

# TACKLING LONELINESS AMONGST ADOLESCENTS

A SYSTEMIC CO-DESIGN APPROACH  
FOR GEMEENTE DELFT

Master Thesis by Eva Legemaate



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March 2020



# PREFACE

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At the start of this project, I knew it was going to be a challenge. Creating and building your own project, fulltime, all by yourself. I am happy to say that the challenge was fun and exciting! I just kept going and going, and felt good about it. I somehow expected that desperate moments would arise, however, the project constantly intrigued and inspired me, as I learned so many new things along the way. For this, I want to thank all of you who helped me along the way.

First of all, I would like to thank my supervisors, Ingrid and Mieke. I am grateful that I could learn from both your fields of expertise. Never before, complexity made me so confused and enthusiastic at the same time. I like it that, because of you, I 'met' Rittel and Webber, Ackoff, Bason, Winthagen and other inspiring people that will stick with me.

I want to thank Stijn, for giving me insight in Gemeente Delft and your work as a policy advisor. I liked our conversations at the municipality, in which you were openly sharing your experiences and we discussed ideas and opportunities. Thank you Dianne, for joining both co-creation sessions and for the moments that we spoke since. You and Stijn make a great team.

At the start of this project, I spoke to so many different people in and outside Delft and I want to thank them all for taking the time to discuss the difficult topic of loneliness with me. Thank you, Anja, for letting me join coalition meetings and explaining me more about Gemeente Delft. A special thanks to all the participants who joined in the two co-creation sessions: Marijke, Rosalie, Kelsey, Eva, Marit, Dirk, Mo, Ellen, Jo, Jasmijn, Dianne and David. Without you, there would have been no co-design process.

Thank you, Wies, for helping me setting up the co-creation sessions and giving me the confidence to just do it. Thank you and Evy, for being my facilitator buddies. I would also like to thank the friends and housemates that joined during a session at the very first start of this project.

Also, I would like to say thank you to my dear friends and family who have helped me going through this project. Thank you for taking time to listen to me and support me. A special thanks to Joep and Heleen for reviewing this thesis and to Nienke, for letting me borrow your voice for the movie.

Thank you all, I could not have done it without you!

Enjoy reading,  
Eva



Idea generation in session 2  
Made by: Frank Auperlé

# EXECUTIVE SUMMARY

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In this thesis, the value of design is researched within the context of municipalities and how civil servants deal with complex problems. Loneliness amongst adolescents is a complex problem that many are not aware of yet. Of the youth between 12 and 18 years old in Delft, 42% states to feel lonely (GGD Haaglanden, 2016). This issue needs to be addressed by Team Youth of Gemeente Delft. However, the civil servants and their partners do not act upon it. This led to the following research question of this project: "Will a design-led approach enable the civil servants of Team Youth from Gemeente Delft to act upon the complex problem of loneliness amongst adolescents in Delft together with other relevant actors?"

First, three sub-questions were posed to find out what the design-led approach should consist of. They were answered through literature and field research. The first question addressed systemic design and how it enables designers to tackle complex problems. A systemic design approach allows different actors to collaborate to find a mutual understanding of a situation. This enables the actors to create and follow a shared vision, for which interventions can be developed.

The second sub-question gave insight into the current situation of loneliness amongst adolescents in Delft. A causal system map was created, which revealed six interconnected root causes that give a subjective explanation of why the problem is as it is. When researching why Team Youth currently does not act upon this situation, it was found that the policy implementation process is not performed optimally. This process was researched, and four areas of improvement were found. The involvement of unvaried parties, a consultative role of the civil servant, a conventional approach and an undefined structure of the process counteract when dealing with complexity.

The third sub-question concerned the research of design principles that might improve or enrich these four areas. Co-design was discussed, which demands a collaborative role and the use of participatory techniques. To create one structured process that focuses on dealing with complexity and creating mutual understanding, the Systemic Design Toolkit process was mentioned. The insights and design principles from the research were translated into requirements for the design-led approach that would be set up.

A research through design process followed, in which a systemic co-design process with four phases was set up, performed and researched. First, a network and co-creation team was built. Next, two co-creation sessions took place to explore the problem field and solution space. In the last phase, the results were discussed with Team Youth, which led to a defined action for the policy implementation plan. With the insights and results from the process, and help from actors in the network, the assigned actor was able to enact the action and develop an intervention.

The research and evaluation of the performed process resulted in an adjusted list of requirements on which the final proposal is based: the WIJ-model (Welzijn Implementatie Jeugd model). This systemic co-design process enables civil servants to act upon complex problems during the policy implementation phase and implement well-being amongst the youth of Delft.





# INTRODUCTION

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This report presents the results of a 20-week graduation project at the Faculty of Industrial Design Engineering, within the Delft Design Lab Participatory City Making, in collaboration with Gemeente Delft. The report starts with an introduction, explaining the project scope, research questions and project approach. The rest of the report is divided into six sections.

In **Section I: Research to answer the sub-questions**, literature and field research is performed to find an answer to the main research question. However, to really answer this question, the found insights are put into practice. For this, a research through design process is set up in **Section II: Setting up a systemic co-design approach**.

In **Section III: Performing the systemic co-design approach**, the designed process is carried out. The design insights that result from this are discussed to find out if the design goal was reached. Next, the performed process is researched and evaluated in **Section IV: Researching and evaluating the performed approach**. This results in insights on how to improve the designed process.

In **Section V: Proposing the final systemic co-design approach**, the improved design concept is explained and discussed. Limitations and recommendations for future research are mentioned. In the last section, **Section VI: Evaluating the project**, the project is concluded and evaluated and a personal reflection is given.

## DEFINITIONS

Based on Gemeente Delft

**Team Youth:** The team of 4 civil servants at Gemeente Delft that is assigned to improve the well-being of the youth of Delft. One of these civil servants is the ambassador of this project.

**Policy:** A policy is made, every four years, by civil servants with input from partners and describes a certain goal or mission. It is often very broad and abstract.

**Implementation plan:** This is an appendix of the policy, which consists of more concrete agreements with parties on how to reach that goal.

**Intervention:** This is something that is developed and implemented in a certain situation to improve it. Actors in the public sector that create interventions need means for it, that the municipality usually offers them.

**Policy implementation process:** This is the process in which policymakers and relevant parties move from the abstract policy to concrete actions for the plan. The execution of these actions, thus the development and implementation of interventions is the task of the executing actors, not the municipality.

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# INTRODUCTION

HOW THE PROJECT  
WAS SET UP

This part explains how this design assignment was created. The problem of loneliness amongst adolescents is described, explaining the societal relevance for tackling it, and it reveals the interest of Gemeente Delft in design. This results in the design objective, research question and project approach.

**Chapter 01** The relevance of this project for Delft

**Chapter 02** The research question and project approach

# CHAPTER 01

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THE RELEVANCE OF THIS  
PROJECT FOR DELFT

# 1.1 THE PROJECT SCOPE

## PERSONAL MOTIVATION

The article 'Zonder creativiteit geen toekomst' in the newspaper NRC opened my eyes (Brugmans & Stikker, 2019). Our world is currently in rapid transition, however, are we capable of transforming our society and living environment with it? Can we make ourselves resilient? The authors of the article advocated a more active and prominent role for the designer, as designers are explorers, envisioners, and shapers of the future. They stated that, under great pressure, we have to search for alternative scenarios for a new era. By performing design research, designers and their clients involve citizens, governments, companies, and leaders to search for that future together.

This article made me very enthusiastic. The societal challenges that we are facing are interesting and activating me. I believe in collaboration and that together you can create the best fitting solutions. By joining people who each have their own perspective, you resemble an issue's complexity and thereby

reality. This made me wonder how public authorities approach complex social issues. How do they search for alternative scenarios for the future? How do they create the best fitting solution for the citizens? Can a designer contribute?

## LONELINESS IN THE COVENANT

To strengthen the social engagement between the city of Delft and the university, a covenant was signed by the mayor and TU Delft's rector magnificus. The Participatory City Making Lab (PCM), a Delft Design Lab at the faculty of Industrial Design Engineering, collaborates with Gemeente Delft and TU Delft's Community Engagement & Outreach in the program 'WijStad' to contribute to these strategic ambitions.

One of the focus areas that is described in the covenant is loneliness. When looking at the amount of lonely elderly, Delft is one of the sixteen municipalities in the Netherlands that has the



Figure 1. Designers are explorers, envisioners and shapers of the future (Brugmans & Stikker, 2019)

highest amount. With extra money from the national action program 'Eén tegen eenzaamheid', which was set up to fight loneliness amongst elderly, Gemeente Delft assigned a civil servant to work on the issue. However, little data can be found concerning loneliness amongst citizens under 18 years old. When searching for loneliness amongst adolescents, a report from GGD Haaglanden (2016) appears. It states that 42% of Delft's youngsters feel lonely, showing that there is not only a peak when we are old, but also when we are young. As Gemeente Delft is not focusing on this age group yet, it is valuable to research if it is necessary to start acting. Therefore, more in-depth research was performed, explaining the consequences of loneliness amongst adolescents.



## 1.2 LONELINESS AMONGST ADOLESCENTS IN DELFT

Adolescents. We expect them to have busy social lives and most of them do. Surprisingly, feelings of loneliness can still occur. Actually, these feelings occur in many more adolescents than most of us are aware of.

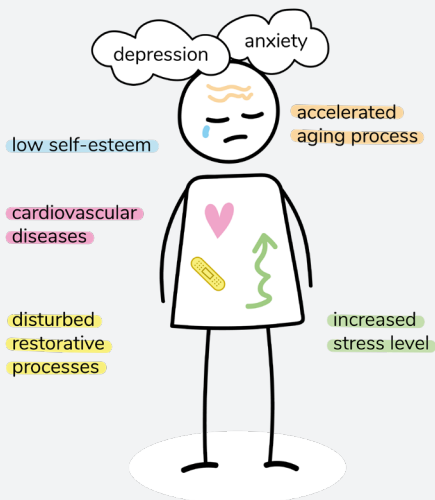


Figure 2. Possible consequences of loneliness on our well-being

### A CLEVER WARNING SIGNAL WITH CONSEQUENCES

When we feel lonely, we are warned by our bodies that we are in need of social contact. It is a signal, trying to activate you to get up and seek for others. It is comparable to the feeling of hunger, which is an evolutionary signal to make us search for food (Cacioppo et al., 2006). Once we get our sandwich or friend to talk to, the signal weakens and we feel better.

Unfortunately, not everyone is able to fulfill their desire for social contact. When a discrepancy arises between the type of contact that you long for and the actual social interaction you can find, it can lead to a more long-term, chronic state of loneliness (Perlman & Peplau, 1981). If your body is giving you the signal constantly, it can negatively impact your health (Hawkey & Cacioppo, 2010)

as is visualized in figure 2. Lonely people perceive daily activities as more stressful and this increased stress level upsets physiological processes in their bodies. It disturbs for instance restorative processes like sleep or wound healing. The aging process of our body is accelerated, causing cardiovascular health risks and therefore mortality. Furthermore, loneliness impacts cognition. Lonely people have a greater chance to suffer from anxiety, depression and a lower self-esteem. Also, cognitive decline and dementia seem to be related to loneliness. Overall, not being sufficiently connected with others has a big influence on our well-being. Whereas loneliness itself is not a disease, it can definitely turn into one.

### ADOLESCENTS ARE SENSITIVE TO LONELINESS

With 47%, the percentage of lonely elderly above 75 years old in Delft is high (O&S Delft, 2017). Measurements are often starting from 18 years old, however, GGD Haaglanden conducted a survey amongst 12-18 years old people in 2015. It showed that 42% of the adolescents living in Delft feel moderately to severely lonely (GGD Haaglanden, 2016). When looking into other research that concerns this age category, an article from Yang and Victor (2011) shows that this peak of lonely adolescents is not only the case in Delft. More indications have been found that there are two periods in our lives in which we are more sensitive



Figure 3. A non-linear relationship between age and the prevalence of loneliness (Yang & Victor, 2011)

to loneliness. As the graph in figure 3 shows, this is during the adolescence and when we are old.

## WHY ADOLESCENTS ARE MORE SENSITIVE TO LONELINESS

Reasons for the sensitivity to loneliness in adolescence are given by Lodder (2016). She is an assistant professor in developmental psychology at Tilburg University and specifically researches loneliness amongst young people. Feelings of loneliness are often fuelled by the following causes.

- There is a mismatch with the environment: young people who cannot reach (support from) their peers, for example because they are sick, get bullied or are migrant, figure 4.
- A lack of social skills: difficulties in having a basic conversation or missing subtle social cues in your environment can lead to unsatisfactory relationships, figure 5.
- Having a negative view on their (social) world: youth who perceive themselves and their social environment negatively think their friendships are of low quality, whereas their friends do not really think so, figure 6.

## THE TOPIC IS UNDEREXPOSED

Lodder kept on researching loneliness amongst young people, as she finds this topic underexposed. Our society is ignorant, unaware that adolescents can feel lonely as well. However, in 2019, a swift of

attention concerning the topic arose amongst the Dutch. Nadī van de Watering, a 25-year-old woman, put a message on Twitter that opened our eyes. She opened up about her feelings of loneliness, caused by her disease, and that she had suffered from it for a long time now (NOS, 2019). For a while, the media wrote articles about Nadī and other research that they found. The collective surprise that young people can feel lonely became tangible.

**“Tens of thousands of adolescents chronically lonely: ‘we are just noticing them now’”**

RTL Nieuws, September 2019

As with most news items, the attention on the topic was of short duration. Had it been long enough to spark action?

## LONELINESS AMONGST ADOLESCENTS AND POLICY

In 2018, the Dutch government decided that loneliness is a problem they should act upon. With the action program ‘Eén tegen Eenzaamheid’, they want to involve municipalities in the Netherlands and promote them to act upon it (Ministerie van Volksgezondheid, Welzijn en Sport, 2018). However, the program is solely focused on elderly. This shows our common unawareness of the high amount of lonely adolescents.

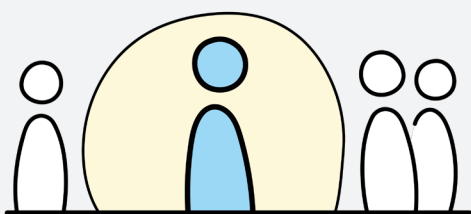


Figure 4. Adolescents can mismatch with their environment



Figure 5. Adolescents can lack social skills

## TEAM YOUTH OF GEMEENTE DELFT AND LONELINESS AMONGST ADOLESCENTS

The responsibility to organize healthcare was transferred in 2015 from the Dutch government to the municipalities. Looking at youth healthcare, municipalities operate under the principle of self-reliance (Rijksoverheid, 2015). Young people (and their parents when still minors) are responsible for themselves in the first place. However, if a youngster is in need of extra support, the municipality should offer appropriate services. When looking locally at the municipality of Delft, four civil servants are appointed to youth. They work continuously on improving these services and have the goal to create an environment for the youth of Delft in which they can grow up healthy and safe. Team Youth composes policies to reach this goal. Loneliness amongst adolescents, however, is not acted upon. There are no services or other interventions from the municipality's executing partners that focus on this topic.

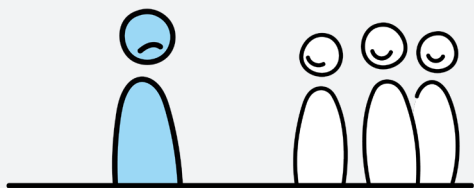


Figure 6. Adolescents can have a negative view on their world

## 1.3 THE DESIGN OBJECTIVE

Despite the task of Gemeente Delft to offer support to citizens that cannot manage on their own, they do not act upon loneliness amongst young people. Is it the common unawareness that makes Team Youth overlook the problem? Are the negative effects of loneliness on young people underestimated? Is the effect that it can have on our society, in which chronic loneliness can result in mental and physical problems and thus costs, not noticed? Is it Team Youth who is responsible or is it someone else?

### INTRODUCING SYSTEMIC DESIGN

The questions addressed above are difficult to answer and therefore indicate that the problem is a complex one. When it is not clear who is responsible for tackling the problem, when it is hard to control, multifaceted and confusing, a problem needs another approach to find solutions for it (Rittel & Webber, 1973).

As the societal problems of today are so complex, this made me become aware of the need for a different approach. One that differs from the approach that I have learned at university to design products or services. An approach that focuses on creating an understanding of the whole of which a problem is a part of.

This is how I got in touch with systemic design. It is an emerging field in design, which combines systems theory with design thinking. Designers attempt to engage with complexity by integrating systems approaches. Looking back at the newspaper article and the potential role of design in creating alternative scenarios for the future, I wondered if this systemic view could be of value to public authorities. Could it be of value for Team Youth of Gemeente Delft to approach the problem of loneliness amongst adolescents with systemic design?

### THE DESIGN OBJECTIVE OF THIS PROJECT

In this project, I will research if an approach based on systemic design can enable Team Youth to act upon the complexity of the problem of loneliness amongst adolescents. This results in the following design objective.

*To design a means for the civil servants of Team Youth, which will enable them to act upon the complex problem of loneliness amongst adolescents in Delft together with other relevant actors.*

*Design objective*

### THE AMBASSADOR OF THIS PROJECT OF GEMEENTE DELFT

One of the policy advisors of Team Youth is the ambassador of this project. With a background in organization management, he has an interest in work approaches and previously worked on optimizing complex collaboration processes. At the municipality, he wonders how projects can be approached differently. This makes him the ideal ambassador of this project.

# CHAPTER 02

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## THE RESEARCH QUESTION AND PROJECT APPROACH

## 2.1 THE RESEARCH QUESTION

Gemeente Delft and its executing partners should act upon the many lonely adolescents. However, to tackle this complex problem, the conventional approach of the municipality might not be sufficient. To find out whether design, systemic design in particular, can enable the civil servants of Team Youth to act upon the problem, I will perform this research project.

### RESEARCH QUESTION

When looking at the design objective, the following research question is formulated:

**“Will a design-led approach enable the civil servants of Team Youth from Gemeente Delft to act upon the complex problem of loneliness amongst adolescents in Delft together with other relevant actors?”**

Research question

### LITERATURE AND FIELD RESEARCH TO ANSWER SUB-QUESTIONS

To be able to answer the research question, the following sub-questions have to be answered:

1. How does systemic design enable designers to tackle complex issues?
2. What is the current state of loneliness amongst adolescents in Delft and how do Team Youth and their partners act upon it?
3. Which design principles are beneficial for the work approach of Team Youth to better deal with a complex problem?

### ACTION RESEARCH TO PERFORM RESEARCH THROUGH DESIGN

To find an answer to the research question that

is not solely based on speculations, I will use the design principles found in sub-question 3 to create a design-led work approach. This approach will be carried out and researched to find out whether Team Youth is able to act upon the problem of loneliness.

### FOCUS ON HIGH SCHOOL STUDENTS 12-18 YEARS OLD

Team Youth focuses its work on minors. For this project, we decided together to approach the young people of Delft between the age of 12 and 18. Around 12 years old, Dutch teenagers start attending high school, which is socially challenging. From 16 years onwards, the youth will switch again to another education. I acknowledge that this too is a difficult period for adolescents concerning their social lives. However, to scope this research, I will focus on high school students.

## 2.2 THE PROJECT APPROACH

To be able to design a means for Team Youth - which enables them to act upon the problem of loneliness amongst adolescents together with relevant actors - a research question was formulated. To answer this question, research and design activities have to take place. The project approach, visualized in figure 7, is set up for this.

First, literature and field research takes place to be able to answer the research question on paper. To put this in practice and find out if a design-led approach enables Team Youth to act upon the complexity, a research through design process is set up. A design-led approach is set up and performed. Researching the approach and the results will show if it enables Team Youth to act. With the improvements that are found when evaluating the approach, a final design proposal of the design-led approach is created for Gemeente Delft.

This report is divided into six sections. Each section is explained briefly.

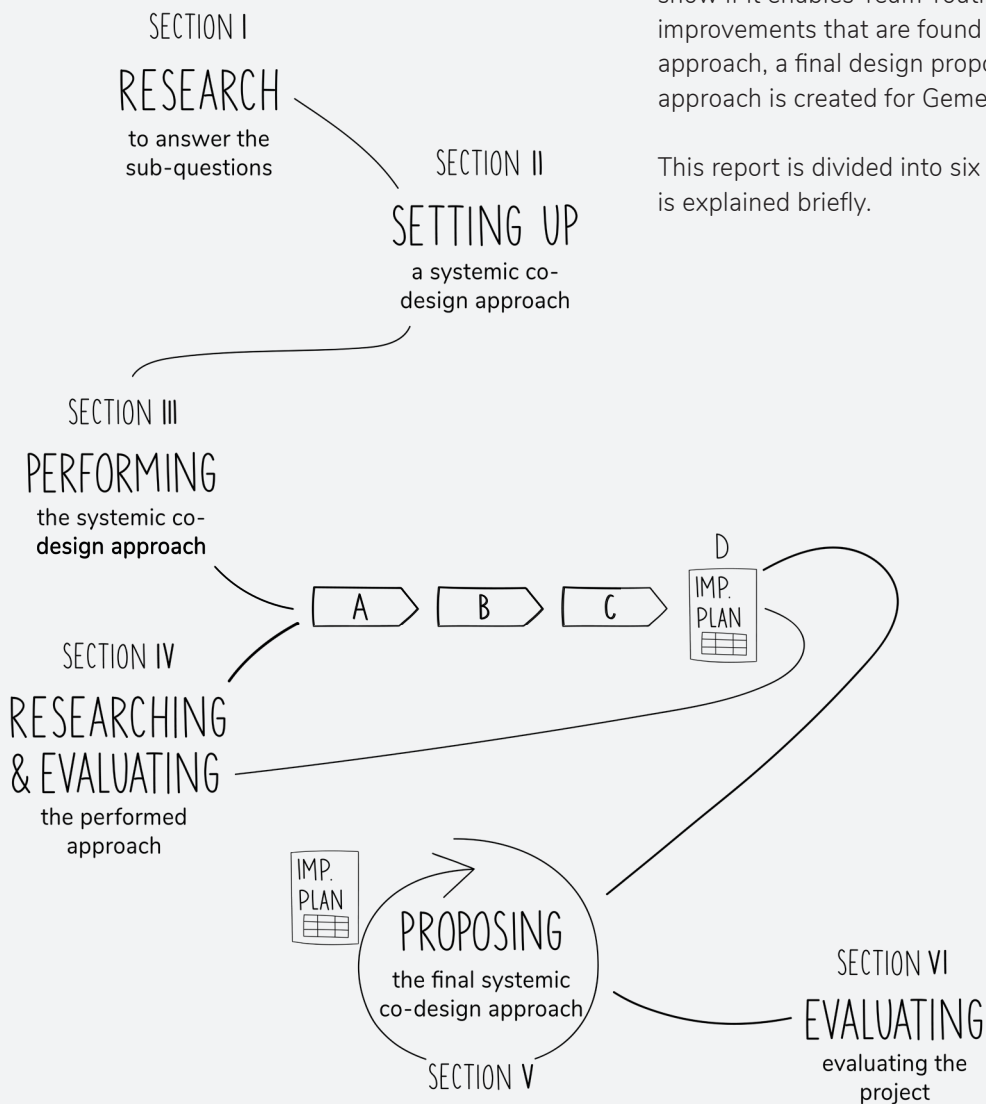


Figure 7. The project is divided in six sections

## **SECTION I: RESEARCH TO ANSWER THE SUB-QUESTIONS**

This section looks into literature of complex problems and how systemic design can play a role in dealing with them. Next, the current state of loneliness amongst adolescents in Delft will be researched through interviews, to find out how the municipality and their partners are acting upon it. Areas of improvement are found and through researching design literature, certain principles are found that might enhance the work approach of Team Youth.

## **SECTION II: SETTING UP A SYSTEMIC CO-DESIGN APPROACH**

With the found design principles a new work approach is set up, which will be performed in Section III and simultaneously researched. This type of research is called research through design. It is a form of design that is practice-based: by just starting to design and try it out you will generate insights (Stappers & Giaccardi, n.d.).

Two types of insights are obtained when applying research through design: design insights and research insights. The design insights concern loneliness, as they are the direct result of performing the approach. The research insights result from researching and evaluating the work approach. The latter contains important new knowledge to answer the research question with.

## **SECTION III: PERFORMING THE SYSTEMIC CO-DESIGN APPROACH**

This section addresses the design results that derive from performing the set up approach. Insights concerning the current situation of loneliness in Delft are generated. The desired situation for the youth of Delft is discussed and solutions are generated to reach this desired state. Finally, all this new

knowledge is collected and discussed with Team Youth. Do these new insights coming from the new approach help them to act upon loneliness?

## **SECTION IV: RESEARCHING AND EVALUATING THE PERFORMED APPROACH**

If the performed approach enabled the civil servants to act upon loneliness, the design-led approach created value. This section researches and evaluates the performed approach to find out which elements were helpful and should, therefore, be implemented in the final proposal.

## **SECTION V: PROPOSING THE FINAL SYSTEMIC CO-DESIGN APPROACH**

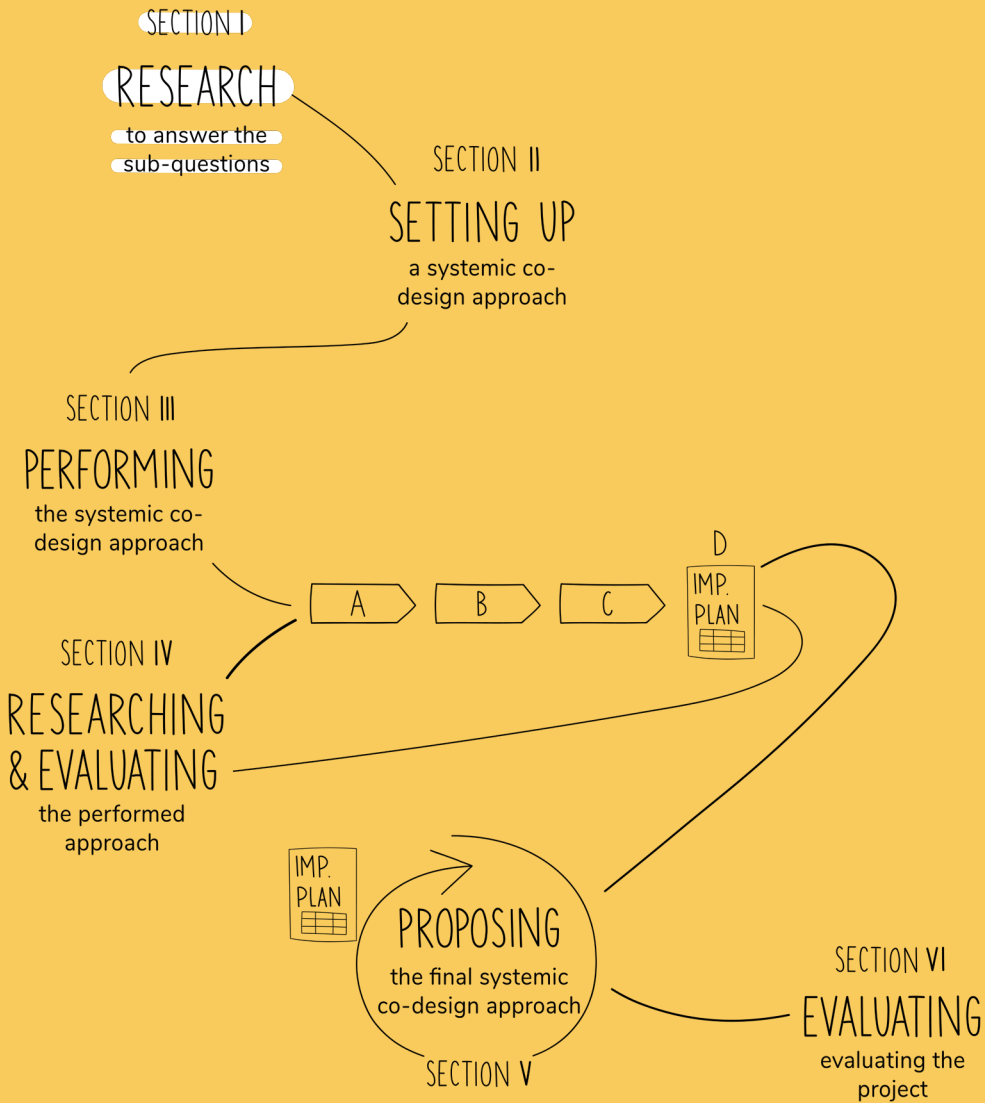
In Section V, a design is proposed to enable Team Youth to act upon complex problems, like loneliness, in the form of a systemic co-design approach. It is based on all the research that is collected and created in this project. Recommendations and limitations are addressed in the discussion.

## **SECTION VI: EVALUATING THE PROJECT**

The project is concluded and the project will be discussed and reflected upon.







# SECTION I

RESEARCH TO ANSWER THE  
SUB-QUESTIONS

In this section, the three sub-questions of the research are answered. First, it is discussed what complex problems are and how the field of systemic design can be of value in tackling them. Next, the current state of loneliness amongst adolescents in Delft will be researched through interviews, to find out how the municipality and their partners are acting upon it. Areas of improvement are found and through researching design literature certain principles are found that might enhance the work approach of Team Youth.

**Chapter 03** Systemic design for complexity

**Chapter 04** The problem of loneliness and Team Youth

**Chapter 05** Design principles for a design-led work approach

# CHAPTER 03

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## SYSTEMIC DESIGN FOR COMPLEXITY

## 3.1 WHAT IS A COMPLEX PROBLEM

Complex problems, like loneliness, are surrounding us nowadays. Think of climate change, obesity, the aging population. These are problems of tremendous size, in which technical, economical and social aspects are intertwined. *How does systemic design enable designers to tackle complex issues?* This chapter focuses on answering this sub-question based on literature research.

### WICKED PROBLEMS

Rittel and Webber (1973) refer to complex problems as wicked problems, that are stubborn and not easy to deal with. Once the industrial period had settled, in which problems were definable and solutions findable, realization arose that the output of a certain action is the input of another. This more holistic view on problem solving, different from the scientific management movement, revealed the interconnectedness of problems. When looking at problems with that systemic look, it made it less obvious where and how to intervene. If interconnected problems are approached as systems, you need to understand what is out of the scope. Rittel and Webber stated the following:

***“We have been forced to expand the boundaries of the systems we deal with, trying to internalize those externalities.”***

*Rittel and Webber, 1973*

Societal problems, which are often wicked problems, differ from scientific, so-called ‘tame’, problems. Wicked problems are unique, as they each have different properties. This makes it impossible to predict the outcome of interventions. Coming up with interventions is also difficult, as the problem itself is hard to define. This makes it impossible to oversee all the requirements that the solution should consist of. Thus, to be able to resolve the problem, you have to understand and define its nature somehow. However, then still, it is a subjective

definition, because many parties are involved with a complex problem. Their reasoning will presumably differ a lot.

### LONELINESS IS A WICKED PROBLEM

The described characteristics of a wicked problem are also present in the problem of loneliness amongst adolescents, making it a wicked one. In our society, we do not have a clear definition of this problem. Loneliness is a social construct: it is a subjective feeling that an individual experiences and can appear because of many various reasons. Everybody can experience loneliness in its life, resulting in uncountable different types of problem owners. Therefore, the problem cannot be defined and one solution will not fit all. Lonely people will affect the people around them. The need for healthcare will increase and thereby the impact on society increases. All in all, the problem involves many parties. Implementing an intervention will lead to unforeseen events, as this societal problem stands on its own and has not been dealt with before.

## 3.2 THE VALUE OF SYSTEMIC DESIGN

Rittel and Webber mentioned systems thinking in their article back in 1973, pointing out the moment in which the realization of interconnected wicked problems appeared. Instead of being interested in the parts that a problem consisted of, men started to look at the whole. They started wondering about what this system was doing and what it should do.

### SYSTEMS THINKING

One of the founders of the General System Theory is Von Bertalanffy (1973). It is a science of 'wholeness', based on a holistic and synthetic worldview. The whole includes social, natural and technical aspects and consists of parts that affect the behavior of the system and its properties.

A system is a mental construct that someone creates in an attempt to organize the world. Everybody has their own interpretation of that system and boundaries to frame it. Through culture, some frames of systems become more commonly used.

Systems consists of components that are interdependent, which results in interconnectedness. The systems theory evolved over time and was spread to other disciplines, such as management and design. Ackoff (1994) was a professor in management and part of the systems

theory movement. During his life, he put effort into sharing the following characteristic of a system with the world, which he found is important to take into account when you manage a company or even a country.

**“A system is not the sum of the behavior of each part, it is the product of their interactions”**

Ackoff, 1994

In other words, improving a part of the system, does not necessarily enhance the system as a whole. You have to understand the interactions within the system to be able to intervene somewhere in that system that creates positive impact. Interesting properties of a system are the following.

- A system consists of multiple components: products, processes, people, rules, culture, etc.
- Therefore, many parties are involved parties, however nobody is in full control. The many perspectives on the problem result in ambiguity and a wide variety of problem definitions.
- There is a focus on relations over components, see figure 8. The performance of the system depends on how it is treated as a whole.
- Due to their size and interconnectedness, systems are resistant to change. Multiple interventions are needed to shift the system to a more desired state.

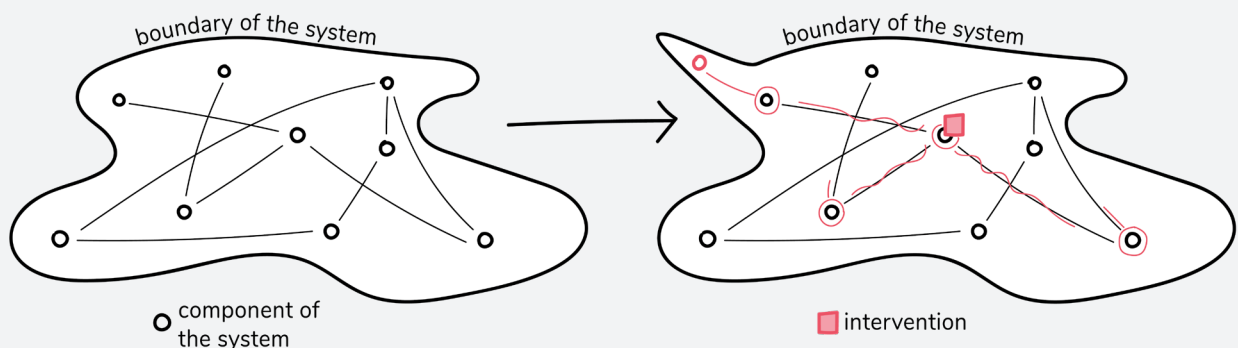


Figure 8. An interconnected system in which an intervention creates a certain impact

## 3.3 THE ANSWER TO THE SUB-QUESTION

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### SYSTEMIC DESIGN

In systemic design, two fields are combined, namely, systems thinking and design thinking. In design thinking, the work approach of designers is applied outside of the product domain and user-centered. Complex issues with open endings are tackled with the involvement of multiple stakeholders (Winthagen, 2017). Combining the two fields results in systemic design, which allows different stakeholders of a problem to collaborate through creative practices of designers, in order to create a shared and holistic understanding of the context. It helps to align actions to prevent developed interventions from counteracting and to operate in harmony or reinforce each other instead (Ryan, 2014). Collaboration is key.

*How does systemic design enable designers to tackle complex issues?*

A characteristic of complex or wicked problems is that they cannot be defined. They are interconnected and have many stakeholders, who each have different interests, values and perspectives on the problem. The upcoming design field of systemic design, in which systems thinking and design thinking are combined, allows different actors to collaborate to find a mutual and holistic understanding of a situation. This enables the actors to create and follow a shared vision, for which they can develop interventions.

To approach loneliness amongst adolescents in Delft with systemic design, stakeholders of the problem have to be contacted to start a collaboration. If they start sharing their knowledge and perspectives with each other, a shared understanding can be created, which is necessary to act with impact.

# CHAPTER 04

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## THE PROBLEM OF LONELINESS AND TEAM YOUTH



## 4.1 THE ROOT CAUSES OF LONELINESS AND TEAM YOUTH'S ROLE

This chapter answers the following sub-question: *What is the current state of loneliness amongst adolescents in Delft and how do Team Youth and their partners act upon it?* To find out how Team Youth is currently dealing with loneliness amongst adolescents in Delft, it is necessary to research the state of the problem. To do this, a systemic design tool is used, called a system map. It is a process tool, to create a synthetic representation of the parts of the system and the relationships between the parts (Sevaldson, 2011). Mapping this can help to frame the system. I use it to find out which parties are involved with the problem, to frame what the root causes of loneliness amongst adolescents are in Delft, and what the roles of the municipality and its executing partners are.

### THE INVOLVED PARTIES

Interviews that were conducted with civil servants at Gemeente Delft gave insight on multiple involved

parties that I needed to reach out to. However, to minimize the chance of missing out on important stakeholders, each interviewee made a stakeholder map. This visualization tool helps to identify the stakeholders in a certain project and how they relate to the project and each other (Giordano et al., 2018).

### WHO IS RESPONSIBLE TO ACT UPON THE PROBLEM

First, the interviewees were asked to write down the actors that are involved with loneliness amongst adolescents on tiny stickers. Next, they placed the actors on the stakeholder map, based on their level of responsibility to act upon the problem. The reasoning behind this was discussed. In appendix B, all separate maps can be found. Figure 9 shows the average outcome of all the stakeholder maps. This map revealed which parties were necessary to involve in the system map and project.

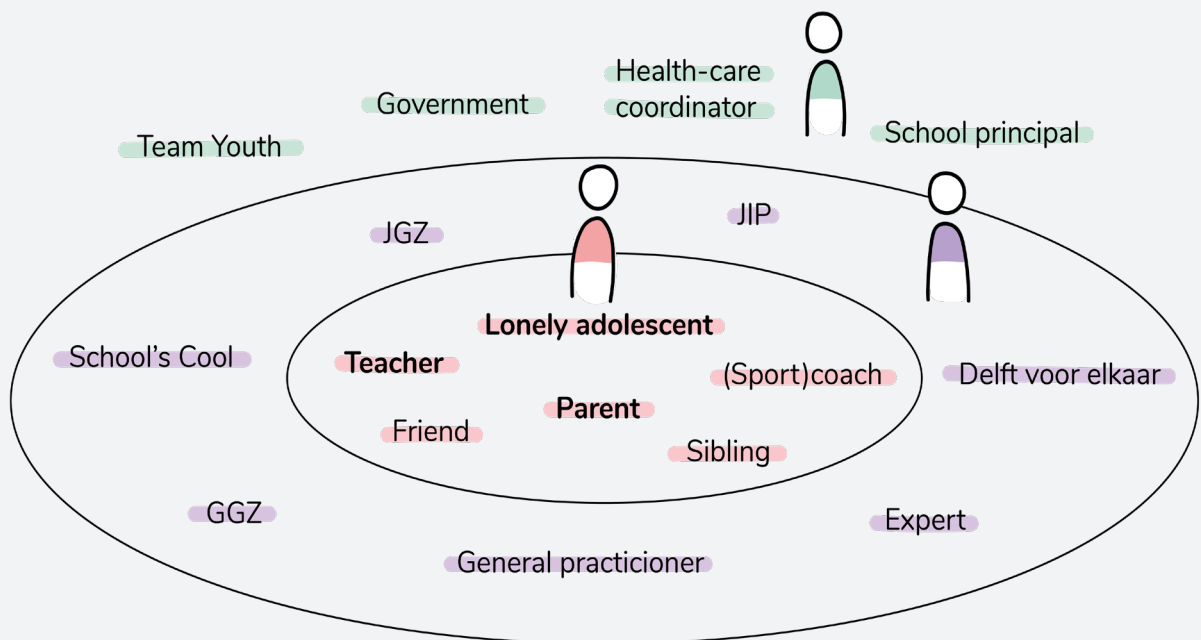


Figure 9. The average outcome of 13 stakeholder maps made by interviewees

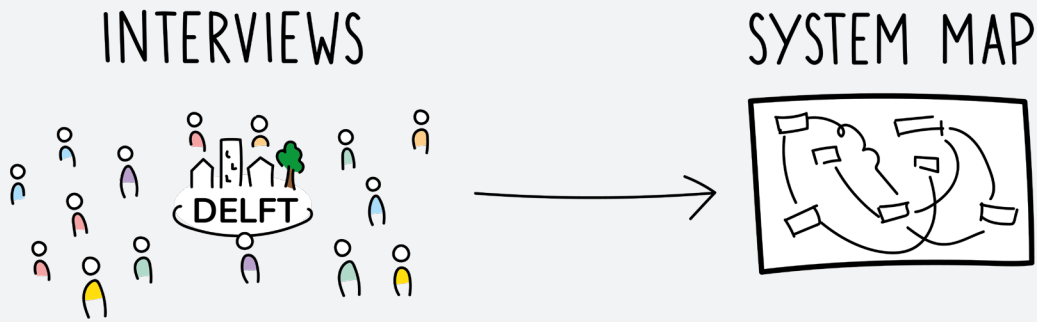


Figure 10. Relevant insights from interviews were used to create a system map, which resulted in a causal map

### THE ROOT CAUSES OF THE PROBLEM

Interviewing the parties that were revealed through stakeholder mapping resulted in many different insights. As explained by Rittel and Webber (1973), it is impossible to give an exact representation of the reality of a complex problem. Thus, the insights that were used to map out the problem and its system are a representation of my view on the problem and the view of the people I retrieved information from.

### WHY THE PROBLEM IS AS IT IS

To be able to oversee the system, the insights were clustered. Six frames were exposed, which show why the problem in Delft currently is as it is. The arrows indicate a causal effect. As visualized in figure 11, there is a collective unawareness of loneliness amongst adolescents. Next to that, there is a taboo on the topic. Misconceptions allow the citizens of Delft to make wrong assumptions. Certain triggers of loneliness are unknown and therefore stay unaddressed. Furthermore, there are certain basic structures and trends in our society that maintain loneliness and thus support its stay. Lastly, there is no fitting help for lonely adolescents.

When looking at the clusters through a systemic lens, the interconnectedness of the elements becomes visible. This relatedness shows that an intervention meant for one of the clusters, will affect other parts of the system as well. In other words, this overview enables you to estimate the impact. Later in this project, I will look back at these clusters to estimate the effect of the proposed intervention that will result from the performed design-led approach. The whole process that led to the six clusters can be found in appendix D.

### TEAM YOUTH'S ROLE IN THE PROBLEM

When looking at Team Youth's presence in the system, it becomes visible that they are a 'supporter' of loneliness. They do not act upon loneliness and as a result, no impactful interventions are implemented. Two reasons can be found.

### ABSENCE OF DIFFERENT PERSPECTIVES RESULTS IN INADEQUATE ACTIONS

There are multiple ways to look at a complex problem. When considering loneliness, some parties perceive it as a symptom of another problem. Others, like Lodder (2016), say that loneliness can also be the initiator of other diseases. Obviously, a different view on the topic results in different actions. Currently, the civil servants of Team Youth consider loneliness as a symptom and therefore focus on other topics. As they put it aside, their level of knowledge on the topic will not increase until an external factor introduces it to them again. In other words, the absence of different perspectives on the problem results in a lack of knowledge. To figure out if loneliness amongst adolescents is a problem they should act upon, people that have a different perspective should be involved.

### ABSENCE OF AN EFFECTIVE NETWORK TO DEVELOP AND IMPLEMENT INTERVENTIONS

In Delft, the municipality sets up partnerships with parties, to make sure someone will follow up on a policy. These parties develop interventions once agreements are made with the civil servants concerning their actions. Team Youth can decide to prioritize a topic and set up a project for it. In the case of loneliness amongst adolescents, the team

# CAUSAL MAP

A affects B

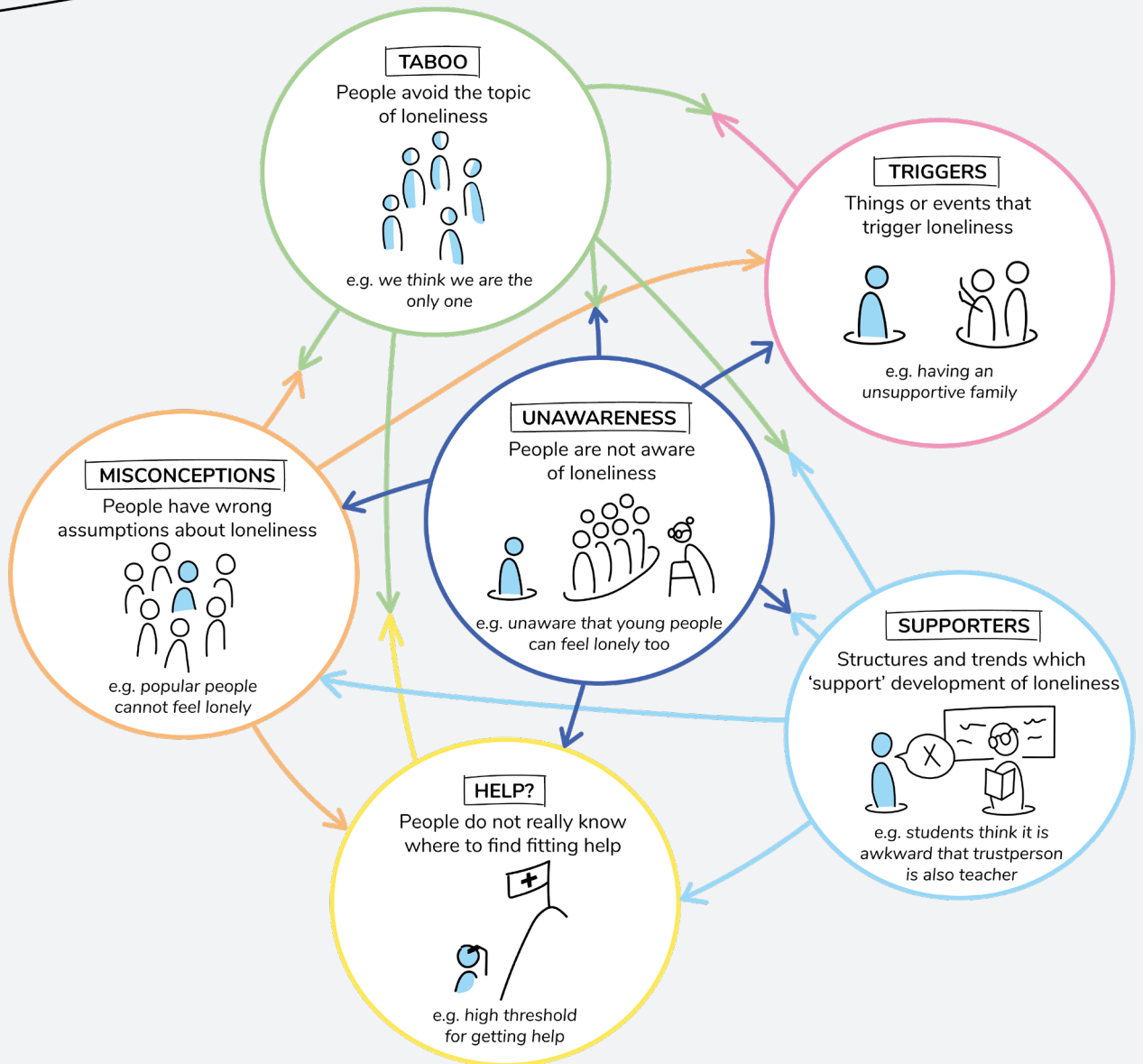


Figure 11. The causal system map of loneliness amongst adolescents in Delft with 6 framed root causes

decided not to focus on it. As a consequence, their partners did not develop interventions. In a few cases, partners also noticed the problem amongst the youth. However, they most of the time struggle how to deal with its complexity. To become able to

deal with the problem and foster effective action, an informed and ready-to-go network should be created. CONCLUSION OF 4.1

## 4.2 THE POLICY IMPLEMENTATION PROCESS

The analysis of Team Youth and its partners reveals that, what keeps Gemeente Delft from providing fitting services to its citizens, is how the policy implementation process is set up. In this process, the civil servants and their partners translate the abstract policy into concrete actions. When lacking knowledge and ideas, no fitting interventions will be created. It is necessary to research this process to find out what else hinders the municipality from acting upon the problem.

### THE YOUTH PREVENTION POLICY

In Delft, the Youth prevention policy (Jeugdpreventiebeleid, 2015) states that services need to be available to prevent youngsters from getting sick or in trouble. Figure 12 explains the current procedure from policy making to policy implementation. The policy document is written by a civil servant in consultation with its executing partners (A). Such a document is abstract and broad: it explains certain definitions, the role of

the municipality and what goals they want to achieve (B). How this policy is acted upon is more specifically described in the implementation plan, which is attached to the policy (C). In this plan, the municipality captures agreements with partners on certain actions. Next, the partner is responsible for the execution of the action, which often concerns developing and implementing an intervention (D). The intervention is monitored and evaluated after a certain period of time (E).

### FOUR AREAS OF IMPROVEMENT

Despite the existence of the Youth prevention policy, little is done to act upon loneliness amongst adolescents. As the research in the previous paragraph revealed that the process of implementing the policy is one of the causes, it is valuable to research this process in-depth. Interviews with civil servants and their partners and the attendance to several meetings led to four areas of improvement, visualized in figure 13.

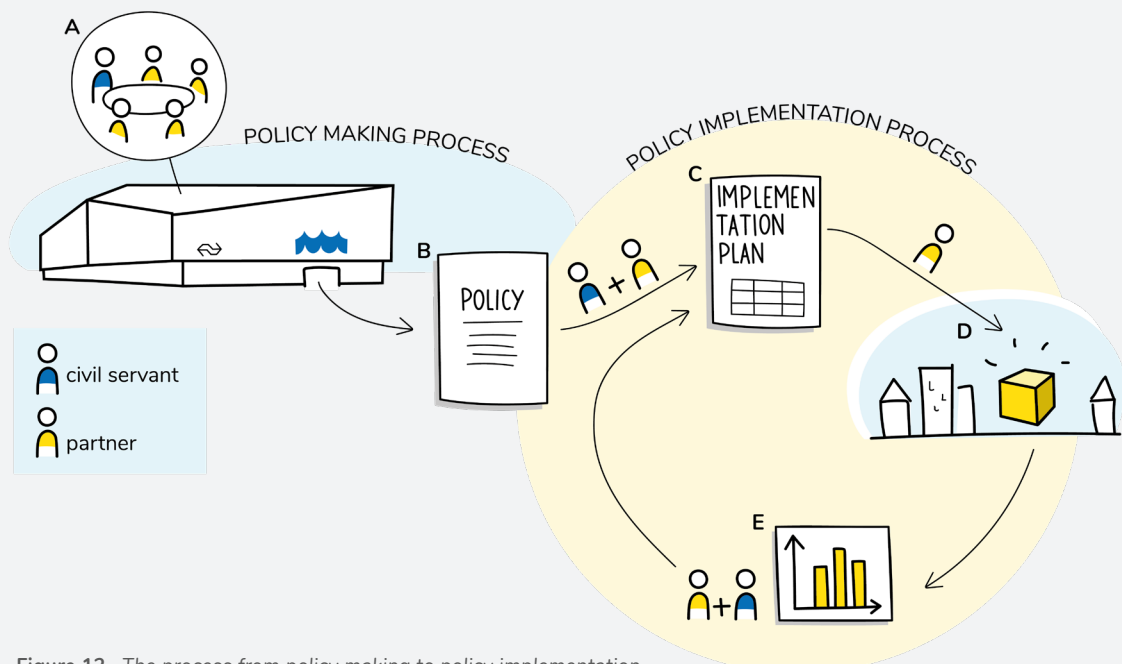


Figure 12. The process from policy making to policy implementation

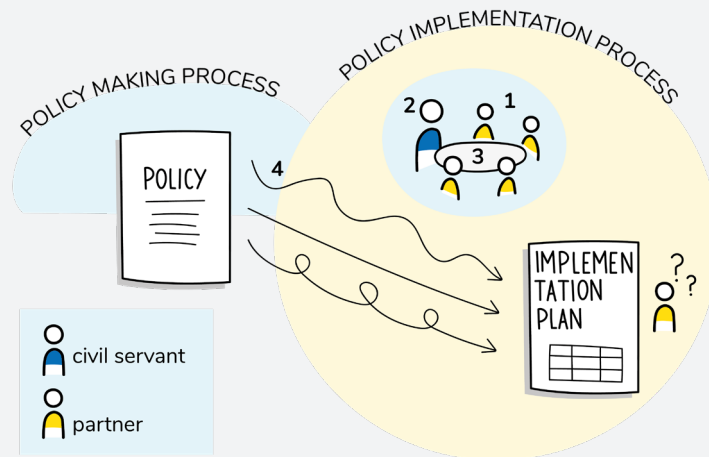


Figure 13. Four areas of improvement in the policy implementation process

### 1 - THE UNVARIED INVOLVED PARTIES

The people that usually are invited by Team Youth to give input on projects are the executing partners. Involving end-user or parties that are close to this target group is not common. There is an Adviesraad Sociaal Domein (Advisory Council Social Domain), which is supposed to be a reflection of society. Unfortunately, it mostly consists of retired health care professionals, who do not resemble the citizens of Delft. Especially not when considering youth. When reconsidering complex problems and the aspect that there are many different parties involved, it questions the diversity of input and knowledge that the municipality currently collects.

### 2 - THE CONSULTATIVE ROLE OF THE MUNICIPALITY

Often, the role of the civil servants is consultative. In the case of defining a problem, this means that civil servants define it and ask for input from other parties. This differs from a collaborative approach, in which the problem definition is created together. Meetings are influenced by this conventional governance style, as the civil servant takes the role as chair. The involved parties indicate that it is sometimes hard to build a consensus. According to Winthagen, one of the reasons refers back to the consultative role. When for example a problem definition is already framed by a civil servant but is

uncomprehensive, it is difficult for the partners to influence it. Contrary to when the definition is built from scratch together.

### 3 - THE CONVENTIONAL APPROACH OF THE CIVIL SERVANT

Once civil servants start their career at Gemeente Delft, they do not get trained on how to set up a project. Especially when dealing with wicked problems, that are naturally difficult to work with, this can result in difficulties. The set up of the meeting will affect the amount of knowledge that is shared or created and it influences the ambiance. One plausible reason that the municipality does not promote or educates in coping with complex situations is that the working style is still aimed at optimization and efficiency (Van der Bijl, 2018). This style refers back to the scientific management movement that Rittel and Webber described in 1973. This mindset results in conventional meetings and little experimentation amongst the civil servants.

Besides dealing with complexity, the approach should also turn the abstract policy into concrete actions. If the approach is not properly built up, there is a chance that the level of abstractness stays high throughout the project. Executing partners explain that this results in ambiguous agreements, which

## 4.3 THE ANSWER TO THE SUB-QUESTION

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subsequently result in interventions that are based on misunderstandings or wrong assumptions. This lowers the impact of the policy on the end-users.

### 4 - THE UNDEFINED POLICY IMPLEMENTATION PROCESS

At Gemeente Delft, every civil servant decides on how to set up the process that results in actions for the implementation plan. As Winthagen (2017) explains, this results in a certain power of the civil servant. They decide on the approach, which parties they involve and whether to check their own assumptions. These choices can result in very different projects, influencing the outcomes.

At meetings that civil servants set up, often multiple stakeholders are present. Reaching the intentional goal of the meeting and managing the expectations of the involved parties is sometimes perceived as difficult by them. As every party has its own interpretation of what is discussed, it is challenging to keep the overview and control. Team Youth explains that evaluations of the projects are regularly performed, as interventions are monitored and discussed. However, evaluations of the meetings itself are usually between the civil servants and not together with the group. Reflections on the project and meetings, on the other hand, to learn from the experience instead of assessing it, are often not made.

*What is the current state of loneliness amongst adolescents in Delft and how do Team Youth and their partners act upon it?*

At the moment there are multiple reasons that keep Delft from tackling loneliness amongst adolescents. These elements of the problem are interconnected, which makes it hard to define the actual problem and to estimate the impact of a future intervention.

When looking at why Team Youth is behaving passively in solving this problem, it turns out that the implementation process of the Youth prevention policy is not performed optimally. Four areas of improvement are found. First, the parties that are involved in this process are not diverse enough to create an understanding of the complexity with. Besides that, the municipality takes a consultative, which does not create the opportunity for the actors to create this understanding together. Next, the conventional approach that the civil servant applies during the meetings results in little participation and involvement of the actors. Lastly, the structure and approach of this process is undefined, which results in a certain power of the civil servant that influences the outcome of the process.

# CHAPTER 05

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DESIGN PRINCIPLES FOR A DESIGN-LED  
WORK APPROACH

## 5.1 UNVARIED INVOLVED PARTIES

Four areas of improvement were found in the policy implementation process of Team Youth. This chapter will look into design literature to find design principles that might enhance these aspects. *Which design principles are beneficial for the work approach of Team Youth to better deal with a complex problem?*

When comparing the approach of the current process of Team Youth with a systemic design approach, one of the most remarkable differences is the diversity of the involved parties. Whereas complex problems are known for the many different stakeholders with various perspectives, Team Youth often only involves organizational partners. What does literature say about this?

### WHAT OTHERS SAY ABOUT THIS

Winthagen (2017) is a designer who has been employed in multiple governmental organizations. She explains that as wicked problems have many stakeholders, they cannot be addressed in isolation. Collaborative approaches, in which everyone is equal, are necessary to create the solutions that meet the needs of society. She discusses citizen participation, stating that when you want to solve a problem for them, it might better work to do it with them. The following quote from the book *Design Matters for Management* (Boland & Collopy, 2004) highlights this issue. It is directed at managers and designers, however, also fits civil servants.

*“Managers, as designers, are thrown into situations that are not of their own making yet for which they are responsible to produce a desired outcome. They operate in a problem space with no firm basis for judging one solution as superior to another, and still they must proceed.”*

Boland & Collopy, 2004

To gather the knowledge, insights and inspiration to create that base for judging, a wide circle of actors should be involved in the process. This is stated by Bason (2015), director of MindLab in Denmark and interested in how the public sector should change to better meet the needs of society. In the case of civil servants that need to tackle a certain wicked problem, the involved parties should range from the final user to an expert of a theme that is barely connected to the initial topic. This will create an interesting setting with many different views on one problem. A setting that reflects the real world. However, how should a civil servant deal with such a participatory process?

### HOW IT IS DONE IN DESIGN

In the early twentieth century, the traditional design theory and practice was constructed as follows: the designer was an expert who aimed to develop industrial products for mass-production. Nowadays, there is a shift visible towards a more human-centered approach, which focuses on how designers think and approach problems. According to Manzini (2016), as a consequence, every design process is a co-design process, as a variety of disciplines and stakeholders are interacting. Can the public sector learn from co-design?



Figure 14. A co-design process with a variety of actors



Co-design refers to an entire process. A type of activity that can be performed in that process and involves all the actors is co-creation. According to Sanders and Stappers (2018), co-creation refers to any act of collective creativity. In such a session, the focus is on the integration of experts and everyday people, working closely together to define the problem and/or come up with solutions. Participatory exercises are set up to figure out the needs of the different parties. They spark dialogue and promote listening to be able to converge towards a common view.

#### APPLYING CO-DESIGN TO THE PROCESS

It might be valuable to transform the policy implementation process of Team Youth into a co-design process. When facilitating co-creation sessions, all involved parties can share their perspective and a common understanding of the problem can be created.

## 5.2 CONSULTATIVE ROLE OF THE MUNICIPALITY

**Co-design is based on collaboration. The person that organizes this collaborative process and brings all the different parties together is the facilitator. This role differs from the current consultative role that civil servants usually take. The role that an involved partner gets is often described as executor.**

### WHAT OTHERS SAY ABOUT THIS

Junginger is a professor who researches the link between policy making and implementation and human-centered design. She discusses the so-called expert culture that is present amongst civil servants (RSD6, 2017). As a result of this mindset that was brought by the scientific management movement, mentioned by Rittel and Webber in 1973, it is an expert who is working on a problem in isolation. 'Outsiders' are not allowed to get near the expert: either they will make a mess or they will find out how messy it actually is.

Junginger states that civil servants that are used to work with such a mindset are 'designing for' citizens instead of 'co-creating with' citizens. Obviously, civil servants want to do the right thing for the citizens. This means, however, that they need input from outside, and should not pretend to know it all.

### HOW IT IS DONE IN DESIGN

Designers respect every person as the expert of their experiences (Sanders & Stappers, 2008). This is the mindset that civil servants should grow into to be able to co-create with citizens instead of design for them. It changes their consultative role into a facilitating one.

As every participant represents a piece of the problem, it is the task of the facilitator to create a space for these parties in which they can discover these different perspectives together (Winthagen,

2017). A social conversation takes place, in which there is no right or wrong, that requires the facilitator to listen properly and to empathize with the participants.

However, in a co-design process, everybody is allowed to bring ideas and take action, the facilitator as well. It is important to explicitly mention this, because some participatory processes tend to narrow down the role of the facilitating designer into an administrative one (Manzini, 2016). In that case, the designer might not contribute to the content of the project anymore. Thus, in co-design, facilitators can also bring in their specific skills and knowledge. They should approach this process based on two principles: to embrace the complexity of a situation and to be aware of their own subjective being.

### APPLYING A COLLABORATIVE ROLE TO THE PROCESS

The current conventional attitude of civil servants conflicts with the collaborative role that is needed in a co-design process. To involve parties early in the process and create a non-hierarchical environment, a different mindset and skills are needed. The civil servant should take the role as facilitator, but can still bring in own skills and knowledge. The role of the current partners of the municipality also changes. Instead of just being executors, they become one of the actors.



Figure 15. A co-design process asks for a collaborative role

## 5.3 CONVENTIONAL APPROACH OF THE CIVIL SERVANT

The conventional approach of civil servants keeps them from properly dealing with complex problems. They run into difficulties when they want to turn the abstract policy into concrete actions. The level of abstractness often stays too high to act upon the right element of a problem. What can the design field contribute?

### WHAT OTHERS SAY ABOUT THIS

In a lecture that is called ‘Systemic design approaches in the public sector: are we ready?’, Junginger (2017) states the following:

**“People don’t experience a policy, they experience a service”.**

Junginger, 2017

In other words, the type of service (intervention) that will result from policy implementation, should be envisioned from the start. Often when policies are written and implemented, people and services are not involved throughout the process. If you are not aware for which concrete underlying problem a service is needed to support the people, how can you write a policy or agree on an action that finally will result in what is desired?

### HOW IT IS DONE IN DESIGN

When co-creating, the ‘soft’ results are often most important (Winthagen, 2017). A session with different parties makes people look different at the problem. It creates a common view and gives the attendees perspective on how to solve a problem (Van Waart, Mulder & De Bont, 2016). This process, that results in an understanding of the problem, moves from abstract to more concrete. The facilitator guides the group through this process with participatory techniques.

It is found valuable to, before a meeting, put effort in organizing it properly. Lipmanowicz and

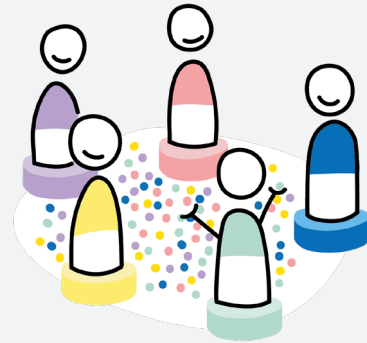


Figure 16. Participatory techniques can improve the participation, ambiance and emergence of ideas

McCandless (n.d.), who created a website based on their book ‘The surprising power of liberating structures’, focus on engaging people in a work process. What is interesting is that everybody, thus also a civil servant, has their own way of organizing an interaction with others. However, this organized approach, which often has become a routine, affects how a group will work together. It influences the level of participation, the relationships that are being built and finally the end result.

The two authors believe that our conventional way of working is not beneficial for creatively engaging people. Whereas structures like presentations, status reports and managed discussions often feel too inhibiting for participants, open discussions and brainstorms might be experienced as too loose and disorganized. The 35 liberating structures they composed are meant to replace or complement conventional practices. They change how people work together, focusing on lively participation, building trust and increasing productivity.

### APPLYING PARTICIPATORY TECHNIQUES TO THE PROCESS

Team Youth mentions its sometimes uneffective meeting styles. Creating a vision, for example, can take many meetings. Approaching a collaborative meeting with participatory techniques will not only improve the participation, ambiance and emergence of ideas. It will also save time and money. The liberating structures can be used as inspiration.

## 5.4 UNDEFINED POLICY IMPLEMENTATION PROCESS

At Gemeente Delft, each civil servant can decide how to structure the policy implementation process of a project. What do others say about this and can design help to create one overall structure to improve the process?

### WHAT OTHERS SAY ABOUT THIS

Ackoff (2004) was a professor in management science and a pioneer in the field of systems thinking. In his opinion, policy makers should learn about systems thinking, as this theory is key to understand the world. Namely, to be able to improve the complex problems in our world, we should understand that improvement of one separate part of that system, does not necessarily improve the performance of the whole. Improving parts separately might even cause the whole to perform worse. This mindset transforms how civil servants should set up a project. First, time needs to be spent on creating an understanding of the whole, to be able to find out where in that system the problem is located.

Next, the solution space should be explored. According to Winthagen (2017), this is something that municipalities usually do through pilots. However, these pilots often already cost a lot of money to set up and perform. If the pilot is not going well, that money is gone.

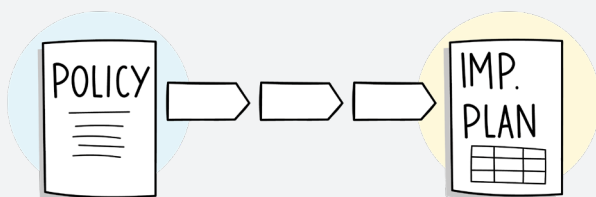


Figure 17. One process to move from a policy towards the implementation plan based on systemic design gives structure

### HOW IT IS DONE IN DESIGN

Two design agencies, Namahn and ShiftN, created the Systemic Design Toolkit (2019). They are one of the few designers that put effort into creating a methodology that covers a full systemic design process. Seven steps are mentioned, which are based on systems thinking and design thinking, see appendix F for the overview of this process. In every step, a group of people comes together to co-create. The activities in steps 1 to 3 are all focused on creating an understanding of the whole. In step 4 the desired future is defined. Possible solutions are explored in step 5. Fast and easy prototyping can help in this phase to quickly gain new knowledge about an idea. Step 6 describes how the interventions are implemented. Finally, step 7 makes you consider how the created interventions foster the transition.

### APPLYING THE STEPS OF SYSTEMIC DESIGN TO THE PROCESS

The steps in the process suggested by the Systemic Design Toolkit (2019) are based on systems theory and design thinking and follow-up on each other. Therefore, this process might be valuable for the civil servants when dealing with complexity. Next to that, the systemic design process involves the participation of many different parties through co-creation sessions and demands a facilitator that organizes and guides these sessions. This fits well with the other design principles and could be used to create one process that the civil servant can follow.

# CONCLUSION OF SECTION I

The first sub-question concerned systemic design and how this field enables designers to tackle complex problems. A characteristic of complex or wicked problems is that they cannot be defined. They are interconnected and have many stakeholders, who each have different interests, values, and perspectives on the problem. **The upcoming design field 'systemic design', in which systems thinking and design thinking are combined, allows different actors to collaborate to find a mutual understanding of a situation.** This enables the actors to create and follow a shared vision, for which interventions can be developed.

To figure out what the current situation of the problem of loneliness amongst adolescents in Delft is, interviews were conducted. A causal system map was made, in which **six interconnected root causes of the problem** appeared through processing the relevant insights from the field research: unawareness, taboo, misconceptions, triggers, supporters and the lack of fitting help are reasons why the problem is as it is. When searching for the reason that Team Youth is not acting upon the problem, it is found that a variety of input is lacking as well as an informed network of actors that take action. These findings revealed that **the process of policy implementation, in which Team Youth should create appropriate services for youth that need extra support, is not performed optimally.**

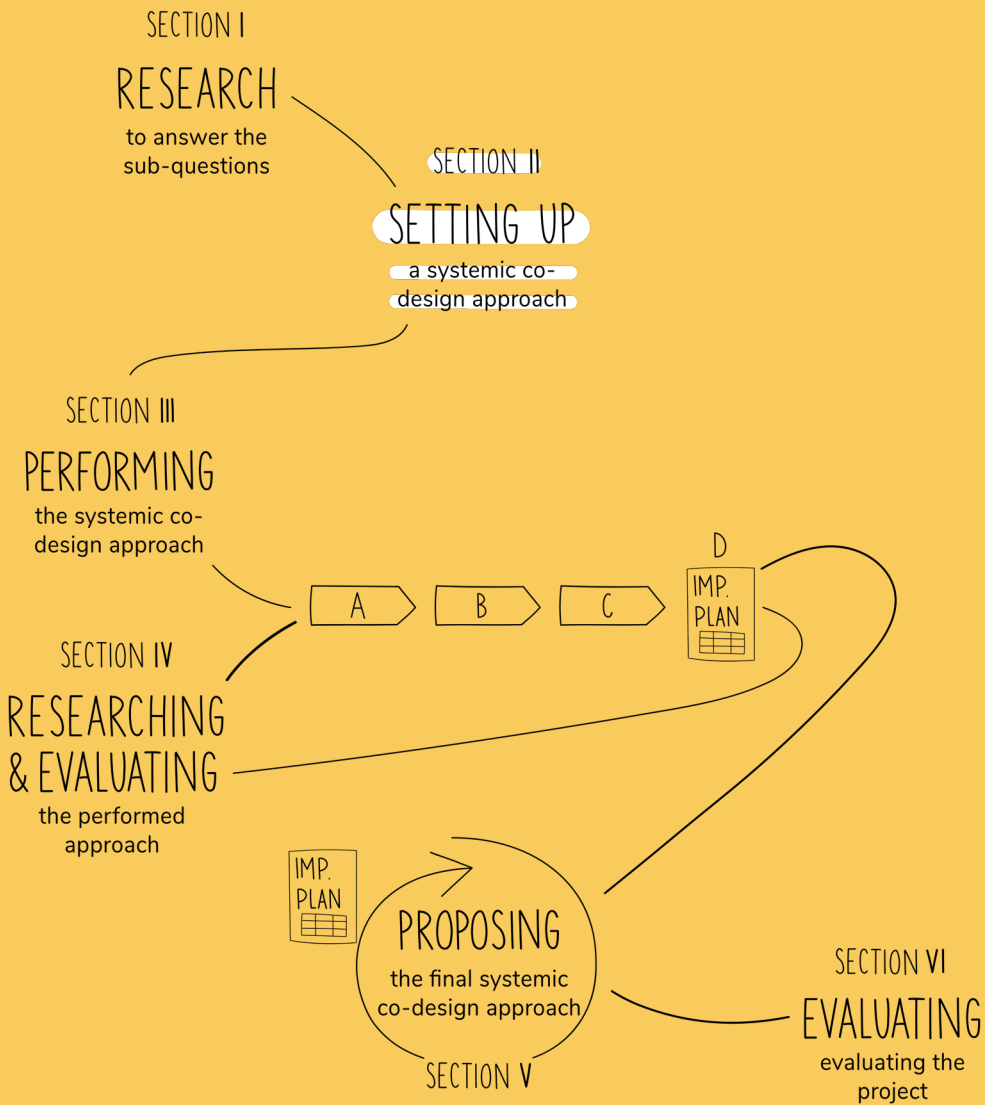
When researching this policy implementation process, **four areas of improvement were found.** The parties that are involved in this process are not diverse enough to create an understanding of the complexity. Besides that, the municipality takes a consultative, which does not create the opportunity for the actors to create this understanding together. Next, the conventional approach that the civil servant applies during the meetings results in

little participation and involvement of the actors. Lastly, the structure and approach of this process are undefined, which results in a certain power of the civil servant that influences the outcome of the project.

The third sub-question looked into design principles, to find out if the four areas of improvement could be improved or enriched with design. **Co-design was discussed, which demands a collaborative role and the use of participatory techniques. To create one structured process that focuses on dealing with complexity and creating mutual understanding,** the Systemic Design Toolkit process (2019) is discussed.

## WHAT'S NEXT?

Until now, the research question has been answered on paper. To find out what the effect of the design principles are on the policy implementation process, it should be put into practice. For this, a new policy implementation process will be set up with the design principles implemented. In section II, the design principles from the research will be translated into requirements and the systemic co-design process will be set up.



# SECTION II

## SETTING UP A SYSTEMIC CO-DESIGN APPROACH

As the policy implementation process is not acted out optimally, Team Youth and their partners do not act upon loneliness amongst adolescents. In this section, a new policy implementation process is set up, however, this time the discussed design principles are implemented to improve it. If performing this new process enables Team Youth to come up with fitting actions for the implementation plan, and actors can enact these effectively (the design goal), then the process enables them to deal with the complexity. In this section, the requirements for the approach are mentioned and the process is built.

**Chapter 06** Explaining the further project approach

**Chapter 07** Composing the systemic co-design process

# CHAPTER 06

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## EXPLAINING THE FURTHER PROJECT APPROACH



## 6.1 THE RESEARCH THROUGH DESIGN PROCESS

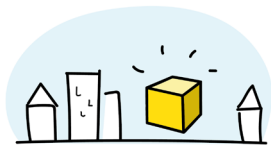
On the next page, the course of this project is visualized, showing what has been done and what is coming up. The research (A) so far has refined where a design-led approach would be of most value for the civil servants: the policy implementation process. Design principles were searched for, which could improve four aspects of the process (B). Co-design was discussed, which demands a collaborative role and the use of participatory techniques. To create one structured process that focuses on dealing with complexity and creating mutual understanding, the Systemic Design Toolkit (2019) process is discussed.

Now it is time to build an improved version of the policy implementation process, however, this time it is enriched with the design principles. In this chapter, the principles are translated into requirements to create the systemic co-design approach with.

The newly created process will be performed (C) to find out if this time enables Team Youth to come up with fitting actions to act upon loneliness amongst adolescents, and if the actors can subsequently enact this action effectively. This is the design goal of the policy implementation process (D). The performed approach will be researched and evaluated (E) and with the adjustments a final proposal is designed (F).

# OVERALL AIM

(out of the scope)



Impactful interventions are implemented to tackle loneliness amongst adolescents in Delft



# RESEARCH QUESTION

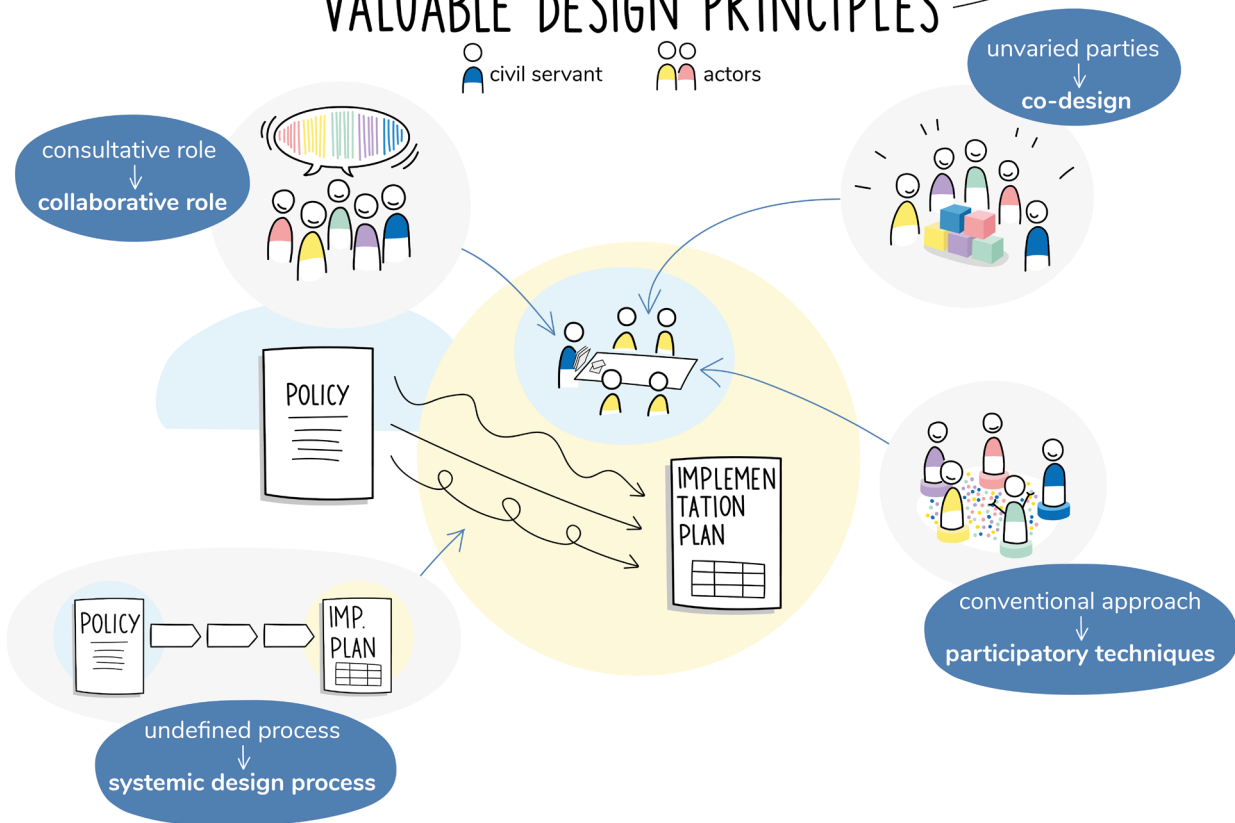
“Will a design-led approach enable Team Youth from Gemeente Delft to act upon the complex problem of loneliness amongst adolescents in Delft together with other relevant actors?”

## A RESEARCH

Team Youth does not act upon the problem, due to the organization of the policy implementation process

## B VALUABLE DESIGN PRINCIPLES

 civil servant     actors



# RESEARCH THROUGH DESIGN <sup>C</sup>

Based on the design principles, the policy implementation process will be transformed into a systemic co-design process, which will be performed to find out if it is possible to reach the design goal. Research and evaluation of the process will answer the research question.

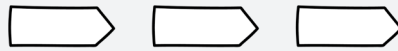
## SETTING UP

the systemic co-design approach

## D DESIGN GOAL

“Enable Team Youth to come up with fitting actions for the policy implementation plan, which can be enacted effectively”

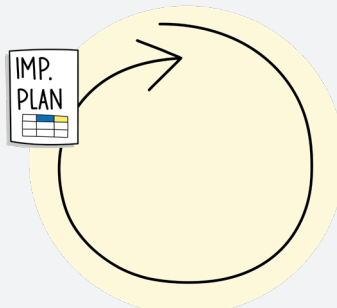
## PERFORMING



## E RESEARCHING & EVALUATING

The improvements that will result from researching the process, will be implemented in the final design proposal

## F PROPOSING



## 6.2 REFINING THE DESIGN-LED APPROACH

In the next chapter, the design-led approach of the policy implementation process will be created. However, first, the design principles that will be used are translated into requirements and my role in the approach is discussed.

### LIST OF REQUIREMENTS TO CREATE THE DESIGN-LED APPROACH WITH

1. Base the process on the Systemic Design Toolkit (2019) process
2. Involve parties from the start
3. Organize and guide as a facilitator, but also bring in skills if needed
4. Make the network ready for implementation by keeping them informed and involved
5. Create a diverse network: end-users, partners, far-away connected parties
6. Focus the participatory exercises on sharing knowledge to create mutual understanding
7. Focus the participatory exercises on creating new insights together to come to a collective vision
8. Make lively participation and collaboration possible
9. Focus the participatory exercises on generating ideas to get an indication of the possibilities

### MY ROLE IN THE APPROACH

At the moment, the civil servant that sets up the policy implementation process takes a consultative role. Co-design will ask for a collaborative role of the civil servant. The civil servant will be the facilitator, that will create a co-creation team and enables them to collaborate. In the newly created systemic co-design process, I will take the role of facilitator to find out that, if I was a civil servant, I could still bring in my own expertise into the project. Besides that, I will research if it is necessary to bring in designer skills during the process. The result will be discussed in chapter 12.2.

# CHAPTER 07

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COMPOSING THE SYSTEMIC  
CO-DESIGN PROCESS

## 7.1 THE OVERALL SYSTEMIC CO-DESIGN PROCESS

The requirements that resulted from the design principles are used to set up a systemic co-design process. The goal of this process is to reach the design goal: 'Enable Team Youth to come up with fitting actions for the policy implementation plan, which can be enacted effectively'. The content of each phase was not fully decided on beforehand. Research insights from the first phase resulted in input for the creation of the next. This way I was able to implement new findings in the phases that were yet to come.

### THE OVERALL PROCESS

The four phases of the process are based on the steps of the Systemic Design Toolkit (2019) (requirement 1), as visualized in figure 18. Parties are involved from the start (requirement 2), when, in

Phase A, a network of stakeholders of the problem is created and a co-creation team is composed of varied representatives of that network. In Phase B and C, co-creation sessions are organized to together explore the problem and solution space. I will facilitate the process and find out if it is possible and necessary to bring in my skills, whether I would be a civil servant or a designer (requirement 3). One civil servant of Team Youth joins as a participant in the sessions of Phase B and C to represent the municipality. Furthermore, this way the civil servant experiences what it is like to collaborate and equally participate. Throughout the process, effort is put in keeping the co-creation team involved and informed about the progress, by providing overview and recaps of the previous steps (requirement 4).

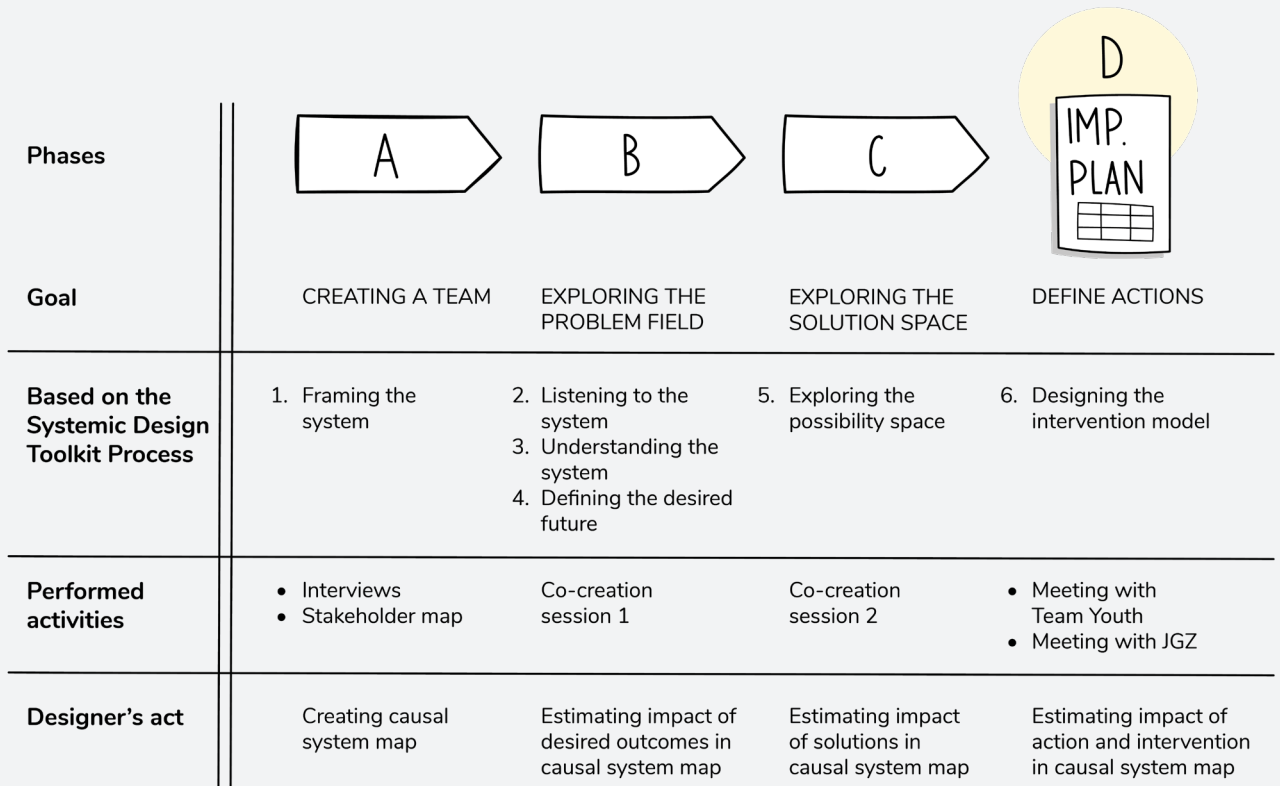


Figure 18. The set up design-led approach consists of four phases

## 7.2 EXPLAINING PHASE A

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In this phase, a diverse network has to be created that resembles the actors that are involved with the wicked problem of loneliness amongst adolescents (requirement 5). During the interviews that were conducted to find information for the system map (chapter 4), every interviewee created a stakeholder map. These maps give insight into who needs to be part of the network. During the sessions in Phase B and C, a part of the network will be present. This co-creation team should resemble the variety of the different parties involved with the problem. Most important is that the target group, an adolescent, and a civil servant of Team Youth participate, to research the effect. The group that participates in Phase B is preferably the same as in Phase C.

The interviews were simultaneously used as sensitizers. This means that the interviewee is introduced to the topic and already spend some time thinking about it. This saves time during the follow-up activities.

## 7.3 EXPLAINING PHASE B

Ten parties of the newly build network come together for the first time to participate in a 2.5 hours co-creation session. Participatory exercises are set up to make lively participation and collaboration between the attendees possible.

The materials that were created for this session are collected in appendix G.

### FOCUS ON TEAMBUILDING

One aspect of the exercises is the focus on team building. First, by taking time for the attendees to introduce themselves, next by sharing personal experiences with each other. Effort is put in creating a welcoming, safe space, by providing snacks and drinks, and by properly explaining what is going to happen. Multiple times, the team will be divided into smaller groups. The group composition switches regularly, so everybody gets to know each other. During the break, there is time for more conversation and networking between the participants.

### GOAL OF THE SESSION

The exercises in this session are building upon each other, as the table in figure 19 shows. First, the

focus is on sharing knowledge and perspectives to create a mutual understanding of the current situation (requirement 6). The use of open questions will give the participants the opportunity to unravel the problem together. This exploration will lead to the goal of this session, which is to find out what the team's desired outcome of the future intervention is. This desired outcome needs to be extracted from five visions that they will create in five duos in the last exercise (requirement 7). To reach that point, The exercises are time-bound to be sure to reach the goal and to promote active participation.

### PARTICIPATORY EXERCISES

The exercises are specially created for this session to fit the topic and to get the results that I am aiming for within time (requirement 8). The activities are inspired by Liberating Structures (n.d.), exercises in the book 'Creative Facilitation' from Tassoul (2009) and input from a co-creation expert. Before the session, two versions of the exercises were evaluated by four Industrial Design Engineering students. I deliberately chose to not discuss systems theory during the session or to let it explicitly appear in the exercises. During some of the

Activity number see appendix for templates	1	2,3	4,5	6,7	8
Goal of activity	Teambuilding	Getting acquainted with the topic	Create mutual understanding of the current situation	Creating visions that include desired outcomes	Reflecting on the approach
Based on the Systemic Design Toolkit Process	1. Framing the system	2. Listening to the system	2. Listening to the system 3. Understanding the system	4. Defining the desired future	

Figure 19. The activities that are performed in session 1 are based on step 1 - 4 of the Systemic Design Toolkit (2019) process



conducted interviews, this theory was mentioned and turned out to be difficult to grasp for people, due to its abstractness. Therefore, the build-up of the exercises mimics the systemic design process, however, the content does not explicitly tell this.

#### DURING THE SESSION

The exercises are executed on paper, therefore most insights are stored and can be looked into when analyzing afterward. During the session, a facilitator buddy is present to help with the organization, time management and guidance of the participants. At the end of the session, a reflection form will be shared with the participants to get feedback on the session.

#### AFTER THE SESSION

The visions that are made contain desired outcomes. To extract these from the visions, I will analyze the visions for recurrent themes. Three of these outcomes will be chosen to work with in Phase C. This decision is based on the type of prevention an outcome will give. The number of three outcomes is chosen, as for a complex problem there is not just one desired outcome (Rittel & Webber, 1973). Therefore, the next session will show how the team deals with generating ideas for three desired outcomes.

## 7.4 EXPLAINING PHASE C

The second co-creation session of 2.5 hours focuses on exploring the solution space. The team members will generate ideas for three desired outcomes that are derived from the first session. The team's composition is kept the same as much as possible.

The material of this session is collected in appendix H.

### GOAL OF THE SESSION

Through a subsequent set of exercises, visualized in figure 20, the attendees move from generating ideas to creating a final concept and quickly prototyping it (requirement 9). The goal of this session is not only the creation of these concepts. The ideas that are generated, to finally create concepts with, are also valuable results of this session in itself. All the outcomes give inspiration and guidance for Team Youth to define actions with in the next phase. Step by step guidance is provided to the team, to create a comfortable ambiance, which is important to provoke the participants to unleash their creativity.

### PARTICIPATORY EXERCISES

With the intention to create understanding amongst the participants on what the idea generation of that day entails, I will explain my simplified version of design abduction to them (derived from the original design abduction from Dorst (2011)). This is the equation of 'what + how = desired outcome', described in figure 20. In the first session, the team creates desired outcomes, which are results the future intervention should create. This session focuses on finding out 'what' is needed to create this result, referring to a concept. 'How' this concept will finally be developed and implemented is what comes after the actions are defined for the implementation plan. Therefore, the 'how' is out of the scope of this project. The idea generation is based on the How to-method, developed at Industrial Design Engineering at the TU Delft (Van Boeijen, et al., 2014). Besides that, the exercises are inspired by Liberating Structures (n.d.), exercises in the book 'Creative Facilitation' from Tassoul (2009) and input from a co-creation expert.

TABLE SESSION 2						
Activity number see appendix for templates	1	2	3	4,5	6,7	8
Goal of activity	Understanding the desired outcomes	Defining How to-questions	Generating ideas to answer How to-questions	Select ideas and mix and match them together	Create a concept and prototype in Lego or role play	Reflecting on the approach
Based on the Systemic Design Toolkit Process	4. Defining the desired future	5. Exploring the possibility space				
Design abduction simplified version	Desired outcome = what			+	how	
	↓ result of the solution	↓ solutions			↓ development/implementation	

Figure 20. The activities that are performed in session 2 are based on step 4 - 5 of the Systemic Design Toolkit (2019) process

## DURING THE SESSION

The exercises are executed on paper, therefore most insights are stored and can be looked into when analyzing afterward. During the session, a facilitator buddy is present to help with the organization, time management and guidance of the participants. At the end of the session, a reflection form will be shared with the participants to get feedback on the session. Polaroid pictures will be taken of each group with their prototype, which participants can take home. The picture is a memory of their participation and makes it easier to share their new knowledge with others.

## AFTER THE SESSION

An analysis of the results is made to search for so-called frames or solution directions. Each idea has a certain purpose and fits into a specific direction. These solution directions will enable me to discuss the results with Team Youth and to estimate the impact in the causal system map.

## 7.5 EXPLAINING PHASE D

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The results from the two sessions, and in particular the solution directions, are discussed with two civil servants of Team Youth. Does it enable them to come up with fitting actions for the implementation plan? They are asked to describe what they would do with the results and what actions they would set up with which actor. To find out if the defined action can be enacted effectively, a meeting is set up with that actors to discuss if it possible for them to develop and implement an intervention based on the action and results. Afterward, I estimate the impact of the proposed action and intervention in the causal system map to find what this design-led approach resulted in.

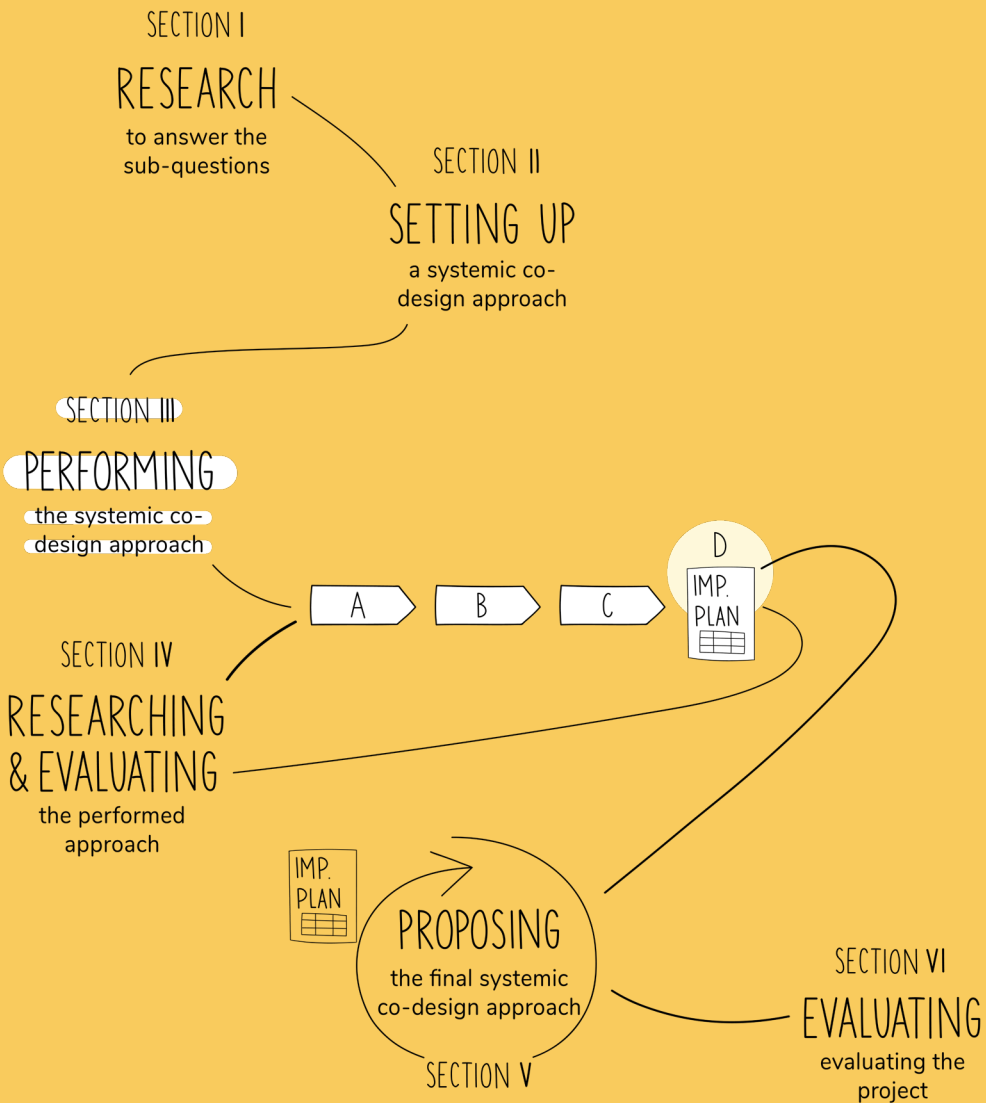
## CONCLUSION OF SECTION II

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The design principles from the research were translated into requirements for the new design-led approach of the policy implementation process. Based on this, a systemic co-design process with four phases was formed. To research the effect of this process, a research through design process is set up and discussed. For this, a design goal is defined: 'Enable Team Youth to come up with fitting actions for the implementation plan, which can be enacted effectively'. If this goal is reached when the process is executed, the design-led approach enabled the civil servants to act upon the complexity.

### WHAT'S NEXT?

In Section III, the systemic co-design process will be performed and the design insights, about loneliness, that result from it, will be discussed to find out if the design goal is reached. In Section IV, the overall approach will be researched and evaluated, which results in insights on how to improve the systemic co-design process.



# SECTION III

PERFORMING THE SYSTEMIC  
CO-DESIGN APPROACH

Based on the insights from Section I, the systemic co-design approach was set up in Section II. In this section, the design insights about loneliness, that result from performing each phase of the process, will be described. Finally, it will be discussed if the design goal is reached.

**Chapter 08** Creating a team - Phase A

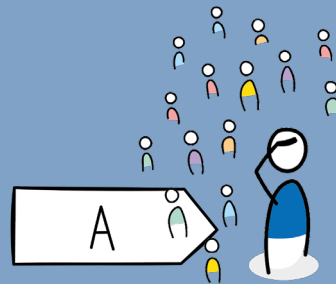
**Chapter 09** Exploring the problem field - Phase B

**Chapter 10** Exploring the solution space - Phase C

**Chapter 11** Defining actions - Phase D

# CHAPTER 08

## CREATING A TEAM PHASE A



Phases	
Goal	CREATING A TEAM
Based on the Systemic Design Toolkit Process	1. Framing the system
Performed activities	<ul style="list-style-type: none"><li>• Interviews</li><li>• Stakeholder map</li></ul>
Designer's act	Creating causal system map



## 8 PHASE A

In this first phase of the process, the network is composed and the parties that will represent the network in the co-creation session of the next phase are chosen and sensitized.

### THE CREATED NETWORK

The parties that need to be present in the network are based on the stakeholder map each interviewee composed. The goal is to create a varied network of parties that are connected to the problem in Delft. When the interviewees described the reasoning behind the composition of their stakeholder map, it became clear that there are three different levels of responsibility to act upon loneliness amongst adolescents, as visualized in figure 21.

1. Responsible for signaling loneliness: biggest responsibility to act, mostly consists of actors that should signal loneliness in an adolescent, for example, the parents or a teacher.

2. Responsible for offering help: when loneliness is signaled in an adolescent, this group should take action. Ranging from informal care, for example, a trustperson at school, to formal care that you need an indication for from the GP.
3. Responsible for writing fitting guidelines: this category has the least responsibility, but should make it possible that category 1 and 2 can act. For this, guidelines have to be written to, for example, create a governmental policy or a healthcare policy at school.

### SENSITIZING

One of the goals of the interviews and stakeholder map is to sensitize the interviewees. When we discussed the problem, it gave them already some time to think about it. This might foster participation in the co-creation session in the next phase.

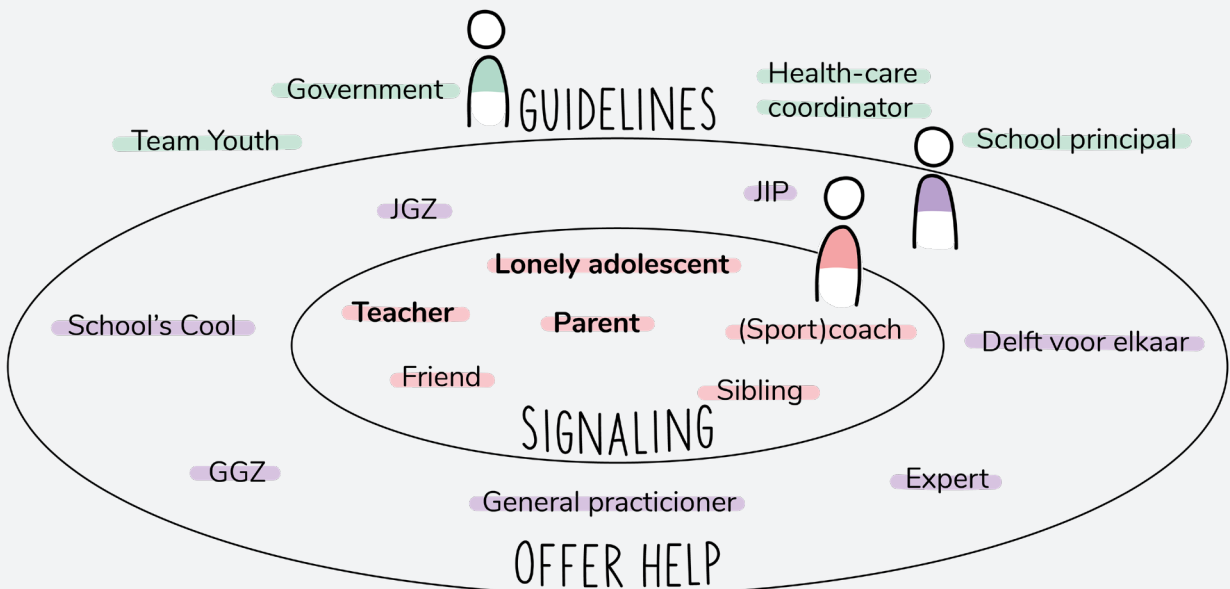


Figure 21. The actors in the stakeholder map can be divided in three different levels

### THE PARTICIPANTS OF SESSION 1

To create an environment where the most valuable perspectives could be shared, actors were invited based on their level of responsibility. Besides the presence of one civil servant from Team Youth and an adolescent, at least one party from each level should be present.

The final composition of the group is visualized in figure 22. 7 out of 10 participants are sensitized (S) with an interview.

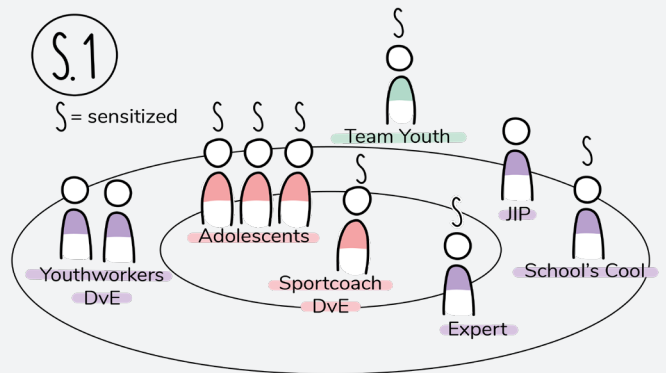


Figure 22. The participants of session 1

### THE PARTICIPANTS OF SESSION 2

The aim was to keep the team composition more or less the same. Three people were not able to participate the second time and were replaced by others. On the day itself, two people could not participate anymore. Fortunately, from every category at least one party was present.

The final composition of the group is visualized in figure 23. There are 2 new participants of which one was sensitized (S) with an interview.

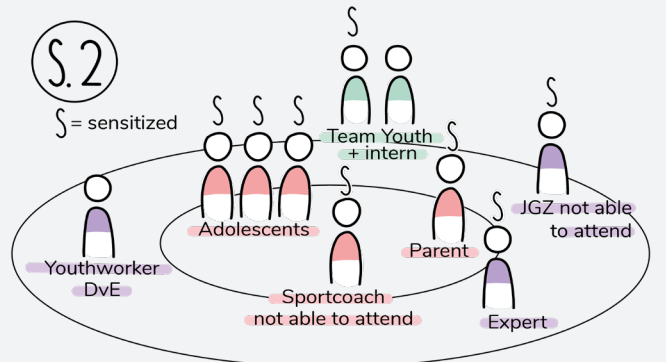
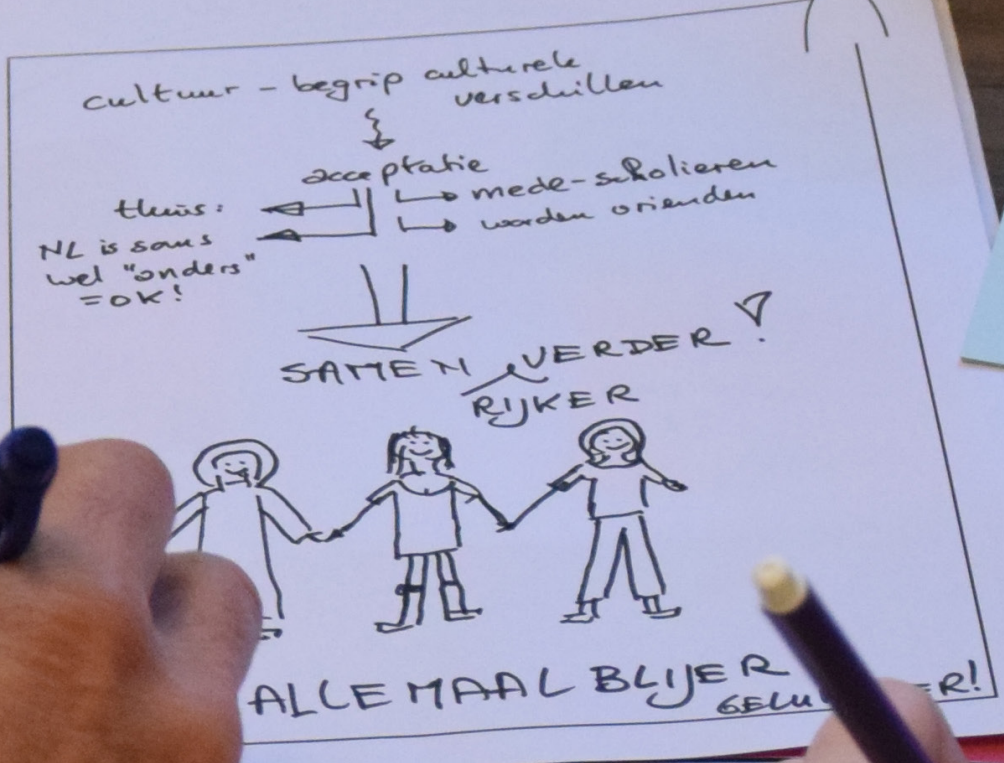


Figure 23. The participants of session 2

### CONCLUSION OF PHASE A

The varied teams are composed for the co-creation sessions in phases B and C. A part of the participants is sensitized with the topic.

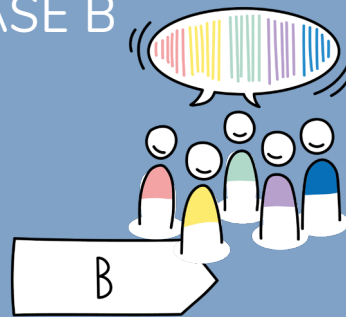


# ONZE VISIE

de jongeren in Delft een..

# CHAPTER 09

## EXPLORING THE PROBLEM FIELD PHASE B



Phases	
Goal	EXPLORING THE PROBLEM FIELD
Based on the Systemic Design Toolkit Process	<ol style="list-style-type: none"><li>2. Listening to the system</li><li>3. Understanding the system</li><li>4. Defining the desired future</li></ol>
Performed activities	Co-creation session 1
Designer's act	Estimating impact of desired outcomes in causal system map

## 9 PHASE B

In Phase B, the stakeholders of the problem will attend the first co-creation session and explore the problem of loneliness amongst adolescents in Delft together. Through participatory exercises, the attendees got acquainted with each other and the topic. They focus on team building, sharing knowledge about the target group and the context,

to create a mutual understanding of the current situation. Through a plenary discussion, new insights were created, which were transformed into collective visions.

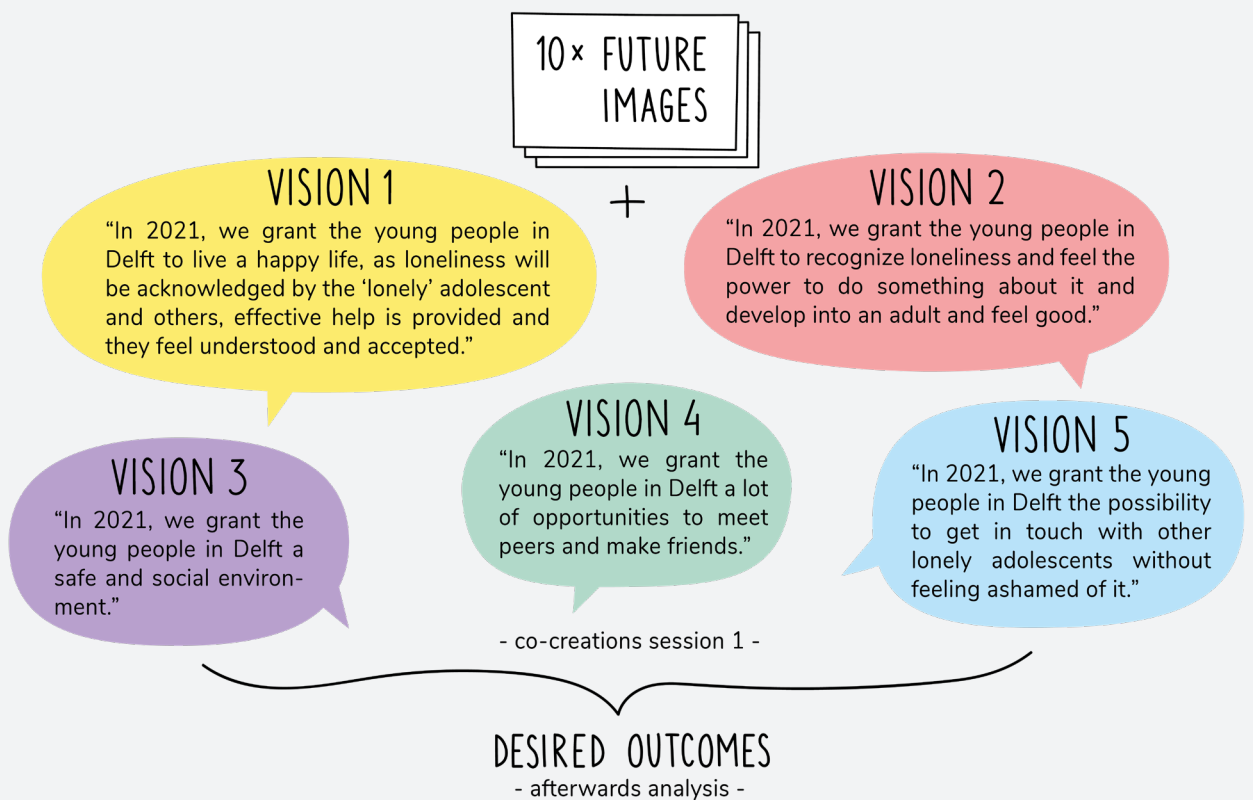


Figure 24. Future images and visions result from session 1. Desired outcomes can be extracted from this.

## RESULTS FROM THE SESSION

In just 2.5 hours a lot of templates were filled in and a lot of sharing had taken place. The participants had actively spent time to understand the complex problem and made it their own. Their future images and final visions tell us what they find most important to work on. The five visions are described in figure 24.

Concerning the team building, it was noticeable that people connected with each other. Some were networking during the break and after the session. During the future image and vision exercise, it was sensible that the group became enthusiastic. The reflection forms revealed that some participants now

were aware of the different views others have.

## AFTERWARD ANALYSIS

The visions and future images contained information about the desired outcomes. To extract these outcomes, I analyzed the materials afterward. Four reoccurring outcomes were found and described in figure 24.

## LOOKING AT THE CAUSAL SYSTEM MAP

It is interesting to look at the desired outcomes and see what their positions are in the causal map. This map was created in chapter 04, and shows six root causes of the problem. The desired outcomes

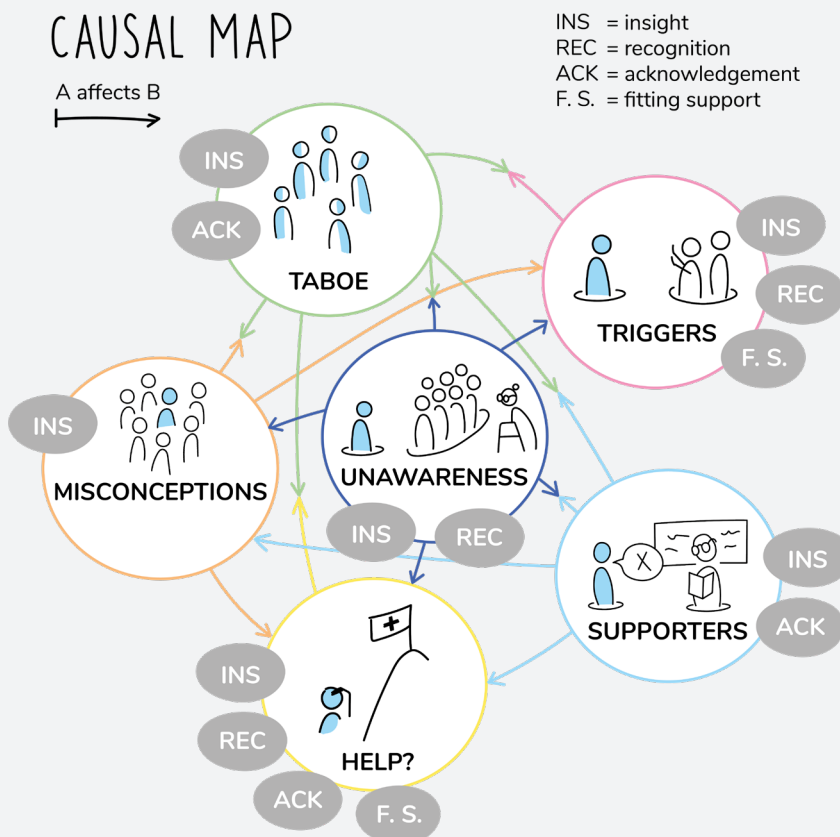


Figure 25. Which root causes are affected by the desired outcomes?

indicate what kind of result the co-creation team wants for the future intervention. For each root cause, it was estimated which desired outcome would affect that root cause positively. This is visualized in figure 25. It showed that creating 'insight' in loneliness will possibly positively impact every root cause and, therefore, has the most potential to change the current situation of loneliness amongst adolescents.

#### A COMPLEX PROBLEM HAS MULTIPLE DESIRED OUTCOMES

Regarding a complex problem, there is not one desired outcome that will solve it. Therefore, 'recognition' and 'acknowledgment' are also taken to the next session. The reasoning behind this is based on info that scientist Lodder shares with Research Institute Movisie (2019). She explains that approaching the problem of loneliness is based on a pyramid with three layers, see figure 26. It starts with prevention that focuses on everybody. Next, prevention is focused on a risk-group. The top of the pyramid resembles the individual level. People for which prevention is not applicable anymore, because of the issues that they already have, can find support.

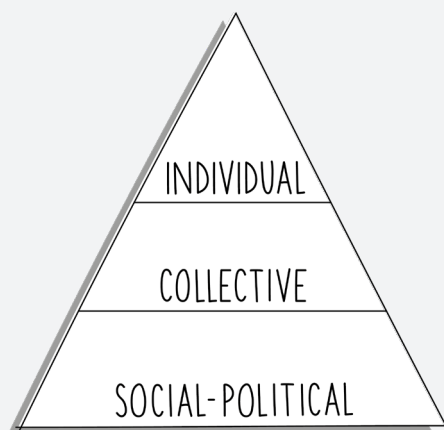


Figure 26. The prevention-pyramid with three levels

When looking into current interventions for loneliness, Lodder mentions there is some attention on the individual level. Think of self-management or a social skills training. The same goes for the collective level, in which for example low threshold encounters are organized. Little attention is put on the social-political level and, therefore, she thinks investing in primary prevention is what we currently need. Interestingly, three of the four desired outcomes fit this level.

#### CONCLUSION OF PHASE B

This phase is concluded with the three desired outcomes that were extracted from the future image and vision exercises of the session. The outcomes are focusing on creating insight in loneliness amongst adolescents, enabling recognition of loneliness and its acknowledgment. They are the starting point for the next session.

# CHAPTER 10

## EXPLORING THE SOLUTION SPACE PHASE C



Phases	
Goal	EXPLORING THE SOLUTION SPACE
Based on the Systemic Design Toolkit Process	5. Exploring the possibility space
Performed activities	Co-creation session 2
Designer's act	Estimating impact of solutions in causal system map



# 10 PHASE C

In the second co-creation session in Phase C, the group explored the solution space based on the desired outcomes that resulted from session 1.

The group focuses on creating 'insight' in loneliness amongst adolescents, 'recognition' of loneliness and its 'acknowledgment'.

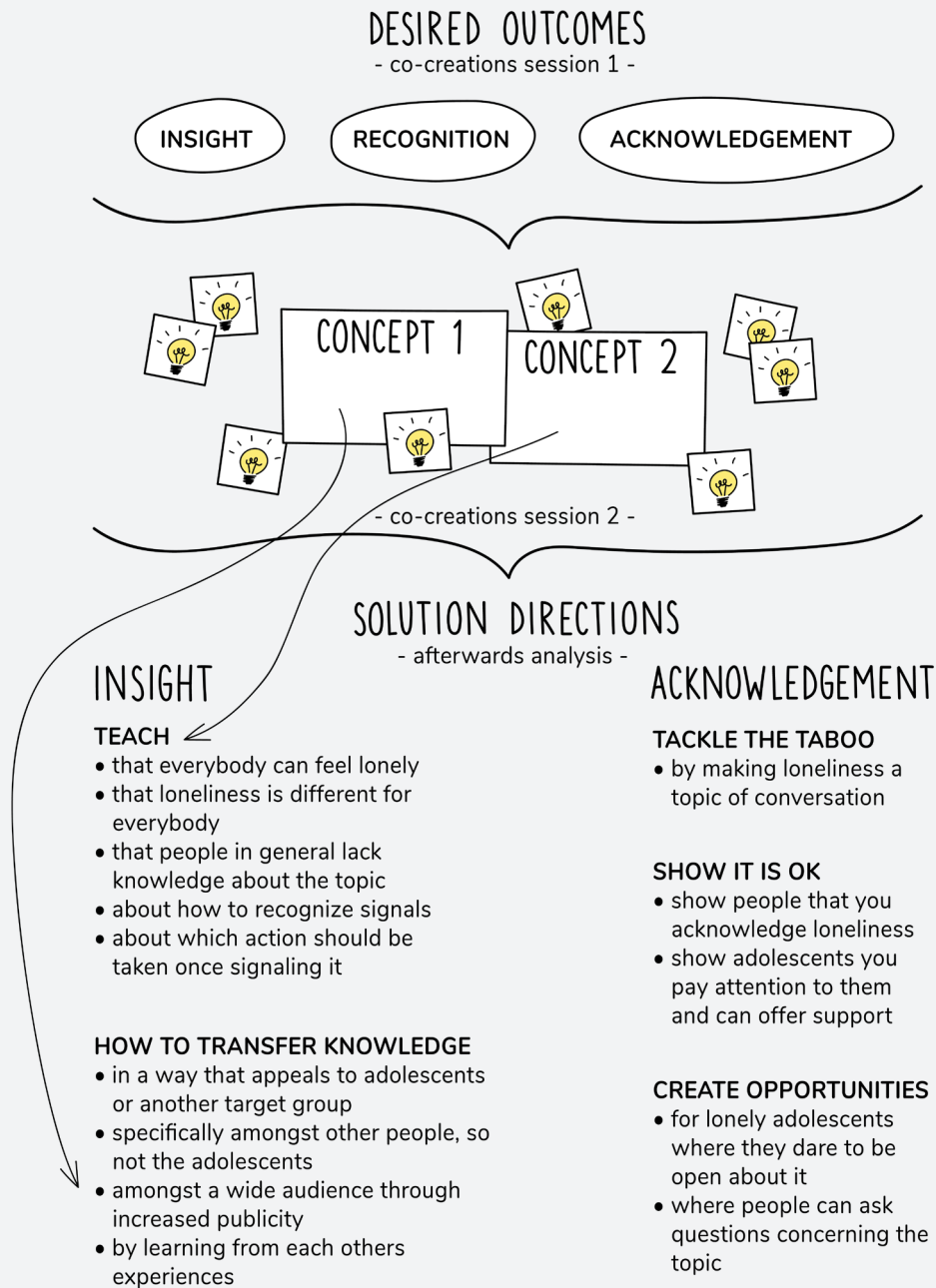


Figure 27. Ideas and concepts were generated from three desired outcomes and result in five solution directions

## RESULT FROM THE SESSION

The subsequent exercises of this session started with analyzing the desired outcomes and finally resulted in two prototyped concepts, see figure 27.

Concept 1 was prototyped with LEGO and focuses on a Dutch celebrity that has been lonely during his or her childhood would perform somewhere in Delft. The performance would be about loneliness amongst adolescents, to create awareness and normalize it. A broad audience would be invited and especially the youth of Delft.

The second concept focused on high school students who get informed about loneliness by an

expert. This expert is someone who has been lonely and now is educated to inform others about it. The team made a role play to demonstrate it. The expert would get the students acquainted with the topic in a more playful and active manner. For example, every student could knead a piece of clay in a way that it expresses loneliness in their opinion.

## AFTERWARD ANALYSIS

The concept and ideas that were developed during the session were analyzed, to find out what the problem is that the participants were trying to solve. This results in five solution directions, as figure 27 shows. Two focus on creating insight in loneliness and three on the acknowledgement of loneliness.

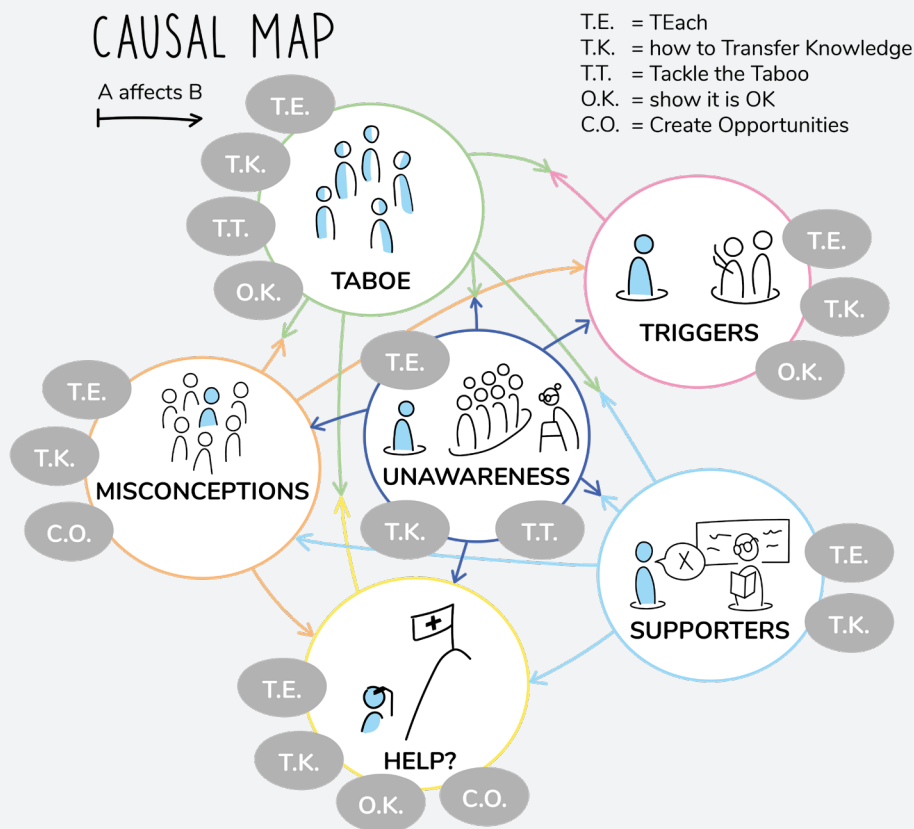


Figure 28. Which root cause are affected by the solution directions?

Concept 1 is a way to transfer knowledge with the goal to create insight. Concept 2 covers this transfer as well but has as main goal to teach adolescents about loneliness. Thus, the focus of the concepts slightly differed but both focused on creating insight.

### LOOKING AT THE SYSTEM MAP

As discussed in the previous chapter, 'insight' is the desired outcome that can impact many places in the system. Again the system is used to create an estimation of where the solution directions might impact. Visible, in figure 28, is that the two solution directions based on creating 'insight' will probably cause the biggest impact.

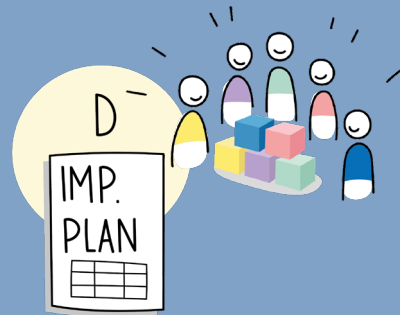
### CONCLUSION OF PHASE C

The exercises in this session were focused on creating insight, recognition and acknowledgment and resulted in many ideas and two concepts. They were analyzed and framed into five solution directions. Teaching (many different things about loneliness) and transferring knowledge in a certain way are two directions that will possibly create the most impact.



# CHAPTER 11

## DEFINING ACTIONS PHASE D



Phases	
Goal	DEFINE ACTIONS
Based on the Systemic Design Toolkit Process	6. Designing the intervention model
Performed activities	<ul style="list-style-type: none"><li>• Meeting with Team Youth</li><li>• Meeting with JGZ</li></ul>
Designer's act	Estimating impact of action and intervention in causal system map

## 11 PHASE D

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Will the results of this systemic co-design process enable Team Youth to come up with fitting actions for the implementation plan? To find out, the concepts and solution directions are shared with two civil servants of the team. The impact analysis that was made with the causal map was not shown to them, to prevent influencing them. If Team Youth decides to act upon one solution direction and mentions an actor that could enact it, this organization is approached to discuss this with.

### DEFINING AN ACTION WITH TEAM YOUTH

A first action was mentioned by the civil servants before even looking into the solution directions. This action was a result of an interview that was conducted in the research phase. The interviewee concerns the coordinator of the program 'Regie op Preventie' from the youth healthcare organization of Delft (JGZ), which is created to implement the Youth prevention policy. In this program, surveys are conducted amongst students of multiple high schools in Delft. Questions related to health topics are asked, to find out what students are struggling with. If there, for example, is a lot of alcohol abuse, JGZ offers the school a training about this topic. However, there is no question in this survey that reveals signs of loneliness. Team Youth proposed the action of adding a loneliness-question to the survey.

Next, the solution directions were proposed to Team Youth. The civil servants noticed the direction that proposed 'teaching'. They mentioned that, when the survey of JGZ would contain a question about loneliness and a school would score high on lonely students, the next step would be to offer a fitting training. Teaching the students about loneliness would fit in such a training. As this seemed a logical next step, this is the action that Team Youth would choose to put in the implementation plan. The actor

that would be appropriate to perform the action would be the JGZ. Next to that, we discussed that it could be valuable to invite the loneliness expert, who was part of the sessions, as well, as she was educated in setting up and giving such trainings.

### EXPLORING HOW TO ENACT THE ACTION WITH JGZ

During the meeting with the JGZ the actions were discussed. Implementing a question in the survey is something she could act on. However, she wondered how that question should be posed. Unfortunately, the loneliness expert could not attend the meeting due to sickness, but the JGZ considered discussing the question with the expert as valuable. She mentioned they often do not test such a question, as this takes time. However, on the notice that there are three adolescents in the network that she could quickly test it with, she would do it.

When discussing the second action of Team Youth, to create a follow-up training at high schools, multiple questions arose. What would be the goal of the training, who would give it and how? For example, the JGZ learned that conventional ways of transferring knowledge does not work well to inform students. Next to that, the JGZ prefers to spread the information of the trainings not only amongst students but also targets the teachers and parents. It was considered valuable to again discuss this with the expert, to create a certain list of criteria. Next, the JGZ would search for existing trainings that would fit the criteria. If this can not be found, she will approach a party, such as GGZ Delfland (the mental health care organization of Delft), to develop this intervention with.

### AFTERWARD ANALYSIS

Team Youth based the action on teaching adolescents about loneliness. Figure x shows the

estimated impact of this action. When focusing on teaching adolescents, first the misconceptions on loneliness will be decreased. As a consequence of the training, the awareness on the topic is increased as well. This increased awareness is a start to tackle the taboo and might increase the chance that youth will seek help.

When looking at the plans for the JGZ to act upon this action, she mentioned to not only teach adolescents, but also teachers and parents. As visualized in figure 29, this would also first result in fighting misconceptions and creating awareness. Next, this could influence the taboo and notice to offer help to youth. Finally, this awareness and knowledge could affect the way things are currently

organized at school or at home (supporters). Furthermore, it might give teachers and parents an idea of which triggers can cause loneliness and therefore should be tackled. All in all, the estimated impact will be the biggest when addressing adolescents, teachers and parents.

The estimated impact I made in the previous chapter was based on the solution directions and suggested to focus on the two directions that create insight. The civil servants from Team Youth also chose to create an action for this desired outcome. Looking at the possible impact this action can make in the system, it is considered a 'fitting' action.

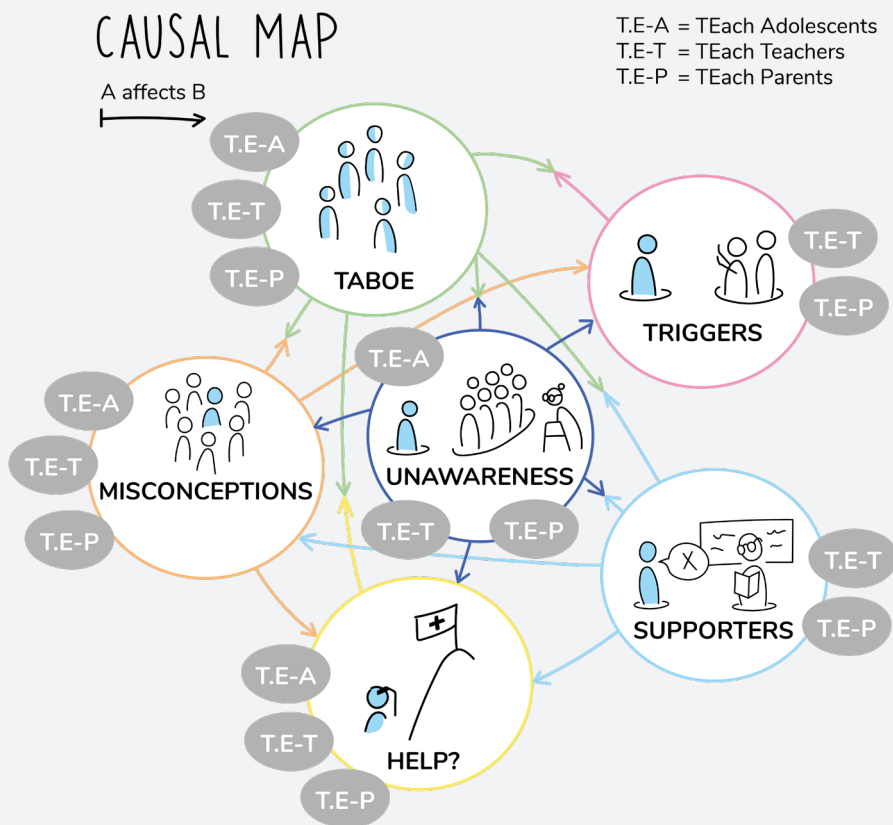


Figure 29. The impact of teaching adolescents, teachers or parents about loneliness amongst adolescents

Uitgevoerd door iemand?   
 Vragen stellen

Uitgevoerd door iemand?   
 Samen activiteiten doen

Wanneer heb ik  
Lubricatie voor  
Stimuleren  
Wandeling maken  
Kleurrijke  
Sturen  
Complicaties maken  
Zelf wijzigen

Opening  
voor gesprek  
bieden  
Iemand vragen  
(inhoud of naam)  
Samen werken  
(training?)

Wanneer heb ik  
Lubricatie voor  
Stimuleren  
Wandeling maken  
Kleurrijke  
Sturen  
Complicaties maken  
Zelf wijzigen



The LEGO prototype of a concept in session 2



## CONCLUSION OF SECTION III: IS THE DESIGN GOAL REACHED?

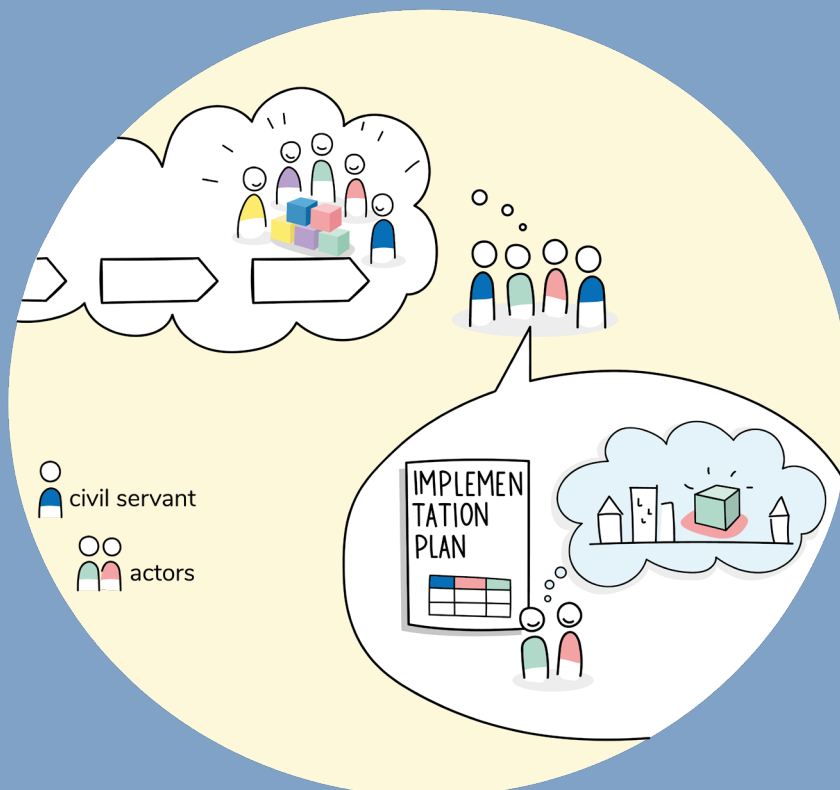
In phase A, a network and co-creation team were built. Next, two co-creation sessions took place to explore the problem field and solution space. The results were discussed in phase D with Team Youth and led to a defined action for the policy implementation plan. It states that it is necessary to educate adolescents about loneliness.

With the actor that was assigned to this action, the JGZ (Jeugd Gezondheids Zorg), it was discussed if it was possible to enact this action. With the insights from the process and help from actors in the network, the JGZ would be able to develop an informative activity, organized at high schools, which would target not only students but also

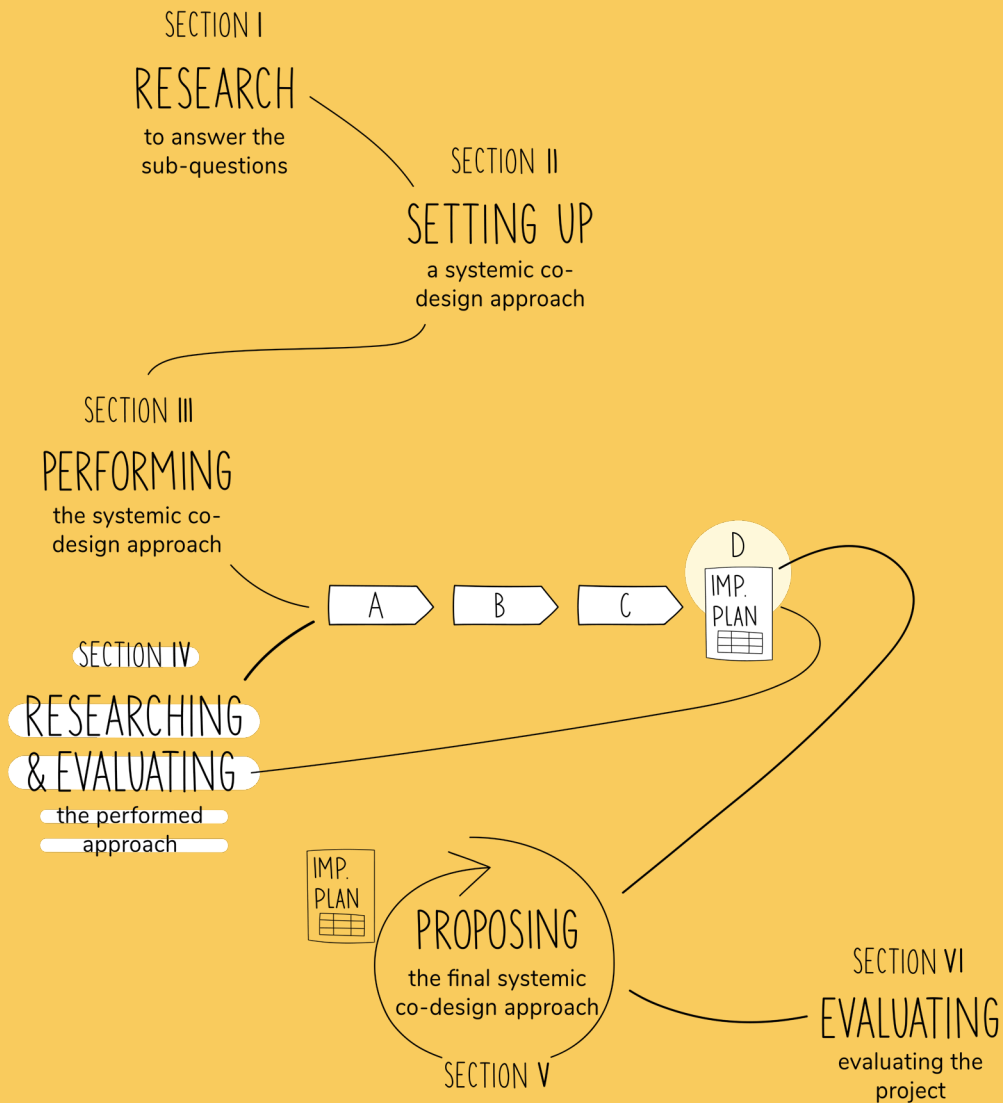
teachers and parents to increase the impact. When looking at the causal system map to estimate the impact of this intervention, it showed that it might impact every root cause and therefore has great potential to tackle loneliness amongst adolescents. All in all, the design goal is reached, as Team Youth was enabled to come up with a fitting action and the actor can enact it.

### WHAT'S NEXT?

As this was a research through design process, the performed systemic co-design process was simultaneously researched. The research outcomes are described and evaluated in Section IV. An adjusted list of requirements is the result.



**Figure 30.** The systemic co-design process enabled Team Youth and actors to come up with actions for the implementation plan, which can be enacted on by the actors



# SECTION IV

RESEARCHING AND EVALUATING  
THE PERFORMED APPROACH

The systemic co-design process was performed and the design goal was reached: the approach enabled Team Youth to come up with a fitting action, which could be enacted effectively by the JGZ. The performance of the process was researched as well, to find out what the effect of the design principles is. This section discusses these research outcomes and evaluates them. This results in an adjusted list of requirements that will be used in Section V to create the final design proposal.

**Chapter 12** Research outcomes of the approach

**Chapter 13** Evaluation of the research outcomes

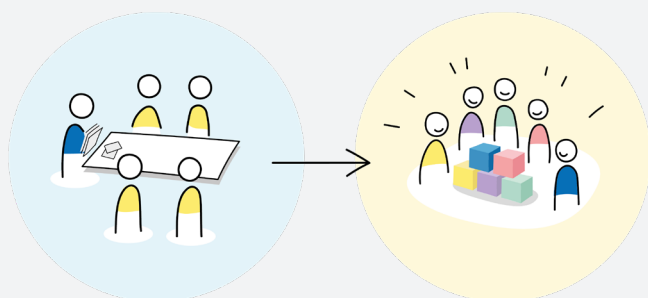
# CHAPTER 12

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## RESEARCH OUTCOMES OF THE APPROACH

## 12.1 RESEARCHED DESIGN PRINCIPLE: CO-DESIGN

The value of co-design is that a variety of parties share knowledge and create insights to be able to understand the problem and create a common view on what needs to be acted upon. How did this go in the systemic co-design process?



**Figure 31.** From involving unvaried parties towards co-design with a wide variety of partners

### DIVERSE PERSPECTIVES WERE NOTICEABLE AND VALUABLE

During the two co-creation sessions, the value of co-design with varied parties was visible. Based on the type of exercise, the attendees shared their thoughts in teams or plenary. The group of session 1 was rich in gender, age and cultural background. Here, the different perspectives on the problem were noticeable through the input the attendees gave. For example, a participant with a non-Dutch nationality focused in almost every exercise on the importance of feeling accepted and safe. All participants (8 out of 8, S2) mentioned the value of a diverse group.

**“The diversity of the group energizes and makes you creative.”**

Civil servant of Team Youth, Session 2

During the presentation of the concepts in session 2, questions were asked about the implementation. To answer these, the knowledge of the different parties in the room came in handy.

**“I think that as a group, we complemented each other nicely.”**

Youthworker Delft voor Elkaar, Session 2

### VALUE OF PARTICIPATING TARGET GROUP

The attendance of the high school girls in the second session was highly valuable, because the ideas and concepts could immediately be evaluated and tweaked to their liking. Especially during the creation of the concept it was noticeable that the other participants were curious about what these girls were thinking. Next to that, the attendance of the loneliness expert was highly valuable. Due to her experiences with loneliness when she was an adolescent herself, she was able to share insights that were new for the other attendees. In the first session, most participants (8 out of 10, S1) stated to have learned something new.

### SENSITIZING RESULTS IN ACTIVE PARTICIPATION FROM THE START

It was noticeable that the participants that were sensitized with an interview (7 out of 10, S1) participated more actively from the start of session 1. The other participants needed a bit more time to reach the same level of participation.

### FROM MANY DIFFERENT INSIGHTS TOWARDS A COMMON VIEW

A civil servant of Team Youth who had not participated in the session and afterwards looked at the materials, expressed its surprise about the amount of insights that were shared in such a short time. Although many different insights were shared, the final visions contained many commonalities. This shows the participants created, more or less, a common view on the problem.

## PARTICIPANTS FEEL HEARD

The participants notice their influence in the results. The loneliness expert feels particularly involved as she 'uses' the session to show others why it can be valuable to involve an expert like her in future solutions.

*"I promoted involving an expert in the solutions, because I think this is very important and useful."*

Expert intern at Herstelacademie Delft, Session 2

## CONCLUSION OF CO-DESIGN

The diversity of the actors, with the explicit notion of the attendance of the target group, resulted in insight into the many different perspectives on the problem and revealed its complexity. However, through collaboration and openness, it was also possible to create a common view and two concepts. All in all, the co-design process did enable the group to act upon the problem despite the complexity.



The co-creation team of session 1 with the visions

## 12.2 RESEARCHED DESIGN PRINCIPLE: A COLLABORATIVE ROLE

The value of a collaborative role over a consultative role is that every person is respected as the expert of their experiences. A non-hierarchical environment will be created which enables civil servants to co-create with citizens instead of designing for them. How did this go in the systemic co-design process?

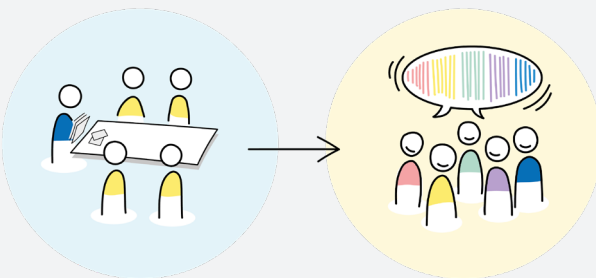


Figure 32. From a consultative role towards a collaborative role and being a facilitator

### COMFORTABLE ENVIRONMENT RESULTS IN SHARING THOUGHTS

During the co-creation sessions, one civil servant of Team Youth participated. She was treated the same as the other participants, to create a non-hierarchical ambiance. Everybody was equally involved. The effort that was put in creating a welcoming space to make the group feel at ease was worthwhile, as the comfortable ambiance was mentioned often in the reflections.

**“You create a safe space, in which I dare to think out loud and give my opinion”**

Youthworker, Session 2

### BEING ACQUAINTED WITH THE GROUP MAKES PARTICIPANTS FEEL AT EASE

In the first session, relatively much time was spent on an exercise to get acquainted. To enforce the teambuilding, the group divisions were often altered.

Some participants mentioned they felt more at ease during the second session, because they already knew the group.

### SHARING PERSONAL EXPERIENCES CREATES CONNECTION

It was noticeable that people connected with each other. In one of the first exercises in session 1, participants had to share a personal experience concerning loneliness. It was remarkable how openly they discussed such a heavy topic. During breaks and exercises thereafter they showed interest in each other. Some participants were networking.

**“It was good to see how open and honest everyone was.”**

Student 5VWO, Session 1

### FACILITATING IS A TASK ON ITSELF

The facilitator buddy and I (the facilitator) guided the participants through the exercises, asked provoking questions to inspire them and helped out where needed. Except for the introduction round, it was not possible to participate in the other exercises, because of the guiding and organizational tasks.

### DESIGN SKILLS ARE MOSTLY USEFUL AFTER THE SESSION

As for facilitating designers, there were just a few moments in which it was necessary to bring in our design skills. During plenary discussions, we clustered findings or created ‘how might we’-questions. During the idea generation and concept creation, we asked designerly questions. Afterward, however, the results needed to be analyzed and combined with the system map. For this designer skills were useful.

#### CONCLUSION OF THE COLLABORATIVE ROLE

As facilitating the process is a task on itself, there are only a few moments in which you can bring in your skills. The equal participation of the civil servant created space to collaboratively explore the problem with all participants, instead of that they were being imposed with a framing from the municipality. This resulted in realistic results that could be acted upon and a connected, involved and informed network.



## 12.3 RESEARCHED DESIGN PRINCIPLE: PARTICIPATORY TECHNIQUES

The value of using participatory techniques is that lively participation, collaboration, creativity and a good team spirit can be provoked. How did this go in the systemic co-design process?

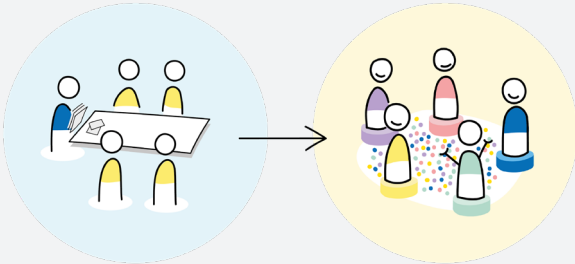


Figure 33. From a conventional approach towards applying participatory techniques

### PLEASANT SEQUENCE OF EXERCISES

In both sessions, the participatory exercises quickly followed-up on each other. A participant noted that he enjoyed the session, due to this structure.

**“By offering structure and asking the right questions or giving the right exercises, you will come to valuable outcomes or sub-results”**

School's Cool mentor of adolescents, Session 1

### SHARING A LOT IN A SHORT TIME

Another participant noticed that it was because of this structure that a lot was shared in a short time.

**“The organizational structure made it possible to share a lot of knowledge”**

Sportcoach Delft voor Elkaar, Session 1

However, also the exercises itself were effective. During one exercise, each participant got two minutes to write down associations with the word 'loneliness'. Surprisingly, the words that were written down varied a lot, ranging from emotions to solutions and from consequences to social impact. It showed the participants the value of their different

perspectives and also the complexity of the problem. Furthermore, the topic became more concrete in a very short time.

### DIFFERENT QUESTIONS RESULT IN DIFFERENT ANSWERS

What a civil servant from Team Youth liked was the template in which participants had to describe their own experiences with loneliness. After describing their chosen situation they had to react to the statement: 'This is how I tried to make the situation more positive'. According to the civil servant, issues are usually not approached with a positive framing.

### MOVING FROM ABSTRACT TO CONCRETE

Thinking of solutions makes solving the problem more concrete. Although letting go of the context and thinking creatively was quite difficult for the participants, the solutions were valuable for Team Youth. Prototyping the concepts also helped the teams, because while doing it, questions popped up, which they immediately tried to answer.

**“The way you create an idea together is a lot of fun and challenging. It keeps you alert.”**

Civil servant intern, Session 2

Next to that, it was valuable that adolescents and other relevant parties were involved during the solution session, to immediately gain insights on the desirability, feasibility and viability of the idea.

### CONCLUSION OF PARTICIPATORY ACTIVITIES

The participative exercises resulted in active participation, a connected team and the emergence of creativity. The unconventional approach resulted in concrete visions and concepts that could be acted upon.

## 12.4 RESEARCHED DESIGN PRINCIPLE: A SYSTEMIC DESIGN PROCESS

The value of following the structure of a systemic design process is that this structure is specially set up to deal with complex social problems. How did this go in the systemic co-design process?

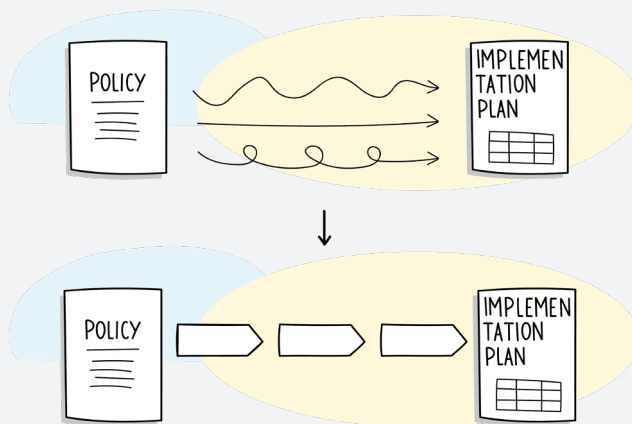


Figure 34. From an undefined process towards a structured systemic co-design process

### NO CONFUSION ABOUT THE STRUCTURE AMONGST PARTICIPANTS

The sequence of exercises during the first and second session did not lead to confusion amongst participants. To make it comprehensible what the second session was about, I explained my version of design abduction. The following quote shows that this equation clarified the process for the participant and that there was a sense of moving forward.

*“I think the next steps have been taken and that there is enough input on ‘what to do, to eventually fill in ‘how’ to do it”*

Civil servant of Team Youth, Session 2

### STRUCTURE BENEFICIAL FOR CIVIL SERVANT TO EVALUATE AND REFLECT

When discussing the process with a civil servant from Team Youth, he mentions that the structure makes it easier to check yourself and your colleagues, that you do not miss a certain step. It is

easier to be transparent about the progress towards the other involved actors. Furthermore, the step-wise structure also provides more obvious moments for reflection, something the civil servants currently often forget.

### PARTICIPANTS' REFLECTIONS ARE INPUT

At the end of the two sessions, the participants were asked to fill in a reflection form. Sometimes their answers were confirmations of what I thought worked well, for example a question about what they liked most. The critical answers were used to improve the next session.

*“It would have been nice if for example teachers and youth psychologists also attended”*

Loneliness expert, Session 2

### NECESSARY TO ANALYZE MATERIAL AFTERWARD

After the session, it is necessary to process all the input that is written and drawn on templates, to extract the most valuable insights from it and make the information ready to use for the next session. The ways designers approach this analysis (skills in framing, holistic view, from abstract to concrete) results in valuable in-depth outcomes.

### CONCLUSION OF THE SYSTEMIC PROCESS

The systemic design process created a sequence in the sessions that made it possible for the participants to grasp the complexity, translate this into visions and generate solutions. It created space for evaluation and reflection, which results in constant learning and improvement of the process.

## 12.5 ANSWER TO THE RESEARCH QUESTION

“Will a design-led approach enable the civil servants of Team Youth from Gemeente Delft to act upon the complex problem of loneliness amongst adolescents in Delft together with other relevant actors?”

The literature and field research showed there are design principles that possibly have a positive effect on the current approach of Team Youth’s policy implementation process. Based on these principles, a systemic co-design process was set up and performed. The design goal of this process

was reached. Namely, Team Youth was enabled to come up with a fitting action for the implementation plan and the actor involved with that action had ideas on how to enact it. The research results of the design principles that were discussed in this chapter show how the principles enriched the process. All in all, the systemic co-design approach enabled the civil servants to act upon the complex problem of loneliness amongst adolescents together with other relevant actors. The next chapter discusses what improvements can be made.

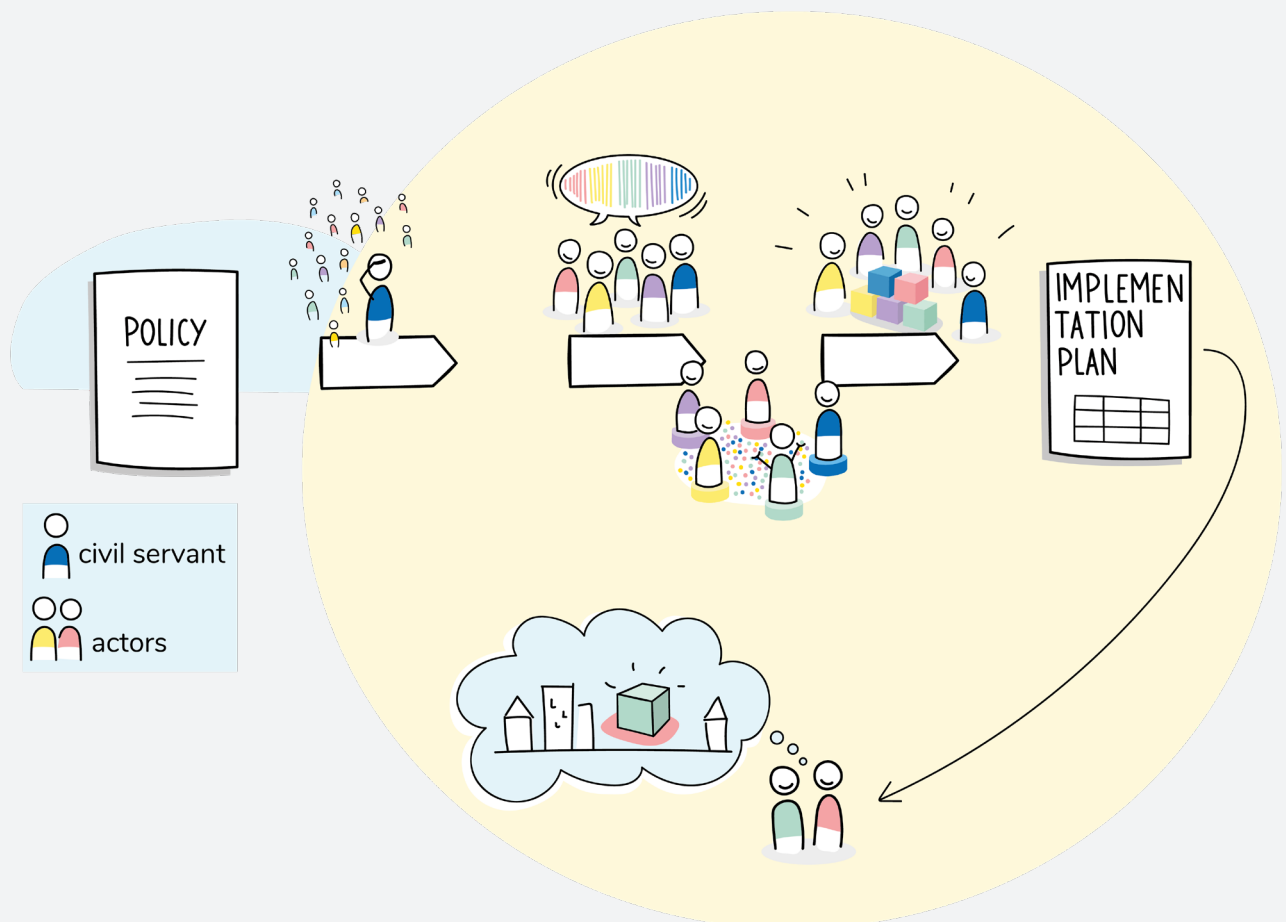


Figure 35. The design principles that were applied to the policy implementation process enabled Team Youth and actors to act upon loneliness amongst adolescents

# CHAPTER 13

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## EVALUATION OF THE RESEARCH OUTCOMES

# 13 AN ADJUSTED LIST OF REQUIREMENTS

Although the systemic co-design approach enabled Team Youth to act upon the complex problem, there are some improvements that can be made. The list of requirements to compose the systemic co-design approach was set up in chapter 06. These requirements were evaluated, see appendix I for the full evaluation, and the most important adjustments are described here. Furthermore, some new requirements are added that were found when performing the approach.

## 1. BASE THE PROCESS ON THE SYSTEMIC DESIGN TOOLKIT (2019) PROCESS

As the current situation of complex problems is dynamic and interventions will change the situation, it is necessary to start from step 1 every couple of years and find out the 'new' current situation. Therefore, the model is made cyclic, includes making agreements on monitoring and an evaluation session needs to take place.

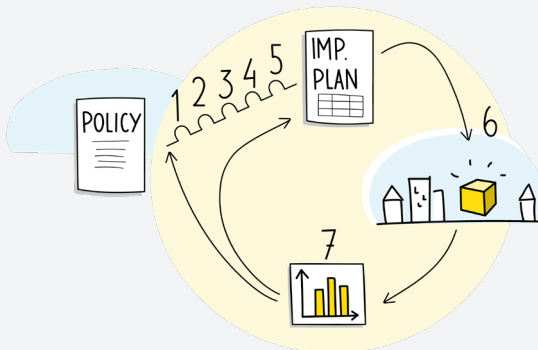


Figure 36. To react on the dynamic changes of a complex problem, the model is made cyclic

## 2. INVOLVE PARTIES FROM THE START

The network can become very big, however, a fruitful co-creation team consists of about 10 people. Therefore, choose the 10 representatives carefully, trying to involve a wide variety of parties.

## 3. INVOLVE ANOTHER CIVIL SERVANT AS PARTICIPANT, SO YOU CAN FOCUS ON FACILITATOR TASKS

Was originally: Organize and guide as a facilitator, but also bring in skills if needed.

As the facilitating civil servant does not have time to participate, it is necessary to involve another civil servant to represent the municipality.

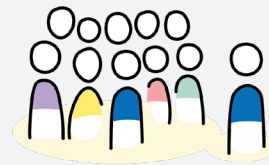


Figure 37. Involve another civil servant as team member

## 4. MAKE THE NETWORK READY FOR IMPLEMENTATION BY KEEPING THEM INFORMED AND INVOLVED

Being transparent about the set up of the process and the progress helps in keeping the co-creation team engaged and the network involved (e.g. via e-mail).

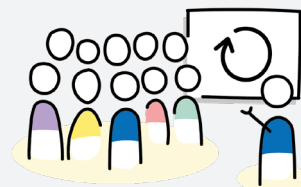


Figure 38. Be transparent about the process and progress

## 5. CREATE A DIVERSE NETWORK: END-USERS, PARTNERS, FAR-AWAY CONNECTED PARTIES

The involvement of the target group in the sessions was highly valuable, therefore put effort into making them part of the co-creation team.

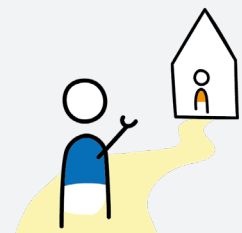


Figure 39. Put effort into involving the target group

## 6. FOCUS THE PARTICIPATORY EXERCISES ON SHARING KNOWLEDGE TO CREATE MUTUAL UNDERSTANDING

Activities in which the team members share personal experiences work well to make them empathize with each other.

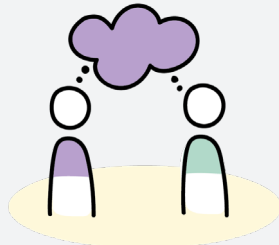


Figure 40. Sharing experiences creates empathy

## 7. FOCUS THE PARTICIPATORY EXERCISES ON CREATING NEW INSIGHTS TOGETHER TO COME TO A COLLECTIVE VISION AND DESIRED OUTCOMES

Was originally: Focus the participatory exercises on creating new insights together to come to a collective vision.

In the performed process, I extracted and chose the desired outcomes from their visions after session 1. However, it is valuable and possible to let the participants do this themselves.

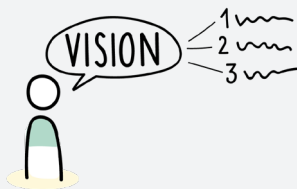


Figure 41. Let the team members extract the desired outcomes from the visions

## 8. MAKE LIVELY PARTICIPATION AND COLLABORATION POSSIBLE

To keep the participants active, switching between levels of interaction (individual, in teams, plenary) works well.

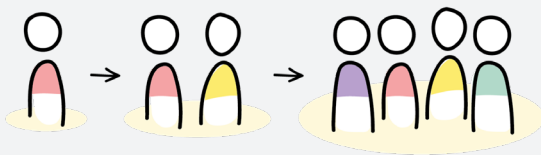


Figure 42. Lively participation through different interaction levels

## 9. FOCUS THE PARTICIPATORY EXERCISES ON GENERATING IDEAS TO GET AN INDICATION OF THE POSSIBILITIES

The idea generation in session 2 focused on 3 desired outcomes. This was fruitful, however, I think it will give more focus for the participants to address one desired outcome per idea generation session. However, to complement the fact that for a complex problem there is not just one desired outcome (Rittel & Webber, 1973), multiple idea generation sessions can be organized.

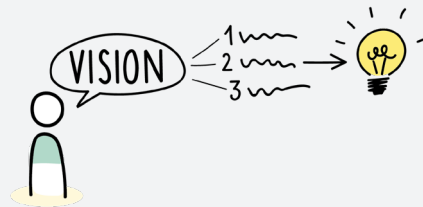


Figure 43. Let the team members choose 1 desired outcome to focus on during the idea generation session

## ADDITIONS TO THE LIST OF REQUIREMENTS

### 10. ANALYZING THE MATERIALS OF A SESSION AFTERWARD

In co-creation sessions, the final result is not the only result. Actually, all the knowledge that was shared can be seen as a result of the co-creation. There are a lot of valuable insights in there, that maybe were not discussed during the session itself. Therefore, it is valuable to analyze the materials afterward. It is also helpful to create the recap for the next session with and you can update new parties once they get involved.



Figure 44. Analyzing the materials after the session results in more insights

### 11. INVOLVE A DESIGNER

The skills that a designer uses to analyze the sessions and for example frame solution directions are worthwhile for maintaining the valuable elements. Besides that, the system map was valuable to estimate the impact of the desired outcomes and solutions. Making a causal map also requires designer skills. Therefore, I would highly recommend collaborating with a designer during the policy implementation process. The designer does not have to participate in the session itself (this can even work counterproductive, as participants might pass the idea generation to the designer) but can, for example, become the facilitator buddy. At the start of a project, the designer can create a system map, which can be used during the project to estimate the impact of the results.

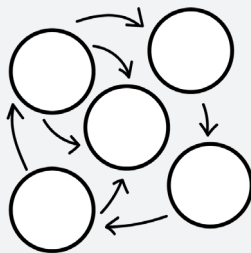


Figure 45. Involving a designer to e.g. compose a causal map

### 12. START PROCESS WITH REACHING OUT TO LITERATURE/ A SCIENTIFIC RESEARCHER TO CREATE A BASIC LEVEL OF KNOWLEDGE

What is interesting about co-creation session is that the knowledge that the participants share can be based on assumptions. Unless there is a scientific researcher participating, you are not sure if the shared knowledge is correct. However, it is important to still let them share everything, because these assumptions give insight into what they know about the topic. The participants' assumptions are probably shared by many other citizens. It is a possibility to make the participants aware of their assumptions and make them collect these. After that session, the assumptions can be checked with an expert.

Make sure, as a facilitator, to have basic knowledge

on the topic. Get in touch with a scientific researcher at the start of a project or read scientific papers. This can also be used as input for the system map.

### 13. 'USE' THE NETWORK

Make the participants of the process aware of the value of the network. The qualities and capabilities of the network can work inspiring. When the interventions are being developed, it is particularly valuable to approach the network to quickly test something or find support. Furthermore, it is important to meet with all developers to discuss how the interventions might influence each other. It is important that they do not decrease each other's impact. It could even be possible that interventions can reinforce each other's effect.



Figure 46. Create awareness that the network is valuable to use



Idea generation in session 2  
Made by: Frank Auperlé

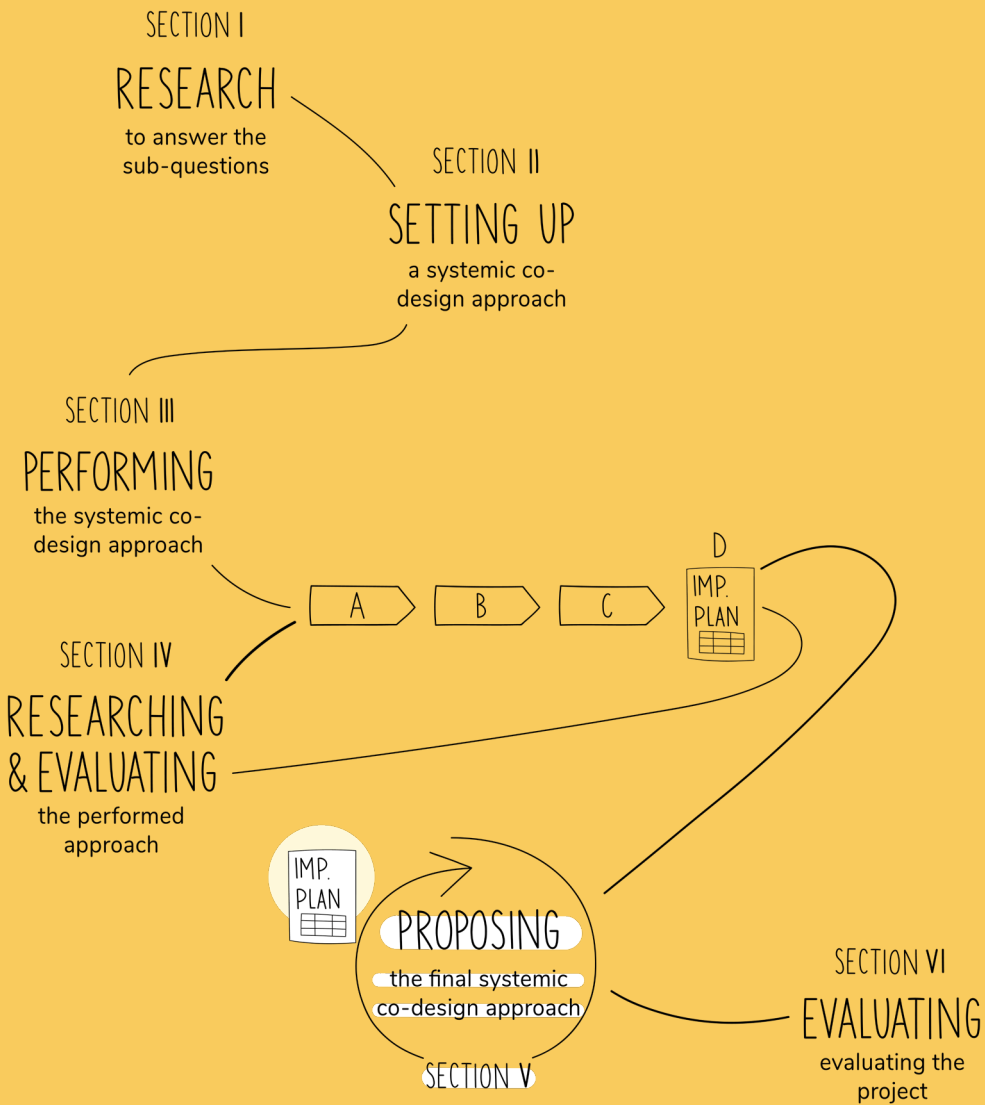


## CONCLUSION OF SECTION IV

The design principles of the performed design-led approach were researched. Through carrying out this process, an answer was given to the research question: the systemic co-design approach enabled Team Youth to act upon the problem of loneliness amongst adolescents in Delft, together with relevant actors. The research and evaluation resulted in an adjusted list of requirements to create the final design proposal.

### WHAT'S NEXT?

In section V, the final design proposal of the systemic co-design process is introduced and discussed.



# SECTION V

PROPOSING THE FINAL SYSTEMIC CO-DESIGN APPROACH

The systemic co-design process has been researched and evaluated. Based on this, improvements and additions have been made to the list of requirements to create the final approach. The final concept is explained and discussed in this section.

**Chapter 14** The proposed concept

**Chapter 15** Discussing the concept

# CHAPTER 14

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## THE PROPOSED CONCEPT

## 14.1 WIJ-MODEL

At the start of this project, I wondered if another approach of municipalities would be beneficial for tackling complex societal issues. The WIJ-model, figure 48, is the result of this thesis and offers civil servants a different approach. This chapter explains the goal of the concept and its working principle. The desired effect of the model is described through evaluating its desirability, feasibility and viability. Finally, the status of loneliness amongst adolescents is explained while taking this model into account.

### THE GOAL OF THE CONCEPT

The design proposal that resulted from literature and field research and a research through design process to find the answer to that question is the WIJ-model (Welzijn Implementatie Jeugd model), visualized on the next page. It is a systemic co-design process that enables civil servants to act upon complex problems during the policy implementation phase and implement well-being

amongst the youth of Delft.

With this design proposal, I aim to change how Team Youth approaches the policy implementation process and to empower them to better deal with complexity. The process results in a mutual understanding of the current situation, a vision on how to change it and ideas on how to act upon it. A varied team of actors is involved from the start and, in 7 steps, they move from an abstract problem towards concrete interventions. The facilitating civil servant organizes the meetings and guides the co-creation team. To foster lively participation and create an effective meeting, the use of participatory exercises is promoted. The process and approach are described in the facilitator guide, which enables and inspires the civil servant to take action.

The model is designed for the ambassador of Team Youth. He will be the role model of change for his colleagues at the municipality. Hopefully, he inspires them to reconsider their own approach,

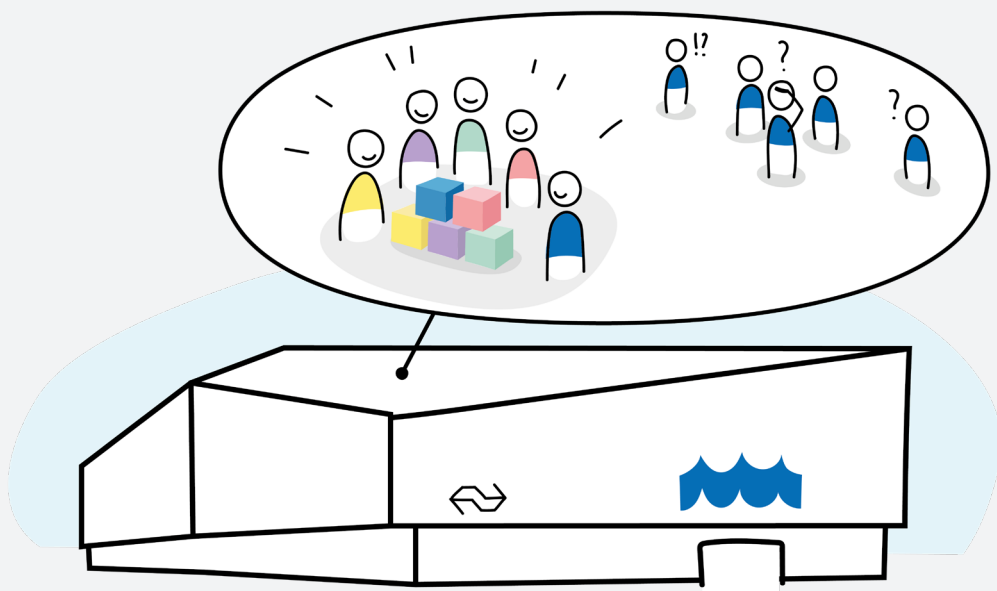


Figure 47. The civil servant who is the ambassador of this project will be the role model of change

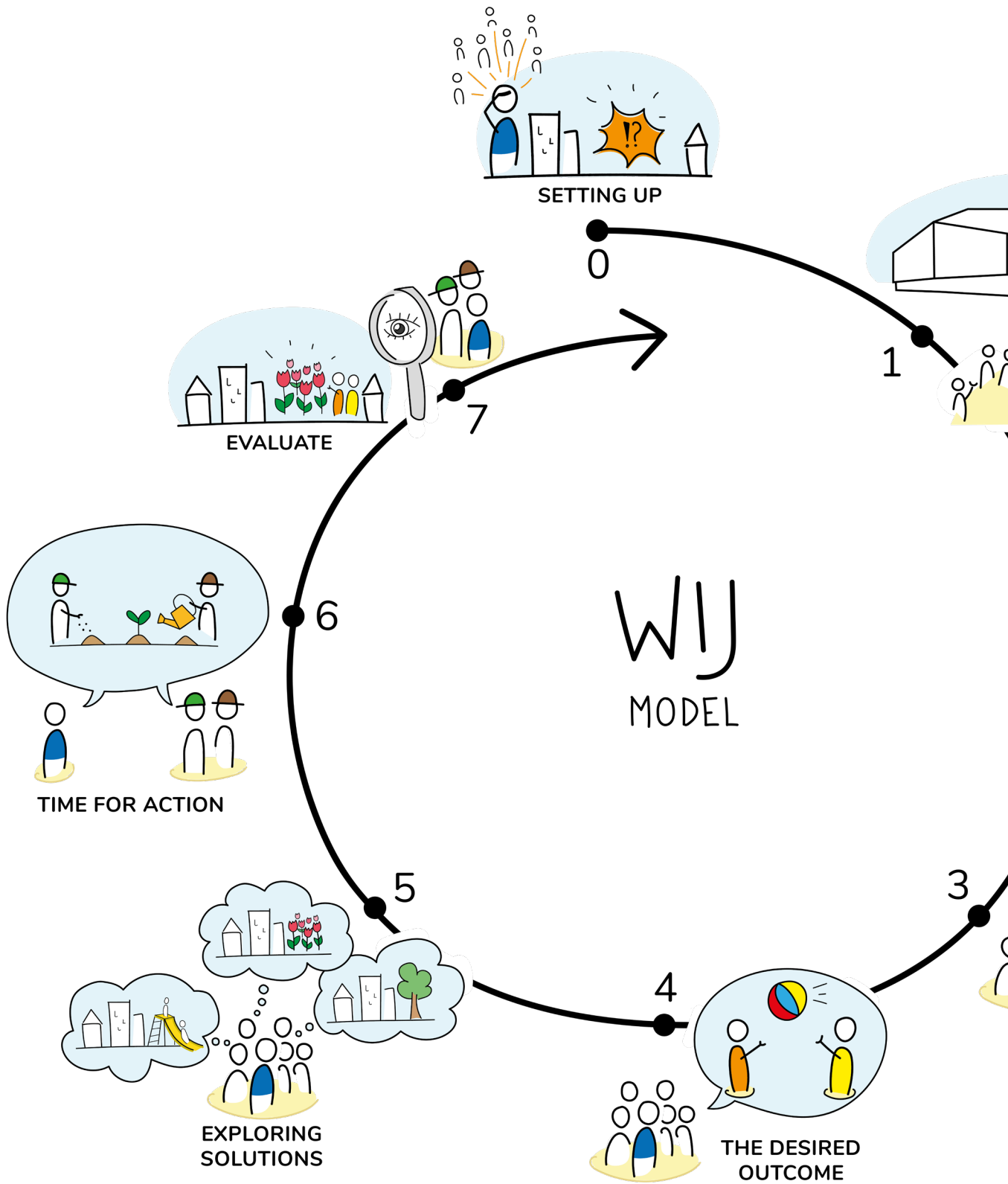
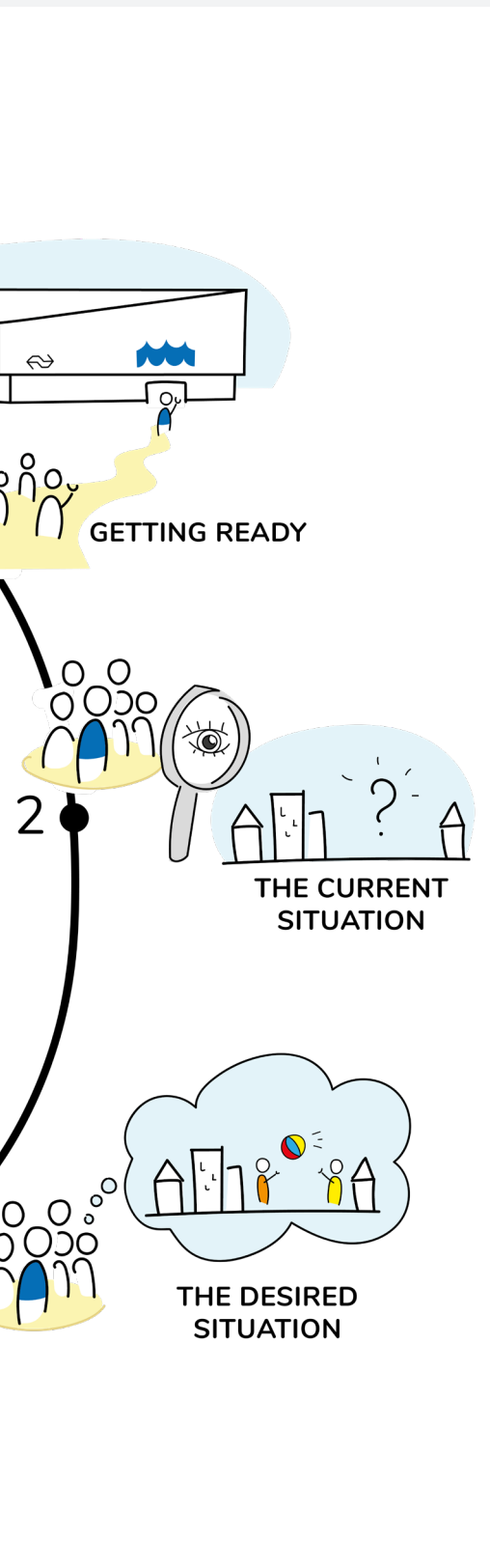


Figure 48. The design proposal of this project: the WIJ-model (Welzijn Implementatie Jeugd model)



making them curious about what could be done differently. Creating awareness that things can be done differently with this design-approach, that will enable them to co-create better-defined actions, which in their turn, will result in more impactful interventions that the citizens of Delft desire.

## PERFORMING THE MODEL

Team Youth and their partners are always looking out for the youth of Delft: did a new problem arise or does a current situation needs improvement? If support-services for that situation are covered by the policy, it is time to take action. However, this time, the civil servant approaches the policy implementation process differently. Instead of defining the problem himself, the WIJ-model is ready for use.

The WIJ-model consists of 7 steps. As the process is based on co-design, every step of the model involves a meeting with a part of the network, engaging the stakeholders of the problem from the start.

## GETTING STARTED

One civil servant who is involved with the project takes the role of facilitator. First, he or she creates a big network of stakeholders of the problem. The aim is to involve many different parties, that all have to do something with the topic, to gather many perspectives. Next, a selection of approximately 10 people is made to set up the co-creation team. Each person in this team represents a part of the network and thus has a specific perspective on the problem.

## THE ROLE OF THE FACILITATOR

The facilitating civil servant organizes the meetings and guides the co-creation team towards the goal. To foster lively participation and create an effective meeting, the use of participatory exercises is promoted. As the facilitator will not have time to give input, it is highly recommended to involve a colleague from the municipality as one of the team members. Next to that, it is helpful to find a facilitator buddy who can help you with creating participatory exercises, other preparations and

during the sessions. The process is divided into small steps, enabling the team to cover one step per meeting of approximately 1.5 hours.

### FACILITATOR GUIDE

The model is not meant as a prescribed process, that demands to be strictly executed as written down. Every step and suggested layout serves as inspiration and is described in the facilitator guide. This booklet enables the facilitator to get started and encourages learning through experimentation. To emphasize this learning, recurring moments of reflection are suggested.

### TEAM-BOOKLET

Before the first meeting, the civil servant provides each team member with a Team-booklet, a process tool for the actors. The model is explained and results and notes can be written down per step. When, in step 6, the time has come to define actions, the actors and civil servant can look back at the results to base the agreements on these findings.

### INVOLVE A DESIGNER

It is a recommendation to involve a designer when applying the WIJ-model. The designer can become the facilitator buddy and help the civil servant with setting up and guiding the sessions. Besides that, the designer can help with the preliminary research. A designer can process the insights into a causal system map. It is valuable to have this subjective representation of the current situation at the start of the project. Namely, in the map, the root causes of the problem are visualized and the influence that these causes have on each other. When later in the project an idea for an intervention appears, the designer can estimate its impact by looking at the effect on the causes.

### THE STEPS EXPLAINED

A short description of each step is given. Look into the facilitator guide for the full descriptions, the suggested set-up per step and to find templates for participatory exercises.

#### STEP 0. SETTING UP

The civil servant is aware or notified of a situation that needs to be improved. First, he will perform research to get a basic level of knowledge concerning the problem. To get local insights, interviews will be conducted with colleagues at the municipality and relevant partners. Through these interviews, the civil servant will be able to get in touch with the target group and become aware of other relevant actors that need to be involved. All the relevant actors will become part of the network for the issue that the civil servant is working on. Next, the civil servant sets up the co-creation team, which is a team of approximately 10 people with diverse perspectives on the situation. If the team is composed and each member has received its own Team-booklet, it is time to prepare the first meeting.

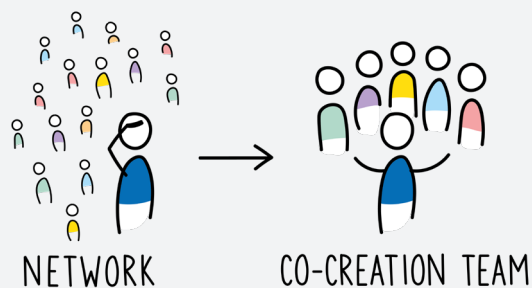


Figure 49. Create a co-creation team with team members that represent different perspectives of the network

#### STEP 1. GETTING READY

This first meeting is all about getting acquainted with the project and with the team. The group will look at the network to find out if there are still parties missing. Next, they start exploring the current situation and each others perspectives on it.



## STEP 2. THE CURRENT SITUATION

The team dives deeper into the current situation to finally create a mutual understanding of the problem. Explore the target group and their context. Cluster the shared knowledge and created insights to create an overview.

## STEP 3. THE DESIRED SITUATION

The previous meeting resulted in insight why the problem currently exists. Now, the team will envision the future. What will Delft look like in the ideal world when this problem is not there?

## STEP 4. THE DESIRED OUTCOME

Together, the team defines what is missing in the current situation that is present in their future image of Delft. These so-called desired outcomes tell the team what kind of effect the future interventions should have on the situation. These desired outcomes can already be put in the causal system map by the designer, to estimate their impact.

## STEP 5. EXPLORING SOLUTIONS

Now the team knows what kind of effect they aim for with the future intervention, they can start to generate ideas. The concepts and ideas that result from the session can be used as inspiration. They already give concrete suggestions on how a desired outcome can be reached. Again, their impact can be estimated with the causal system map.

## STEP 6. TIME FOR ACTION

The desired outcomes and concrete ideas give an indication of what actions are needed to change the situation. To define the actions for the implementation plan, Team Youth sets up meetings with actors from the team and the network that can perform them. Find out what the actions should entail to start the development and implementation of the interventions. Once the intervention is

developed, make agreements on how the effect will be monitored.

To ensure the creation of the best intervention, emphasize the value of the existing network. The involved actors can reach out to it for input, help or to test and evaluate their invention. Next to that, it is valuable to meet with the actors that develop an intervention to find out if the interventions will not counteract. With some adjustments they can maybe even reinforce each other.

## STEP 7. EVALUATE

Once the intervention is implemented, the effect can be monitored. Meet with the actors to evaluate: did the intervention result in the desired outcome? Is the intervention effective and efficient? Is it (still) relevant and valuable? Anticipate if adjustments of the intervention can improve the results. If the situation demands for more or different interventions, it can be valuable to take a look at the ideas that were generated in step 5. If the situation of the problem has changed much over time, a new cycle of the process can be started.

## APPLY THE MODEL TO AN EXISTING PROJECT

Besides applying the model to a new project, civil servants can also try to apply it to an existing one. By comparing the status of the project to the steps of the model, civil servants can find out where in the process they are. The steps that are already performed can be used to evaluate the project so far. Does the project involve a variety of actors? Is the approach collaborative? Are the actors actively participating during meetings? When looking at the steps ahead, the civil servants can decide to change their approach and let in some systemic co-design.

## 14.2 THE DESIRED EFFECT OF THE MODEL

The first variant of this systemic co-design process is already performed in this project and, therefore, has been validated. The improvements that were found are implemented in the WIJ-model. The final concept is evaluated by discussing its desirability, feasibility and viability.

### DESIRABILITY

Ackoff, a systems thinker, wrote a paper in 2004, addressed to other systems thinkers, with the main aim to fuel up the systems movement. According to him, the valuable theory was not spread enough amongst other people. Therefore, a movement was necessary to transfer that knowledge to other people, however, in a way that the ideas and concepts were understandable and usable for others and in particular policy and decision makers.

*“I think we can contribute by making public-policy and decision makers aware of ideas and concepts that would enable them to think more creatively and effectively about the mess the world is in.”*

Ackoff, 2004

With the WIJ-model, I hope to empower the policy and decision makers at Gemeente Delft to think more creatively and effectively.

When reading between the lines, Ackoff said that most public-policy and decision makers were not aware of systems thinking, back in 2004. While spending some time with civil servants, I also noticed that their approach is still mainly based on the scientific management style. Some civil servants are aware of this, however, I think, most are not. The ones that are aware showed interest in experimenting with their conventional approach to become better in dealing with complexity. Especially the civil servant of Team Youth, who is the ambassador of this project, is interested, curious

and ready to shake things up. I am convinced he will create awareness amongst the rest of the civil servants at Gemeente Delft, awakening the desire to enrich their approach as well.

### FEASIBILITY

The WIJ-model is based on the current policy implementation process of Team Youth, however, enriches it with design principles. The concept inspires civil servants to tweak their conventional approach and shows them the importance of a diverse team. As at least one civil servant of Team Youth is already intrinsically motivated to pursue change, the facilitator guide will give him inspiration and a manageable step-wise structure to work with.

Although the model is created for Team Youth, it can be applied to any complex societal issue that the municipality is dealing with. The facilitator guide can, therefore, be shared with civil servants of other departments as well, to spark their interest and foster change at Gemeente Delft.

### VIABILITY

The spreading of this new work approach depends on the performance of the ambassador of this project. Through applying the WIJ-model to his projects and sharing his insights with colleagues, curiosity can be generated. The rest of Team Youth will be involved in the process, which results in four people that are already aware of its existence.

At Gemeente Delft, integral meetings are organized, with civil servants from different domains. During such a meeting, the ambassador can present the model and hand out facilitator guides. Hopefully, this will make the rest start thinking about their own approach and sparks their interest in the new process. The colleagues of the ambassador can come to him with questions and ask for input.

# FACILITATOR GIDS

Welzijn Implementatie Jeugd

Project naam \_\_\_\_\_

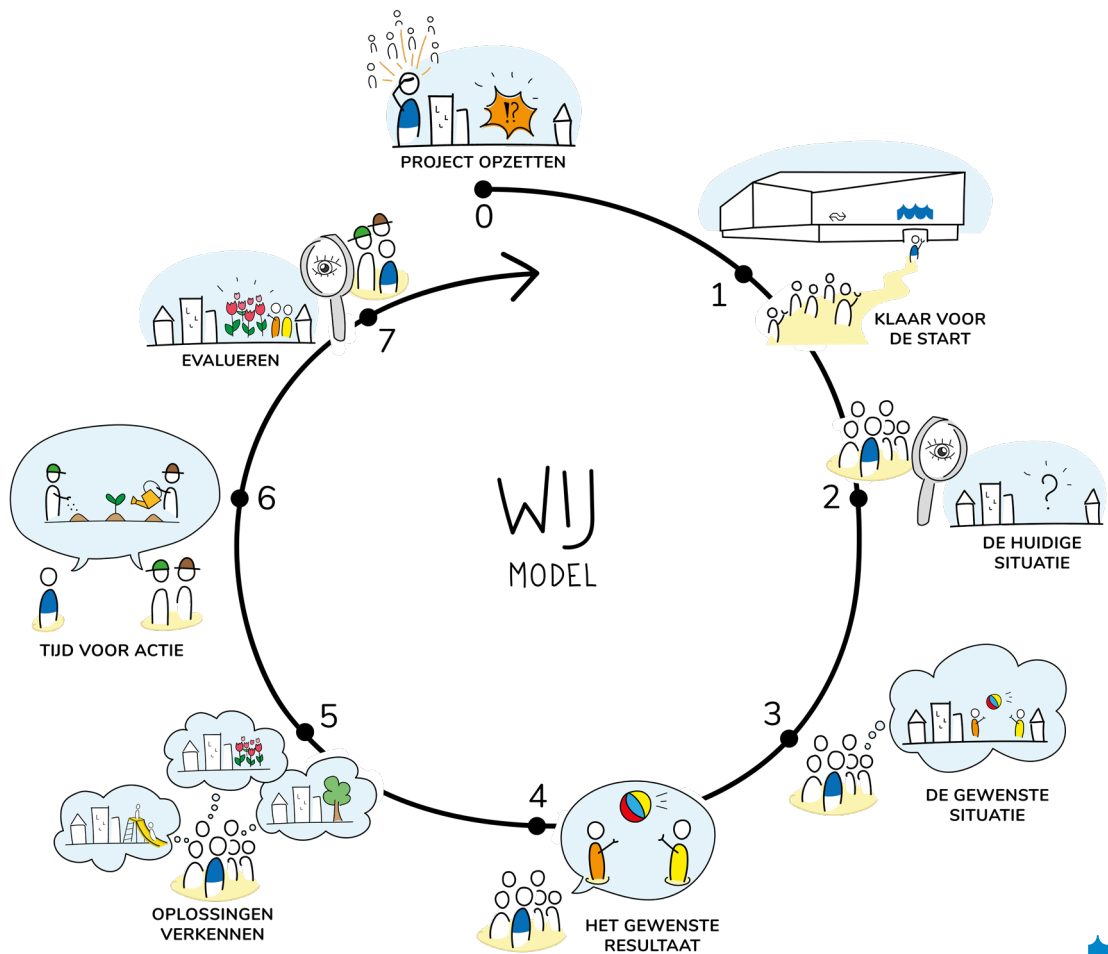


Figure 51. The facilitator guide for the civil servant, which explains the WIJ-model

## 14.3 LONELINESS AMONGST ADOLESCENTS AND THE WIJ-MODEL

Tackling loneliness amongst adolescents in Delft, this was the challenge that this project started with. Together with my co-creation team, we followed the earlier version of the WIJ-model and came up with an intervention to tackle the problem. We reached step 6, in which Team Youth defined that an intervention that would create insight amongst adolescents about loneliness was desirable. The actor that they thought would be suitable for this is the JGZ (Jeugd Gezondheids Zorg). Based on this information, an action for the implementation plan could be set up.

To validate if the JGZ could act upon this action, an evaluation session was held. With the insights and results from the systemic co-design process and the help of the loneliness expert from the co-creation team, the JGZ would be able to develop an intervention that would fit the defined action. An informative activity will be organized at high schools, when the survey of the JGZ shows that many students of a school feel lonely. The activity would target not only students but also teachers and parents to increase the impact.

### THE SEQUEL

Step 6 is not finished yet. If Team Youth would agree 'in real life' to this action and propose the JGZ the means to develop it, the intervention can be created. Once it is tested, with the three high school students from the network for example, the intervention can be implemented in Delft. Team Youth and the JGZ should make agreements on how to monitor the effect. See appendix J for suggestions on this.

Next, is step 7. After a while, the effect of the intervention will be noticeable. Team Youth and the partners will meet after a certain period of time to evaluate the effect. Does it result in the desired effect? Together, they will decide if adjustments are necessary.

### WANT TO CREATE MORE IMPACT?

If there is a desire to create more impact, different interventions can be developed. Look back at the ideas and concepts that were generated in the second co-creation session that was performed for this project. Set up meetings with relevant actors that can develop an intervention. Explain the knowledge and results that were shared in this project to the partners and hand it over to them as inspiration. Encourage the partners to use the created network and connect with the JGZ to discuss their findings.

### DID THE LEVEL OF LONELY ADOLESCENTS DECREASE?

After a while, months or years, the impact of the implemented intervention(s) will become visible. To measure the overall effect of the interventions it is valuable to ask GGD Haaglanden if they can set up another Jongerenenquête. This survey, amongst the 12-18 years old adolescents of Delft, was also conducted in 2016 (GGD Haaglanden, 2016). Did the percentage of lonely young people drop? If the amount of lonely adolescents is still high, a new cycle of the WIJ-process can be started. Insights on the 'new' current situation should be collected and the network should be updated.

### RECOMMENDATIONS ABOUT THE NETWORK

A diverse network is important to be able to perform the systemic co-design approach. There are some recommendations for the network that was created to tackle loneliness amongst adolescents, see figure 50.

### KEEP THE NETWORK ACTIVE

Team Youth can take over the network that I created in Delft to address loneliness amongst adolescents. It is valuable to keep them up to date about the process, so they are informed and ready for the

creation of a new intervention or when a new cycle starts.

### ADD A TEACHER TO THE CO-CREATION TEAM

As a participant of one of my co-creation sessions already mentioned, it would have been nice if a school teacher had participated. Due to their full workdays however, it is difficult to involve them as a team member. I recommend searching for a teacher who works part-time or is retired.

### GET IN TOUCH WITH STICHTING JOIN US

At the start of this project, I got in touch with Stichting Join Us. They are one of the first foundations in the Netherlands that focus on tackling loneliness amongst adolescents. The mission of this foundation, founded in 2016, is to reduce loneliness among young people between 12 and 25 years old. They are active in multiple

cities and villages in the Netherlands, where youth workers organize meetings for youth to bring them together and offer them a positive experience. They also educate adults by offering readings, training, workshop and expert meetings to governmental organizations, schools and welfare organizations.

I recommend getting in touch with Stichting Join Us. Besides considering to connect with them as a partner, they have a lot of knowledge on loneliness amongst adolescents. Ask their opinion on the informative training that the JGZ creates (if that intervention is really pursued), connect them with the youth workers from Delft voor Elkaar or invite them to give a workshop for high school teachers. Use their expertise!

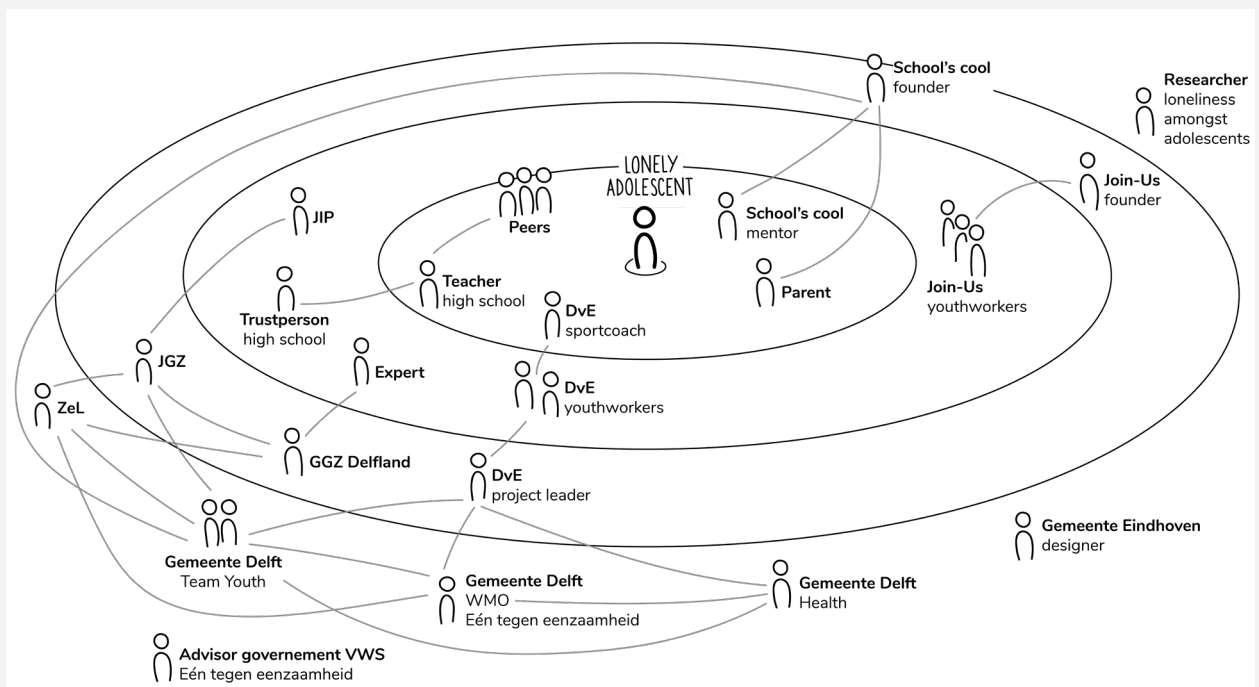


Figure 50. The network that was created to tackle loneliness amongst adolescents in Delft

# CHAPTER 15

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DISCUSSING THE CONCEPT

## 15.1 THE THOUGHTS BEHIND THE MODEL

### THE POWER OF CIVIL SERVANTS

During the field research, I found out that civil servants sometimes miss insight into different perspectives. I was not aware of their power until this project and I think most of them are not aware of it themselves. They (unconsciously) decide on how they set up a project, which actors (thus mostly known partners) they involve and which assumptions they test or not. These choices influence the outcome of a project a lot.

By introducing this systemic co-design process, this power of the civil servant is reduced. The step-wise structure helps them to stay on track. The emphasis on a diverse network will increase the chance of a diverse co-creation team. Finally, the team members will share their different perspectives, which enables the civil servant to find out if its assumptions are correct.

### OUR NATURAL ABILITY TO DESIGN

For the performance of the WIJ-model, I rely on the natural human ability of the civil servant to adopt a design approach. This spreading of design capabilities amongst non-designers is what Manzini (2016) calls diffuse design. With a combination of critical sense, creativity, and practical sense, the ambassador of Team Youth should be able to adopt this design approach. Of course, it depends per person if he or she feels comfortable to take on this new approach. The model itself, however, promotes creativity and suggests how to put systemic co-design into practice. Hopefully, it provides the civil servants that need it with some extra encouragement to apply the approach and, after some practicing, it starts feeling natural.

### WHY I RECOMMEND INVOLVING A DESIGNER

Even though the model relies on the natural design ability of the civil servant, I do recommend

the facilitating civil servant to involve a designer. Especially when setting up a process with this approach for the first time, it will be valuable for the civil servant to collaborate with a designer. Besides that, I think a designer can add extra value to the results of the project with their specific skills. The creation of a causal system map can be valuable once deciding which interventions to develop, to create the most impact. Next to that, the designer can be of value during the idea generation in step 5, by sparking creativity amongst the team members and giving input. When in step 6 the actions are defined and actors start developing interventions, the real designing actually just begins. A user-centered designer will be of enormous value for the creation of an intervention that fits the citizens of Delft.

## 15.2 LIMITATIONS OF THE CONCEPT

### IT IS 'AN' APPROACH TO GAIN INSIGHT

The WIJ-model presents an approach to gain insight in a situation and act upon it, however, it does not necessarily have to result in an intervention. The civil servant can decide on what to do with the new knowledge. It is important to stay critical, as the outcomes that result from the co-creation team are subjective. If the team was composed differently, the outcome of the process would have been different as well. Different exercises will result in different outcomes as well. This means that, as a civil servant, you have to evaluate and reflect on what has been done. Discuss results with colleagues, other actors in the network, scientific researchers, designers, the target group, to find out what other opinions are.

### SYSTEMS BLINDNESS

Design thinking is user-centered and demands designers to get a deep understanding of the user. Systemic design, however, focuses on getting an understanding of the factors and dynamics of the situation that the user is in. You prioritize either the 'user' or the 'system'. Looking at the WIJ-model, there is no specific focus on getting a deep understanding of the user, besides the recommendation to involve a user in the co-creation team and the goal of the session in step 2 (the current situation). This systems blindness can result in missing important insights in the user. There are multiple design methods available to learn more about the user group, for example context mapping. If the facilitating civil servant decides to involve a designer, it will add value to the project if a context mapping session is organized.

### MUNICIPALITIES DIFFER FROM EACH OTHER

The WIJ-model is based on research in Delft, amongst the municipality, organizations, and citizens. The policy implementation process turned

out to be not performed optimally, however, this does not have to be the case in other municipalities. Maybe some municipalities work with a varied network of actors on problems and practice a collaborative role. Maybe some municipalities offer the civil servants a more defined process or information about participatory techniques. The WIJ-model is unique, as these design-principals are combined in one model. However, it could be that a different design principle would be more valuable for another municipality.

### THE MODEL FOCUSES ON TACKLING A PROBLEM: A NEGATIVE FRAMING

The model is all about tackling a problem. In this thesis, for example, loneliness amongst adolescents should be reduced. This is a negative framing, which can be turned into a positive frame, like 'increasing the sense of belonging amongst adolescents'. If the network was built based on that positive framing, a different network could have emerged. Next to that, the co-creation session would have been set up differently, first taking the time to understand what a sense of belonging is and next generating ideas to increase it.

The outcome of a process, that started with the same problem but a positive framing, can thus result in different results. Future research can find out the effect of this framing. An extra step will be needed at the very start of the process, to translate the problem into a positive framing. However, it is important to create the positive framing in such a way that it covers what the problem is about. A designer can be involved to help with this.



## 15.3 RECOMMENDATIONS FOR FUTURE RESEARCH

### TO DESIGNERS

#### POWER DYNAMICS IN THE SYSTEM

When applying systemic design, a municipality can play an important role in your system. Namely, civil servants a certain control over the system and the power to steer it into another direction. They write guidelines, with which they can influence and initiate things.

As they might play this big role, and you want to involve them in your project, it is important to have a contact at the municipality that is enthusiastic about your work and willing to put effort into it. If you clearly explain the value of what you are doing to them, they will probably more willing to cooperate.

#### (DESIGN AND) APPLY SYSTEMIC DESIGN EXERCISES TO CO-CREATION SESSIONS

As the systems theory might have been confusing for the co-creation team, I did not mention it in the two co-creation sessions I organized and I did not apply specific systemic design exercises. In the final concept, the WIJ-model, 5 sessions take place from step 1 until step 5. As they are now more spread and there is more time for every part, it might be valuable for the team members to learn about systemic design. In Step 2: The current situation, a system map can be made collectively. As a process tool, it might be a helpful exercise to get the participants talking and discussing their points of view. Everybody is the expert of their own part of the system map and they can start seeing how things are related.

Besides the system map, there are not that many methods or tools available yet that are specifically meant to follow a systemic design approach. The Systemic Design Toolkit (2019) offers some tools and templates. However, these tools are meant for designers and not for co-creation sessions with

varied parties. It would be interesting to further research what kind of participatory exercises or methods can be designed for this design field and used during co-creation sessions.

#### MAKE PUBLIC WORKERS INITIATORS OF A SYSTEMIC DESIGN APPROACH

The process of the Systemic Design Toolkit (2019), which is addressed to designers, was used as inspiration to design a systemic co-design process for civil servants. In this project, the civil servant became the facilitator, instead of the designer. If, besides designers, civil servants are also enabled to apply this combination of systems thinking and design thinking, the systems theory will have more chance to spread out. In the final proposal, the involvement of a designer is still recommended, however, plays a minor role. More research can be done on how to make systemic design available for the public sector, in such a way that the designer is not the initiator of this type of approach anymore, but the public worker is.

### TO MUNICIPALITIES

#### DEVELOP THE WIJ-MODEL FURTHER

The new model should be put into practice to find out what needs to be optimized. This asks for civil servants who are open to experiment with the process and evaluate and reflect on this extensively. With the involvement of a designer, the participatory and collaborative practices can be researched and extended with different techniques.

Besides that, the problem that was addressed in this thesis, loneliness amongst adolescents, is quite unique. In contrast to other complex problems, this problem is still very unknown in our society and few interventions are developed for it. Therefore, it is interesting to apply the WIJ-model to a complex

problem that is known by many and multiple interventions are available for. Think of poverty, illiteracy or obesity. Thorough evaluation and reflection on the executed process are necessary to find out if and how the approach offers value for this type of problems.

### FOCUS ON COLLECTIVE IMPACT

When applying systems thinking, the whole is more than the sum of its parts. This principle should be spread amongst civil servants when addressing complex problems. It is found difficult to keep an overview of the different actors that organize interventions, however, the collaboration of these stakeholders is important to together create collective impact. Together you can create more impact than the sum of the parts will. It is interesting to research how the role of municipalities can change further into facilitators, building and maintaining networks and organizing collaboration opportunities for the active parties. The skillset and knowledge of civil servants should be updated for this, which demands a certain training program when you start working at the municipality.

### TO PEOPLE WORKING IN THE FIELD OF LONELINESS

#### TO ACTORS IN DELFT: APPROACH EACH OTHER

Loneliness amongst adolescents is such an elusive topic that most organizations do not know how to deal with it. I hope that this project showed the actors that I was in touch with, that it is valuable to approach such a complex problem together, if you do not know where to start on your own.

Besides that, Team Youth is now informed about loneliness amongst youth and hopefully understands the importance of addressing it. Therefore, actors of Delft, share your ideas with Team Youth on how to battle loneliness in Delft and discuss actions for the implementation plan of the youth prevention policy.



Wat is het er uit?

Wat is de...

Wat is de...  
de...  
stel...  
psychologie...  
invullen...  
met...

Wat is het er uit?

Jack

Jack of Pim, als zijn beste vriend.  
Jack of Pim zich eenzaam voelt.  
Pim doet het op te maken en ek

### Het belang van 'HERKENNING'

Gef een voorbeeld van een situatie waarin herkenning van eenzaamheid van belang is.

Vriend is minder actief op Social Media

Profielen van terugtrekken

- social media
- een open contact
- telefonisch

Hoe doen jouw vrienden dat?

HKJ iets erkennen?

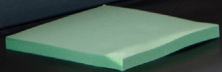
HKJ iets durven?

HKJ je eigen schaamte doorbreken?

HKJ een verschil opmerken?

HKJ de achterliggende boodschap doorgronden?

HKJ iets besprekbaar maken



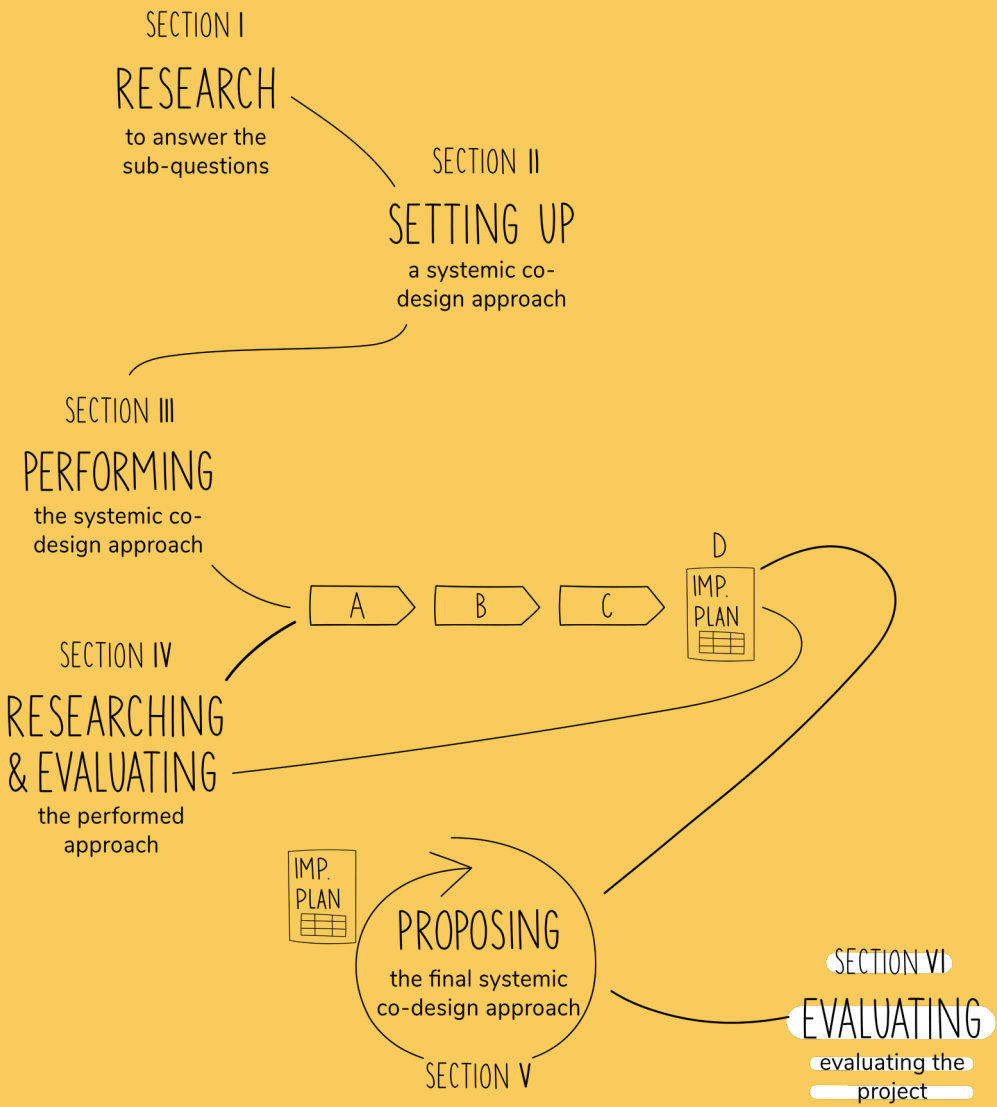
## **CONCLUSION OF SECTION V**

The final design proposal is discussed in this section: the WIJ-model (Welzijn Implementatie Jeugd model). This systemic co-design process enables civil servants to act upon complex problems during the policy implementation phase and implement well-being amongst the youth of Delft. The process and approach are described in the facilitator guide, which enables and inspires the civil servant to take action.

Limitations of the WIJ-model and recommendations for future research were mentioned.

### **WHAT'S NEXT?**

The project is concluded and evaluated in Section VI, and a personal reflection is given.



# SECTION VI

## EVALUATING THE PROJECT

In the last section, the project is concluded and evaluated. A personal reflection on the project is given.

**Chapter 16** Conclusion

**Chapter 17** Evaluating the project

**Chapter 18** Personal reflection

# CHAPTER 16

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## CONCLUSION



## 16 CONCLUSION

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**At the start of this thesis, I wondered how public authorities, like municipalities, deal with the complex social issues of today. How do they search for alternative scenarios of the future? How does this search result in interventions that steer towards these new scenarios? Can designers - as explorers, envisioners and shapers of the future - and their design principles contribute to this field?**

In Delft, a complex social issue, that many are not aware of yet, is loneliness amongst adolescents. Of the youth between 12 and 18 years old, 42% states to feel lonely (GGD Haaglanden, 2016). When you cannot find the social interaction that you are longing for and you reach a chronic state of loneliness, it can negatively impact your mental and physical health and, thereby, indirectly impacts society. Municipalities have to provide appropriate services if a young citizen is in need of extra support (Rijksoverheid, 2015). However, **loneliness amongst adolescents is not acted upon by Team Youth of Gemeente Delft.**

To search for answers to my questions about the value of design in municipalities to better deal with complexity, I started researching this complex issue of loneliness amongst adolescents. The following research question was formed: **“Will a design-led approach enable the civil servants of Team Youth from Gemeente Delft to act upon the complex problem of loneliness amongst adolescents in Delft together with other relevant actors?”**

To answer this research question, three sub-question arose that demanded a literature and field research. Next, a research through design process was set up to put the research into practice. With the performed research on the sub-questions, a design-led approach was set up, performed and simultaneously researched. The insights were used to design the WIJ-model, the final concept of this

thesis that enables Team Youth to act upon complex problems like loneliness amongst adolescents.

The first sub-question concerned systemic design and how this field enables designers to tackle complex problems. A characteristic of complex or wicked problems is that they cannot be defined. They are interconnected and have many stakeholders, who each have different interests, values, and perspectives on the problem. The upcoming design field ‘systemic design’, in which systems thinking and design thinking are combined, **allows different actors to collaborate to find a mutual understanding of a situation.** This enables the actors to create and follow a shared vision, for which interventions can be developed.

To figure out what the current situation of the problem of loneliness amongst adolescents in Delft is, interviews were conducted. A causal system map was made, in which **six interconnected root causes of the problem** appeared through processing the relevant insights from the field research: unawareness, taboo, misconceptions, triggers, supporters and the lack of fitting help are reasons why the problem is as it is. When searching for the reason that Team Youth is not acting upon the problem, it is found that a variety of input is lacking as well as an informed network of actors that take action. These findings revealed that **the process of policy implementation**, in which Team Youth should create appropriate services for youth that need extra support, **is not performed optimally.**

When researching this policy implementation process, **four areas of improvement** were found. The parties that are involved in this process are not diverse enough to create an understanding of the complexity. Besides that, the municipality takes a consultative role, which does not create the opportunity for the actors to create this

understanding together. Next, the conventional approach that the civil servant applies during the meetings results in little participation and involvement of the actors. Lastly, the structure and approach of this process is undefined, which results in a certain power of the civil servant that influences the outcome of the project.

The third sub-question looked into design principles, to find out if the four areas of improvement could be improved or enriched with design. **Co-design** was discussed, which demands a **collaborative role** and the use of **participatory techniques**. To create **one structured process** that focuses on dealing with complexity and creating mutual understanding, the Systemic Design Toolkit process (2019) is discussed. The insights and design principles from the research were translated into requirements for the design-led approach that will be set up.

The insights and design principles from the research were translated into requirements for the design-led approach that I was going to set up. **A systemic co-design process with four phases** got its form while performing it. First, a network and co-creation team were built. Next, two co-creation sessions took place to explore the problem field and solution space. The results were discussed in the last phase with Team Youth and **led to a defined action** for the policy implementation plan. It states that it is necessary to educate adolescents about loneliness.

With the actor that was assigned to this action, the JGZ (Jeugd Gezondheids Zorg), it was discussed if **it was possible to enact this action**. With the insights from the process and help from actors in the network, the JGZ would be able to develop an informative activity, organized at high schools, which would target not only students but also teachers and parents to increase the impact. When looking at the causal system map to estimate the

impact of this intervention, it showed that it might **impact every root cause** and therefore has great potential.

As this was a research through design process, the systemic co-design process was performed and simultaneously researched. Through carrying out this process, **an answer was given to the research question**: the systemic co-design approach enabled Team Youth to act upon the problem of loneliness amongst adolescents in Delft, together with relevant actors. The research and evaluation resulted in an adjusted list of requirements to create **the final design proposal with: WIJ-model** (Welzijn Implementatie Jeugd model). This systemic co-design process enables civil servants to act upon complex problems during the policy implementation phase and implement well-being amongst the youth of Delft.

With this design proposal, I aim to change how Team Youth approaches the policy implementation process and **empower them to better deal with complexity**. The process results in a mutual understanding of the current situation, a vision on how to change it and ideas on how to act upon it. A varied team of actors is involved from the start and, in 7 steps, they move from an abstract problem towards concrete interventions. The facilitating civil servant organizes the meetings and guides the co-creation team. To foster lively participation and create an effective meeting, the use of participatory exercises is promoted. The process and approach are described in the **facilitator guide**, which enables and inspires the civil servant to take action.

The WIJ-model presents an approach to gain insight in a situation and act upon it, however, it does not necessarily have to result in an intervention. The civil servant can decide on what to do with the new knowledge. It is important to remain critical, as **the**

**outcomes that result from the co-creation team are subjective.** This means that, as a civil servant, you have to evaluate and reflect on what has been done. Discuss results with colleagues, other actors in the network, scientific researchers, designers, the target group, to find out what other opinions are.

The new model should be **put into practice to find out if it needs optimization.** Loneliness amongst young people is a unique problem, as it is still rather unknown by our society. Therefore, it is interesting to apply the WIJ-model to a complex problem that is known by many and multiple interventions are available for, to find out if and how the approach offers value for this type of problem. Next to that, more research can be performed on how to make systemic design available for the public sector, in such a way that the designer is not the initiator of this type of approach anymore, but the public worker is.

All in all, this thesis revealed that design principles can enrich the approach of civil servants at municipalities. The WIJ-model empowers them to define the complex situation together with relevant actors, create a vision for it and come up with concrete actions that actors can enact. **Civil servants and their co-creation team can be explorers, envisioners, and shapers of the future too.**

# CHAPTER 17

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## EVALUATING THE PROJECT

# 17 EVALUATING THE PROJECT

This project has been a search to figure out how the approach of municipalities can be improved with design. It is this more holistic view from systems thinking, that I think policy makers should become aware of. Rittel and Webber (1973) compare wicked problems to complicated problems as follows:

*Wicked problems, in contrast, have neither of these clarifying traits; and they include nearly all public policy issues.*

*Rittel and Webber, 1973*

What they say is that almost all issues that municipalities work on are wicked, however, they are still approached in a scientific way. It is time for innovation, time to try out something new!

The participatory bottom-up approach that I wanted to apply got me drawn to the practical side of design. It resulted in a concept, that mostly aims for co-design and which discusses practical things like how to set up a meeting and which competences are useful. I think co-design can offer a lot to the sector. However, these collaborative practices are just an aspect of systemic design and that is where I lost track of this design field a bit. It was challenging to create a concrete concept and at the same time remain a systemic view on the project.

Systemic design is not literally appearing in my final design, although the subsequent steps of the process are based on it. I ended up making an aspect of systemic design, collaborative practices, more practical and usable for civil servants. I really like the message what Ackoff (2004) mentioned to systems thinkers and I hope this is what my concept does: "I think we can contribute by making public-policy and decision makers aware of ideas and concepts that would enable them to think more creatively and effectively about the mess the world is in."

## SIDE-EFFECTS OF THE PROJECT

While I have been working for about six months on this project, I got in contact with a wide variety of people. Besides the focus on reaching the goal of this project, there occurred some unintended but positive side-effects.

## CREATING MORE AWARENESS ON LONELINESS IN DELFT

One outcome of this project is that loneliness amongst adolescents is a very unknown topic. By performing this project, I created awareness amongst all the actors from the different fields that I approached. I hope it stuck in their head somehow. The message in figure 51 is a great example that the expert of loneliness shared on her LinkedIn page.

## AWARENESS ON LONELINESS AMONGST TEAM YOUTH

The aim of the new model is to enable an effective implementation of Youth prevention policy. Loneliness however, is not mentioned in this policy and as it is such an unknown problem, Team Youth also did not get a signal from their partners. By doing this project, I hope that Team Youth is now more informed about loneliness and that awareness is created that it is time to act upon it.



Figure 51. An enthusiastic message from the loneliness expert that participated in the sessions

# CHAPTER 18

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## PERSONAL REFLECTION

## 18 PERSONAL REFLECTION

I remember that, when I was younger, I wondered how politicians decide on certain actions. How do they know what all the different people in the Netherlands need or want? Furthermore, their decisions influence how we behave. While I was searching for a project, I started wondering in that same direction. How can decisionmakers foster behavior of citizens that positively impact the societal issues of today?

I came across transition design, which I discussed with Ingrid. Her view on empowering citizens to drive social change, by enabling them to participate in policy-processes, enthuses me much. The opportunity she gave me to address the societal issue of loneliness in collaboration with Gemeente Delft was a way for me to research my interest further. When I spoke to Mieke about systemic design and complex problems, another world opened up to me. Systems thinking fascinates and overwhelms me at the same time. It is challenging how this way of thinking can be combined properly with design practices.

How to combine these design fields and interests. The two topics, loneliness amongst adolescents and municipalities and how they approach societal issues, are both very broad and complex. In the beginning, this made it challenging to figure out how they played a role in my project. It really was a surprise how this project would evolve and how I would apply my design capabilities in this context. At the start of this project, I struggled with holding on to the actual goal of the project and what the role of a designer is. The midterm meeting came at the right time, as I really needed to talk to design experts to discuss my work. I think I already have spent too much inside my head, trying to figure it out on my own. This is something I notice with myself sometimes: I wait too long to ask for help or input, as my insecurities get in the way. There

is always so much to find that I still can improve before I discuss it with someone. I was aware of this before this project, however, it is easy to forget to act upon it or I do not always know how to ask input. Sometimes, during this project, I suddenly wondered if I had seen my supervisors enough and if I had discussed my decisions well enough. This is something for my future career that I have to work on.

Although there was no explicit assignment from Gemeente Delft, in the beginning this made it a bit unclear, the collaboration with Team Youth went well. It was interesting that the topic of loneliness amongst adolescents was not acted upon yet. It made it possible for me to explore this issue together with Team Youth and the various actors in Delft from the start.

In the first three weeks of the project, I spent so much time contacting everyone in Delft that it did not feel like a design project yet. However, once I started interviewing people, I really became enthusiastic about the topic. I felt like I was the advocate for loneliness amongst young people, spreading the word that it was time for action. That is what makes this topic so unique. Most people have heard about it but just do not know what to do about it. I think that is part of the reason why so many people were interested in being interviewed or wanted to join the sessions.

I am really looking forward to the next opportunity that rolled out of this project, in which I will continue working on loneliness and systemic innovation. Thank you, Mieke, for giving me this opportunity!

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