



# Fostering Red Cross youth innovation

**A Human Centred Design curriculum with  
an emphasis on problem framing**

Master thesis  
Strategic Product Design  
**Koen Merkx**

## TABLE OF CONTENTS

APPENDIX 1: Questionnaire 1	4
APPENDIX 2: Questionnaire 2	8
APPENDIX 3: Questionnaire 3	12
APPENDIX 4: Benefits and challenges from remote working in developing countries	18
APPENDIX 5: Iterations prototype	21
APPENDIX 6A: Validation prototype	30
APPENDIX 6B: Validation example	38
APPENDIX 7: Project brief	48
APPENDIX 8: Picture collection	55

## Fostering Red Cross youth innovation

*A Human Centred Design curriculum with  
an emphasis on problem framing*

Koen Merkkx  
Graduation report  
Strategic Product Design  
March 2022

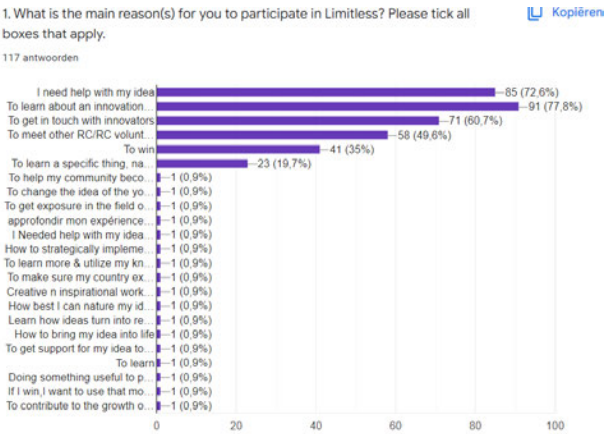
# APPENDIX 1: Questionnaire 1

## Questions:

1. What is the main reason(s) for you to participate in Limitless? Please tick all boxes that apply.
2. To which category / categories belongs the problem(s) you want to solve? Please tick all boxes that apply.
3. How many webinars did you watch before submitting your application? Please select one answer.
4. If you attended the webinars; What do you remember most? If you didn't attend the webinars; Why not?
5. Did the webinars from the Inspire phase influence the problem and idea that you submitted? Please select one answers
6. How confident do you feel that you can make your idea a reality?
7. Do you think that the Limitless Innovation Academy is going to help you create a better solution to your problem?
8. What do you hope to gain from the Limitless Innovation Academy? Please tick all boxes that apply.
9. What are the barriers to implementing your idea into your community? Please tick all boxes that apply.
10. How much time a week do you have to develop your idea and attend the workshops/ lectures? Please select one answer.
11. When your idea becomes reality, what is the change you hope to see in your community?
12. What is the level of experience you have with these innovation- / design tools? Please tick one box per row.
13. Which factors do you think are most important to develop a good solution to your problem? Please tick all boxes that apply.
14. Which factors do you think are the least important to develop a good solution to your problem? Please tick all boxes that apply.
15. What statement about 'innovation' do you agree with the most? Innovation is... Please tick all boxes that apply.
16. Which digital tools are you familiar with? Please tick all boxes that apply.

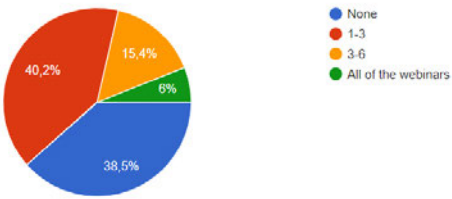
## Demographic questions:

- In which country are you based?
- Which of the following most accurately describe(s) you? Please select all boxes that apply.
- What is the highest educational level you have attained? Please select one answer.
- What is your age?
- Do you consider yourself to have any of the following? Please check all boxes that apply.
- Which technologies do you have access to? Please tick all boxes that apply.
- If you are interested in being interviewed in more detail about your experience with the Limitless Innovation Academy, please share your name and e-mail address below.



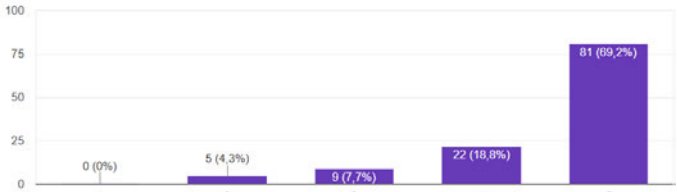
3. How many webinars did you watch before submitting your application? Please select one answer.

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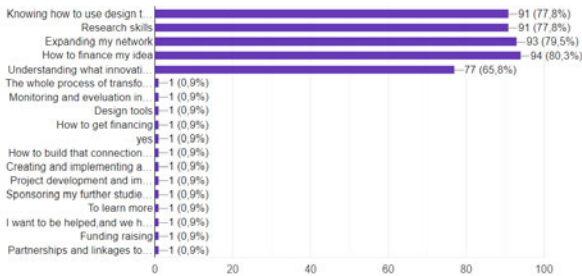
6. How confident do you feel that you can make your idea a reality?

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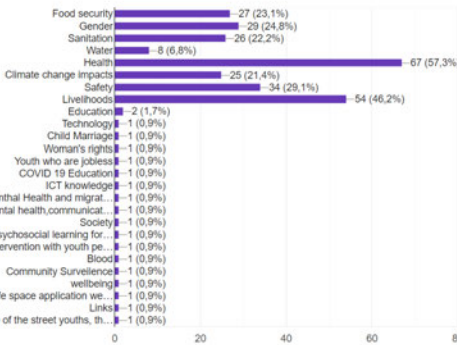
8. What do you hope to gain from the Limitless Innovation Academy? Please tick all boxes that apply.

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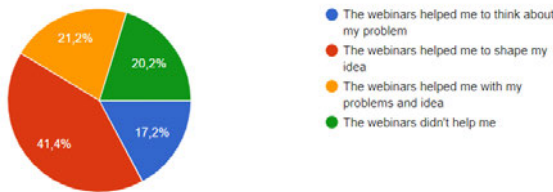
2. To which category / categories belongs the problem(s) you want to solve? Please tick all boxes that apply.

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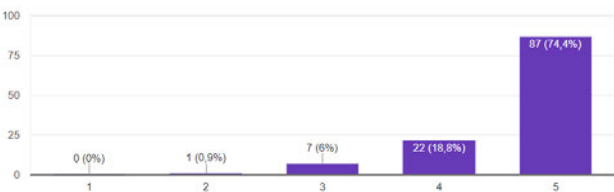
5. Did the webinars from the Inspire phase influence the problem and idea that you submitted? Please select one answer.

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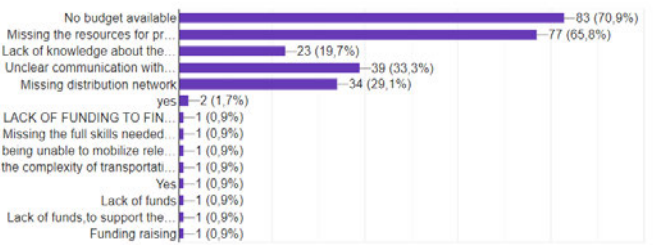
7. Do you think that the Limitless Innovation Academy is going to help you create a better solution to your problem?

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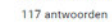
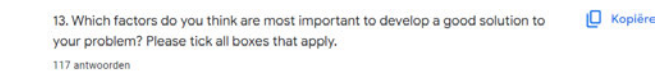


9. What are the barriers to implementing your idea into your community? Please tick all boxes that apply.

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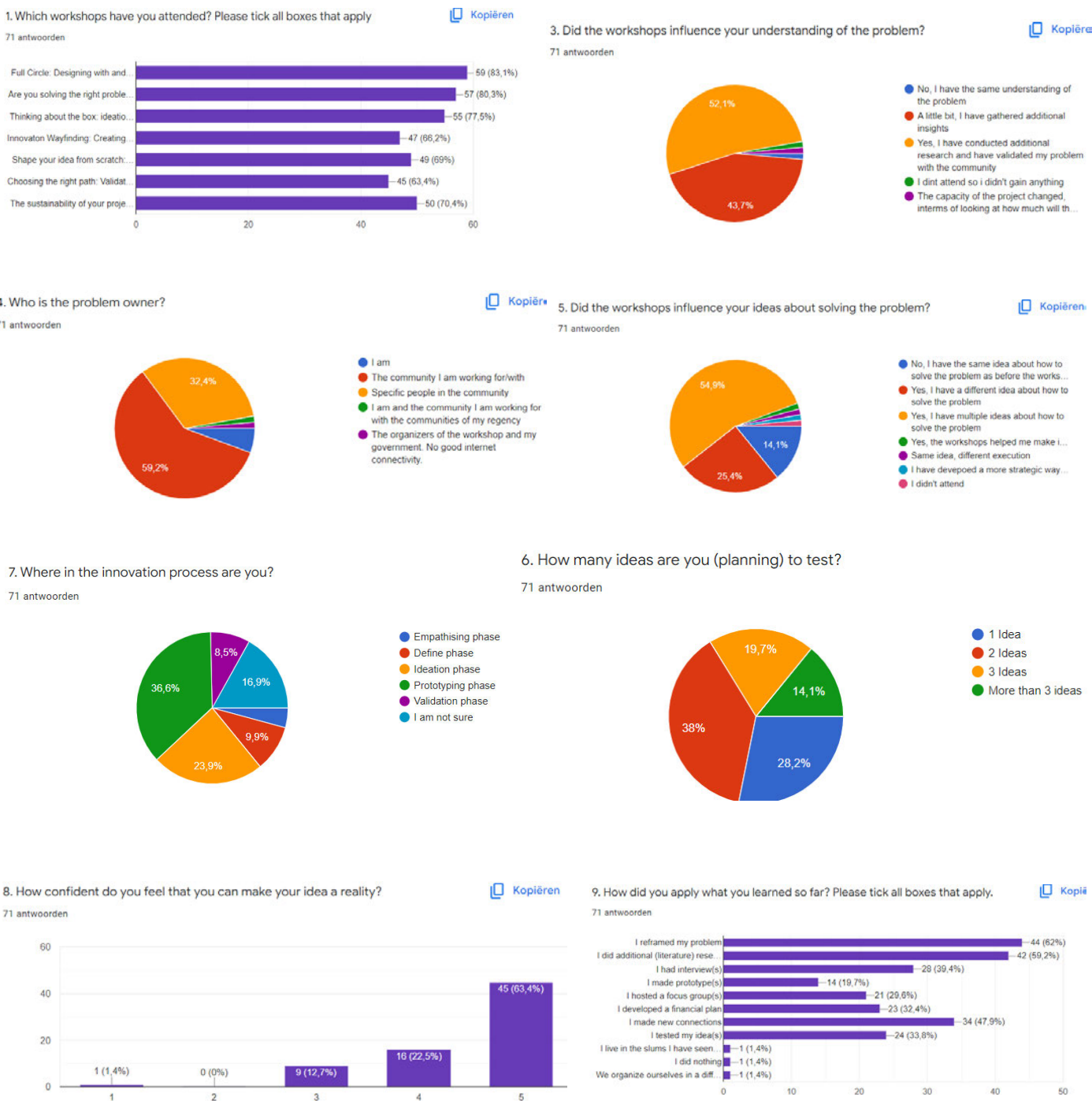
# APPENDIX 2: Questionnaire 2

## Questions:

1. Which workshops have you attended? Please tick all boxes that apply
2. If you attended the workshops; What has helped you the most? If you didn't attend the workshops; Why not?
3. Did the workshops influence your understanding of the problem?
4. Who is the problem owner?
5. Did the workshops influence your ideas about solving the problem?
6. How many ideas are you (planning) to test?
7. Where in the innovation process are you?
8. How confident do you feel that you can make your idea a reality?
9. How did you apply what you learned so far? Please tick all boxes that apply
10. What are the barriers to implementing your idea into your community? Please tick all boxes that apply.
11. What would you like to learn more about?
12. What statement about 'innovation' do you agree with the most? Innovation is... Please tick all boxes that apply.
13. Which factors do you think are most important to develop a good solution to your problem? Please tick all boxes that apply.
14. Which factors do you think are the least important to develop a good solution to your problem? Please tick all boxes that apply.
15. Do you think that the Limitless Innovation Academy helped you create a better solution to your problem?
16. What would have helped you in this phase of Limitless? Please tick all boxes that apply.
17. Do you have any other feedback?

## Demographic questions:

- In which country are you based?
- Which of the following most accurately describe(s) you? Please select all boxes that apply.
- What is the highest educational level you have attained? Please select one answer.
- What is your age?
- Do you consider yourself to have any of the following? Please check all boxes that apply.
- If you are interested in being interviewed in more detail about your experience with the Limitless Innovation Academy, please share your name and e-mail address below.

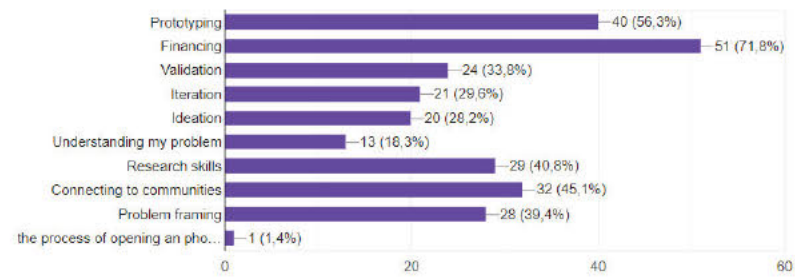
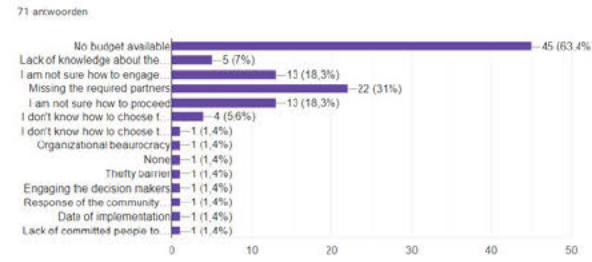


# 11. What would you like to learn more about?

Kc

10. What are the barriers to implementing your idea into your community? Please tick all boxes that apply.

Kopier 71 antwoorden

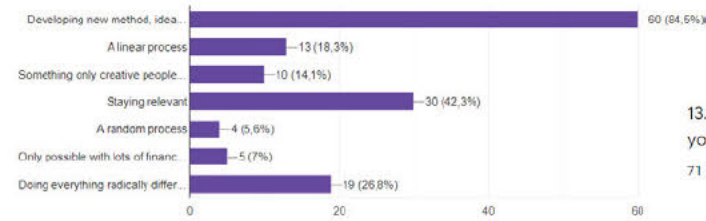


# 12. What statement about 'innovation' do you agree with the most? Innovation is...

Kopieren

Please tick all boxes that apply.

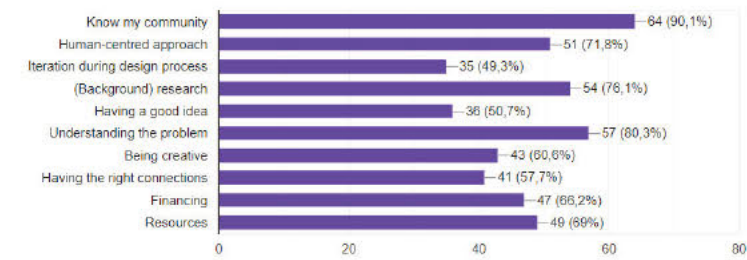
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# 13. Which factors do you think are most important to develop a good solution to your problem? Please tick all boxes that apply.

Kop

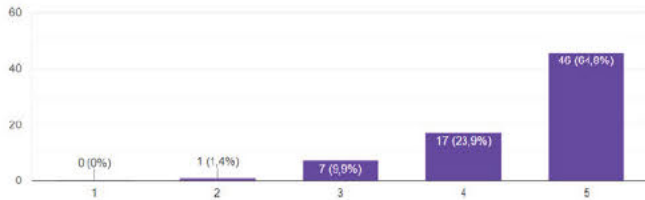
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# 15. Do you think that the Limitless Innovation Academy helped you create a better solution to your problem?

Kopieren

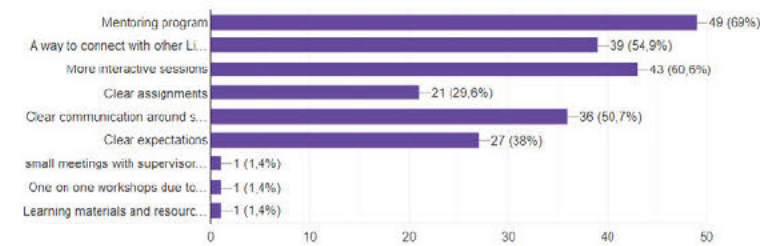
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# 16. What would have helped you in this phase of Limitless? Please tick all boxes that apply.

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# APPENDIX 3: Questionnaire 3 - validation

## Questions:

How far along are you with your Limitless project?

Formulating your dream questions:

How relevant do you think formulating your dream is for your project?

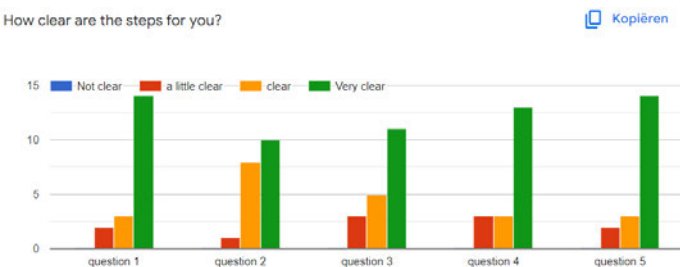
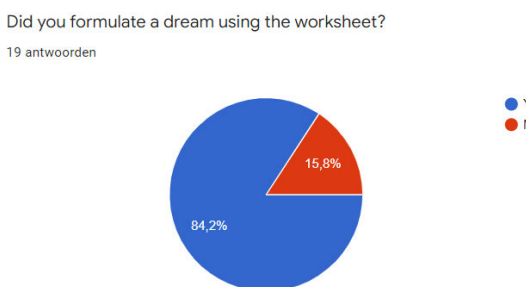
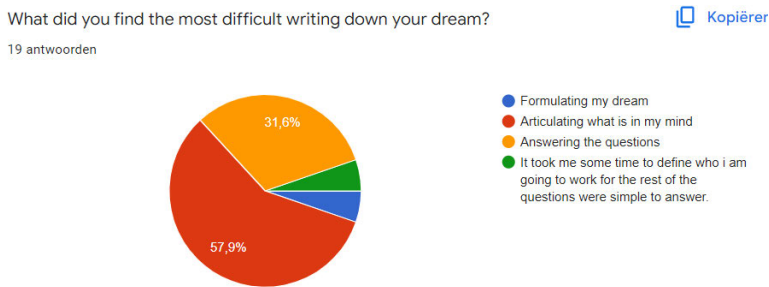
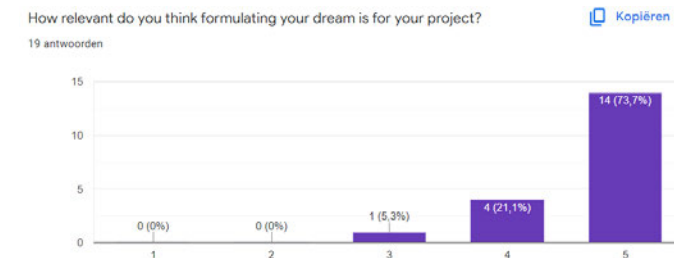
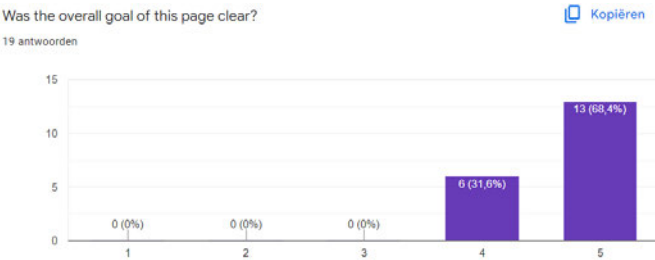
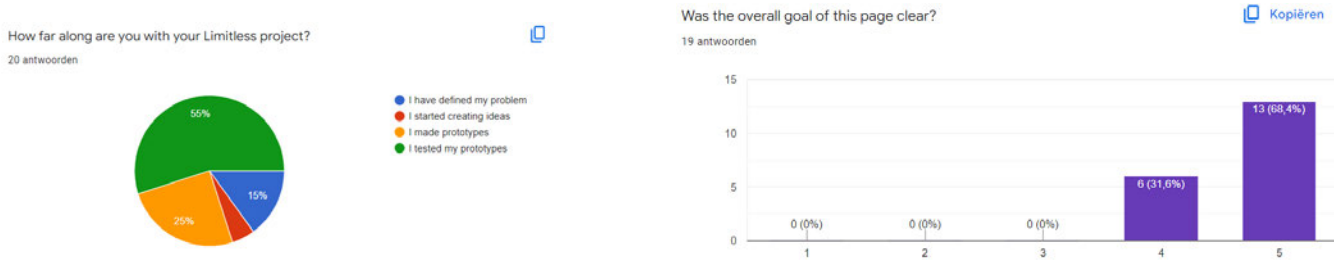
Was the overall goal of this page clear?

How clear are the steps for you?

Do you think the order of the questions helped you to formulate your dream?

Did you formulate a dream using the worksheet?

What did you find the most difficult writing down your dream?



What is preventing you from making your dream a reality? - Questions

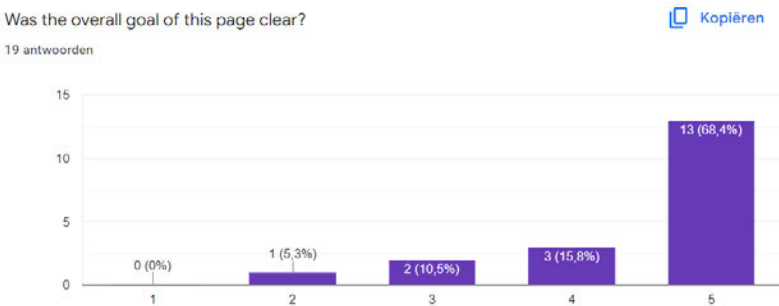
Was the overall goal of this page clear?

Is the link between the dream and the problem clear?

What kind of assistance, if any, would you have liked?

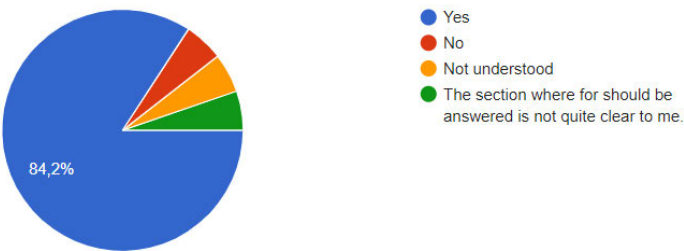
What kind of assistance, if any, would you have liked?

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Is the link between the dream and the problem clear?

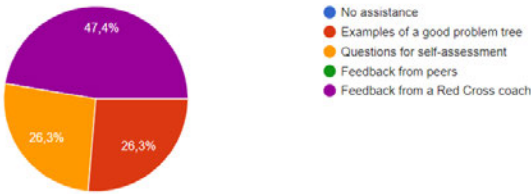
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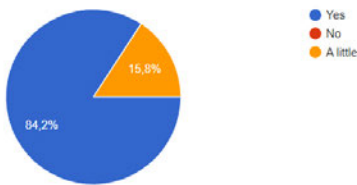
Problem Tree - Questions

How relevant do you think formulating your dream is for your project?  
Was the overall goal of this page clear?  
Did the problem tree exercise help you to identify opportunity areas which you can tackle with your skills?  
Did the problem tree exercise provide you another perspective on what you thought was the problem?  
What kind of assistance, if any, would you have liked?

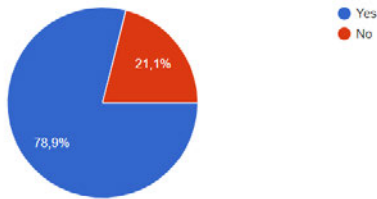
What kind of assistance, if any, would you have liked?  
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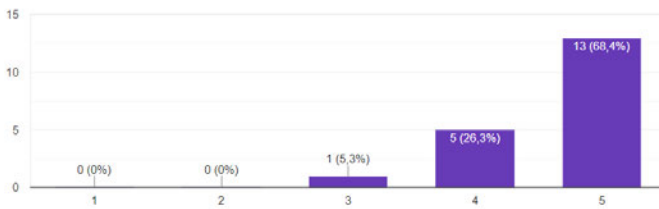
Did the problem tree exercise help you to identify opportunity areas which you can tackle with your skills?  
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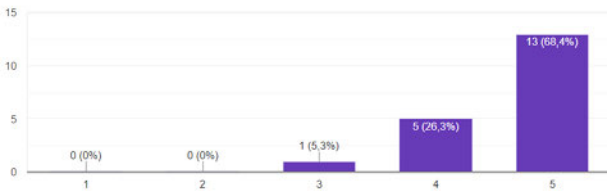
Did the problem tree exercise provide you another perspective on what you thought was the problem?  
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Was the overall goal of this page clear?  
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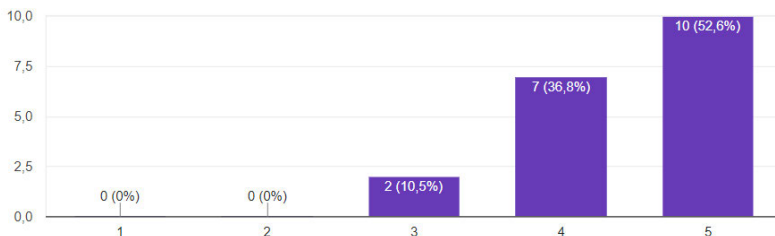
How relevant do you think creating a problem tree is for your project?  
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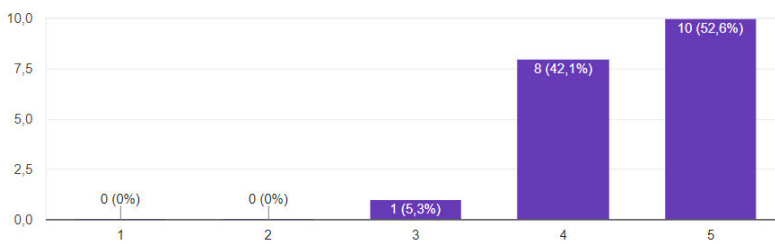
Reframing your problem statement

How relevant do you think formulating your dream is for your project?  
Was the overall goal of this page clear?  
Did the questions help you to reframe your problem statement?

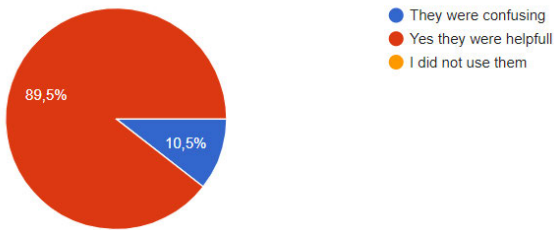
Was the overall goal of this page clear?  
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How relevant do you think this page is for doing your project?  
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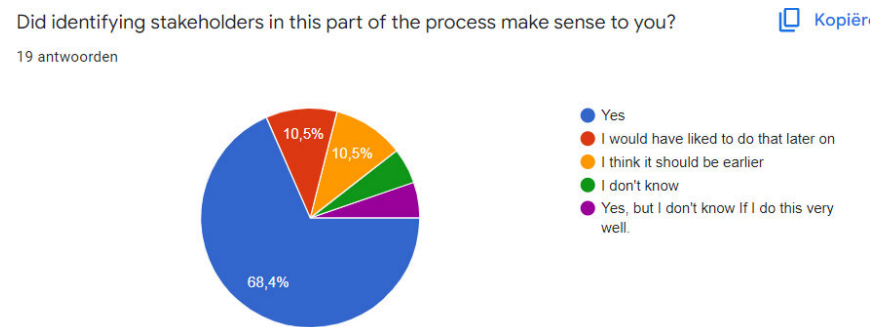
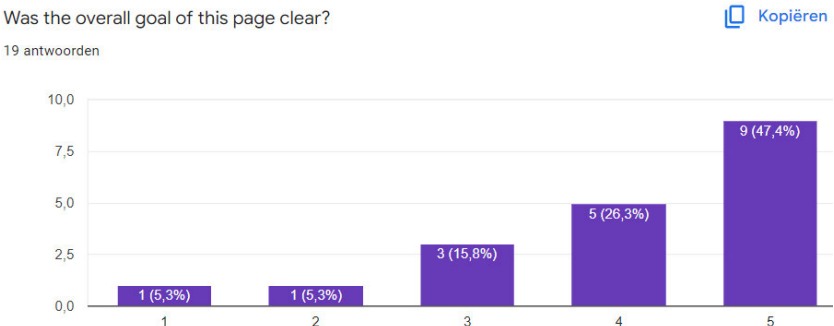
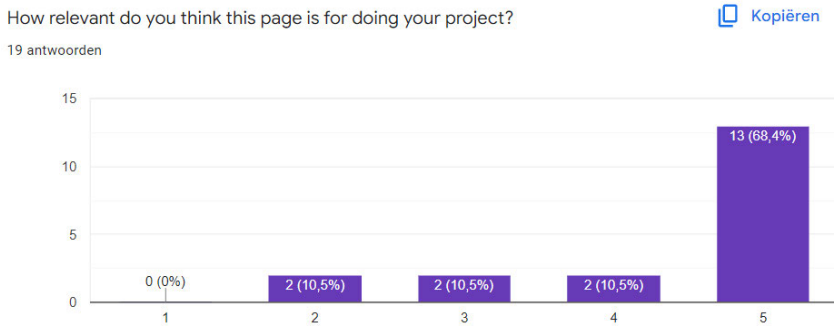
Did the questions help you to reframe your problem statement?  
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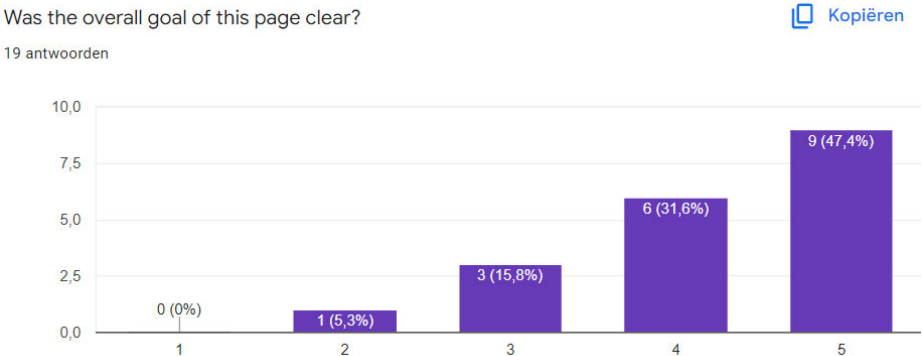
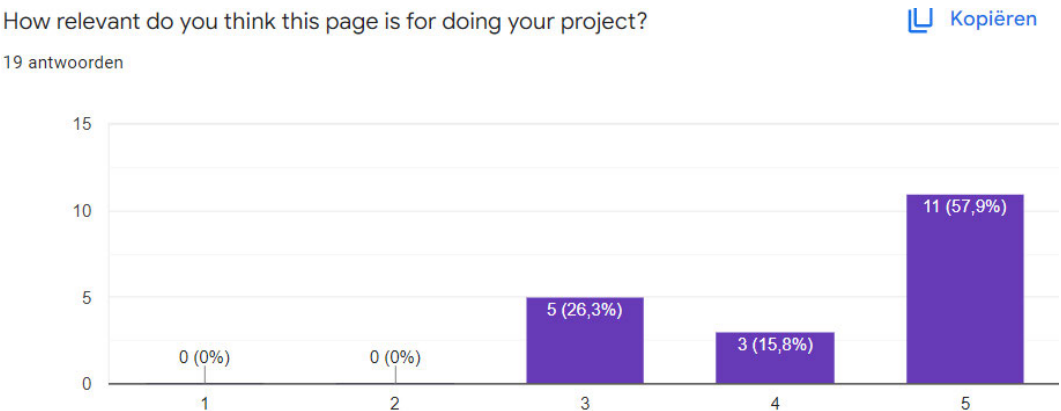
Identifying stakeholders - Questions

How relevant do you think formulating your dream is for your project?  
Was the overall goal of this page clear?  
Did identifying stakeholders in this part of the process make sense to you?



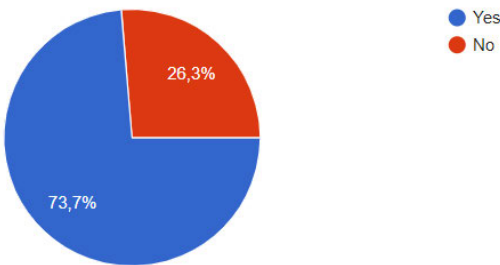
Reframing your problem statement 2 - Questions

How relevant do you think formulating your dream is for your project?  
Was the overall goal of this page clear?  
Did your problem statement change, compared to the first time you wrote it down?  
How did you experience this reframing exercise?



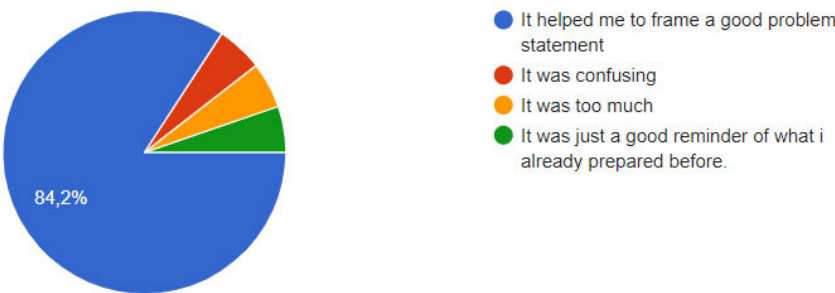
Did your problem statement change, compared to the first time you wrote it down?

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How did you experience this reframing exercise?

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# APPENDIX 4: Benefits and challenges from remote working in developing countries

This list of benefits and challenges from remote working in developing countries provides valuable information for the development of a concept aimed at educating a target group which lives for a large part in developing countries. Not all the listed benefits and challenges are directly relevant for this research.

## General benefits:

‘The use of online resources thrived significantly among other resources at this time as many lecturers and students were able to search for information and materials through online blogs, papers, websites, and other related resources.’

‘Another benefit of the transition to online teaching is the opportunity for live cloud recordings of teachings, meetings, lectures and other interactions.’

## Personal growth and development benefit

‘Increase in the use of available resources. Moodle and other platforms that were under-utilised before COVID-19 became intensely utilised and widely- used during this period. It is of significance that online facilities, which were already in place in the university but were in minimal use prior to COVID-19 by both lecturers and students, proved to be extremely useful tools during the transition.’

‘Exposure to several sessions of training organised by the university’s Software Department for lecturers on various forms of digital learning and education; and also, the sharing of materials and videos for the benefit of lecturers by colleagues and university administration.’

‘Upgrading of new technologies for the university: purchase of many facilities and licenses, especially add-ons, to support the university’s Moodle (online learning platform) and Zoom video conferencing.’

## Pedagogical benefits/changes

‘Students and staff were able to explore different learning options using technology and other online tools for instruction and learning.’

‘Lecturers and the university administration explored the opportunity for the development of blended learning.’

‘The opportunity of working remotely, which allows both staff and students to continue engagement outside the confines of a traditional university classroom.’

## Besides the benefits, the challenges are formulated:

Lack of resources - Poor national infrastructure - Course delivery problems - Problems facing students  
Cybersecurity problems

## Lack of resources

‘Digital inequalities among students and staff were suddenly laid bare, as there is no internet accessibility in many of the villages in the hinterland areas where some students and staff are domiciled.’

‘Unavailability of computers, laptops and/or tablet facilities for students to use in connecting to the online mode. Some other lecturers were affected by these inadequacies too.’

‘Lack of adequate prior training on the requirements of online teaching for both students and lecturers. Many lecturers and students grappled with how to function effectively using the new technologies.’

‘Lack of practical training for the students: The inability to make use of lab or fieldwork because of social distancing for courses that required the use of lab, fieldwork or practical exercises’

## Poor national infrastructure

‘Slower internet speed at home due to sudden and unprecedented internet traffic, and the lack of preparedness of internet providers for the sudden enormous demands on their services.’

‘Inconsistent power supply: Unlike the developed countries, Guyana is yet to guarantee a stable power supply as there are occasions of power-cuts during the delivery of lectures, affecting both students and lecturers.’

## Course delivery problems

‘Reduced student–teacher engagement: As noted in some of my class experiences while teaching, many students no longer engage in class discussion as they do in the traditional face-to-face class and there is often little or no feedback when questions are asked. As a result, some online classes become long and sometimes stressful. It is the students who do the learning (Lavy & Naama- Ghanayim, 2020; Orkibi & Tuaf, 2017) and if they resist or minimise their investment, attention or effort on their participation, they will only accomplish little in their learning.’

‘Slow and extended work: Students are unable to submit assignments when due, lecturers are unable to keep up with their schedules because of either power-cuts or internet problems.’

‘Compromise with deadlines: On many occasions where students and staff were unable to use technological tools to get work done in a timely manner, they were compromising with deadlines and even with the standard expected of their delivery because of other constraining factors they are confronted with.’

‘Limited opportunity for monitoring assessments, which has restricted many lecturers/tutors to the use of multiple-choice questions (MCQ)’

‘Malpractices: With the online method of testing and the realities of many students’ inability to utilise video services during some live class exercises and tests because of the limitation of the technological devices, students could receive assistance and help that the instructor may not be privy to.’

## Problems facing students

‘Students’ inflexibility: Many students who were accustomed to the traditional face-to-face method of teaching found the online method burdensome, with some becoming rude and impolite to lecturers because of the stress experienced as a result of adjusting to online education.’

# APPENDIX 5: Iterations prototype

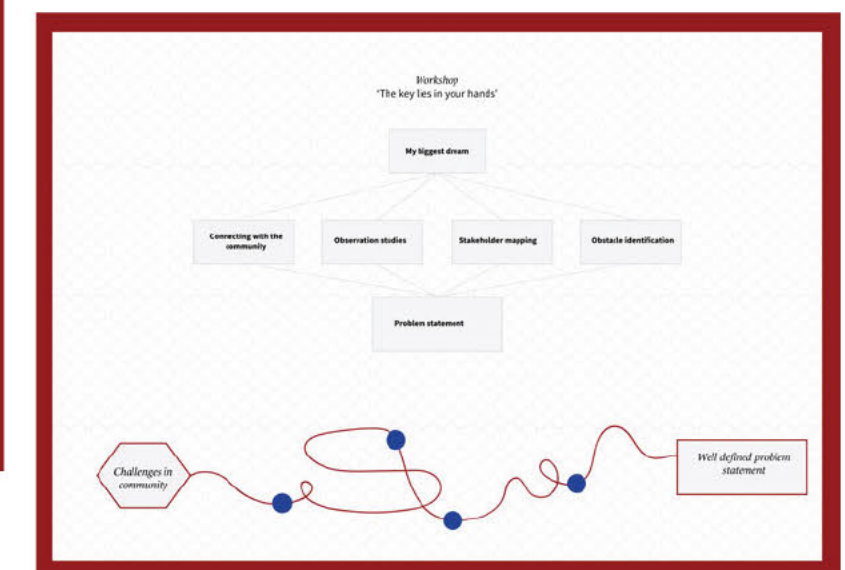
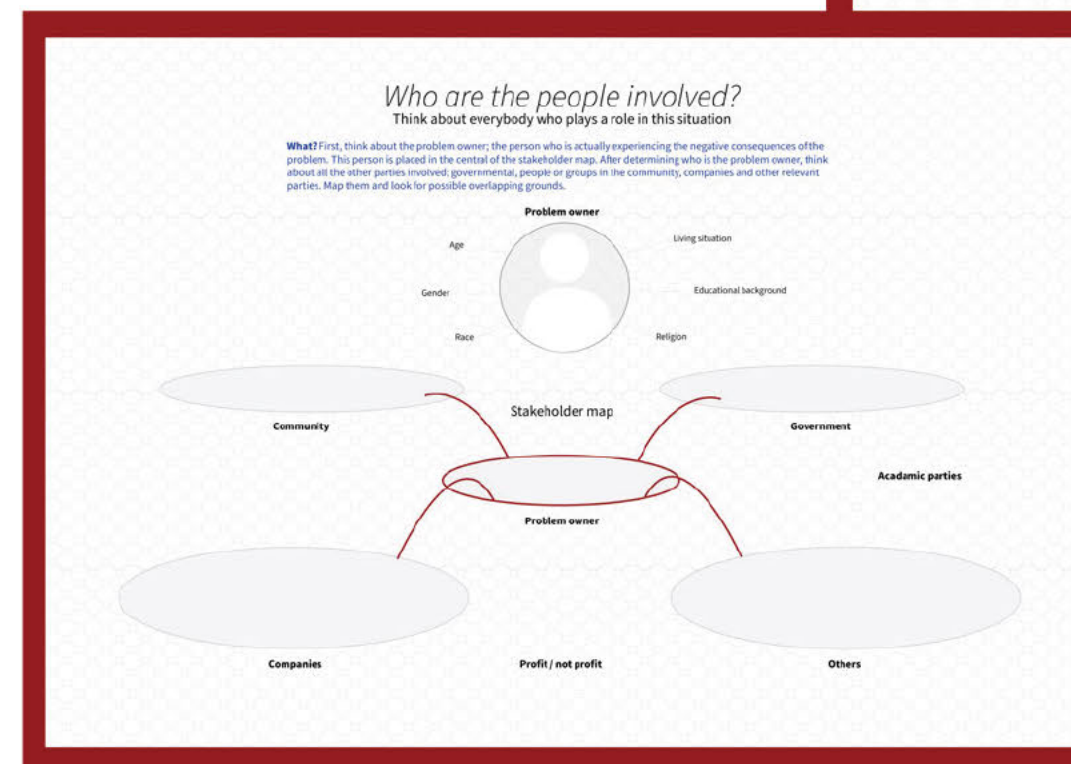
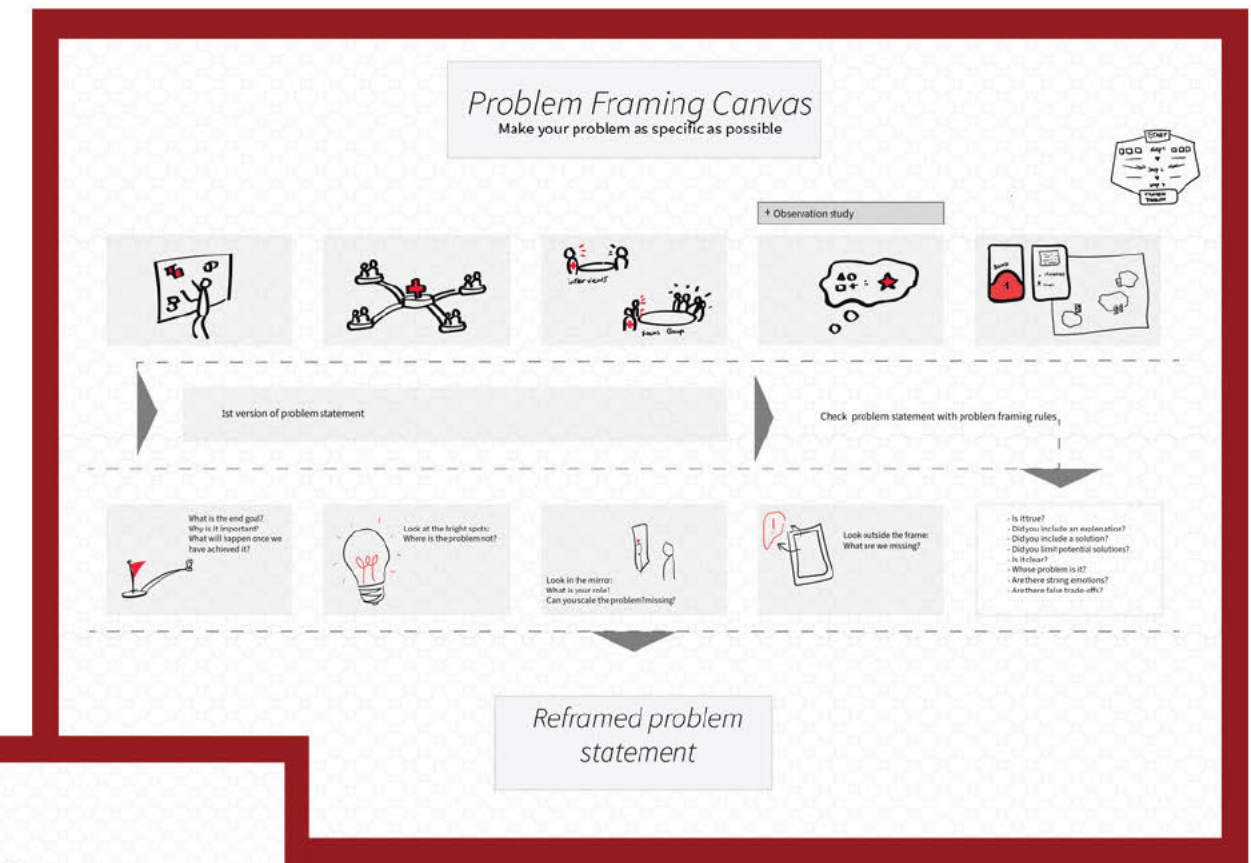
‘Domestic affairs: The online delivery mode forced many students to be working at home where they are under enormous distractions and other domestic issues (Sutton, 2020); and as such, most students found it challenging to maintain focus during online teaching.’

‘Mental health challenges: Fear and anxiety surfaced among some students as a result of the sudden change. Due to some students’ inability to cope with the combination of their academic rigours and domestic challenges, depression, mental issues, and suicidal thoughts were some of the conversations that were encountered during this period.’

## Cybersecurity problem

Cybersecurity threats: With computers and other portable technological devices being entrenched in our daily educational and teaching lives driven by the migration of traditional learning to online mode, there abounds various kinds of breaches, exposure to viruses, hacking potentials, and other cybersecurity threats (Nam, 2019).

An overview of prototype iterations is presented.





## My Biggest Dream..?

Bring your imagination to this canvas

**What?** You have the opportunity to write down the thing you would like to see the most in your community, your biggest dream, with the available terms. Think about what you want to change, for whom and why this is important for you and your community.

“My biggest dream is to ..... **A** ..... **B** ..... for ..... **C** .....  
because ..... ”

**A**

Improve  
Increase  
decrease  
Realise  
...

**B**

Access to internet  
Education availability  
Sporting facilities  
Sanitary facilities  
...

**C**

Young boys / girls in the community  
The elderly in the community  
Elementary school / Highschool / University Students  
Young boys / girls in the community  
COVID-19 patients

## Earlier designs and example studies

## Observe your surroundings

Do you have a good idea about what's going on?

**What?** Observation studies are important for a researcher. Observing the environment, the people and things going on generally provide great insights about local culture, what is going on and might already expose a potential problem.

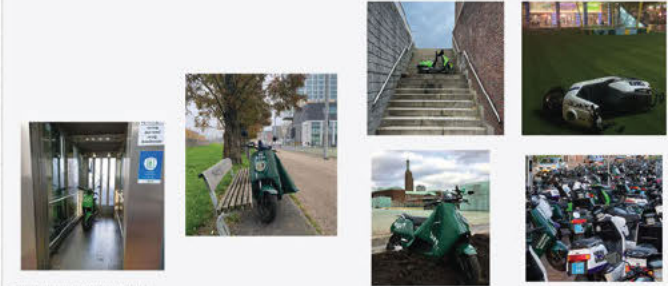
**How?** Take your mobile phone, or a camera, a notebook if you like, and go out into your community. Keep your eyes and ears open and be sure to pay extra attention to things which might be causing problems. When you already drafted your problem direction, you can look specifically for this.

### Spotcheck observation

Look for a spot in your community where a lot is going on. Use this spot to monitor its surroundings for some time and carefully observe everything what is going on. Note your findings and/or pictures below.

### Community walks

Walk around the community and keep an eye on interesting things which might relate to the problem, and / or can be causes or consequences of other problems.



Source: Instagram: @shutterstock

### Note your findings

Write down what you found during this observation study. Keep it simple, so others can understand it properly

## Get information from the experts

Get in touch with the people who know the most about this problem

**What?** Complementary to the observation studies, it is very important to engage with the 'problem owner'. The best way to do so is to get in touch with the people living in the communities, experiencing the problem. There are multiple methods for this: interviews, focus groups, questionnaire or just casual chats. Use the method which you think is most suitable for the project and for the people you are working with, hence you don't have the same type of relation with everybody.

### Focus groups

Focus groups allow you to get a perspective of multiple people who belong to a certain 'group' at once. This group can be defined by age, gender, occupation etc..

- 1 or 2 interviewers, 3-5 participants
  - Make sure all participants are from a similar category (e.g. age, religion, sex etc..)
  - Get to hear the opinions and thoughts of a specific group within community
  - More a conversation format than an interview
- Guide:
- Introduce what you want to talk about
  - Prepare questions / topics to talk about
  - Act like a facilitator; make sure everyone can speak out if they want

### Interviews

Interviews are the perfect method for a more structured, in depth conversation with one or two interviewees. You can prepare all questions and topics you want to talk about and make it as (n-) formal as you like. You guide the conversation.

- 1 interviewer, 1 interviewee
  - Dive deep in one subject
  - Learn about personal opinion and thoughts
  - Ask personal questions
- Guide:
- Introduce what you want to talk about
  - Prepare questions / topics to talk about
  - Open/closed interview, depending on what setting you want

### Questionnaires

Questionnaires help you to reach a large audience at once. Draft questions which need an quantitative answer. This helps you to get a good, but not indepth, overview of a large group of people at once.

### Games

Games are great ways of building a connection and trust with people. Use games to interact, learn about culture and approach this workshop also as a game. Together you can achieve more than alone



Define the obstacles

What are the bumps on the road?

**What?** Offline version: great way to do direct peer to peer learning. Create cards and ask each other questions about the possible obstacles which can be faced during solving a problem. Think about initial ideas to overcome these obstacles and rank them from least to most challenging to overcome. See for whom of the stakeholders these obstacles might have influences.

Online version: Create an online deck of cards which can be supplemented any time, by everyone. By uploading your problem statement, others can look at your statement whilst looking at obstacle cards and see if they can identify the challenges and think about how to overcome those.

1 Pick an obstacle card

Randomly pick a card and see how it affects your problem and solution.

2 Who and what does this effect for your problem statement?

Randomly pick a card and see how it effects your problem and solution.

3 Initial ideas to overcome this obstacle

Define the obstacles

What are the bumps on the road?

Define the obstacles

What are the bumps on the road?

Define the obstacles

What are the bumps on the road?

Define the obstacles

What are the bumps on the road?

Define the obstacles

What are the bumps on the road?

Define the obstacles

What are the bumps on the road?

Define the obstacles

What are the bumps on the road?

Prototype for obstacle cards. Eventually not included in the final prototype, but still a fun activity to further explore.

Define the obstacles

Online peer-to-peer version

**What?** Offline version: great way to do direct peer to peer learning. Create cards and ask each other questions about the possible obstacles which can be faced during solving a problem. Think about initial ideas to overcome these obstacles and rank them from least to most challenging to overcome. See for whom of the stakeholders these obstacles might have influences.

Online version: Create an online deck of cards which can be supplemented any time, by everyone. By uploading your problem statement, others can look at your statement whilst looking at obstacle cards and see if they can identify the challenges and think about how to overcome those.

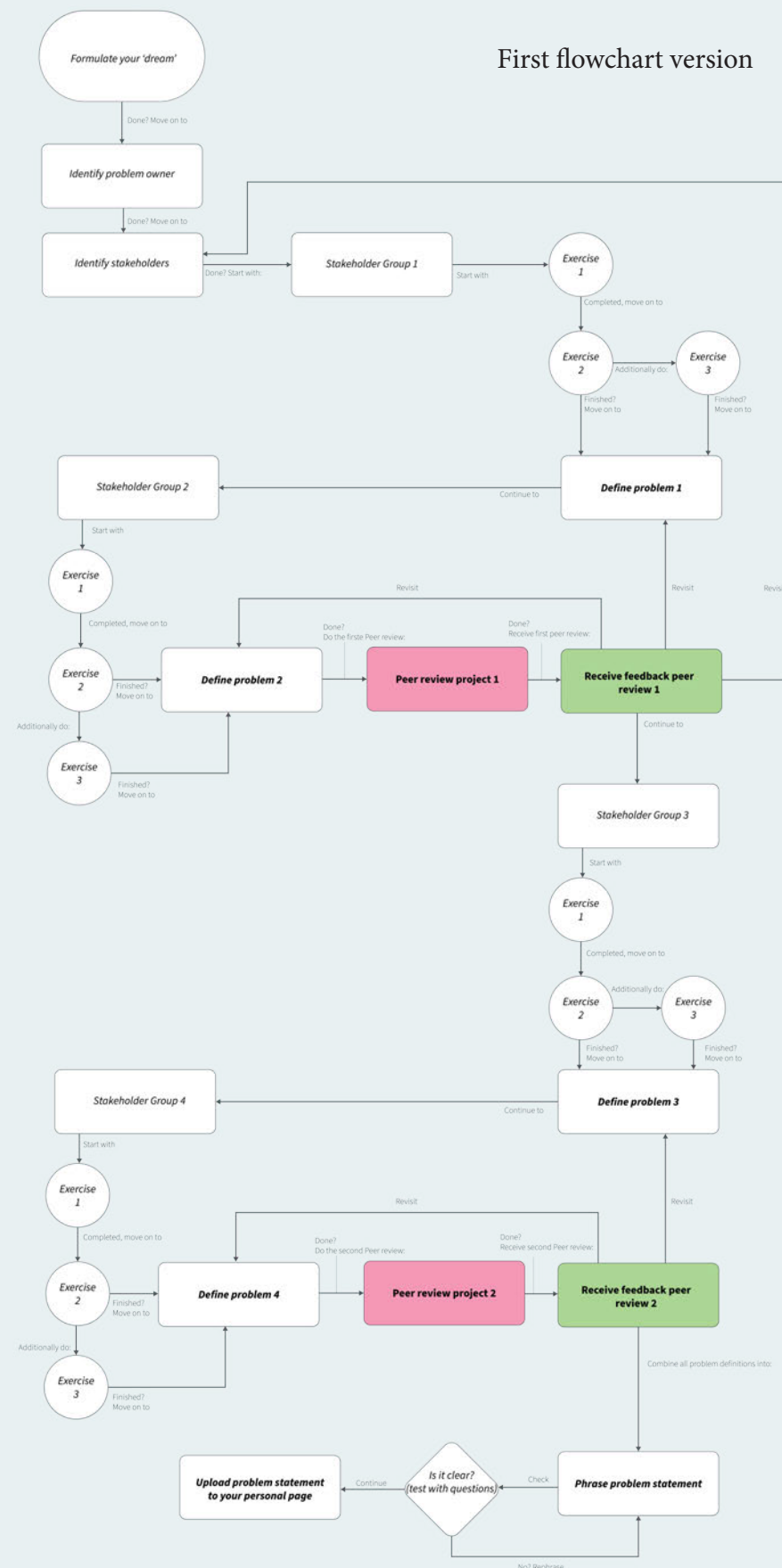
**How?** Read through the case of a to-peer-review case and come up with possible obstacles you can identify, relating to your own experiences. This way

1 Create obstacle cards

Create a set of 4 obstacle cards, concerning different categories, if possible.

2 Initial ideas to overcome this obstacles

Think ahead and try to come up with some solutions for this problem, or use your own experience and explain relevant situation you have faced before



limitless

BROWSE

english

Peer review 1

Location  
 City / Community  
 Religion  
 Race  
 Educational Background

Project description

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim veniam, quis nostrud exerci

To review:

Focus groups

Problem definition

Stakeholders

Feedback

Feedback

Feedback

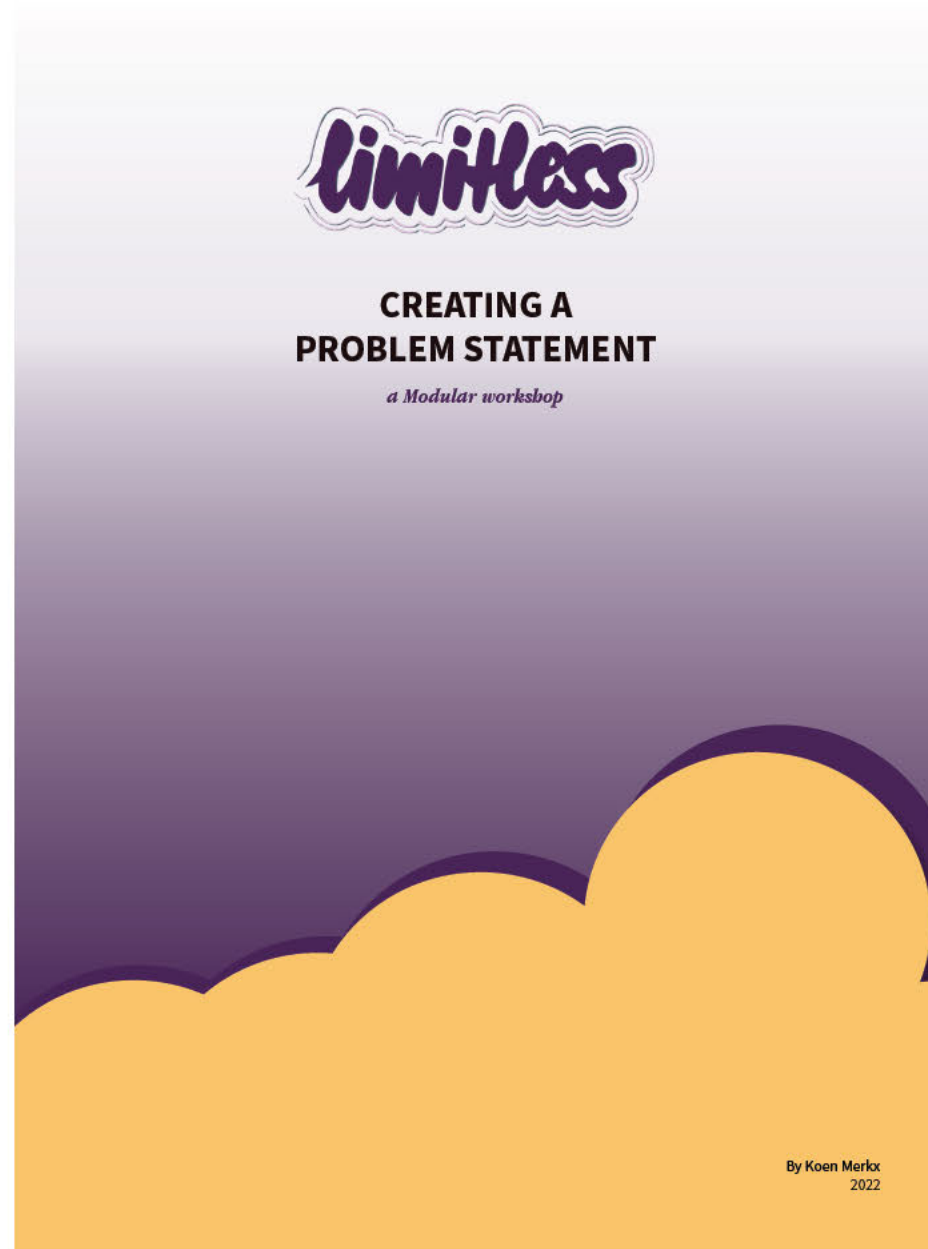
27





# APPENDIX 6A: Validation prototype

This is the document which  
was sent to the youth  
volunteers for validation



## Introduction

This workshop supports you in finding a relevant problem which you, together with the respective community, can solve. Please approach this workshop as an exercise for yourself to become more familiar with creating a well defined problem statement.

**Keep in mind:** What you write down in this form does not have to be related to your Limitless project!

Multiple exercises will help you to gradually build to an outcome of a problem statement which is clear and realisable. The first part (this document) consists of 6 pages with small exercises which gradually help you to build a good problem statement.

It is recommended to work chronologically through the pages, but you can always switch between pages and go back.



These six pages, respectively: formulating your dream, from dream to problem, problem tree, problem framing, stakeholder identification and reframing your problem statement, are going to help you to gather a good understanding of the problem in a community and the people involved.

Please fill out this PDF, by clicking on the blank spaces adding your answer. After filling out the pages, please save the document and send it back to me: [kmerkx@redcross.nl](mailto:kmerkx@redcross.nl)

At the end of the document you can find an example version, for inspiration and guidance.





## 1 Formulate your dream

This is where it all starts!



When you formulate your dream it is important to try to let go of all the obstacles you face in your daily life. In this exercise you have no limits! Try to think about what you want the most.

### Step 1. Who do you want to help?

Explain who you want to help with your dream. Yourself? People in your community? Children? Try to be specific.

ljzj

### Step 2. What do you want to change?

Explain what it is you would like to see changing for the people you want to help. Try to explain it in detail.

### Step 3. Visualise your dream

Look for a picture on the internet (or draw it yourself!) which describes/illustrates/inspires your dream and past it in these squares.

### Step 4. What does this mean?

Explain how these pictures describe/illustrate/inspire your dreams.

### Step 5. Formulate your dream!

Now try to formulate your dream in a compact sentence. (for example: 'I want to provide access to a bicycle for all children in my school, so they can cycle to school instead of walking long distances'.)



## 2 From dream to problem

What is preventing you from making your dream reality?



Now you formulated your dream, try to find out what is stopping you from realising this dream and formulate this into a problem statement.



I want to solve...


for...


because...


### 3 Create a Problem Tree

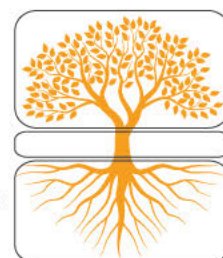
A problem tree is a method to create an overview of the causes which lead to a certain problem, what this problem is and what the consequences for the community are. Start by defining the causes, set the problem (and think about your ability to solve this problem) and explore what the consequences are for your community.



**Step 3 What are the consequences for the community?**  
Be creative and (visually) explain what impacts the community and how. Afterwards reflect on the impact of these consequences (positive or negative?).

**Step 1. Define what is the main problem**  
Copy what you have written in box A on the previous page on this place.

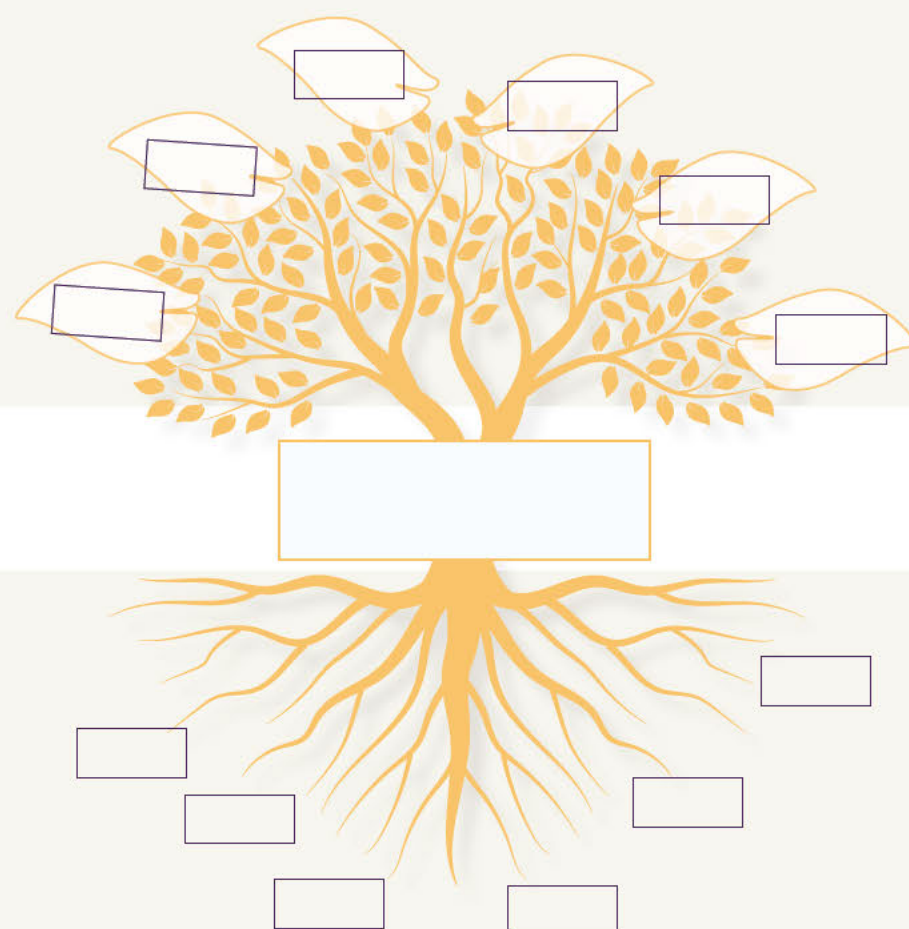
**Step 2. What causes are preventing you from realising your dream?**  
Write down all the causes which are hindering from realising our dream at this moment. Add pictures and/or illustrations.



3. Branches  
Consequences

1. Trunk  
Main problem

2. Roots  
Consequences



**Step 3 What are the consequences for the community?**  
Be creative and (visually) explain what impacts the community and how. Afterwards reflect on the impact of these consequences (positive or negative?).

**Step 1. Define what is the main problem**  
Copy what you have written in box A on the previous page on this place.

**Step 2. What causes are preventing you from realising your dream?**  
Write down all the causes which are hindering from realising our dream at this moment. Add pictures and/or illustrations.

### 4 Problem statement

Start with formulating your problem statement by filling out the blanks.



You want to have a clear objective for your innovation journey. That is why you should start with a well defined problem statement. In order to do so, you are going to reframe your initial problem statement (page 2). Use the reframing questions to critically review your problem statement and write down the reframed version here.

#### Reframing questions

Is it true?  
Did you include an explanation?  
Did you include a solution?  
Did you limit potential solutions?  
Is it clear?  
Whose problem is it?  
Are there strong emotions?  
Are there false trade-offs?



I want to solve...

for...

because...

A

B

C

## 5 Stakeholder identification

Map out all the stakeholders which are involved in this problem space.



Identifying stakeholders and the problem owner is important to create an overview of the parties which are involved in your problem. To create a better understanding of their perspective, you are going to reach out to all the stakeholders and together do some exercise. But first, let's find the stakeholders who are involved!

### Stakeholder options



A Government



B Academic parties



C Companies



D Profit / not profit

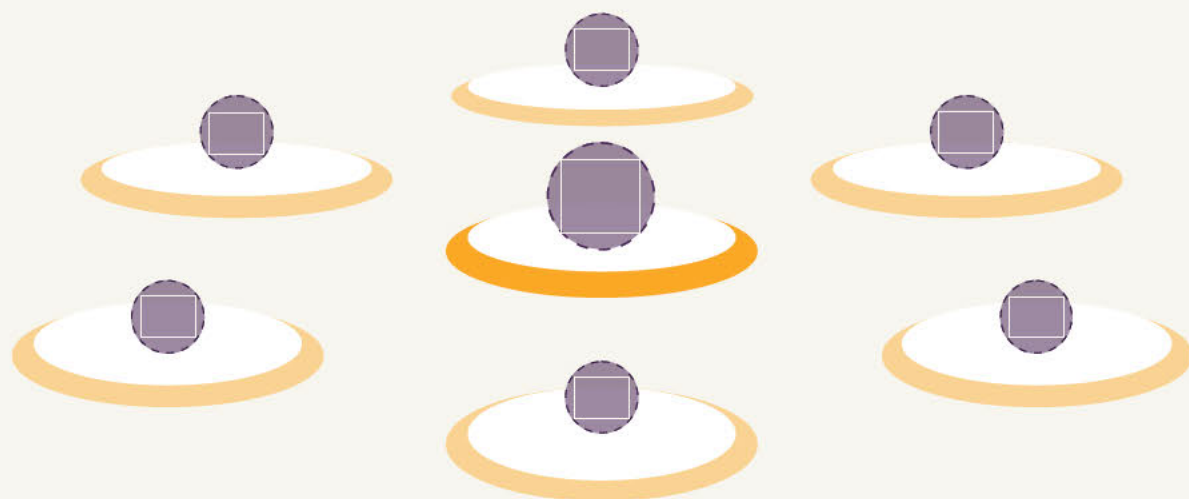


E Community



F Others

Copy the letter of the stakeholders in the stakeholder map, or add other stakeholders which you think are relevant.



## 6 Reframe Problem statement

Continue to improve your problem statement.



After mapping your stakeholders it is important to take a second look at your problem statement. How do all these stakeholder influence your problem statement? Can it be more clear or made more specific? Copy your last version (page 4) and see how it can be improved!

### Reframing questions

Is it true?  
Did you include an explanation?  
Did you include a solution?  
Did you limit potential solutions?  
Is it clear?  
Whose problem is it?  
Are there strong emotions?  
Are there false trade-offs?



I want to solve...

A

for...

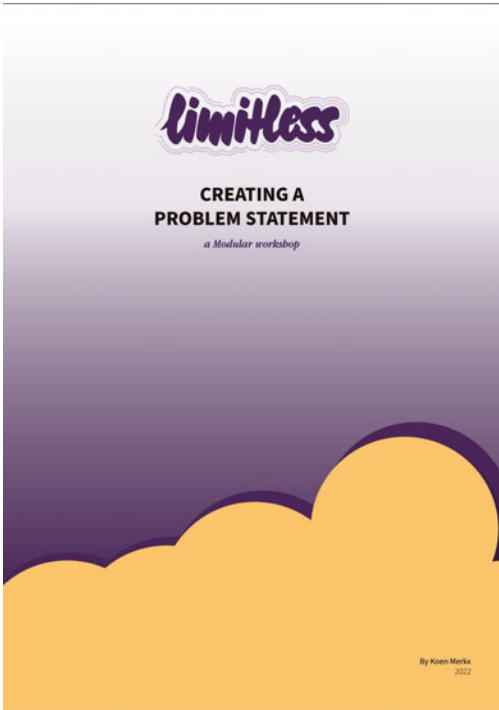
B

because...

C



# APPENDIX 6B: Validation example



This visualises how one of the youth volunteers sent back the form.



limitless

1

Formulate your dream

This is where it all starts!

?

When you formulate your dream it is important to try to let go of all the obstacles you face in your daily life. In this exercise you have no limits! Try to think about what you want the most.

Step 1. Who do you want to help?

Explain who you want to help with your dream. Yourself? People in your community? Children? Try to be specific.

We wish to help each and every individual in our community (throughout the Philippines) who is suffering from Epilepsy and Seizures.

Step 2. What do you want to change?

Explain what it is you would like to see changing for the people you want to help. Try to explain it in detail.

We wish for them to have their voices heard and treated like any other normal human being.

Step 3. Visualise your dream

Look for a picture on the internet (or draw it yourself!) which describes/illustrates/inspires your dream and past it in these squares.

We can visualise our dream of ending the stigma about epilepsy coming to action with knowledge and awareness is spread across the community and epileptic individuals are treated indifferently.

Step 4. What does this mean?

Explain how these pictures describe/illustrate/inspire your dreams.

This means that our project is gaining success as people are now well aware of what epilepsy is and there are no more superstitions about epilepsy or suffering individuals.

Step 5. Formulate your dream!

Now try to formulate your dream in a compact sentence. (for example: 'I want to provide access to a bicycle for all hildren in my school, so they can cycle to school instead of walking long distances'.)

We aim on ending the discrimination and stigmatisation of those suffering from epilepsy and seizures, as well as their family members.

38

39



## 2 From dream to problem

What is preventing you from making your dream reality?

Now you formulated your dream, try to find out what is stopping you from realising this dream and formulate this into a problem statement.



I want to solve...

We want to end the discrimination faced by epileptic individuals on a daily basis due to unawareness and lack of knowledge.

for...

for epilepsy is a neurological disorder that can occur to anyone at any age and at any time;

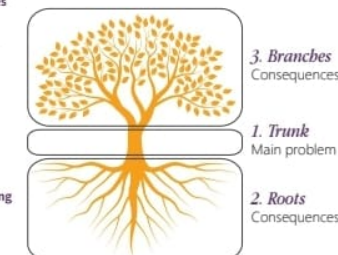
because...

People with epilepsy are discriminated against and treated differently which affects them and their families mental and social wellbeing.

## 3 Create a Problem Tree

A problem tree is a method to create an overview of the causes which lead to a certain problem, what this problem is and what the consequences for the community are. Start by defining the causes, set the problem (and think about your ability to solve this problem) and explore what the consequences are for your community.

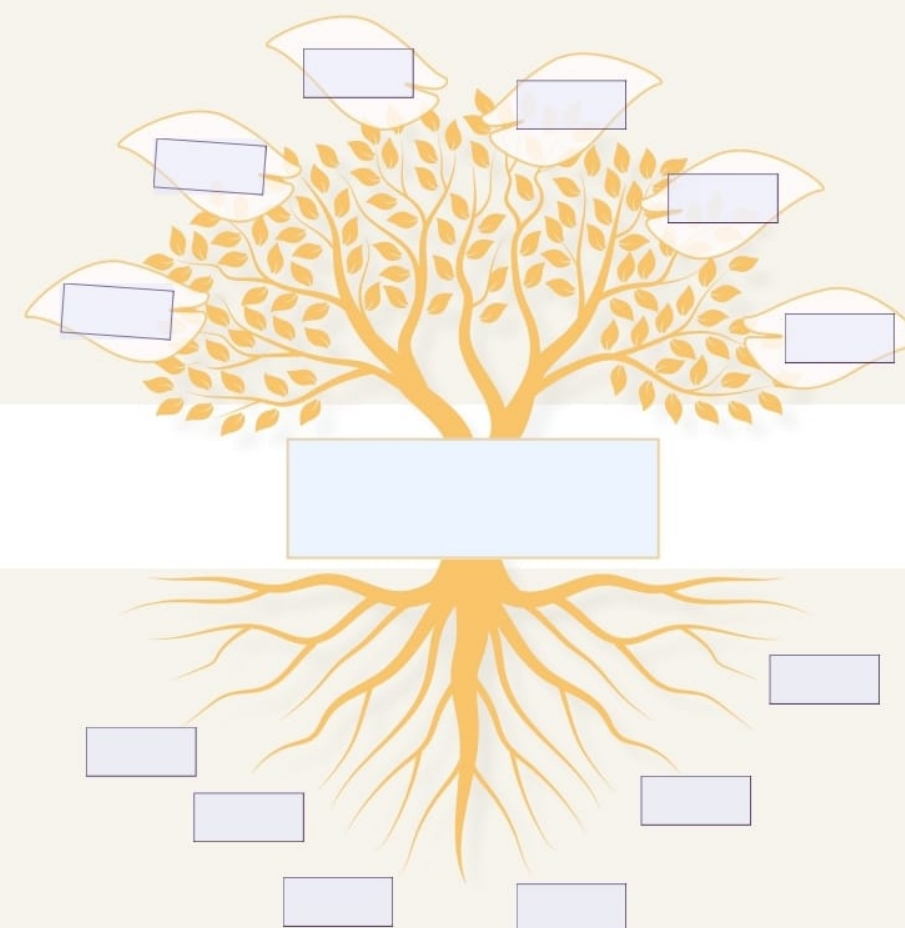
- Step 3 What are the consequences for the community?**  
Be creative and (visually) explain what impacts the community and how. Afterwards, reflect on the impact of these consequences (positive or negative?).
- Step 1. Define what is the main problem**  
Copy what you have written in box A on the previous page on this place.
- Step 2. What causes are preventing you from realising your dream?**  
Write down all the causes which are hindering from realising our dream at this moment. Add pictures and/or illustrations.



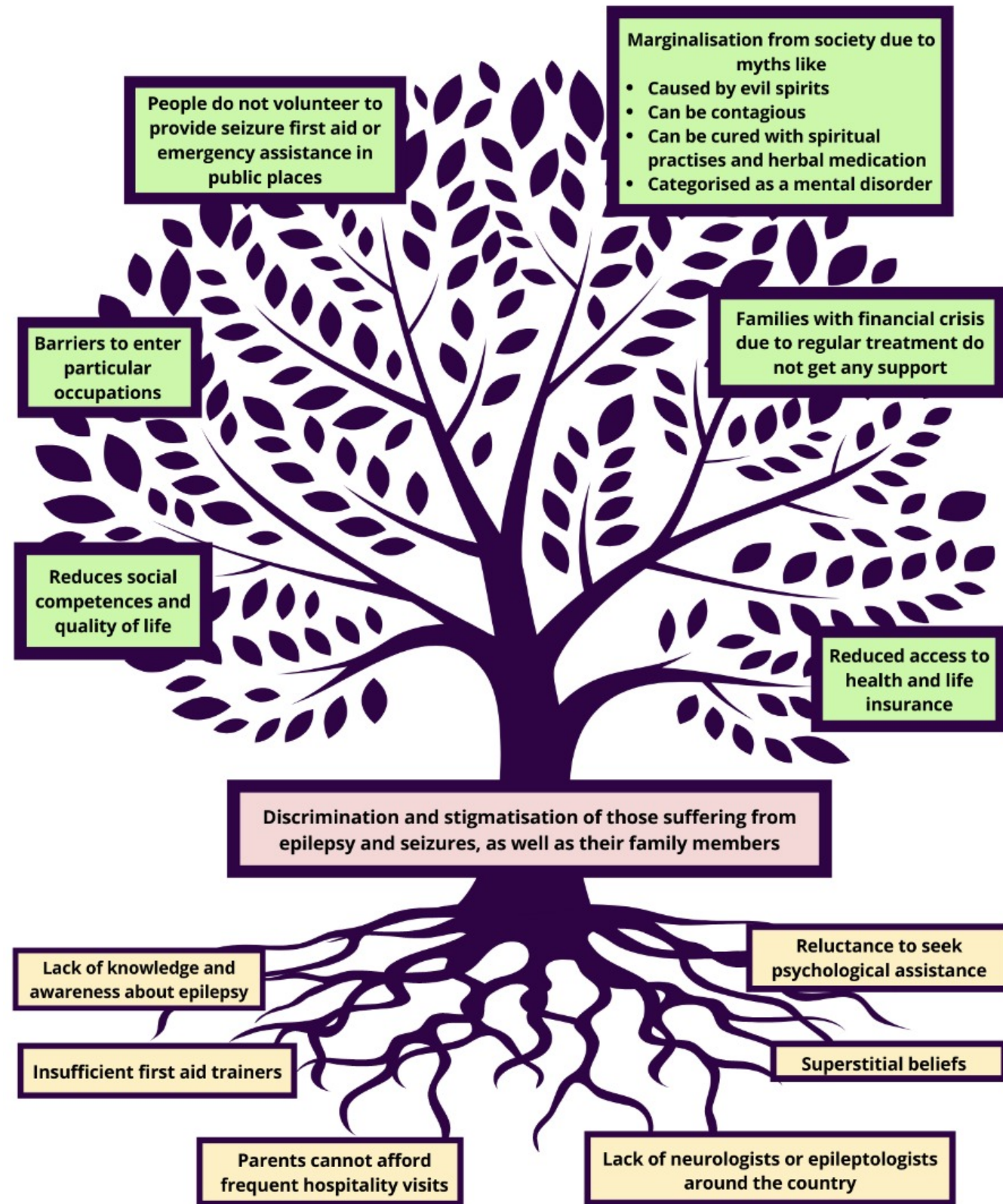
- Step 3 What are the consequences for the community?**  
Be creative and (visually) explain what impacts the community and how. Afterwards, reflect on the impact of these consequences (positive or negative?).

- Step 1. Define what is the main problem**  
Copy what you have written in box A on the previous page on this place.

- Step 2. What causes are preventing you from realising your dream?**  
Write down all the causes which are hindering from realising our dream at this moment. Add pictures and/or illustrations.



# Problem Tree



Consequences for the Community
  Main Problem
  Hindering Causes



## 4 Problem statement

Start with formulating your problem statement by filling out the blanks.



You want to have a clear objective for your innovation journey. That is why you should start with a well defined problem statement. In order to do so, you are going to reframe your initial problem statement (page 2). Use the reframing questions to critically review your problem statement and write down the reframed version here.

### Reframing questions

Is it true?  
 Did you include an explanation?  
 Did you include a solution?  
 Did you limit potential solutions?  
 Is it clear?  
 Whose problem is it?  
 Are there strong emotions?  
 Are there false trade-offs?



I want to solve...

A	
	the discrimination against individuals suffering from Epilepsy.

for...

B	
	Supporting our warriors / heroes who fight epilepsy and for their voices to be heard.

because...

C	
	Currently people are treating them differently which is affecting their and their families mental health upto the extent that some individuals even hesitate to share about their condition with the concerned authorities (school, clgs, etc.)



## 5 Stakeholder identification

Map out all the stakeholders which are involved in this problem space.



Identifying stakeholders and the problem owner is important to create an overview of the parties which are involved in your problem. To create a better understanding of their perspective, you are going to reach out to all the stakeholders and together do some exercise. But first, let's find the stakeholders who are involved!

### Stakeholder options



A Government



B Academic parties



C Companies



D Profit / not profit

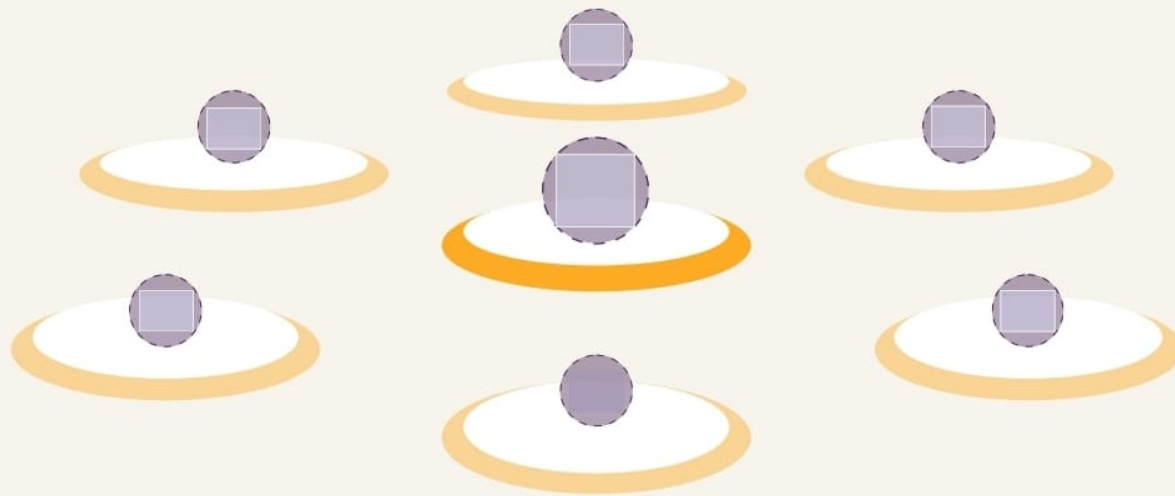


E Community



F Others

Copy the letter of the stakeholders in the stakeholder map, or add other stakeholders which you think are relevant.



## Stakeholder Options



A. Government



B. Academic Parties



C. Companies



D. Hospital



E. Associations



F. Community



G. Tourism



H. Individuals and families suffering with epilepsy



- Awareness drive
- Help in conducting surveys
- Health and welfare support



- Providing medical personal for dissemination
- Partnership and providing information about patients with epilepsy to the LGU to prepare the survey.



- Sponsoring resources
- Psychological assistance for employees
- Providing information about patients with epilepsy to the LGU to prepare the survey.
- Availability of medical personal inside the companies



- School and colleges
- Psychological assistance for staff and student
- Special survey by guidance office of institute to recognise staff and student with epilepsy
- Availability of medical personal inside the institution campus

**Discrimination and stigmatisation of those suffering from epilepsy and seizures, as well as their family members**



- Partnership with hospital with epileptologist
- Joining the dissemination drive and providing regular updates
- Providing information about patients with epilepsy



- As the ambassadors by being active voices for these individuals and family members.
- By being support to those who are finding it hard to handle.



- Mandatory disclosure about epilepsy while travelling with the concerned company during booking
- Training of all staff for BLS / First aid
- Registration of tourists with epilepsy to the nearby health office of the tourist destination



- Barangay representatives and different organisations representative of the barangay can help the project team with dissemination.
- Barangay can train these representative and family members of epileptic individual with BLS / First aid trainings

## 6 Reframe Problem statement

Continue to improve your problem statement



After mapping your stakeholders it is important to take a second look at your problem statement. How do all these stakeholder influence your problem statement? Can it be more clear or made more specific? Copy your last version (page 4) and see how it can be improved!

### Reframing questions

- Is it true?
- Did you include an explanation?
- Did you include a solution?
- Did you limit potential solutions?
- Is it clear?
- Whose problem is it?
- Are there strong emotions?
- Are there false trade-offs?



**I want to solve...**

we want to educate, spread awareness, bust myths and superstitions, to stop the discrimination against individuals suffering from Epilepsy by ending the stigma that these individuals are abnormal.

**for...**

Epilepsy is a neurological disorder that can affect anyone at any age and at any moment; this does not make an individual any less of a human to be treated differently. We need to identify them, support them, motivate all these incredible people fighting epilepsy and seizures and want these heroes to know that they are an inspiration for others and help them maintain a better lifestyle.

**because...**

Although epilepsy is one of the most common neurological diseases worldwide, it is heavily stigmatised and individuals with epilepsy are discriminated against. Our heroes require a platform for their voices to be heard in order to create a community free of stigma and discrimination.



# APPENDIX 7: Project brief

DESIGN  
FOR our  
future

5319

TU Delft

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

### SUPERVISORY TEAM \*\*

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

** chair	Dr. Price, R.A.	dept. / section:	DOS
** mentor	Dr. Calabretta, G.	dept. / section:	DOS
2 <sup>nd</sup> mentor	Michel Becks		
organisation:	The Netherlands Red Cross / International Federation Red Cross		
city:	Den Haag	country:	Netherlands

comments (optional)  
During my graduation I will work for both the Netherlands Red Cross (NLRC) and partly for the International Federation of the Red Cross and Red Crescent (IFRC)

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.

### Procedural Checks - IDE Master Graduation

#### APPROVAL PROJECT BRIEF

To be filled in by the chair of the supervisory team.

**APPROVED**

By raprice at 1:44 pm, Sep 03, 2021

chair Dr. Price, R.A. date 03 - 09 - 2021 signature \_\_\_\_\_

#### CHECK STUDY PROGRESS

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

Master electives no. of EC accumulated in total: 27 EC

Of which, taking the conditional requirements into account, can be part of the exam programme 27 EC

List of electives obtained before the third semester without approval of the BoE

☒ YES all 1<sup>st</sup> year master courses passed

☐ NO missing 1<sup>st</sup> year master courses are:

name C. van der Bunt date 15 - 10 - 2021 signature \_\_\_\_\_

#### FORMAL APPROVAL GRADUATION PROJECT

To be filled in by the Board of Examiners of IDE TU Delft. Please check the supervisory team and study the parts of the brief marked \*\*. Next, please assess, (dis)approve and sign this Project Brief, by using the criteria below.

- Does the project fit within the (MSc)-programme of the student (taking into account, if described, the activities done next to the obligatory MSc specific courses)?
- Is the level of the project challenging enough for a MSc IDE graduating student?
- Is the project expected to be doable within 100 working days/20 weeks ?
- Does the composition of the supervisory team comply with the regulations and fit the assignment ?

Content: ☒ APPROVED ☐ NOT APPROVED

Procedure: ☒ APPROVED ☐ NOT APPROVED

- Not approved for Medisign!

comments

name Monique von Morgen date 26/10/2021 signature MvM

Developing design training for Red Cross youth volunteers. 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 01 - 09 - 2021 end date 01 - 02 - 2022

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 International Red Cross Red Crescent Movement (IFRC) is an international humanitarian movement with around 100 million volunteers, members and employees worldwide. Founded in 1864 by Henry Dunant, after witnessing war victims in the town of Solferino in Italy.

With 192 national organizations the IFRC is the largest humanitarian organization in the world. Each entity works in their home country, according to the principles of humanitarian law.

A relatively new organ of the IFRC is the Solferino Academy (SA). The SA aims to challenge and inspire the way people work, think, act and connect. It helps the IFRC to transform to be more resilient for the future complexities and rapid changes, in order to meet the humanitarian and development challenges.

Recently, The Solferino Academy launched the IFRC innovation academy called Limitless. With Limitless, the IFRC aims to support Red Cross Red Crescent volunteers and employees all over the world with a project they have in mind to help their community recover from the impacts of the COVID-19 pandemic.

500 applicants from all over the world will join the academy, from which 50 projects will be selected for further mentoring and additional funding. Up to 15 finalist will receive €10.000 to run long-term innovation.

Some applicants (mostly from developing countries) have limited resources for addressing the problems they are facing. The challenge is to find a way to teach all participants a certain level of innovation, in terms of design methods, tools and more. This teaching is done by a series of workshops, followed by a mentoring program. In this mentoring program the youth volunteers from all selected Red Cross Red Crescent societies over the world are trained in design thinking.

Besides the IFRC, the Netherlands Red Cross (NLRC) is adapting human centered design into their national society. Together with their 12 partner national societies, this implementation and shift in mindset is happening in phases. The NLRC is on the forefront of this development and they aim to transfer their knowledge to their partner national societies. All these partner national societies have lots of youth volunteers which can be trained in design thinking.

From the TU Delft side I will be mentored by Rebecca Price (chair) and Giulia Calabretta (mentor), both from the department of Design, Organisation and Strategy and the subsection Marketing and Consumer Research. I will meet them every other week to discuss my process and findings.

I will also be mentored by Michel Becks, who is part of the Humanitarian Innovation Lead of the NLRC. Together with Saskia van Manen from the NLRC we will develop the workshops and Michel and me will (try to) participate as mentors during the Limitless mentoring phase.

space available for images / figures on next page

introduction (continued): space for images



image / figure 1: NLRC & IFRC logo's

PHASE 1 ..... PHASE 2 ..... PHASE 3 ..... PHASE 4 .....

- Inspire**  
Learn and get inspiration from a series of social innovation webinars.
- Community Support**  
Share your ideas online using #LimitlessIFRC to get support and feedback.
- Your innovation story**  
Apply to join the Academy by telling us:
  - What inspires you and motivates you to apply?
  - What is the COVID-19 related problem you want to focus on?
  - Your initial idea to tackle the challenge and how it will help your community.
- Innovation Academy, The First 500**  
500 will join the academy, receive seed funding and start testing with their communities.
- Innovation Academy, Advanced Innovators**  
50 projects will be selected for mentoring and additional funding.
- Innovation Academy, Global Innovation Leaders**  
Up to 15 finalists will receive 10,000 EUR to run long-term innovation

image / figure 2: Limitless innovation academy timeline





# APPENDIX 8: Picture collection

Personal Project Brief - IDE Master Graduation

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.

The IFRC and the NLRC have always been a inspiring movement to me, delivering incredible work and improving humanity wherever possible. The Red Cross is working on becoming more resilient for all the complex future challenges, which creates opportunities for us as (strategic) designers to assist them in this process.

I had great interest in their work and always wanted to participate in a humanitarian related project. I am curious to find out how I can contribute to this movement, with my gained knowledge from the past years.

I believe that The Solferino Academy has a the right platform for integrating design thinking, design methodologies and more to prepare and support the IFRC for all the future challenges and the NLRC has a great platform to incorporate an innovation mindset in their own national society and also in their partner's national societies.

Personally I want to prove to myself that the knowledge I gained over the last years enables me to inspire and teach others a bit about the world of (strategic) design. This contains multiple competences, like tools for (visual) communication (like sketching, animations, storyboarding...), holistic thinking, prototyping and more.

I want to explore how I can transfer this knowledge to people all over the world who are not/limited familiar with these competences. Eventually the goal is to create something which has real value in practice and can possibly be further explored after finishing this 20 week period of graduation.

Universal communication, verbal skills, knowledge of cultures are objectives I would like to address during my graduation project. I imagine things like co-creating sessions with people from developing countries and creating workshops concerning design and innovation.

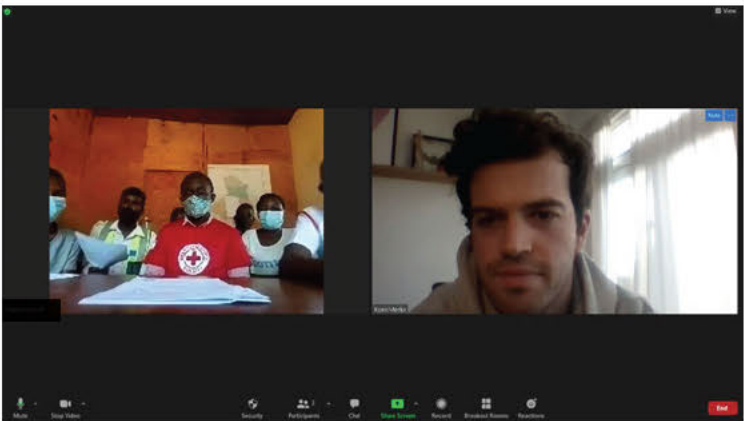
Furthermore I want to manage my graduation project in comfortable manner, so I can go through this journey as efficient and successful as possible, making it the most fun project during my 6 years as a student!

FINAL COMMENTS

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



Working on the concept at the NLRC office



Focus groups! (One of many screenshots)



