterdam, with the aim of engaging them in speculation about the future and empowering them to create it. But how can this best be done? To explore this domain, the case of more-than-human futures for the city of Rotterdam is chosen. Many questions arise:

- Can children of any age be engaged in speculation about futures, or is there a certain age range where it makes the most sense? This will be one of the first questions that will be researched, and most likely an age range for the target group will be set.
- How might we design museum experiences that encourage children to speculate about their future?
- What kind of stimuli or triggers are most effective to inspire children to think of the future? (e.g.: verbal prompts, visualizations, future scenarios, ambiguous artefacts). During the process of speculating, what kind and degree of guidance do children need? In what mediums can this guidance be provided?
- In what format(s) do children prefer to express their ideas? (e.g.: verbally, through drawings, crafting objects / scenarios, roleplaying). Are there general trends, or are these preferences purely individual?

Secondary questions are:

- How can the ideas of the children be documented for future reference?
- How can children come out of a futuring experience feeling empowered, even if the changes they desire will not be realized in many years?

Answers to these questions will prove very valuable when designing the co-learning exhibition.

ASSIGNMENT **

State in 2 or 3 sentences what you are going to research, design, create and / or generate, that will solve (part of) the issue(s) pointed out in "problem definition". Then illustrate this assignment by indicating what kind of solution you expect and / or aim to deliver, for instance: a product, a product-service combination, a strategy illustrated through product or product-service combination ideas, In case of a Specialisation and/or Annotation, make sure the assignment reflects this/these.

Developing guidelines on how to engage children in speculation about the future through interactive museum experiences, with the aim of empowering children about their role in creating that future. The guidelines will be iterated and evaluated through a series of interventions / prototypes, with the topic of more-than-human futures for the city of Rotterdam.

- Literature review of papers about engaging children in co-speculation, as well as identifying principles of more-than-human futures.
- Based on the literature review, creating a first draft of guidelines for engaging children in speculation through museum experiences. Then, taking a Research through Design approach, designing experiences / interventions to speculate about more-than-human futures (different formats could be explored; e.g.: in-person workshops, interactive stand-alone interventions in the museum, take-home exercises).
- Testing the designed experiences, further improving and detailing the guidelines according to the insights gathered. Two iteration cycles will be carried out.
- Defining the improved guidelines and presenting them to the relevant stakeholders in a clear and engaging format.

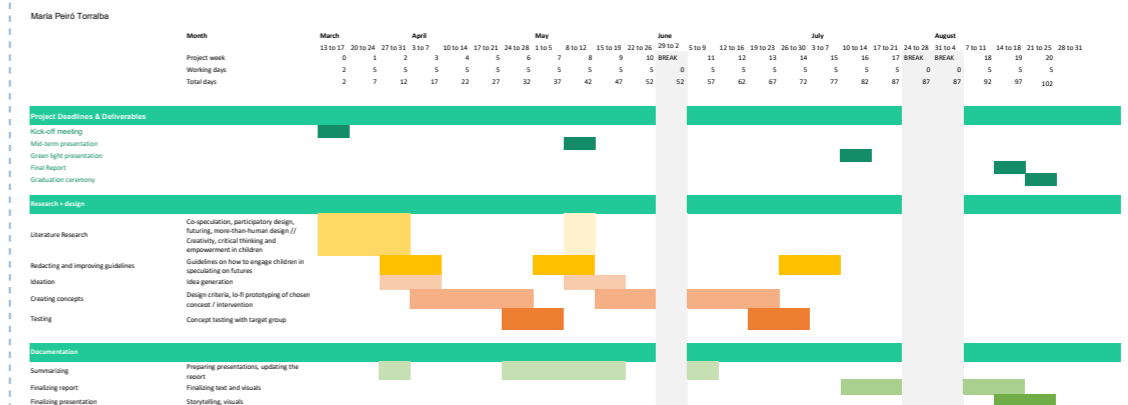
* The Research through Design approach taken will combine methods for prototyping experiences with participatory methods, such as Contextmapping or Interview with Things. In this way, the process will be very hands-on, while aiming to develop a deep understanding of the target group and communicate it to other designers.

PLANNING AND APPROACH **

Include a Gantt Chart (replace the example below - more examples can be found in Manual 2) that shows the different phases of your project, deliverables you have in mind, meetings, and how you plan to spend your time. Please note that all activities should fit within the given net time of 30 EC = 20 full time weeks or 100 working days, and your planning should include a kick-off meeting, mid-term meeting, green light meeting and graduation ceremony. Illustrate your Gantt Chart by, for instance, explaining your approach, and 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 activities.

start date 16 - 3 - 2023 end date 24 - 8 - 2023

Graduation Planning



Appendix B. Design guidance iterations

Appendix B-1. Design requirements (V1.1)

Design Requirement	Explanation
1. The exhibition should avoid falling into popular imagery of the future, and should encourage children to think beyond it as well	What children think of the future is highly influenced by what adults (parents and teachers) tell them, as well as what they see in the media. If the exhibition perpetuates these narratives, children are not going to come up with their own version of the story, which is what we want. The aim of the exhibition is for children to reflect for themselves and form their own opinion.
2. The exhibition should include several challenges or activities for children to do, each of them around a different topic. These topics are innovation, heritage, nature/climate, health, food/water, safety and enjoyment.	Children are attracted by challenges, and making serious issues into a game is a simple way to encourage them to engage with these topics. These challenges should stimulate their creativity and discussion with their families or other children.
3. The exhibition should help make the future concrete and tangible, as well as provide challenges that are within the power of children to tackle	During the activities carried out with children, it became clear that thinking about abstract futures is not difficult to them. However, they do not see how these issues could affect them in the future, or how their current actions affect the future. There needs to be a way of connecting their daily life and the things they understand to the distant future, so it makes more sense to them. This also means if the exhibition has a sort of challenge to be solved, it should be something that children are able to solve themselves — then it can be connected to a bigger issue. Example: children are taught how to do a short breathing exercise, which helps tackle the issue of people being angry at each other (social instability).
4. The experience should be educationally empowering for children	In the exhibition, children should have a chance to develop or put into practice skills that are relevant for the future they will face. Futures Literacy is one of these abilities, but not the only one. Children should come out of the exhibition feeling proud of what they know, excited about the new things they have learned and better prepared for the future than when they entered.
5. Children should be able to express their ideas in the way(s) that comes most naturally to them	Instinctively, every child prefers to express their ideas and opinions in a certain way. Mainly, these ways fall into three categories: verbal/discursive (talking, writing), non-verbal/designerly (drawing, building) or embodied/enacted (roleplaying, acting, active dramatization). If this exhibition means to invite children to share their ideas, then there should be space for them to do this in the way they are most comfortable with. Each challenge or activity should be formulated with this in mind, so each child will find something they enjoy doing.
6. The design of the exhibition should be inviting and stimulate children to explore, without feeling constrained to a specific route.	We want children to be the protagonists of this experience. This means giving them the freedom to follow their intuition; this should be done through the design and distribution of the space. If there is no hierarchy or order the stations should be visited in, children get to make their own choice.
7. Less is more, but a balance should be struck between simplicity and shallowness. Different layers of meaning could be included to cater to different ages	For younger children, big quantities of new information can result overwhelming. Especially if there are multiple stations, too many stimuli can drain them. Because of this, the message each station wants to transmit should be clear and simple. However, older children appreciate being intellectually challenged; they do not want to be viewed as little kids, so if the challenges are too simple they will not be engaged. That is why there could be different levels of complexity. Example: the stations have some text that can be optionally read, some interesting related facts or data visualizations, etc.
8. The overall tone of the exhibition should be hopeful; however, appropriate weight should be given to children's concerns and fears about the future	Children are a lot more aware of the issues we are facing than we usually think. This, in some cases, results in fear and sadness related to the future. The aim of this exhibition is to empower children, showing them that there is something they can do to change the future. The message the exhibition gives should be nuanced, instead of purely positive, which could be insincere. Example: instead of saying "everything is going to be solved", say "we can work together to make this better".

Appendix B-2. Design challenges (V1.2)

Design Requirement	Question	Answer	Explanation
1. The exhibition should avoid falling into popular imagery of the future, and should encourage children to think beyond it as well	How can we encourage children to create their own images of the future?	We avoid the stereotypical concepts and visuals associated with the future as much as possible.	What children think of the future is highly influenced by what adults (parents and teachers) tell them, as well as what they see in the media. If the exhibition perpetuates these narratives, children are not going to come up with their own version of the story, which is what we want. The aim of the exhibition is for children to reflect for themselves and form their own opinion.
2. The exhibition should include several challenges or activities for children to do, each of them around a different topic. These topics are WRITE THIS	How can we stimulate children to engage in futuring?	We turn futuring into a game! Something they can prove themselves in. We also make it relevant for them, making these challenges revolve around the topics they themselves are interested in.	Children are attracted by challenges, and making serious issues into a game is a simple way to encourage them to engage with these topics. These challenges should stimulate their creativity and discussion with their families or other children. During the research carried out, children were asked to imagine the future. Recurring topics that form the basis of the future for them are _____.
3. The exhibition should help make the future concrete and tangible, as well as provide challenges that are within the power of children to tackle	How can we help make the future more concrete and tangible for children?	We connect the big issues the exhibition is about with small actions that relate to children's everyday life. In this way, we accompany them in their journey from concrete to abstract.	During the activities carried out with children, it became clear that thinking about abstract futures is not difficult to them. However, they do not see how these issues could affect them in the future, or how their current actions affect the future. There needs to be a way of connecting their daily life and the things they understand to the distant future, so it makes more sense to them. This also means if the exhibition has a sort of challenge to be solved, it should be something that children are able to solve themselves — then it can be connected to a bigger issue. Example: children are taught how to do a short breathing exercise, which helps tackle the issue of people being angry at each other, which eventually ties in to social instability.
8. The experience should be educationally empowering for children	How can we design an empowering experience for children?	In the exhibition, children should have a chance to develop or put into practice skills that are relevant for the future they will face.	Empowerment can mean very different things, but in this case we focus on educational empowerment: providing children with the tools they will need in the future. Futures Literacy is one of these abilities, but not the only one. Children should come out of the exhibition feeling proud of what they know, excited about the new things they have learned and better prepared for the future than when they entered.
4. Children should be able to express their ideas in the way(s) that comes most naturally to them	How can we accommodate for children's preferences when expressing their ideas?	If children's input is asked, we give them several ways in which to do it. If that is not possible, we make sure each kid will get at least one opportunity to express themselves how they want to in the exhibition.	Instinctively, every child prefers to express their ideas and opinions in a certain way. Mainly, these ways fall into three categories: verbal/discursive (talking, writing), non-verbal/designerly (drawing, building) or embodied/enacted (roleplaying, acting, active dramatization). If this exhibition means to invite children to share their ideas, then there should be space for them to do this in the way they are most comfortable with. Each challenge or activity should be formulated with this in mind, so each child will find something they enjoy doing.
5. The design of the exhibition should be inviting and stimulate children to explore, without feeling constrained to a specific route.	How can we stimulate children to take the lead and explore freely in this experience? (families)	We create a space with low hierarchy, and expressly give children the role of the leader.	We want children to be the protagonists of this experience. This means giving them the freedom to follow their intuition; this should be done through the design and distribution of the space. If there is no hierarchy or order the stations should be visited in, children get to make their own choice. Literature also shows that children respond really well to being given a role to play, a responsibility. This could be one technique to use as well.
6. Less is more, but a balance should be struck between simplicity and shallowness. Different layers of meaning could be included to cater to different ages	How can we ensure the intricacy of the exhibition is adequate to different ages?	We layer several levels of complexity, so that children can decide how much they want to learn or do.	For younger children, big quantities of new information can result overwhelming. Especially if there are multiple stations, too many stimuli can drain them. Because of this, the message each station wants to transmit should be clear and simple. However, older children appreciate being intellectually challenged; they do not want to be viewed as little kids, so if the challenges are too simple they will not be engaged. That is why there could be different levels of complexity. Example: the stations have some text that can be optionally read, some interesting related facts or data visualizations, etc.
7. The overall tone of the exhibition should be hopeful; however, appropriate weight should be given to children's concerns and fears about the future	How can we make space for children's concerns and fears, as well as their hopes?	We keep the message of the exhibition nuanced, avoiding tropes.	Children are a lot more aware of the issues we are facing than we usually think. This, in some cases, results in fear and sadness related to the future. The aim of this exhibition is to empower children, showing them that there is something they can do to change the future. Still, the message the exhibition gives should be nuanced, instead of purely positive, which could be insincere. Example: instead of saying "everything is going to be solved", say "we can work together to make this better". Possibly, we could make a space in the literal sense where they can express their concerns.

Appendix B-3. Design challenges with prompts (V2)

I – The Visionaries

How can we encourage children to create their own images of the future?

I – The Visionaries

How can we encourage children to create their own images of the future?

What kind of images of the future are included in this exhibition?

Is there space for children to draw their own conclusions about the topics presented? Are these topics discussed in an open-ended enough manner?

Is this exhibition perpetuating either dystopian or utopian stereotypes?

What less conventional perspectives can be taken on this topic? How can we remain nuanced?

What kind of questions do we want to present children with?

What children think of the future is highly influenced by what adults (parents and teachers) tell them, as well as what they see in the media.

If the exhibition perpetuates these narratives, children are not going to come up with their own version of the story, which is our ultimate goal.

How can we stimulate children to engage in **futuring?**

How can we stimulate children to engage in **futuring?**

Are children being challenged by this exhibition?

How are children invited into this challenge? What can they gain from solving it?

Is the topic of the challenge relevant for children?

Is the scope of the challenge appropriate for children's comprehension and skillset?

Are there opportunities for them to engage with their families or other children?

Children are attracted by challenges, and making serious issues into a game is a simple way to encourage them to engage with these topics.

During the research carried out, children were asked to imagine the future. Recurring topics that form the basis of the future for them are innovation, heritage, nature/climate, health, food/water, safety and enjoyment.

How can we help make the future more concrete and tangible for children?

How can we help make the future more concrete and tangible for children?

What are some actions or issues associated with this topic? Which are simple? Which are complex? How can we create a bridge between them?

Are the connections between the present and the distant future made clearer by this experience?

Are children being guided in gradually moving towards abstraction?

During the activities carried out with children, it became clear that thinking about abstract futures is not difficult to them. However, they do not see how these issues could affect them in the future, or how their current actions affect the future.

There needs to be a way of connecting their daily life and the things they understand to the distant future, so it makes more sense to them.

How can we design an **empowering** experience for children?

How can we design an **empowering** experience for children?

What skill related to this topic can be relevant for children to have in the future?

Are children truly being empowered through this experience? = Are children given the opportunity to develop or practice skills that are useful for their future?

Are they being made aware of this fact?

Can any element be added to the experience to reinforce children's pride in their abilities?

Empowerment can mean very different things, but in this case we focus on educational empowerment: providing children with the tools they will need in the future. Futures Literacy (learning to imagine different futures) is one of these abilities, but not the only one.

Children should come out of the exhibition feeling proud of what they know, excited about the new things they have learned and better prepared for the future than when they entered.

How can we accommodate for children's preferences when expressing their ideas?

How can we accommodate for children's preferences when expressing their ideas?

What do we want to get children's input and ideas on, regarding this topic?

Are children able to express their ideas in verbal, non-verbal and embodied ways?

Are children's ideas being given appropriate weight, shared or archived in any way?

Instinctively, every child prefers to express their ideas and opinions in a certain way. Mainly, these ways fall into three categories: verbal/discursive (talking, writing), non-verbal/designerly (drawing, building) or embodied/enacted (roleplaying, acting).

If this exhibition means to invite children to share their ideas, then there should be space for them to do this in the way they are most comfortable with.

How can we stimulate children to take the lead and explore freely in this experience?

How can we stimulate children to take the lead and explore freely in this experience?

How are children being stimulated to explore?

How can discovery and wonder be integrated into the experience?

If they wish to, can children move freely through the exhibition?

Are children being given the agency to lead the experience (for their families)?

We want children to be the protagonists of this experience. This means giving them the freedom to follow their intuition; this should be done through the design and distribution of the space.

Literature also shows that children respond really well to being given a role to play, a responsibility. This could be one technique to use as well.

How can we ensure the intricacy of the exhibition is adequate to different ages?

How can we ensure the intricacy of the exhibition is adequate to different ages?

What layers of complexity can be added or stripped back in this experience?

How do children know they can “go up the staircase” as much as they want? Can children decide how much they want to engage with the expo, based on their interests?

Is there an opportunity for children to build their knowledge further, if they so wish? (during / after the exhibition itself)

For younger children, big quantities of new information can result in overwhelming. Especially if there are multiple stations, too many stimuli can drain them. Because of this, the message each station wants to transmit should be clear and simple.

However, older children appreciate being intellectually challenged; they do not want to be viewed as little kids, so if the challenges are too simple they will not be engaged. That is why there could be different levels of complexity.

How can we make space for children's concerns and fears, as well as their hopes?

How can we make space for children's concerns and fears, as well as their hopes?

How can the exhibition show nuance? What are positive and negative futures related to this topic?

Is the narrative of the exhibition balanced between the positive and negative descriptions of the future?

Is there space for children to share their worries and concerns, as well as their hopes? How is this facilitated? Who are they sharing with?

Children are a lot more aware of the issues we are facing than we usually think. This, in some cases, results in fear and sadness related to the future.

The aim of this exhibition is to empower children, showing them that there is something they can do to change the future. Still, the message the exhibition gives should be nuanced, instead of purely positive, which could be insincere.

Appendix C. Interview guides and session plans

Appendix C-1. Interview guide parents

Introduction

- Welcome to the interview, thank the participant
- Introduce myself
- Introduce the Co-learning expo: an interactive exhibition for children, to learn about their ideas for the future
- 15 minute interview
- Emphasize that there are no wrong answers

Don't forget

- Can I **record** the audio of the interview?
- The raw information will only be handled by me – unless they consent to it being shared with the clients once anonymized
- The insights and learning will be shared with the supervisors of this project from TU Delft, as well as the Co-learning team of Het Nieuwe Instituut, and eventually be published in the thesis report

The Co-learning expo

Most of the time, museums decide what they want to teach children. In this case it's the opposite – we want to learn from children, because their ideas are also very valuable. Children are going to create the future!

The future & the present

- Does your child ever talk about the future, or play of travelling there?
 - If so, what do they imagine it is like?
 - Does this happen spontaneously or triggered by something (a movie, for example)?
- As a society, we are facing many challenges – environmental, social, technological... would you say your child is aware of these challenges?
- Does the school curriculum include topics like climate change, the energy transition, biodiversity, etc?
 - Do you ever discuss these topics at home too?
 - What is, generally, the attitude of your child when presented with these issues?

We want to invite children to share their ideas – but how?

- How does your child feel about expressing their ideas out loud?
- Are there any other methods of expression that they enjoy or prefer over speaking out? (for example, writing or drawing)
- Is your child sometimes shy around other kids or adults?
 - If so, how do you help them feel more comfortable?

How to make it attractive and fun for them?

- What kind of activities does your child find entertaining? (e.g. they could do it for hours)

[For my generation, that was including any sort of screen]

- What is the relationship of your child to technologies, social media, etc? (how much access, what kind of content)
 - Would you advise for or against integrating technology in the expo?

Previous museum experiences

- Do you ever go to museums with your child?
 - If so, is there any experience you remember? (can be positive or negative)
 - What kind of things does your child enjoy doing in a museum?
- In a museum, are you always together with your child, or do they ever explore by themselves?
 - How would you feel about a "adult-free" space for children in the museum?

Appendix C-2. Interview guide teacher

Introduction

- Welcome to the interview, thank the participant
- Introduce myself
- Introduce the Co-learning expo: an interactive exhibition for children, to learn about their ideas for the future
- 15 minute interview
- Emphasize that there are no wrong answers

Don't forget

- Can I **record** the audio of the interview?
- The raw information will only be handled by me – unless they consent to it being shared with the clients once anonymized
- The insights and learning will be shared with the supervisors of this project from TU Delft, as well as the Co-learning team of Het Nieuwe Instituut, and eventually be published in the thesis report

The Co-learning expo

Most of the time, museums decide what they want to teach children. In this case it's the opposite – we want to learn from children, because their ideas are also very valuable. Children are going to create the future!

The future & the present

- Do your students ever talk about the future? If so, is it something they do spontaneously or as part of a class activity, for example?
- As a society, we are facing many challenges – environmental, social, technological... would you say your students are aware of these challenges?
- Does the school curriculum include topics like climate change, the energy transition, biodiversity, etc?
 - If so, how are these topics introduced?
 - What is, generally, the attitude of your students when presented with these issues?

We want to invite children to share their ideas – but how?

- In general, in class, are children likely to express their ideas out loud?
- Are there any other methods of expression that they enjoy or prefer over speaking out? (for example, writing or drawing)
- What role do the social dynamics of the class play when it comes to children expressing their ideas?
 - If some children are shy, how do you encourage them to share their thoughts?

How to make it attractive and fun for them?

- What kind of activities do your students find entertaining? (e.g. they could do it for hours)
 - Are there any techniques that you use to help make the materials you teach more engaging for your students?

[For my generation, that was including any sort of screen]

- What is the relationship of your students to technologies, social media, etc?
 - Would you advise for or against integrating technology in the expo?

Previous museum experiences

- Do you ever go to museums with your class?
 - If so, is there any experience you remember? (can be positive or negative)
 - What kind of things do your students enjoy doing in a museum?
- In these visits, what is usually your role? (e.g. explaining things, guiding the children, keeping track of everyone)

Appendix C-3. Context Mapping session plan

Introduction

- Welcome and thank you for helping me!
- We all introduce ourselves
- First I will ask you some questions and then I will ask you to make a drawing or collage
- I want to learn from what you know!
- Emphasize that there are no wrong answers

Don't forget

- Is it okay if I **record** what you are saying so I don't forget?
- Do you want to participate? If you do not, that is also okay

(Questions) - 5-10'

I have some questions for you about the future. I want to learn what you know about it.

- What are some stories that you know about the future? What is going to happen?
- How do you feel about those things?
- What do you think you will be doing in the future?
- What are some opportunities and some issues that will happen in the future?

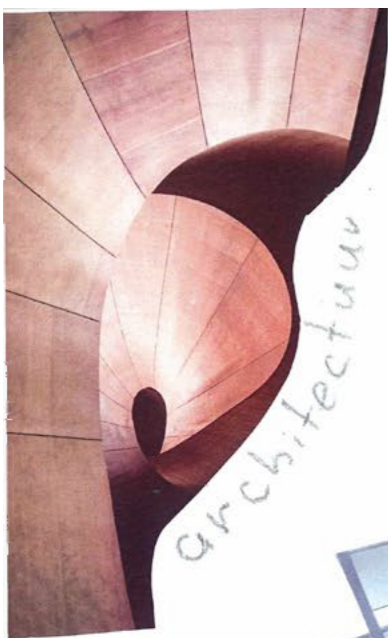
Draw/collage & tell - 45'

Can you draw / make a collage of what you think the future will be like?

- Nice to ask if they can write why they choose the pictures they choose, if there are many children
- Nice to have a presentation at the end

Appendix D.
Co-speculation
session results

11 mei 2023



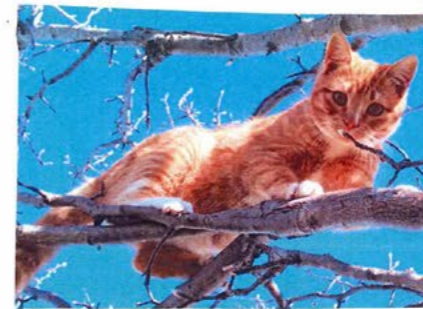
architectuur



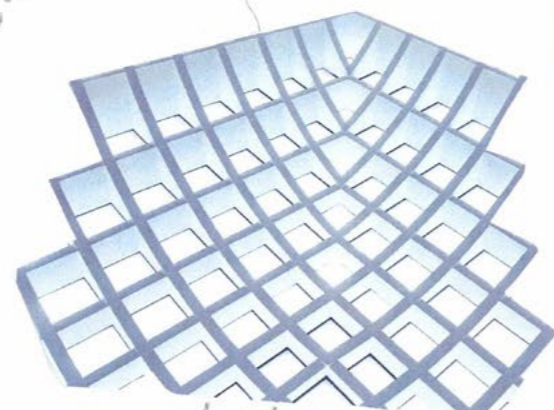
oplossing malaria



Natuur



verbinding tussen mens en dier



architectuur



progressie in de landbouw



Kunst



vrolijkheid



natuur



techno-ochie

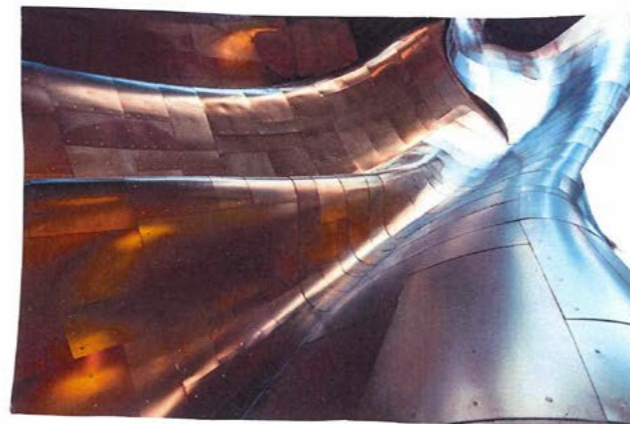
hyper loop



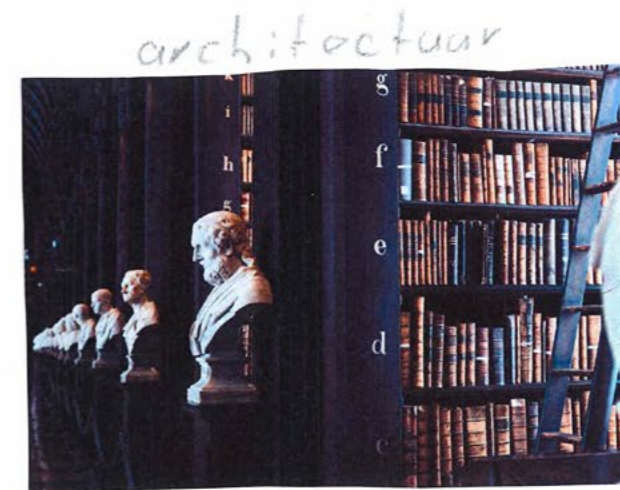
gezondheid



architectuur

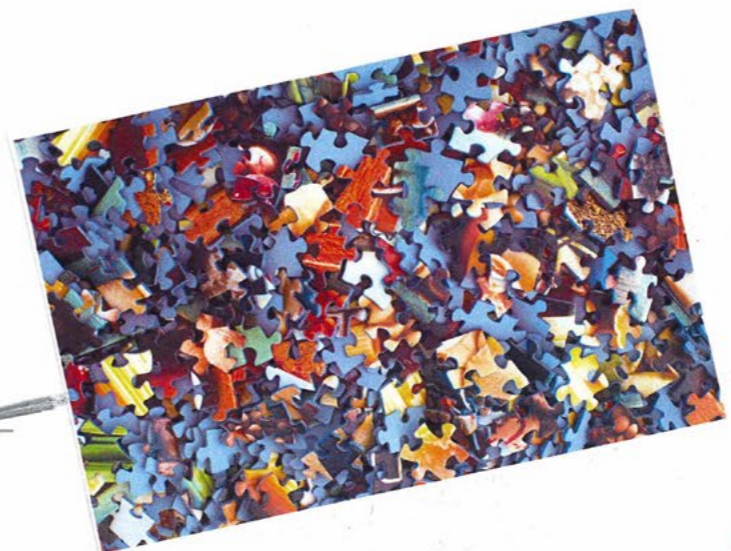
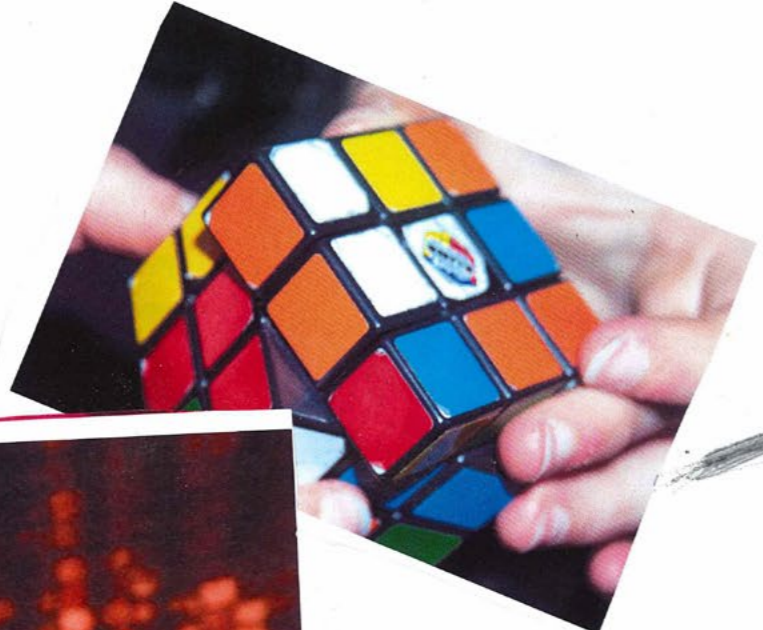


architectuur



architectuur





meer
spellgoed



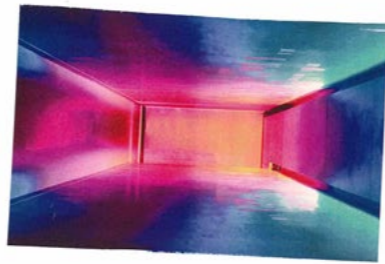
meer COOL
S.P.O.L. L.E.T.A.



School
spullen



minder druk



good futurz

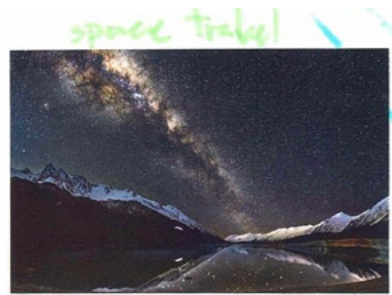


AAA



Bad futurz





space travel



innovation

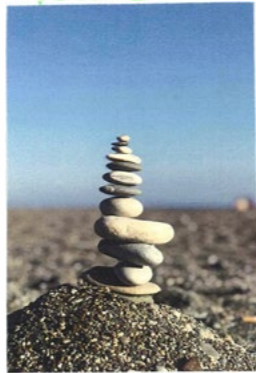


good future

Nature thrives



peace



Bad future



endless war



fires



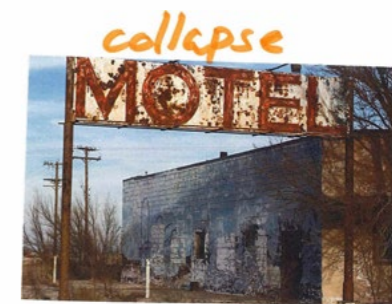
social instability



water shortage



illnes



collapse



geen avalordegrangerooi

leete r v o o d e d r o o r g

retel bloeien

de kaminstammingen en de kaneruitingen



mindet
an moede

R o o d e b l i t s e m

trketa

v u u r
b l o e m e n



Mauro komt in het echt beloven
spelletjes worden realiteit.

niet te veel kaktusachtige groei met vrede

geen zien met
Handeling



BLIJ en gelukkig ~~se~~ schil en chil



de kunst rustig en lief



mod van b
n
n
n



mooi en ~~nato~~ natuurlijk



elk mens moet licht hebben om te kijken



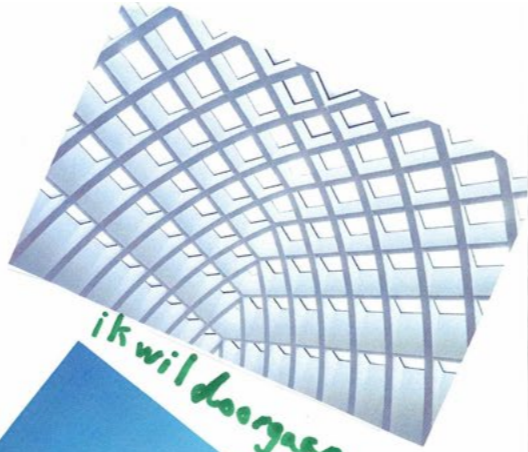
elk dier moet frisse lucht ~~h~~ halen



Calmen rustigen het
zelfdeals



dat ik in de supermarkt
werk



ik wil doorgaan



ik wil dingen
afmaken



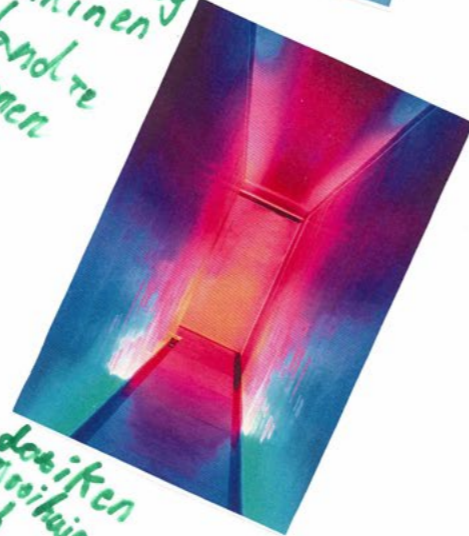
dat ik heb reid voor
mexico



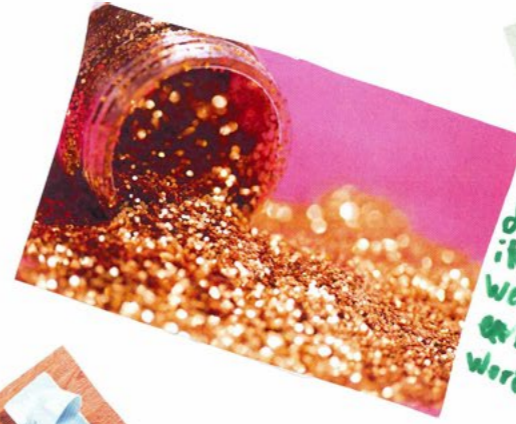
dat ik inen vlieg
tuit ga om in en
ander land te
wonen want



dat ik leuke dingen doe



dat ik en
mooi huis
heb



dat
ik had
werken
en rijk
word



dat ik heel veel dingen
kan doen

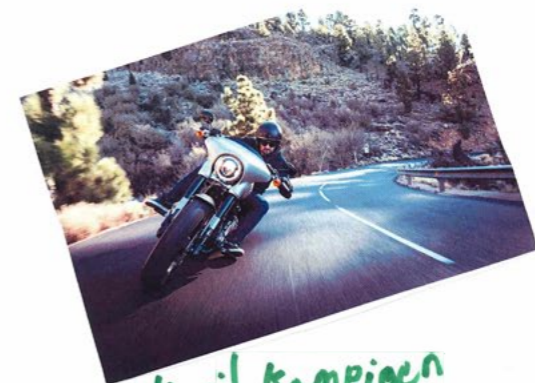


want ik wil vrij zijn

dat ik mooi



dingen vind



ik wil kampioen
zijn!

de beste in iets worden



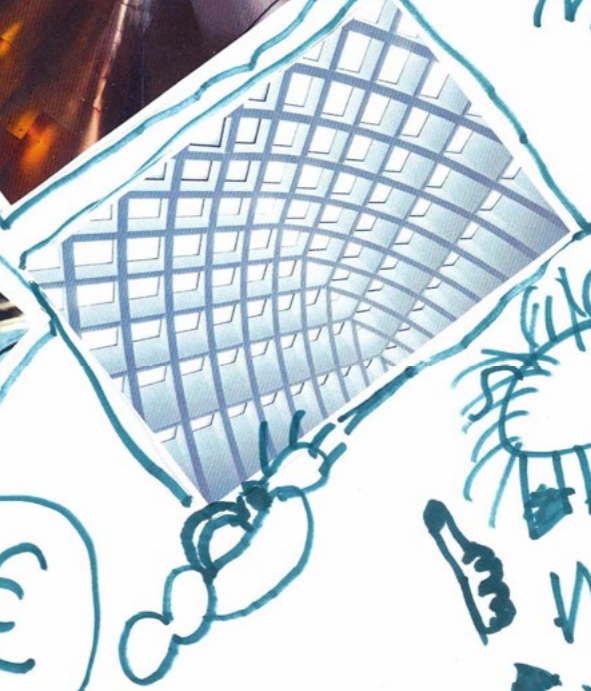
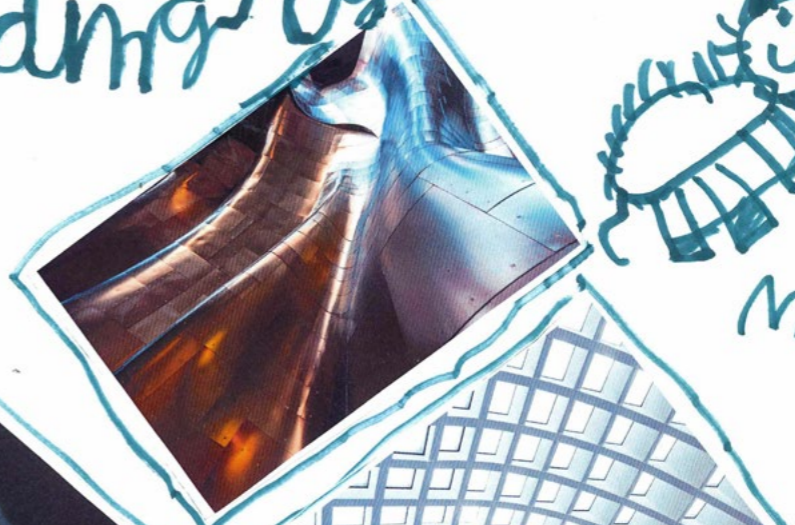
liefde



geld sparen



de wereld is rijk
aan dingen



veel natuur om je heen
daar word je
blij van





dat ik heel netjes kan opruimen

vakantiesil

buiten spelen

drank

mooi uitzicht



kampioen ben in rennen



minder plukken



dat de winkels altijd vol zijn



beating lice



inbreker



goed kunnen zwemmen



na matuur

rijk



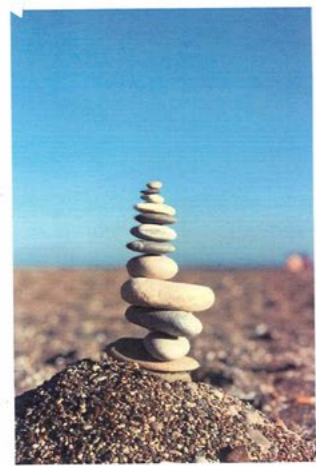
ik vind ze leuk





meer BAITEN
spelen

Better food
nature
youth



meer BLOEM
en



meer WERL
Landen





Wist je minder dier



ik vindde mooi en hoor dat dit is in



ik hou van het



hele mooie natuur



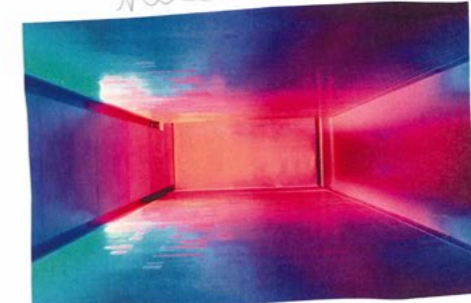
het is prachtig



grotere zaken



alzo werkt verdien
of geld



cool



ik wil natuur



het is cool



het zou een mooie manier zijn



het is cool



nee is goed voor de wereld



landscap is mooi



ik wil dat er een beertje stappen
mens, en dat ook



het is cool voor een raika
achag



meer natuur
meer natuur
Mamp

! x
overwicht

Onder architectuur

meer regen uitbarstingen

meer tropisch

heel veel
opruiming
kruist

er komen meer gebouwen

nieuw doech

natuur opwarming

heel veel verwaring

er komt meer oorlog

dat er heel veel bubbels
in raad shows worden
gegeven

dat er gebroken vazen
worden gevonden van nu

heel veel verwaring

NAAM project, de toekomst wordt online,



BLOEIN! ©



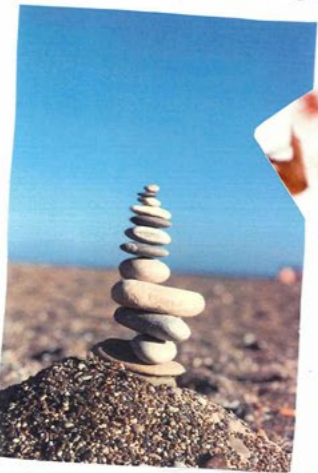
goed snortu! ☺



Lekker chillig



natuur



Stenen Berg



goednatuur



meditatie





Minder rare mensen
die alles in de
bik staan

Project
toekomst



Wij zijn hier en
is nog daar
den Haag



Mee
tegen uit stervende
dieren



een
nieuwe
maximaal

Ab
Minder
Racisme



Minder
schuldigen
over schuldigen



Laat de wereld
zijn zo als die
is! ♡



elke bel is een
herinnering

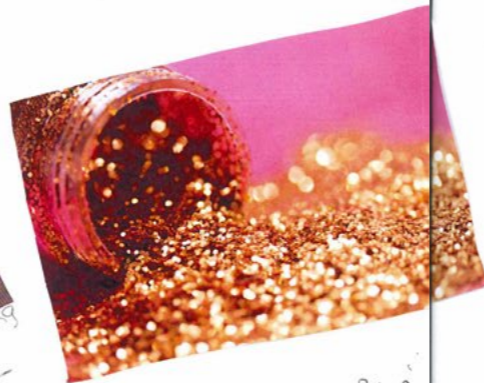
een betere
broed seizoenen
voor de komende
jaren



bubbel



Minder
vervuiling



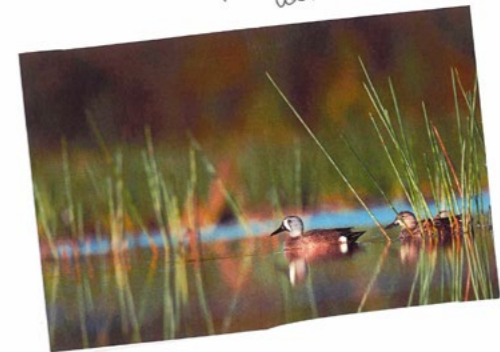
Mee
glitteren
glemaa

Minder
melwegen



Minder
klimaat
verandering! ♡

Mee leef gebied
voor de dieren! ♡

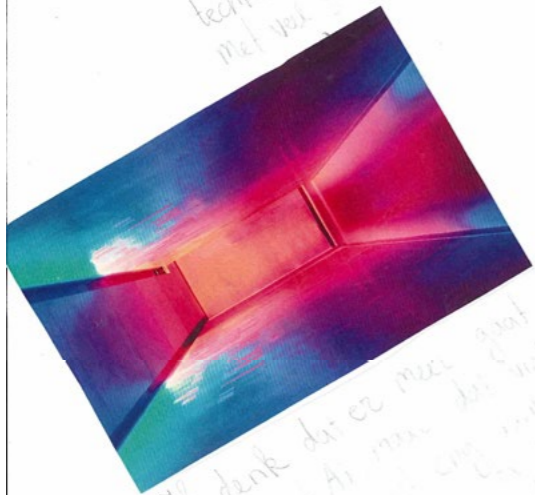




Ik denk dat er veel technologie komt in de toekomst met voor ons.



Ik zag dit en dacht aan het klimaat dat slechter gaat. Ik denk niet dat het in de toekomst niet beter gaat het licht de regering maakt nu dat wil te maken.



Ik denk dat er meer gaat komen met AI maar dat het ik is om te zien wat er gaat komen al veel erg dingen die die AI.



Ik denk dat er veel gebouwd worden, maar hoe zit het met de natuur.



Ik zag dat het erik belt om mijn ogen die ik zie en dat ik heb. Ze heeft waarschijnlijk iets anders gezien. Ik denk dat het een hond is die met de manne



Ik weet niet waarom maar ik moet bij dit plaatje denken aan de toekomst. Het valt erik aan het klimaat misschien gaan verken anders gaat het mis.



Er zijn nu zo veel protesten om dingen die niet goed zijn in de wereld is er nu zo veel protesten



Ik denk dat ze hand maken mens en die zijn bestemd. Ik er ook gebeld.



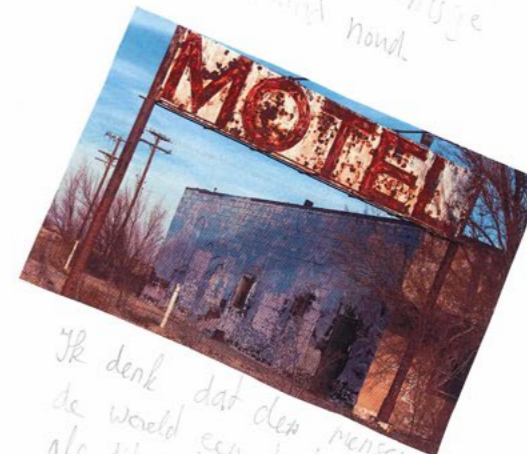
Ik heb ben bang dat door het klimaat dat als het is en of omde intermeditief zal worden. Als het zo duister is en er geen mogelijkheden worden gevonden.



Ik denk dat de band van vriendschap tussen mei vriende. Werens altijd bij elkaar. Als je maar echt van iemand houdt.



Nu at iedereen mij het weet. er is ze kopen bij mijn een auto omdat ze van speciaal een auto willen uit een land dat zal veel meer dan het milien er is voor het milien



Ik denk dat den mensen de wereld een beetje veranderen het als dit motel.



More attention for animals



~~More attention for animals~~
you are allowed to do what a want



More attention for nature



A animals need to be happy



A animals need to be safe and be safe



A animals/humans need to be happy and safe



Every one needs something to drink



Every one need to be together



Everyone needs food



More nature and flowers



No violence



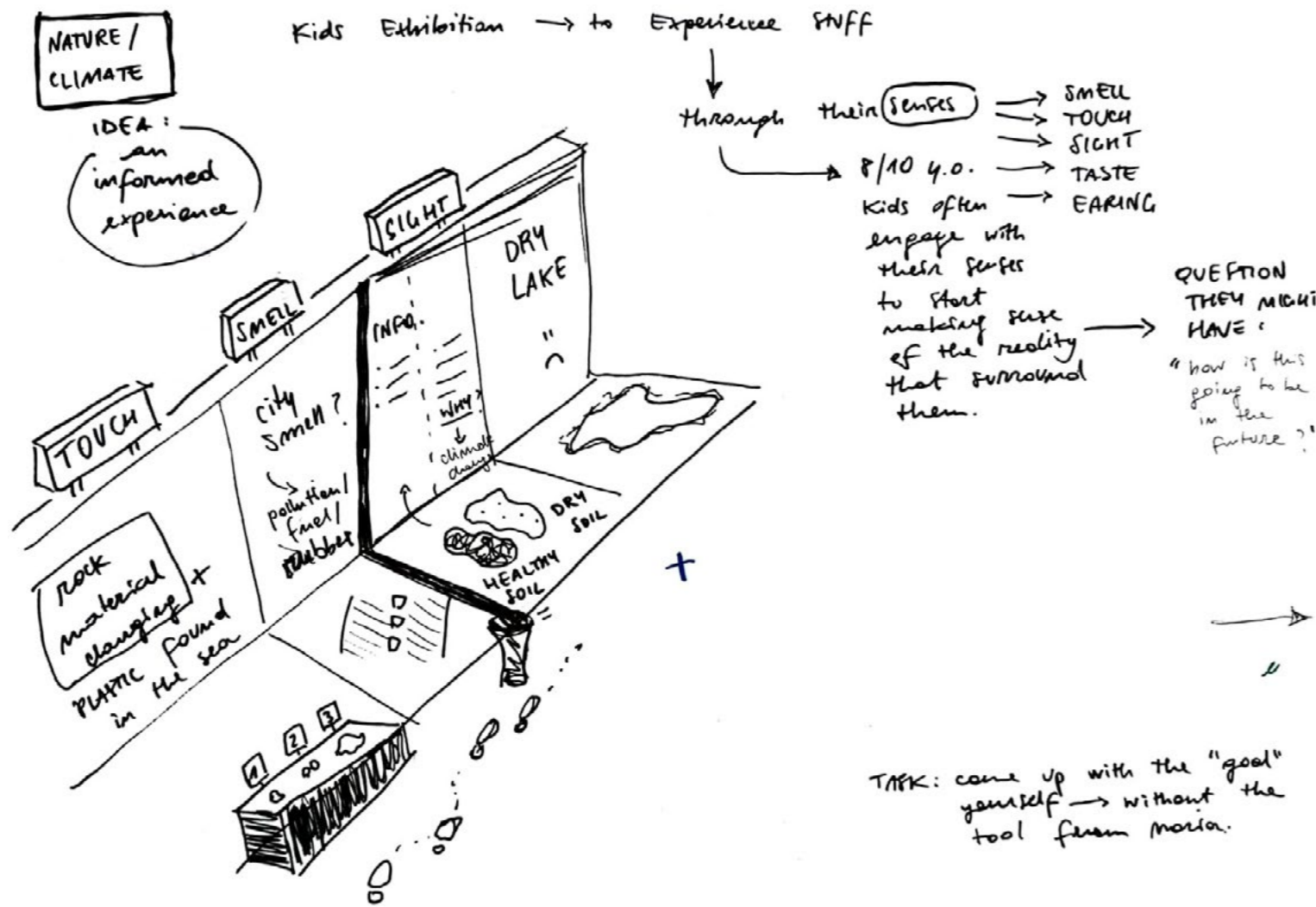
Kids need to be happy in nature



Everyone needs a home in the future

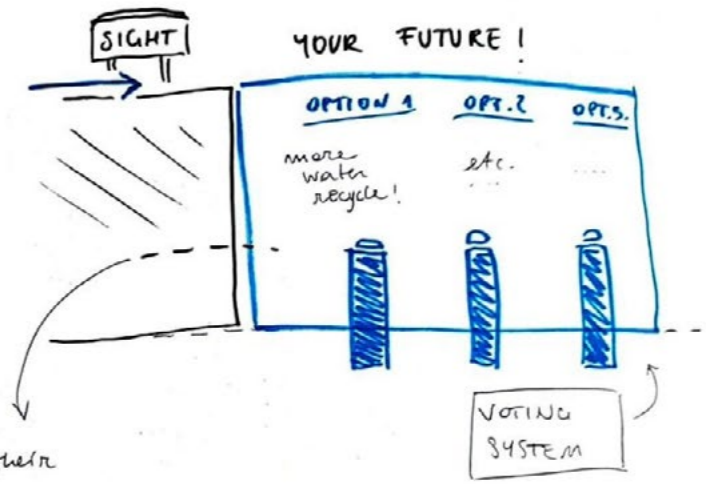
Appendix E.
Evaluation with
design students

Appendix E-1. Generated concepts



PRESENT THE CHILDREN WITH QUESTIONS AS:

- ① « If this is the reality now, how is it going to change? »
- ② « what role do I play in these big changes in nature? »

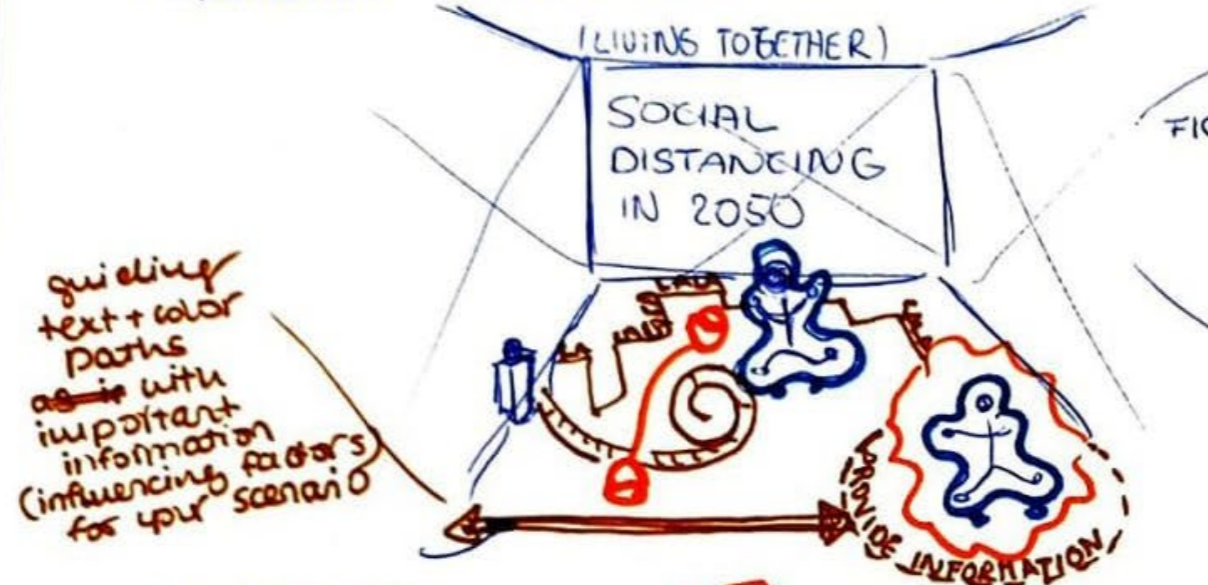


- A providing their OPINION (VOICE BEING LISTENED)
- B getting choices among which they could chose (GUIDANCE)

HEALTH

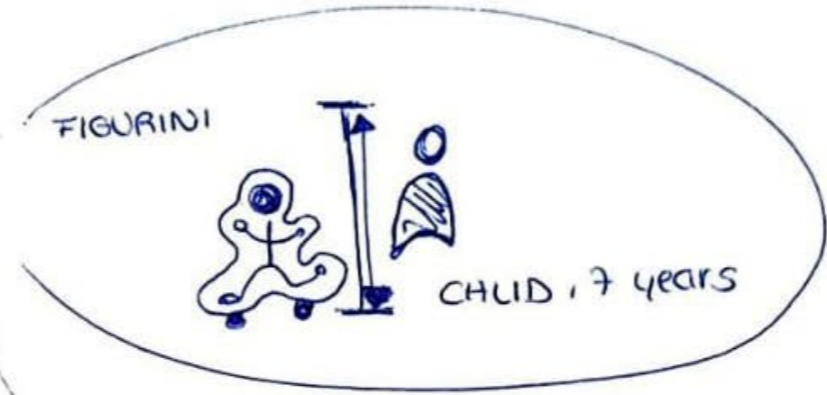
- experience; let them think for themselves

- pandemic: masks, social distancing



guiding text + color paths as-is with important information (influencing factors for your scenario)

let them place the actors in the room

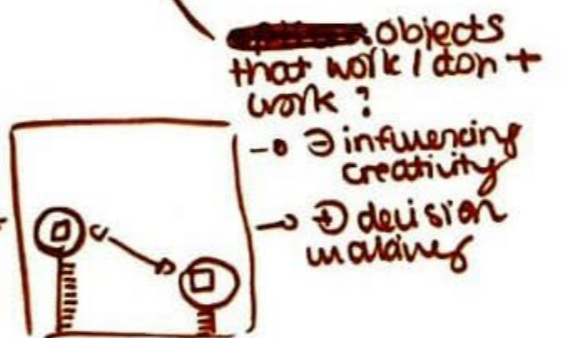


Staircase - Level of complexity



let them easily select the background / scenario → mood

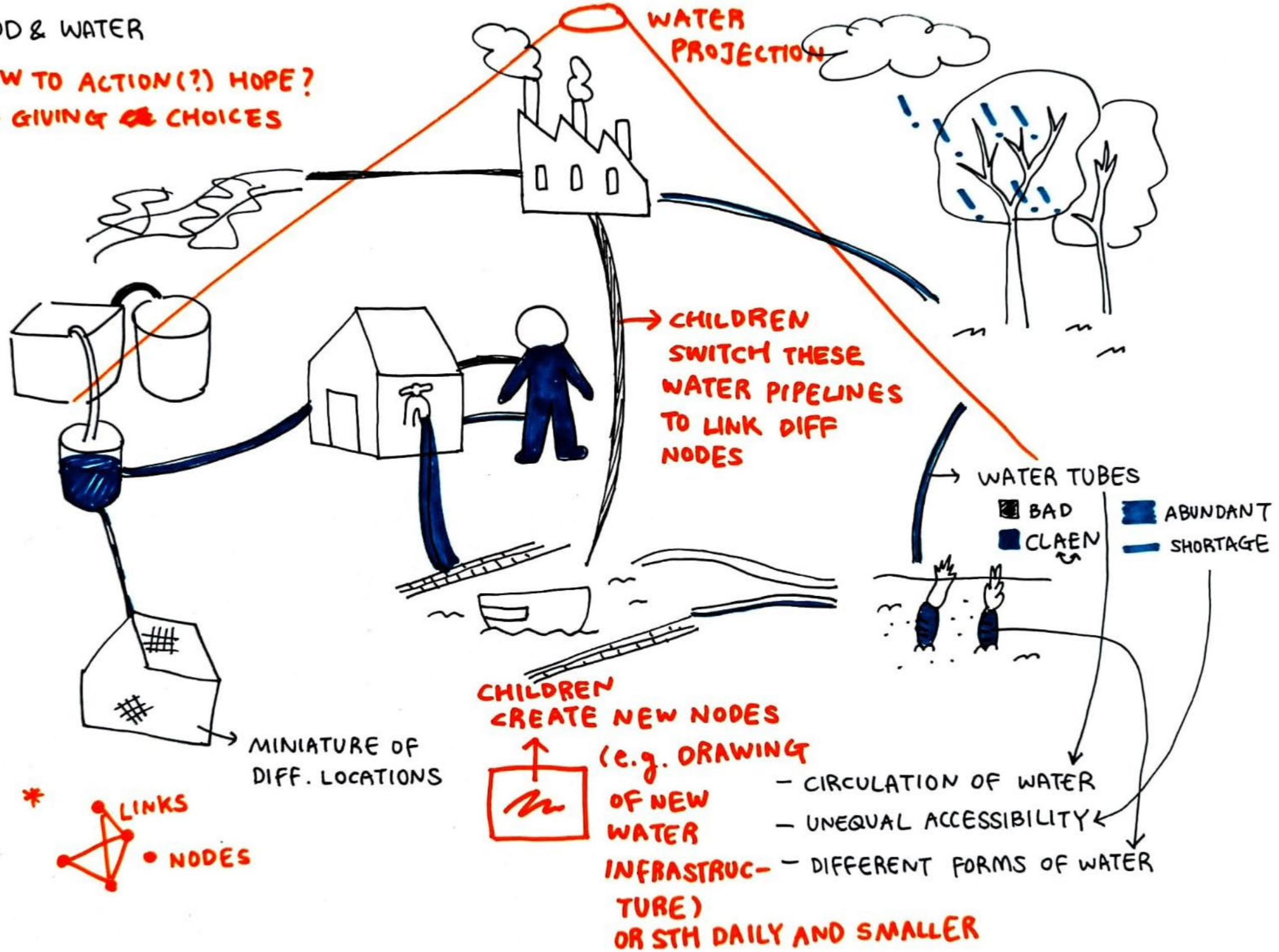
let them think about consequences



FOOD & WATER

HOW TO ACTION(?) HOPE?

- GIVING CHOICES



Enjoyment

→ POWER

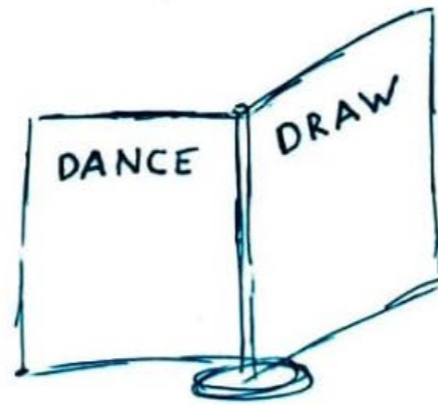
(I notice I'm influenced by guidelines already in types of creativity)
(What if you cannot 'solve' the cards? but it does work?)

- * playing a game
- * solving a puzzle
- * expressing creativity → enjoying beauty

↙
creating something beautiful, collaborating to art.

input of this creativity can be different: drawing, creating music, dancing...

output could be similar. Collectively creating an abstract art piece that's constantly evolving. A dance move might 'swirl' the art. A drawing is just added. Music adds new colors. so output is all 'visible'.
while input = audible, visible, moving.



perhaps rooms can be dark + closed so they can be their 'own' self and do without judgement.

skills → rather soft skills than hard skills?

↳ perhaps showing that their doing has an impact
your actions have consequences. If you do this... expect this.

perhaps teaching about (good) karma.

if you show what you're good in, you can expect something good back.

But if you try to ruin someone else's hard work, ~~maybe~~ the exhibition gets mad and dies or so. → I'm afraid of some kids ruining it to be 'funny'.

Appendix E-2. Feedback

- I think the research part was the most clear & inspiring to me (Because it's a clear example → ~~re~~ however, I am wondering how influencing it was on me?)
- You can say / add your reference :o to the research part
- I think picture only does not work for me — with question very clear.

- Cards visuals → very nice
- card with text → useful → but maybe there are too many questions and it could feel overwhelming at some point.
- Research frame → would be nice to see a paper reference so that the user/reader will know that that part is grounding your story! 😊

Super positive! I really liked working with it. Gave me inspiration to make the concept more concrete. Look like guidelines I used before in design, so very well done!

It was very clear but I want to maybe know more because they are super interesting and also motivate myself why I should really design for it?

Appendix F.
Evaluation with
Co-Learning
department

30 min

8-12 age

Children's panel.

Becoming more
Resilient today for
tomorrow.

Health (Covid)

Kids are resilient
Make them aware of their
Superpowers

- Research super
powers.

- How to define super
powers - what are you
really good at.

