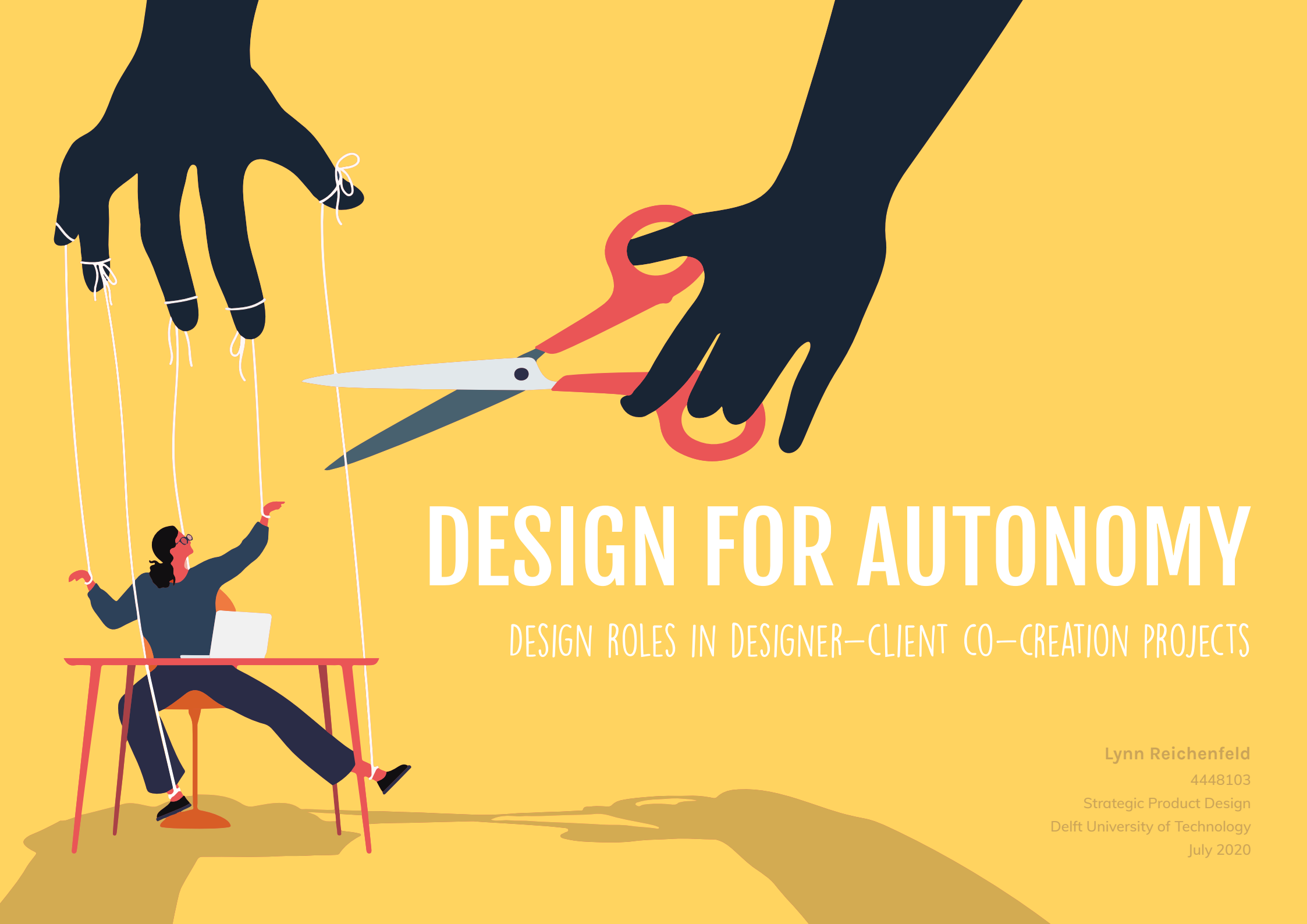


DESIGN FOR AUTONOMY

DESIGN ROLES IN DESIGNER–CLIENT CO–CREATION PROJECTS

Lynn Reichenfeld
4448103
Strategic Product Design
Delft University of Technology
July 2020

Faculty of Industrial Design Engineering
Landbergstraat 15
2618 CE Delft

Makerstreet Amsterdam
Helicopterstraat 13 - 15 - 17
1059 CE Amsterdam

Design for autonomy: the role of the designer in designer-client interactions during co-creation projects

Master Graduation Project | Delft, 2020

Author
Lynn Reichenfeld
lynn.joyce@hotmail.com
4448103

Master Strategic Product Design
Faculty of Industrial Design Engineering
Delft University of Technology

Supervisory Team
Chair | Dr. ir. M. Bos-de Vos
Methodology and Organisation of Design
Faculty of Industrial Design Engineering

Mentor | Ir. S.E. Baha
Methodology and Organisation of Design
Faculty of Industrial Design Engineering

Company Mentor | Ir. S.E. Wetzer
Strategy Designer & User Expert
Unplugged Amsterdam — Makerstreet

Cover art by CharlieHR (adapted by author)

July 2020

PREFACE

Dear reader,

Before you lies the report of my graduation project. This report signifies the end of my 5 year journey at the Technical University of Delft. It has been an incredible journey and this report is the product of my development as a strategic designer.

I could not have realised this project on my own. So, I would like to thank all the people that have supported me along the way. First of all, my supervisory team. Marina, Ehsan and Stein, thank you for your dedication to coaching me and all the fruitful discussions resulting from that dedication. You have taught me to trust my instincts and helped me to grow as a designer. This gave me the confidence to finish this project.

Besides my supervisors, I would also like to thank my friends and family. Thank you for lending an ear and allowing me to pick your brains for ideas. I have really enjoyed our brainstorming sessions and you helped me look at things from a different perspective.

Lastly, I would like to thank the designers of Unplugged and Makerlab. Thank you for your expertise, ideas, time and feedback. And for allowing me a peek inside your day-to-day work.

The past 20 weeks have been an incredible journey. In this report, I have attempted to cram these 20 weeks in a manageable overview, but somehow still ended up with a 90-page report. Let's call it the natural result of being home-isolated during a smart lockdown.

I hope you enjoy reading my thesis!

COVID-19

Around week 5 of this thesis the COVID-19 pandemic hit full force with the new rules of 'smart isolation' imposed by the government. Besides the huge impact on society, this pandemic has also affected the work on my thesis. The new rules of working from home prevented me from engaging in the 'real-life' of Unplugged for the larger part of my project. This called for a redirection of my planned work, mainly concerning the practice-oriented approach. Since all work activities moved from offline to online and a phase of readjustment followed, I was not able to continue with my plan to actively test ideas in practice. This has given my thesis a more theoretical approach, building on academic and reflective validation rather than validation through testing. The concepts were developed by me based on literature reviews and interview insights and reflected upon through online co-reflection sessions with the designers of Unplugged. Due to this, the concepts may be less rich and in-depth than they would have been under regular circumstances. This section informs the reader of these limitations and asks for consideration of these circumstances when evaluating and interpreting the work.

EXECUTIVE SUMMARY

As design challenges are becoming more and more complex, we aim to solve them by including an increasing variety of perspectives and opinions into the creative problem-solving process. Co-creation aims to achieve this by involving stakeholders throughout the process. Including all these different opinions makes co-creation activities increasingly complex, risking the quality of the outcome (Agueverre et al., 2020).

This thesis aims to unravel the complexity of these activities in designer-client co-creation projects. The designers targeted in this study are the designers of the consultancy Unplugged, based in Amsterdam. Unplugged aims to discover business opportunities together with their client, to take steps towards transformation. The assignment from Unplugged was to perform research into the ideation phase, as this is often experienced as difficult in practice, especially in the context of co-creation.

Through semi-structured interviews with the designers of Unplugged and several extensive literature reviews, three iterations were performed to get to the core of the complexity. The first iteration showed that the design proces, as a designer wants to perform it, is continuously disrupted. Three disrupting factors were identified: 1) the projects are stuck between design and research, 2) the client does not have a sufficient understanding of innovation, and 3) the designers do not have enough influence on the projects.

From these factors, it was concluded, in the second iteration, that there is a lack of autonomy for the designers of Unplugged. Based on this insight, an extensive literature review was conducted to discover the cause of the lack of autonomy. This literature review showed that there exists a tension between autonomy (independence) and conformity (obedience) in the context of social trusteeship (acting in the best interest of the client), or: “Do you give the client what they ask, or what they need?”

Through synthesis it was revealed that this tension is strengthened by the difference in perceived status of the respective members of the co-creation team and a misunderstanding of each other’s expertise. This difference leads to a power imbalance in which the designers have taken on a facilitating role, whereas the client takes the dominant role. Resulting in the client taking over the project and limiting the input of the designers expertise.

In the third iteration, roles are introduced for both the designer and client. These roles aim to ensure that each actors expertise is used in the correct way and at the correct time in the project by eliminating the power hierarchy in the project, through dialogue. Based on these roles, a new approach is introduced to designer-client interactions in which a rich understanding about each other’s expertise is created.

In conclusion, this thesis proposes a new approach to designer-client co-creation projects based on roles. This new approach aims to free designers from their facilitating role by creating a rich understanding between designer and client through dialogue.

GLOSSARY

Co-creation	"Any act of collective creativity, i.e. creativity that is shared by two or more people." (Sanders and Stappers, 2008, p. 6)
Co-design	"Collective creativity as it is applied across the whole span of a design process." (Sanders and Stappers, 2008, p. 6)
Double Diamond Model	The design process created by the Design Council. Consisting of 4 phases: discover, define, develop, deliver.
Makerstreet	The entire network of organizations of the client company.
Makerlab	The Experiment Design bureau of Makerstreet.
Unplugged	The client company, part of Makerstreet.
PO	Product Owner (also Project Owner/Problem Owner), the person from the client company responsible for the project.

READING GUIDE

The report is structured to follow the three iterations of the project. In each phase, additional research is performed as will be described in the methodology (§1.5).

Coloured blocks contain conclusions, recaps and additional results.

> Interview quote or description of observation.

TABLE OF CONTENTS

Preface 5

Executive summary 7

Glossary 8

1. Project 10
- 1.1 The designer
- 1.2 The client
- 1.3 Initial brief
- 1.4 Approach and planning
- 1.5 Methodology
- 1.7 Re-framed brief

2. Iteration 1: Defining the 'difficult' in the brief 26
- 2.1 Project context analysis
- 2.2 Problem definition
- 2.3 Conclusion

3. Iteration 2: Unravelling complexity 34
- 3.1 Defining autonomy
- 3.2 The tension of autonomy in co-creation
- 3.3 Exploring autonomy in co-creation
- 3.4 The designer-client autonomy frameworks
- 3.5 The frameworks in practice
- 3.6 Conclusion

4. Iteration 3: Enabling autonomy 60
- 4.1 Exploring roles
- 4.2 Defining roles
- 4.3 Role-based Dialogue
- 4.4 The Design for Understanding Toolkit

5. Conclusion and future work 78
- 5.1 Conclusion
- 5.2 Future work

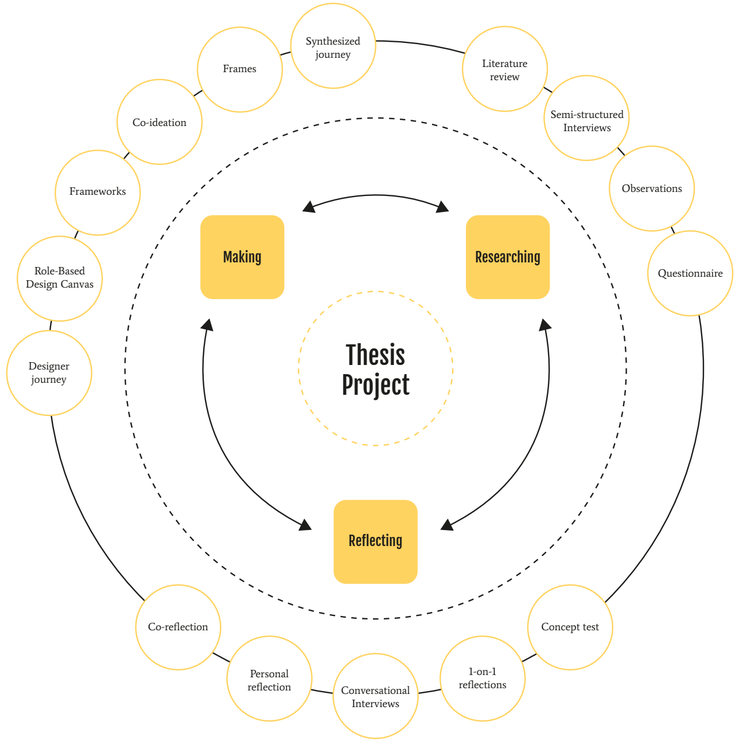
6. Reflection 82
- 6.1 Reflection on work
- 6.2 Personal reflection

References 86

1

INTRODUCTION: PROJECT

In this chapter, the client will be introduced, the brief given by this client, and the approach taken during the project. The general design approach will be explained and the methodology used. Next, the planning will be presented which was followed during the project and a re-framing of the brief will be given. An overview of all activities in this thesis is shown in figure 1.



▶ Figure 1. Overview of all activities performed in thesis project

1.1 THE DESIGNER

1.1.1 Me as a designer

I am a designer who believes in innovation. When you ask me what my 'moonshot' is I will tell you that I hope that the world becomes more innovative. Embracing innovation, for me, does not only mean coming up with new things, or inventing. Embracing innovation means embracing change, being open for new ideas and constantly striving to improve any current situation.

In my experience, companies often say they want to become more innovative, but when you present them with radical concepts, they say: "But we are [company] we do not do that kind of stuff." This is not strange. Innovation is hard. Change is hard. Innovation has become a bit of a buzzword. It is something everybody wants to do. "Go Innovate.", is not a strategy. It will not make you more innovative. Innovation takes care, strategy and structure. I want to help companies unlock their innovation potential in the way that is best for them and I believe (strategic) design is the key to this lock.

1.1.2 My principles of good design

To become more aware of my identity as a designer, I conducted a identity session with my mentor to identify my principles for good design (Baha et al., 2018) (see figure 2). The principles are explained as they influenced and supported the decision making in my thesis project and enabled me to project my vision as a designer onto this project.

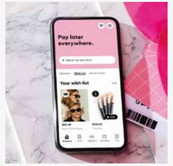
To me, good design is just and does not take advantage of an unfavourable situation. This means good design is reassuring and gives people the assurance of trying new things. Which makes good design experience enhancing, as it allows people to try new things.

Good design enables people to practice their passion. Which generates the creation of things that are fair and honest and just work.

Patagonia (brand)

Good Design is Just

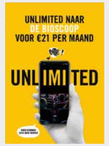
Patagonia has a clear purpose and goal to preserve nature and does not take advantage of the power humans have over nature and animals.



Klarna. Pay Later

Good Design is Reassuring

Klarna. builds in a system of trust for their clients in a world where internet scamming has become prevalent. You can feel reassured that your money is safe.



Pathe Unlimited

Good Design is Experience Enhancing

Pathe Unlimited lowers the barrier for their customers to see movies they may have never went to otherwise but turn out to enjoy a lot.

ANKER Ergonomic Mouse

Good Design Works

ANKER's ergonomic mouse works well to prevent RSI. Personally, I have benefitted a lot from using it.

Bodum Pavina Glass

Good Design is Honest

The Pavina glasses by Bodum are literally and figuratively transparent. You know what the product does and what to expect from it.

Andy Wolf Eyewear

Good Design is Passionate

Andy Wolf makes their glasses by hand. They pour in their craftmanship to produce great products for their consumers.

Figure 2. My principles for good design

1.2 THE CLIENT

1.2.1 Unplugged – Makerstreet Amsterdam

This master thesis is in collaboration with Unplugged Amsterdam. Unplugged functions as a part of Makerstreet. Makerstreet is a full-specialism transformation agency, meaning they have expertise in design, development, marketing, interim and innovation. It exists of a network of 15 companies (see figure 3), all with their own expertise. They work together to provide service along the full product life cycle.

Unplugged is part of the Makerstreet Innovation branch. Unplugged conducts consumer research for their clients to create a better understanding of the consumers' wants and needs. They then convert these insights into business opportunities for (and together with) their clients during co-creative ideation sessions. The aim of these sessions is to discover business opportunities for the clients to take steps towards transformation. With these new opportunities they aim to make the client more relevant in the eyes and ears of their consumers. The clients are looking to gain more insight into their consumers' wants and needs and identify new opportunities for their business. Examples of clients of Unplugged are Schiphol, Nationale Nederlanden, ABN AMRO and Essent.

Another important company within Makerstreet is Makerlab. Makerlab does experiment design and often works together on the same project as Unplugged (see figure 4).

Figure 4. Makerstreet, Unplugged and Makerlab

1.2.2 Vision

During the course of my project, Unplugged was going through a transition. They wanted to go from Behavioural Research to Human Behaviour & Experience design. This change was brought about, because Unplugged felt they were not using one of their strengths: their team of designers. The designers of Unplugged had become researchers. Next to this, they are working on becoming more professional, getting their name known and becoming more independent from Makerstreet. Currently, their clients are mostly b-b-c clients, but they want to start attracting b-b-b clients by expanding their service offering into Employee Experience.

1.2.3 Mission

Unplugged wants to make their clients' business future proof by putting 'Human Behaviour & Experience' central. Both for the client's user as for their employees. Unplugged goes one step further. They convert insights into action by developing new concepts and internal processes which fit with the need of the user and the company. To do this they combine elements from human sciences, psychology and behaviour.

Unplugged. From insights to action.

1.2.4 SWOT

During one of the monthly Unplugged meetings, the team of designers did a SWOT exercise about the transition of Unplugged into becoming more professional. These results were used together with my own analysis. The summary can be found in figure 5.

Figure 5. SWOT analysis (source: Unplugged)

Figure 3. The network of Makerstreet

1.3 INITIAL BRIEF

1.3.1 Initial brief from client

Unplugged experiences difficulties in the ideation phase of their projects. The assignment is as follows: “Unplugged does a lot of (user) research to get insights for our customers (including Schiphol, Conforte Zorg Innovation Lab, NPO). Translating these insights to concepts (ideation) is crucial for successful innovation. We notice in practice that this is a difficult transition. The context of studio and company plays a major role in this, for example, through co-creation” (Unplugged, 2019, p.1).

Several aspects of this assignment caught my attention and interest: ideation and innovation within the context of co-creation. The initial brief of this master thesis was to do research into the ideation phase of Unplugged and design a concept to support this phase. This concept can be anything from a tool to a process to a new type of session. The assignment still presented a lot of questions. It is, for example, unclear what exactly the difficulties are and what causes them. Therefore, it is necessary to first clearly define the problem before proceeding further into the project.

1.3.2 Project objective and scope

The aim of this project is to first identify what is causing the difficult transition from insights to concepts leading to less satisfactory project outcomes for Unplugged and their clients. When this cause is identified the objective is to shape a concept to solve this problem and improve the project outcomes for both Unplugged and their clients. The scope of the project is that of Unplugged and Makerstreet. The project is performed in their context. At the end of the thesis, the relevance for Strategic Design and generalizability to other contexts is reflected upon.

1.4 APPROACH AND PLANNING

1.4.1 Approach

Due to the unclear nature of the assignment and the importance of the in-practice context of co-creation, a research through design approach was used. Research through design is a practice-lead research method in which knowledge is generated and reflected on through design activities (Dow et al., 2013).

The method used in this thesis was inspired by the 1-10-100 method by Stompff (2018) and van Turnhout et al. (2013). The 1-10-100 method consists of three phases in which an entire design cycle is performed: discover, define, develop and deliver (Design Council, 2007). Especially the discovery phase is encouraged in the 1-10-100 method (van Turnhout et al., 2013). In each phase new knowledge is generated and transformed into output (insights). This output is then reflected on with stakeholders and used as input for the next phase. This input is then explored again with more research. This makes the method especially suited for this thesis as the problem is still unclear and needs to be explored broadly (van Turnhout et al., 2013). In this thesis, a constant co-evolution of problem and solution takes place in which the problem is re-framed to adapt to the new knowledge (Dorst & Cross, 2001). This evolution is portrayed by the different chapters which indicate several iterations.

What this method looked like within this thesis and corresponding activities are described in figure 6. The methodology will be explained in more detail in ∫1.5.

1.4.2 Planning

The time spend on the different phases was, in hindsight, 2 weeks (+3 weeks orientation), 9 weeks and 6 weeks (see figure 6). The original planning and project brief can be found in appendix 1. This planning changed due to the COVID-19 pandemic.

Each phase contains a reflective moment. Van Turnhout (2013), refers to these meeting as ‘quality review boards’ (QRB’s). In these meetings, the outcomes of the phase are evaluated with the involved stakeholders (van Turnhout, 2013). These stakeholders are the designers and other members of Unplugged and Makerstreet, as they are the end-users of my concept. Working together with them throughout the project is important as it builds acceptance of the final solution (van Turnhout, 2013).

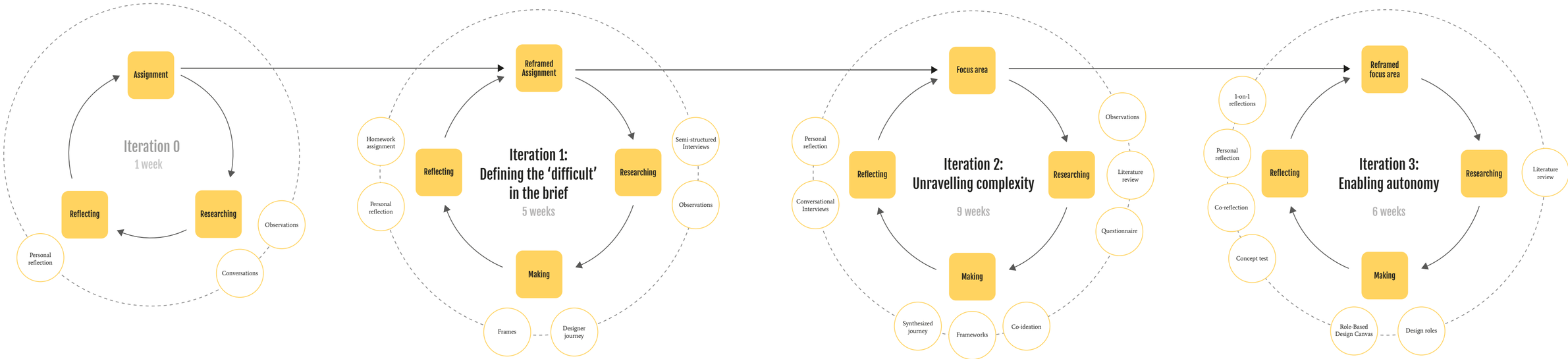


Figure 6. Approach and planning used in thesis, based on 1-10-100 method (Stompff, 2018) and Double Diamond Model (Design Council, 2007), structure is adapted from Nimkulrat (2012).

1.5 METHODOLOGY

In this sub chapter, the methodology of each iteration will be explained. The results and insights from each activity can be found in the remainder of this report (chapter 2, 3 and 4).

1.5.1 Iteration 1: Defining difficult

In this paragraph, the methodology of iteration 1 will be explained. The aim of the first iteration was to broadly explore the context of the project and identify what the 'difficulties' were as described in the assignment of Unplugged (Unplugged, 2019).

Researching

Interviews

In order to discover potential causes of the difficulties experienced during the ideation phase of Unplugged, 8 interviews were conducted. During the project, Unplugged had 10 employees. Therefore, the number of participants is relatively low. To ensure validity, a large sample of these 10 employees was interviewed to get a wide impression of the processes at Unplugged. Next to that, the same employees were involved throughout the project as much as possible, by, for example, validating with them. Lastly, other internal documents such as project proposals and project outcomes were studied during the course of the project.

The semi-structured interviews were conducted in Dutch (Patton, 2000). The interviews followed an interview guide (see appendix 2) which was constructed based on the guidelines of Patton (2000). The interviews were 60 - 90 minutes long, audio recorded and transcribed afterwards. The interviews were performed internally within Unplugged and Makerlab. Only internal interviews were performed in the first phase as the research should be 'quick & dirty' (Stompff, 2018). Therefore, the insights will be from Unplugged's perspective. The interviews were conducted with the following people to ensure multiple points of view and a clear overview of the process:

- 5 Strategy Designers of Unplugged
- Head of Unplugged
- 2 Experiment Designers of Makerlab.

These participants will from now on be referred to as P1 - P8 in a randomized order to protect anonymity. The people with whom more casual conversations were held, for example over coffee, will be referred to as P9 and up.

Observations

In order to discover whether there are any hidden elements causing the difficulties experienced in ideation, co-creation sessions were observed with the client. People are often not aware of everything they do and are, therefore, unable to express this when asked. They do not have access to this tacit knowledge (Blomberg et al., 1993). With observations the behaviour and actions of Unplugged in a real-life setting is investigated to retrieve this tacit knowledge.

The observed session was an Assumption Journey session, lead by two Strategy Designers of Unplugged. An Assumption Journey is a Customer Journey based on information the team currently has instead of insights from research. The session was four hours long in which I made notes as a quiet observer. I made notes on people's behaviour, their interaction, and the way the session was led based on a list of insights from the interviews to see whether I could observe these happening in real life.

Making

Journey map

In order to converge the data from the interviews and observations into a clear problem definition and to identify solution spaces, initial coding and affinity mapping methods were used.

The recordings of the interviews were transcribed by hand and coded using initial coding (Birks & Mills, 2015) immediately after the interview. The initial codes were then categorized into groups. After the eight interviews the categories were theoretically saturated (Birks & Mills, 2015). The code categories were clustered using the affinity mapping method (Dam & Teo, 2020), affinity mapping refers to organizing related facts into distinct clusters. For this organizing an on-the-wall approach was used (Sanders & Stappers, 2012).

Frames

The frames will not be discussed in this report, they can be found in appendix 6. Based on the pain clusters, frames were created. A frame is a way to look at a problem, it filters which issue to concentrate on, makes assumptions and contains a metaphor (Stompff, 2018). The goal of crafting frames is to be able to broadly explore different directions within the context and to explore a wide variety of solutions in a short amount of time. Stompff (2018) recommends to develop a minimum of 5 frames and a maximum of 10. Less frames and the context is not explored broad enough, too many frames and they cannot be explored deeply enough.

Reflecting

Validation exercise

In order to validate and reflect on the frames, a session with members of Unplugged was planned. Due to the COVID-19, an online homework assignment was performed by the designers.

5 Unplugged designers, mapped the pains on 2 axis, one for the impact on the outcome of the project and one for the importance, meaning how important it is for them that the issue is solved. The frames were mapped on use value for Unplugged, meaning the work pleasure it brings the designers and the business value for Unplugged, meaning whether it helps build the reputation and development of Unplugged (Bos-de Vos et al., 2016). Both frames and pains were mapped to separate problem and solution and get feedback on both. This way, the outcomes could be compared to make sure the frames were understood correctly.

Lastly, the participants were asked to do a dot-voting on the most promising frames. A blue sticker for their gut-instinct choice and a yellow sticker for their thought-through choice.

Re-framing the problem

Stompff (2018) emphasizes the importance of critically assessing the frames and possibly re-framing them before continuing with the next round of research.

1.5.2 Iteration 2: Unravelling complexity

In this paragraph the activities related to iteration 2 will be explained (see figure 5). The aim of this iteration was to unravel the complexity behind the chosen frames and pain points. The result was the definition of a focus area in which to explore possible solutions.

Researching

Observations

To gain deeper insight into how the defined problem was present in real-life settings, I observed sessions between Unplugged and/or Makerlab and the client.

The first observed session was a digital ideation session part of an 8 (online) session long project of Makerlab in which each session held a different (sub)part of the design process: scoping, defining, ideation, idea selection, value selection, concepting, assumption mapping and experiment set-up. There were 4 people present from the client and 1 person from a partner organization involved in the project. Three Experiment Designers of Makerlab participated in the session.

The second observed session was a digital ideation session part of a project of Unplugged and Makerlab. There were 9 members present of the client company, all from the same internal department. They were seen as experts on the topic. One member of Unplugged and one member of Makerlab lead the session, they did not participate in the exercises.

During both sessions, the participants had to perform different ideation exercises to generate ideas in a diverging manner. At the end of the sessions a form of clustering took place to start a first converging of ideas. The sessions were both four hours long. The first was recorded, the second was not. During the session I made notes on people's behaviour, their interaction and the way the session was led. I used a list of phenomenon to check whether they presented themselves in the session. The three main phenomenon used were:

1. Whether the client understood the session,
2. Whether the client tried to control the session,
3. To which extent the designers actually designed.

Next to this, I joined and observed internal meetings, such as the monthly Unplugged meeting, where projects, goals and other aspects of the business were discussed. The goal of these observations was to keep getting to know Unplugged and the people that work there better to ensure a good fit between my solution and their needs.

Questionnaire

A demographics survey was held to identify the demographics of the designers and of the client. The survey was send out to the designers of Unplugged and Makerlab through Google Forms. The survey held 9 questions. The questions covered the age of the designer and client team members, the size of the client team and whether the decision-making power lay within the client team or somewhere else in the client organization.

Making

Co-ideation sessions

Two online brainstorming sessions were hosted to explore the three frames. One session with the designers of Unplugged (4 + me). The other session with TU Delft Industrial Design students (5), because I was interested to see whether the experience the Unplugged designers have from working in the field caused any tunnel vision or biases in the results.

For the session I made use of Zoom for video call and MURAL (see appendix 7) as the remote workspace environment. This allowed the group to brainstorm at the same time and enabled them to build on each other's ideas. It enabled me to make audio and screen recordings when necessary and permitted to analyse after the session. The sessions were one hour long to make them less time-consuming for the participants. During the sessions the groups generated ideas based on 3 'How to's' which were derived from the literature review and observations, each frame had one 'How to'.

Reflecting

Interviews

In this phase, the aim of the interviews was not to explore the context, but to align and validate the solution direction to ensure a good fit with Unplugged. During the interviews, I discussed my vision and solutions and retrieved input and feedback on these topics.

The interviews followed the informal, conversational interview style (Patton, 2000) and lasted 30-45 minutes. The interviews were recorded when this was allowed and notes were made during the interviews. The interviews were conducted with the following people:

- Head of Unplugged (2 conversations)
- 2 Partners of Makerstreet (1 each)

These people were interviewed as they are responsible for and/or in charge of the current transition Unplugged is going through. Ideally, my solution would fit with this transition and complement the work they are already doing. After this, these participants will be referred to as I1 - I3 in a randomized order.

1.5.3 Iteration 3: Facilitating autonomy

In this paragraph the activities related to iteration 3 will be explained (see figure 5). The aim of this iteration was to identify and design a way in which the autonomy of the designer could be facilitated. The result is a tool to facilitate dialogue.

Researching

Interviews

In this phase, the interviews were performed in the same way, with the same goal as in iteration 2. The people interviewed were the Head of Unplugged (2x) and a partner at Makerstreet (1x).

Making

Co-reflection session

To validate the context of the solution and explore possible implementation spaces for the solution, a co-reflection session was held. Six designers of Unplugged participated. The session was held online on Zoom and MURAL. It lasted one hour and was recorded for later analysis. The three stages of co-reflection, as described by Tomico et al., (2011) were performed: exploration, ideation and confrontation. First, I pitched the problem context. Next, in the exploration phase, the designers were asked to make a mind map about the problem. In the ideation stage, a brainstorm exercise was performed: 'How-to' exercise from the Delft Design Guide (2010).

Next, I pitched the solution direction. One directional concept was included. The designers were asked to give feedback on the solution. After this confrontation the designers were asked to perform another exploration and ideation on another 'How-to'.

Brainstorming sessions

Two 1-on-1 brainstorming sessions with TU Delft students were hosted to explore possible directions for the concept based on the insights from the co-reflection session. The TU Delft students were from seperate faculties to get multiple points of view. The sessions lasted 45 minutes. The ideas were documented using MURAL.

Reflecting

1-on-1 reflections

To validate and iterate the dialogue tool, 1-on-1 reflections were held with 3 Unplugged designers. The reflections lasted 30-45 minutes and were held through video calls. Together with the participants, the tool was explored and feedback was given on the content.

Concept Test

Due to the scope of the project and COVID-19, the concept could only be tested once. The scope of the project limited this, due to the fact that the aim of the project was to unravel complexity and not necessarily present a solution.

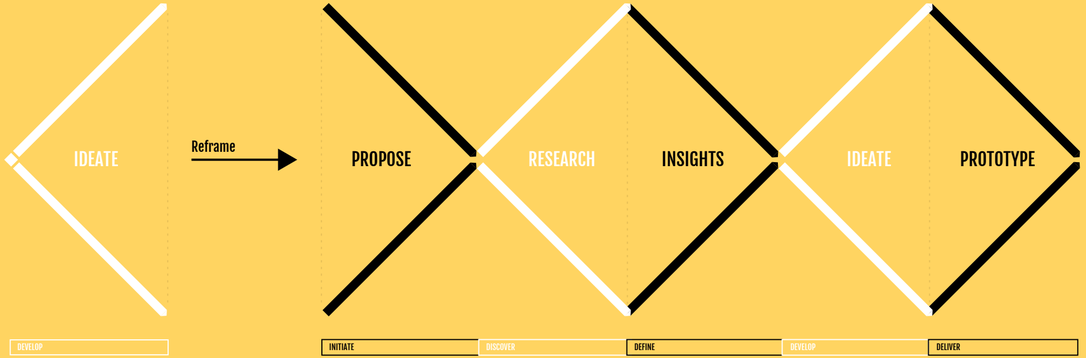
The concept test was performed with two designers of Unplugged. The test was shaped as a roleplay exercise in which one designer took on the role as client and one the role of designer. The participants will be referred to as TP1 and TP2 when speaking as themselves, and as Designer of Client when speaking from their role in the roleplaying exercise.

The participants were given a real situation of conflict which had happened in a past project. The test followed the three stages of co-reflection (Tomico et al., 2011). The participants were given an Empathy Map to fill in from their roles perspective. This served as a means to stimulate dialogue.

1.6 RE-FRAMED BRIEF

During iteration 0 (figure 6), I realized it was necessary to first reframe the initial brief. Some quick conversations over coffee with designers of Unplugged and Makerlab gave me the insight that ideation does not happen in every project. The designers indicated they had not really done ideation in their projects. My assumption was that the difficulties expressed in the assignment may actually be a symptom of an oversight made somewhere else in the process. Therefore, I decided to reframe the assignment to incorporate not only the ideation phase but the full design process of Unplugged. For this, the Double Diamond Model was used (Design Council, 2007) as those were the phases participants later indicated in the interviews as desirable to go through during a project. A phase was added to the model to incorporate the step of writing the project proposal and selling it to the client. I called this phase 'initiate' (see figure 7).

▼ Figure 7. Re-framing the assignment, adapted from Design Council (2007)

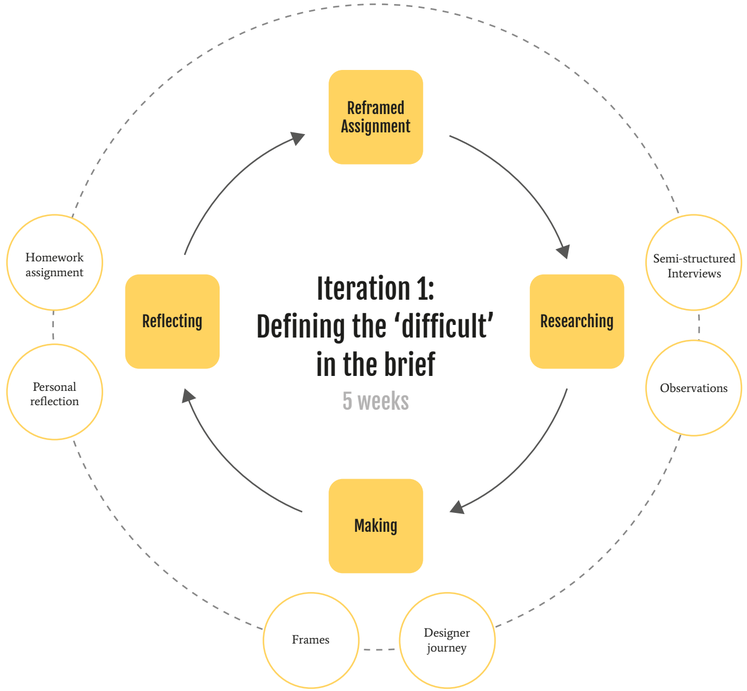


2

ITERATION 1:

DEFINING THE ‘DIFFICULT’ IN THE BRIEF

In the first iteration of this thesis, the context of Unplugged was explored broadly. The goal for this phase was to define the difficulty mentioned in the assignment of Unplugged. The outcome of this phase is a problem definition to serve as input for iteration 2. In this chapter, the analysis and the results of the research will be presented, followed by the problem definition.



▶ Figure 8. Overview of activities performed in iteration 1

2.1 PROJECT CONTEXT ANALYSIS

In the following paragraph, an example will be given of the analysis procedure of the interviews and observations. The full analysis can be found in appendix 4.

As mentioned before, the analysis of the interviews and observations was performed through initial coding and clustering using an on-the-wall approach. Here, the process of shaping one cluster will be explained. This cluster can be found in figure 9.

The red post-its are the code groups, yellow the cluster name and blue the effect on the process. The interviews indicated that the structure of the project process is too dependent on the client (upper right red) and the internal politics of the client company directly influence the project (middle right red). It even goes as far as steps being skipped in the process (middle left red) because the client wants to maintain full control (lower left red). This all indicated that the client has too much control over the process.

The code group of clients having a different way of working was first clustered under a cluster 'client does not understand innovation'. However, I realized that this does not matter that much. It is even the reason the client goes to Unplugged. Therefore, this post-it was redirected to this cluster since it is only a problem if they force their way of working into the design process. Based on this insight, it was concluded that the designers cannot go through the process they want, because the client forces their way of working into the process which is not suited for design.

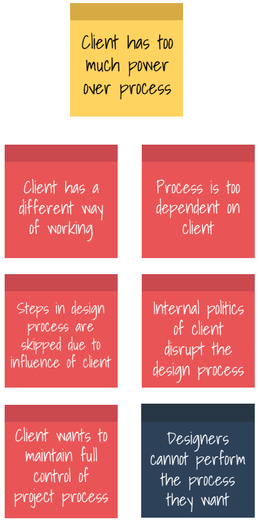


Figure 9. Example of affinity mapping

2.2 PROBLEM DEFINITION

In this sub chapter, the insights from the interviews will be explained based on 1 or 2 quotes from the interviews. An overview of more quotes belonging to each take away can be found in appendix 3. As the interviews were conducted in Dutch, the quotes in the report were translated, keeping as close to the original Dutch translation as possible. Next, the insights from the observations will be explained based on situational descriptions.

2.1.1 Interview insights

The projects are stuck between being research projects and design projects.

As mentioned before, in the re-framed brief (∫1.6), ideation does not always happen during the projects of Unplugged. Four designers indicated that they had not really done ideation yet during their time at Unplugged. Indicating that they mainly do research. One participant gave a possible explanation for this. The participant indicated that as a designer you have experience with all phases of the design process (discover, define, develop deliver). But as a client, you do not. The client has a problem and wants to find out something they do not understand (e.g. a user problem):

> "So do you then sell a design process or do you sell a research project? And the latter is where people recognize themselves more." (P3)

Meaning that the client only wants discovery and creative design steps like ideation are skipped. The participant went on to indicate that Unplugged was mostly known for discovery. This was also expressed by other participants. When asked what Unplugged does for the client, participants either mentioned research first or put the emphasis on research.

Research presents limitations to creativity. Validating every step with research limits the options for creative solution exploration and makes "the solutions more practical and straightforward" (P1). Inherently diverting them from innovation (H2) to optimization (H1) type solutions.

The client misses the correct internal structures for innovation.

Unplugged's clients need help with innovation, that is why they are working with Unplugged. This means that they often do not have a well-functioning internal innovation department yet or it is still in its starting phase:

> "I noticed that the concept of innovation within [client] was still in its infancy and that it is in development." (P5).

This causes the goals and expectations of the project to be unknown or unclear to the client and, therefore, to Unplugged. Without clear goals, creating successful outcomes is "like throwing a dart blindfolded in a dark room while looking the other way" (P7).

Lastly, it means that the client does not have the right people to involve in the project, or does not know who these people are and what they should be able to do:

> "Because it is often people, of course, who are put on such an innovation project in addition to their other work. So it is often a side thing for them and you see that the commitment is not always there." (P6).

The designers of Unplugged do not have enough influence on the project.

The interviewees indicated that the projects of Unplugged are often sold within the best interest of the client. This means the designers input in what the process should look like often gets lost, resulting in project processes that do not match with the design cycle a designer wants to perform:

> "The current process we have sold is divided into two parts, one is setting up the pilot. I don't think we should do that, but that's the customer's request." (P8).

Phases, like ideation and discovery, get left out as the client does not recognize the value of these diverging steps. Next to this, the client always has the final call when it comes to decisions in the project. Often, these clients do not make these choices in the best interest of the project, but in the best interest of their own personal agenda:

> "...but the reality is that he does not make choices based on what is best for the project, but simply on his own agenda. His own corporate ladder growth." (P7).

This leads to time being lost on activities the designers do not want to perform, like invalidating propositions presented by the client and steering them back in the right direction.

This insight also transfers into the co-creation sessions. Participants indicated that the quality of the outcomes of co-creation sessions are dependent on the type of person present at the ideation session. They indicated that "there are always certain stereotypical people present at these sessions" (P4). Indicated stereotypes were really dominant people, quiet people, unmotivated people etc.. Next to that, external factors such as the mood or energy- and stress-level of the participants greatly influence the way the session goes and the outcomes it produces.

2.1.2 Observation insights

There are stereotypes present at the sessions.

During the observed session I noticed the presence of stereotypes as described in the interviews. Such as people who push their opinion, people who are very quiet and people who talk a lot.

Participants can have personal issues which invoke arguments and disagreements.

Two people of the client at the session seemed to have some personal issues with each other. They constantly disagreed with each other and pressed discussions to an, in my personal opinion, unreasonable extent. This led the attention of the other people in the room to focus on their issues instead of the session at hand.

Difficulty is experienced in knowing when to stray away from a topic to gain valuable insight and when to steer the participants back.

During the session some intense discussions arose between participants. The members of Unplugged indicated after the session that they found it difficult to know when to let the discussion pan out, as it led to deep insights, and when to steer it back to the topic at hand (since there was limited time). For example, one discussion arose about one 'department' of the client, which lead to deep insights about that specific department. However, during the session all departments needed to be taken into account.

Difficulty is experienced in keeping people's attention with the session.

Often during the session when people could not collectively share their opinion they would turn to the person sitting next to them and start a conversation one-on-one. This created difficulties for the members of Unplugged to keep everyone involved in the assignment. Sometimes the highest ranking person from the client organization steered the session back in the right direction.

2.1.3 Journey Map

Based on the interviews, observations and existing project proposals, an 'ideal' process was created according to the Unplugged designers. Ideal means the process the designers want to go through during their projects. Through this process it was defined where the pains are most present in the process, what effects they have and how the designers feel about it. These insights were combined into one journey map, which can be found in figure 10.

2.1.4 Problem definition

From this analysis can be concluded that the difficulties experienced during ideation are a symptom of another problem. During the length of the project with a client, the design process as intended by the designer is continuously disrupted. This means the full potential and value of a design approach is not being achieved, which results in less desirable outcomes for the client and Unplugged. The disruptions take place mostly when decisions are made about the project by the client (see figure 10). Here, high levels of negative emotions are experienced.

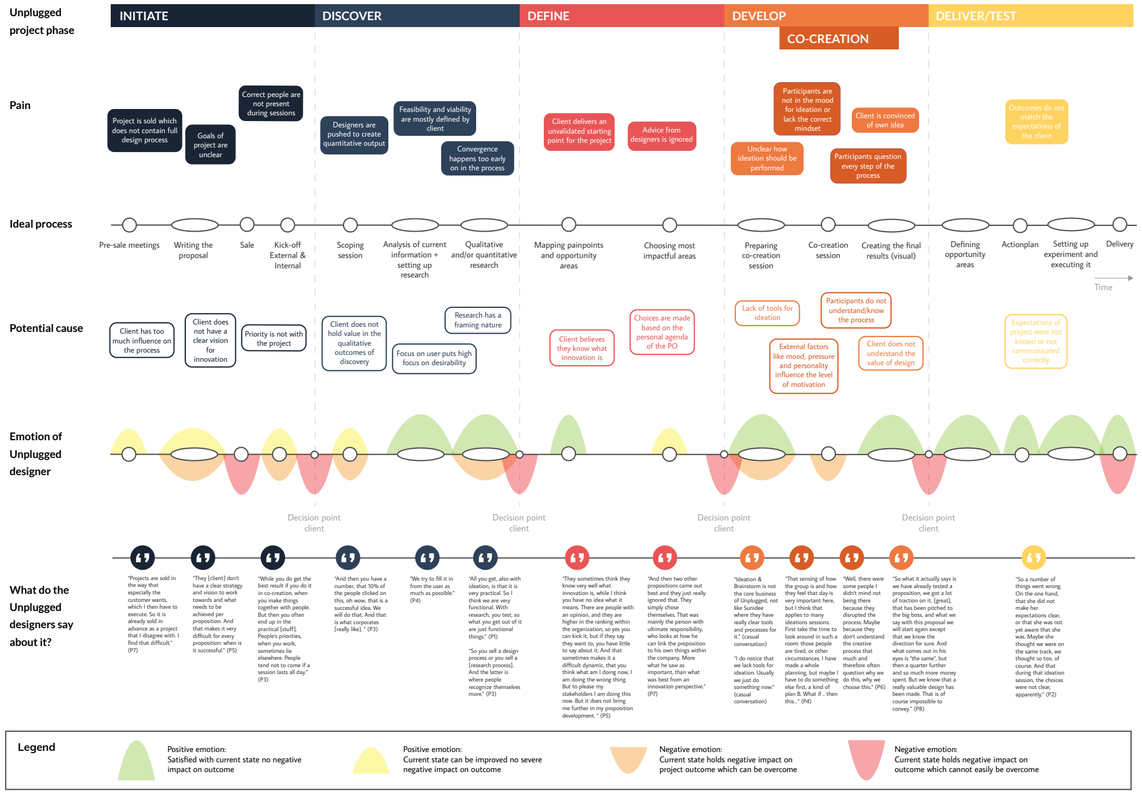


Figure 10. Journey of projects of Unplugged designers with pains and quotes

2.3 CONCLUSION

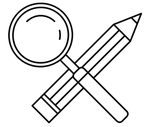
During the first iteration of this thesis, 8 internal interviews were conducted. Observations were made during internal sessions with Unplugged and external sessions with the client (and Unplugged). These interviews and observations were analysed using initial coding and affinity mapping. This analysis led to insights into the process of Unplugged. A combined overview of these insights can be found in figure 11.

From the analysis, the following problem was defined:

During the length of the project with a client, the design process as intended by the designer is continuously disrupted. This means the full potential and value of a design approach is not being achieved, which results in less desirable outcomes for the client and Unplugged.

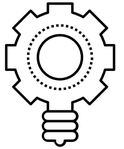
The problem statement and pains were validated with the designers of Unplugged during the homework assignment. In the following chapter, this problem and the corresponding causes (see figure 11) will be explored more broadly to get to the core of the issue.

▸ Figure 11. Combined overview of pains and three main groups



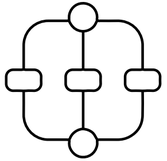
The projects are stuck between design and research

- Design gets lost in research.
- Lack of (proper) tools for ideation.
- Client does not recognize value of design.



Client does not know (yet) how to perform an innovation project.

- Expectations of project are unclear.
- Client does not have a clear vision or strategy for innovation.
- Suitable people are not present during project.



The Unplugged designers have too little influence on the project process

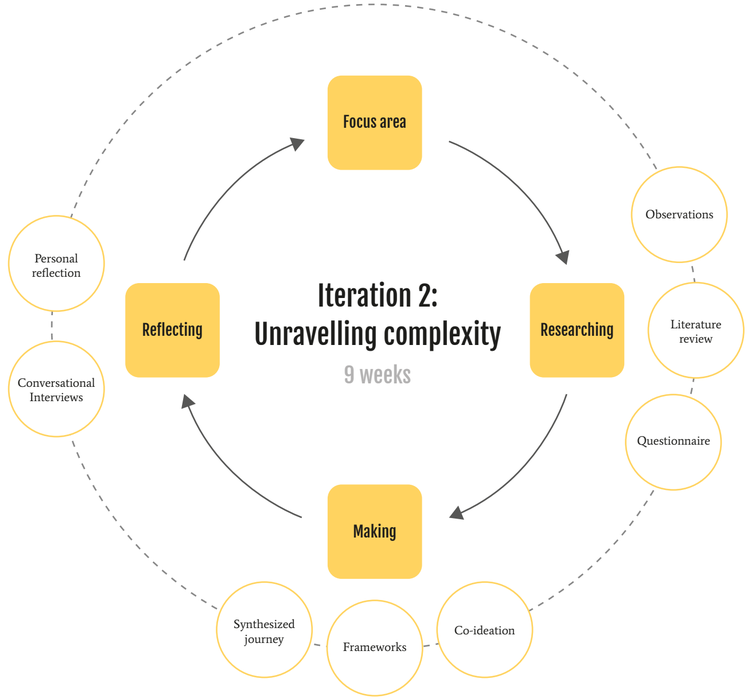
- Projects do not match with the design process.
- Client has too much influence on process.
- External influences such as mood of participants and stereotypes influence outcome of co-creation.

3

ITERATION 2:

UNRAVELLING COMPLEXITY

In this chapter, the complexity of the problem definition is unravelled to identify the lead cause of the issue. A focus area is chosen for the thesis. Based on this focus area more research and analysis is performed. An extensive literature review was conducted on the focus area. From this research stem two theoretical frameworks. The outcome of the phase is a synthesized journey of Unplugged, based on the insights from the research and the theoretical frameworks, and a solution direction to serve as input for iteration 3. For an overview of activities, see figure 12.



▶ Figure 12. Overview of activities performed in iteration 2

3.1 DEFINING AUTONOMY

In this sub chapter, the chosen focus area will be discussed. This area was chosen based on the problem definition and the vision of the author. The focus area will then be explored and defined.

3.1.1 The focus area

At the beginning of this thesis, I spoke about my vision as a designer and my personal principles of Good Design. About my drive to help companies understand innovation and solve the apparent innovation 'discrepancy' experienced in practice. I recognize this discrepancy in the problem definition given in the previous chapter.

The clients of Unplugged want to become more innovative and Unplugged wants to help them with that. However, during the projects, the design process (which can lead to innovation) is disrupted. The designers of Unplugged take on a more facilitating role and leave the creative content generation to the client during the co-creative ideation sessions. Meaning that their design expertise, for a large part, gets lost.

This is strengthened by the clients of Unplugged taking too much control over the process. They force their own way of working in the project, which has not led to innovation in the past, otherwise they would not come to Unplugged for help in the first place. This leads to unsatisfactory outcomes. As the client does not know how to perform an innovation project.

These two phenomenon resulted in the following theme: autonomy, or a lack thereof for the designers of Unplugged during the projects.

3.1.2 What is autonomy?

The definition for autonomy in the Cambridge Dictionary is, among other things: "the right of an organization [...] to be independent and govern itself" and "the ability to make your own decisions without being controlled by anyone else." As seen in the interviews and observations, the clients of Unplugged often tries to take over the process or the advice of the designers is ignored. As can be seen in (figure 10) the biggest pains lie on the decision moments of the client.

Another definition of autonomy is: "the power to shape your work environment in ways that allow you to perform at your best" (Maylett, 2016). In the case of Unplugged, I see 'performing at your best' as being able to use their design expertise to the fullest. Currently the use of the designer's expertise is compromised by the client taking over the project.

Autonomy is a human value. Schwartz & Bilsky (1987) give a definition for value based on several literature sources: values are "(a) concepts or beliefs, (b) about desirable end states or behaviours, (c) that transcend specific situations, (d) guide selection or evaluation of behaviour and events, and (e) are ordered by relative importance" (p. 551). Schwartz & Bilsky (1987) define two types of autonomy: intellectual and affective. Intellectual autonomy is where an individual, or group is encouraged to pursue their own ideas and intellectual directions, independently. Affective autonomy is where an individual, or group, is encouraged to pursue affectively positive experiences for themselves.

Van Mierlo et al. (2006) state that individual autonomy and team autonomy are isomorphic constructs. This means that team autonomy can be seen as the team-level parallel to individual autonomy. In the case of Unplugged, the focus is on group autonomy.

Based on this analysis, autonomy, in the case of Unplugged, can be defined as the following abilities to be obtained (see figure 13):

- The ability of Unplugged to take or influence decisions regarding the project
- The ability to be an independent body, meaning they can perform their own process
- The ability to generate ideas (or to design)
- The ability to have a vision

In short, I see these abilities as 1) being able to design and using design expertise and 2) having a sufficient share of control over the project process and direction.

3.1.3 The benefits of autonomy

Autonomy is beneficial for the outcomes of the project. Manzini (2016) states that designers should have their own vision and generate their own ideas in co-design projects. In the end, the results of the project are highly dependent on the quality of ideas generated (Manzini, 2016). Designers are capable of creating quality ideas as they attained design expertise through experience. It is, therefore, hard to believe that non-designers can attain this same level of quality through a few workshops (Ling, 2010; Tomico et al., 2011). Therefore, designers should present their own ideas and visions (Manzini, 2016). Cross (2011) even proposes that a clash between the vision of a designer and the criteria of the client can improve the outcome of a project.

Another benefit of autonomy is that it enhances creativity (Amabile et al., 1996; Velthouse, 1990; Woodman, Sawyer, & Griffin, 1993). This positive effect is mainly caused by the high levels of intrinsic motivation and psychological ownership which come with autonomy, because this makes performing the creative task more enjoyable and rewarding (Csikszentmihalyi, 1996; Deci & Ryan,

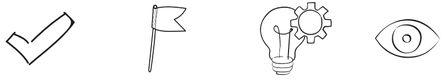


Figure 13. Characteristics of autonomy for Unplugged

1985). This increases the level of commitment to the task (Nonaka et al., 2000).

In conclusion, Unplugged can benefit from heightened autonomy as it leads to a more positive work experience (Schwartz & Bilsky, 1987) and higher intrinsic motivation. For the client, the heightened autonomy leads to better results (Cross, 2011) and higher ownership over the outcome (Csikszentmihalyi, 1996; Deci & Ryan, 1985). Making it a desirable outcome for both parties.

3.1.4 The extremes of autonomy

But, should a designer then have full autonomy? To answer that question we look at the three models of client-designer interaction described by bioethical literature: 'design paternalism', 'client-autonomy' and the 'cooperation model' (d'Anjou, 2011). These models regard autonomy in the sense of authenticity. Where being authentic means being in charge of your own decisions.

Design paternalism

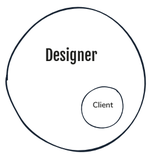


Figure 14. Design paternalism model (d'Anjou, 2011)

The design paternalism model can be seen as the situation where the designer has full autonomy and is in charge of making all the decisions regarding the project (see figure 14). In this model, the client seeks the expertise of the designer which they do not possess themselves. Here, it is the job of the designer to use this expertise to create outcomes which are in the best interest of the client, evaluating these interests based on the clients' needs (d'Anjou, 2011). The client becomes a passive contributor to the project.

The flaw in this model, as d'Anjou (2011) argues is that professional knowledge of the needs of the client is seen as the same thing as knowledge of the best interests of the client. The best interests cannot be identified without having knowledge of the preferences, values and wishes of the client. The vision of the client should be taken into account in order to succeed. Social trusteeship, or acting in the best interest of the client, can therefore not be achieved without having regard for the clients wishes, or, conforming to the client to some extent.

Client-autonomy

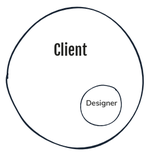


Figure 15. Client-autonomy model (d'Anjou, 2011)

The client-autonomy model can be seen as the situation where the client has full autonomy (see figure 15). In any client-designer interaction, clients are in a strong position to decide what will be and should be done during the project as it entails their product or service (Gutman, 1988). This reduces the role of the designer to that of providing objective information on which the client can base their decisions, as subjectivity will impose the designers own values and beliefs on the information which would compromise the autonomy of the client (d'Anjou, 2011). d'Anjou (2011) argues that this right of the client to govern the project should be seen as a negative right. Clients should recognize that they do not possess the same expertise as the designer, and should respect the designer in their expertise and trust in the valuable input they can deliver. Therefore, designers should not always adhere to the wishes of the client, but protect their professional integrity by using and voicing their vision.

Cooperation model

Both the paternalism and client-autonomy model hold the same flaw, neither of them can foster authentic conversation between the designer and client (d'Anjou, 2011). The paternalism model does not allow for conversation between the designer and client at all, whereas the client-autonomy model only allows objective conversation. They do not allow for mutual authenticity, or put otherwise, mutual respect for the respective expertises.

The last extreme in autonomy is the cooperation model. This model assumes that communication is central in designer-client interaction and that the objectives of design can only be achieved through conversations between the client and the designer (see figure 16) (d'Anjou, 2011). The tension between autonomy and conformity with regard to social trusteeship takes centre stage in this dialogue between client and designer. The designer needs to find a balance between autonomy and conformity, which d'Anjou (2011) calls non-disturbing distance and caring presence. d'Anjou (2011) argues that the distance is required in order for the professional integrity of the designer to be protected and the presence is required because the goal of the project is to help and satisfy the needs of the client.

The means to achieve this balance is through authentic conversation. In this conversation, the autonomy of both parties should be respected with regard to their expertises. The designer as an expert on design who can offer a fresh perspective, and the client as an expert on their own domain who has high levels of knowledge through experience (d'Anjou, 2011; Manzini, 2016). This can take away freedom of the designer, but it is important to have a solid guiding idea with which the designers can assess and improve their designs, creating a process of 'shared-decision making' (d'Anjou, 2011).

In conclusion, a balance should be found between non-disturbing distance and caring presence. Between when the expertise of the designer should be dominant and when the expertise of the client should be dominant. A means to reach this balance would be design dialogue. This balance will be explored further in the following sub chapter.

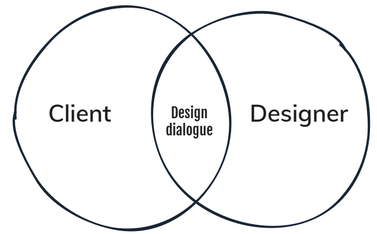


Figure 16. Cooperation model (d'Anjou, 2011)

3.2 THE TENSION OF AUTONOMY IN CO-CREATION

The aim of this sub chapter is to identify what is currently disrupting the balance in autonomy in the case of Unplugged. An analysis is performed based on the data from the interviews and observations of the first two iterations.

3.2.1 The tension in autonomy

When looking at the context in which Unplugged performs their work, there is an apparent tension present within the concept of autonomy. Unplugged, as a service agency stands in service to their clients in the form of the projects they perform. There exists a tension here between the value of autonomy and the value of conformity (obedience) (Schwartz & Bilsky, 1987), or non-disturbing distance and caring presence (d'Anjou, 2011). These values create tension within the frame of social trusteeship (acting in the best interest of the client) (Bos-de Vos, 2019), especially in situations were the client appears to be taking decisions not based on the best interest of the project but in the best interest of themselves (see figure 17).

Should Unplugged then interfere for the best interest of the project (use their expertise) or should they adhere to their clients wishes (ignore their expertise)? A quote from the interviews directly relates to this:

> Do you then give them what they want or what they need? (P8)

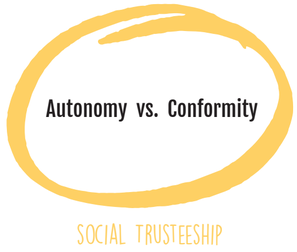


Figure 17. Tension in autonomy

As the team of Unplugged is relatively young (around 30 years old) they may not have the proper experience to deal with these kinds of complex value-clashing situations. In the interviews, one participant indicated that there is no structure within Unplugged that guides and teaches junior-designers to deal with these situations. Next to this, the education of a designer, in my personal opinion and reflected on in a conversation with participant I3, teaches you only to facilitate the design process based on tools and how to design a session. They do not teach us how to present ourselves, what you should and should not say and when to give and when to take.

On the other hand, the representative of the client who is responsible for making decisions is often older (the survey indicated that >65% is over 40 years of age, see appendix 10). In the interviews a participant indicated that it was often difficult to convince more 'senior' members of his/her expertise:

> "If you are younger, how bad it is, they [the stakeholders], will think: why is this young [person] telling me what to do." (P4).

Next to this, the client PO requested more senior members of Unplugged to be present during stakeholder sessions. The participant indicated that this had to do with the PO's own perception of professionalism regarding the project. Indicating a difference in perceived professionalism of the junior designers, this will be discussed more in ∫Decision points.

The results of the co-ideation sessions (see appendix 9) with the designers of Unplugged and TU Delft students indicated a noticeable difference in this client/designer relationship perspective. The difference between the ideas of the students and the designers, lay in the involvement of the client and being a designer. The designers generated many ideas about working together (more) with the client and creating a strong bond with them, while the students generated many ideas about working as a designer and using design methods.

Next to that, the students had several ideas about showing the value of design and the consequences of not using a design approach. This indicates that the designers of Unplugged have a high regard for the wishes of the client. Next to this, the students seem to identify themselves more as a designer than the designers of Unplugged do. One of the interviews indicated this as well:

> "I think, over the years, this way of working [being a researcher] has crept up on us." (I3)

And in a later conversation the same participant indicated that Unplugged may be too quick to adhere to the clients wishes, and does not trust enough in their expertise as a designer and their own skills. These insights indicate a more facilitating role the designers of Unplugged take on during the project, leaning to conformity.

3.2.2 Where is the tension in autonomy observed?

In the interviews and observations performed in this phase and the previous phase several examples of a compromised autonomy can be observed. The tension mentioned is most present in the initiation phase, the development phase and during the decision points of the project process.

Initiation phase

During the initiation phase, where the project proposal is written and sold to the client, the designers of Unplugged experience a lack of input in the proposals. One participant mentioned:

> "But it is not nice if someone else writes the proposal [sales] and you just have to carry it out. Design and sales think too differently. Then there is already a signature under a certain plan, [...] and you have no input on the process." (P9)

Another participant mentioned:

> "In the end, it is true with these types of projects that, if you ask me, we sell a certain process for the benefit of someone who works for a corporate [instead of based on our expertise as Unplugged]." (P7)

Whereas when the designer does get input, they are satisfied, as another designer mentioned an example of where she was responsible for most of the input in the proposal and could structure the project according to her process and was happy with it.

The reason for this lack of input seems to stem, from the side of the client, of them wanting too much control over the process. The client is often new to innovation or is not performing it right yet. This creates a sense of uncertainty which leads them to take over control to ensure good outcomes, since businesses are used to working risk-averse (Sheppard et al., 2018; Dunne & Martin, 2006). For example, a participant mentioned:

> "With design, you don't really know where it is going, and they [the client] find that difficult to accept." (P3)

Development phase

In the development phase the tension between autonomy and conformity is also observed. This tension was observed during both the digital ideation sessions. Here, the tension mostly presented itself when members of the client did not agree with or did not understand the exercises they were asked to perform. The client then attempted to take control over the session by proposing other ways to do it. After the people from Unplugged/Makerlab tried to explain why they should not do that, they still persisted in their opinion and forced the people from Unplugged/Makerlab to adjust their session.

In the first session, the reason for this was quite obvious. The participants indicated, both during the session and during the feedback round at the end, that compared to the previous session held (the defining session which is converging in nature) they did not like this session that much because they did not feel there was any conclusion at the end which they collectively agreed on.

However, a designer knows that an ideation session is meant for widely exploring the solution area and working in a very diverging manner. The participants from the client could not understand this and seemed unaware of their own misunderstanding even when the members of Makerlab explained it to them.

> For example, the participants had been asked to perform an outside-in as homework before the session. With an outside-in you look at other business' service offerings and identify what you like/dislike about them. It is meant as a source of inspiration and a way to limit bias in the client. When this outside-in was discussed, all members of the client separately indicated what their likes and dislikes were. After everyone had their turn, the Makerlab session leaders wanted to move on to idea generation. At this point, one of the client team members started to protest. He indicated in an irked tone that he did not feel like he knew what everyone's opinion was and felt like they needed to converge and form one opinion. The people from Makerlab then went on to explain that the exercise was purely meant for inspiration for the idea generation. After their explanation the same participant of the client protested again and indicated that he did not see the point in all of it.

This indicates that they have difficulty with the diverging nature of ideation (Sheppard et al., 2018; Dunne and Martin, 2006) and need a common understanding or conclusion to proceed with.

In the second session, the reason was driven by two factors. The first one being a misunderstanding due to miscommunication, which seemed to be caused by the fact that the session was held online instead of the usual offline. The second driver was again related to a lack of a common understanding. The participants indicated when moving from idea generation to creating concept card combinations (here you need to pick 2-3 ideas and create a combination which turns into a concept), that they did not understand why they did not cluster all the ideas first. One participant said that without this clustering, she felt that a lot of ideas would be lost due to oversight. Nearly all participants indicated that they found it difficult to select 2-3 ideas out of all the ideas (± 180 ideas) generated. This difficulty was also identified in the interviews:

> "They found it very difficult to make choices. […] They preferred to make as few choices as possible and to keep it as broad as possible. That caused a bit of friction, you really had to explain that [choices needed to be made]." (P2)

This difficulty in making decisions and difficulty with diverging without converging again indicates that the client has a hard time dealing with uncertainty. Both when they do not understand what they are doing (they have a lack of control over situations) and need to make choices without all the information.

Another example of this tension was observed in the offline assumption journey mapping session which was observed in phase 1. During this session there were many people present with strong opinions which caused intense discussions to arise. The members of Unplugged indicated after the session that they found it difficult to know when to let the discussion pan out and when to steer it back to the topic at hand.

However, during the session, it was often the highest ranking representative from the client organization who then steered the attention back to the session which appeared helpful. However, he often steered it into the direction he preferred. For example, he would start his sentences with "In my opinion, we are straying away from 'this and that' which I believe is important." Indicating a need to control the direction of the workshop. This tendency of higher ranking representatives to influence the project direction was also indicated in the interviews:

> "In itself it is also a kind of [having] concrete other interests. He understands what I think is important, but the reality is that he does not make choices based on what is best for what we have done [as Unplugged], but he just makes those [decisions] for his own agenda. His own corporate ladder growth." (P7)

Decision points

The former quote directly relates to how the tension between autonomy and conformity is presented in decision points of the project. The decision points may be the most pressing pain regarding the tension between autonomy and conformity in the current process of Unplugged (see figure 10). During the interviews, 3 other participants indicated similar difficulties, where the client made a decision based on their own personal agenda, instead of the best interest of the project:

> "We are going to innovate, but that must be within the framework of a corporate. There are probably [really] good reasons that corporates work with those [gate] meetings, but it actually ensures that you are not at all busy with the things that you should actually be doing." (P8)

An important driver for this identified in the interviews is reputation. Where the client has another perception of professionalism than the designers of Unplugged. For example, one participant indicated:

> "[Client PO] would like to have someone a bit more senior involved. If we do have sessions with stakeholders [...] those are often seniors. If you [a young designer] stand there in front of the class, [the client PO] thinks that it is unprofessional towards herself. That lies more with her than whether things are going well or not: professionalizing her process." (P4)

Or another participant mentioned:

> "This [indicating a delay in the process] is because [the PO] is too busy and does not want to take ownership of the effects that this project will create. [...] if bad products come out, she does not want to be associated with them." (P3)

Another way the tension arises at decision points is when the advice of the designer is ignored. For example, one participant mentioned:

> "Then things that have not been shown by research are included, and what is shown by research is not. Even if we [Unplugged] would it like to. They always have the final call. Even if you are the one who has the expertise." (P2)

Or

> "We [Unplugged team] also prioritized what we thought was the best concept. Two themes came out best and they just ignored that. They simply chose themselves. But perhaps we did not given good enough advice on this. That we have not been firm enough." (P7)

The latter quote indicates that the Unplugged designers may not have been sufficiently secure enough to give advice or did not know how to. In a conversation with participant I3 a similar topic came up. S/he indicated that s/he felt that Unplugged often tries too hard to please their client and do not trust in their own expertise enough to give a little push. The topic of pleasing stakeholders also came up in the interviews:

> "[...] that sometimes makes it a difficult dynamic, that you think what I am doing now, is the wrong thing. But to please my stakeholders I am doing this now. But it does not bring me further in my proposition development." (P5)

Agueverre et al. (2020) argues that this phenomenon stems from the difference in status or expertise between members of a co-creation team. These differences can create hierarchies inside the team, in which members with a lower hierarchical status seek the approval of members with higher status. Meaning they are more likely to agree with them (conformity). Next to this, higher status members can be less inclined to notice the contribution of lower status members, who, in turn, become less inclined to share their opinions (Agueverre et al., 2020).

The underlying motivator for the client seems to be the tension between control and openness. Cook (2008) states that for collaboration to be successful the client needs to give up a certain degree of managerial authority. This brings high levels of uncertainty (O'Hern & Rindfleisch, 2010). Firms are experiencing difficulty in switching from traditional ways of doing business to this new way of business with reduced control (Baha, Sturkenboom & Raijmakers, 2013). This was also indicated in the interviews, where one participant mentioned "that is why the client is always present, they want that total control" (P4). A member of Makerlab mentioned:

> "[Client PO] wants to hold control too tightly in her hands. Then I leave there at half past five and I have already received 2 emails before nine 'o clock with whether I can send the updated slides." (P9)

Especially in the development of new products, services or propositions (NPD) it is difficult for managers to give up control, as literature suggests that tight managerial control (e.g. the Stage-Gate model) enhances NPD success (O'Hern & Rindfleisch, 2010). It goes directly against the "long unquestioned beliefs about the role of management, the value of experts, and the importance of quality assurance" (Cook 2008, p. 68). As described in this sub chapter, this reluctance to give up control also presents itself in the case of Unplugged.

The value of expertise also poses an interesting dilemma in the case of Unplugged. Whereas, Unplugged has a high regard for the expertise of the client. The client seems to have a misguided view on the expertise of Unplugged. The designers of Unplugged acknowledge their lack of expertise, one participant said:

> "As a consultant, we are always in a different sector, so I don't think you can do that [know everything]. If I am with an insurer, [I have] no idea how that works."

Indicating that they respect the knowledge of the client and do not pretend to know their business. However, during the observations of the assumption journey mapping session and the first digital ideation session, the client did not portray a respect for the expertise of the designers. On both occasions, the client regarded the expertise of the designer as 'Design Thinking' and indicated that they also knew Design Thinking and therefore approached the situation in the same way. For example,

> During the assumption journey session, one participant from the client said, when regarding all the post its on the journey: "Usually I do the design thinking part. So, I am so glad I do not have to process all of this, this time."

Indicating that they felt they held the same expertise as the designers, while they did not have this background. During the first digital ideation session a similar comment was made.

3.2.3 Conclusion of analysis

The misbalanced autonomy for Unplugged is caused by a tension between autonomy and conformity with regard to social trusteeship. Based on the analysis, this tension seems to be strengthened by the following factors:

On the side of Unplugged, it seems to stem from a misconception in mindset. The designers appear to have adopted more of a facilitator mindset, than a designer mindset. This mindset combined with a lack of seniority and experience as compared to the more senior stakeholders from the client, results in a imbalanced power structure. And a lack of trust in their own expertise as a designer. This leads to insecurity when giving advice, inherently leaving the control over the decisions up to the client. This leads to dissatisfaction as shown in the journey in figure 10.

On the side of the client, the tension is strengthened by the tension between control and openness. This is caused by the following aspects: 1) the client does not know how to deal with the uncertainty that a design process brings (both the natural uncertainty in design and the uncertainty of not understanding the process) and tries to ensure good outcomes, 2) the client has a different view on professionalism and does not regard the expertise of the junior designers correctly, inherently trusting only in their own domain expertise which the designers do not posses. This indicates that achieving understanding, trust and respect are important factors in achieving autonomy.

3.3 EXPLORING AUTONOMY IN CO-CREATION

In the following paragraph, literature on autonomy in co-creation is explored. The aim of the literature review is to identify ways to shape a suitable cooperation model (d'Anjou, 2011) and achieve understanding, trust and respect. There is not a lot of existing literature to be found on autonomy in co-creation. Therefore, several literature streams will be explored to identify principles for autonomy in co-creation. The literature review will be discussed in the order of the emergence of these principles. In the following sub chapter, these principles will be combined into two frameworks.

3.3.1 Co-reflection

The ability of Unplugged designers to use their design expertise is currently compromised by the facilitating role they take on in the project. This change where designers facilitate the client in having a creative process is acknowledged in literature (Manzini, 2016; Tomico, Lu, Baha, Lehto & Hirvikoski, 2011). Manzini (2016) differentiates three types of design: diffuse design, which is "the natural human ability to adopt a design approach", expert design, which are "professional designers who should, by definition, be endowed with specific design skills and culture" and co-design, which is "the overall design process resulting from the interaction of a variety of disciplines and stakeholders" (Manzini, 2016, p. 53).

One of the strengths of co-creation is combining people with different expertises and exploit these expertises to come up with wholesome concepts (Steen, Manschot & De Koning, 2011). Evidently, people should be able to use their expertises in a co-creation process in the right way (Dunne & Martin, 2006).

Currently, the designers of Unplugged are losing their expertise as designers. By taking on a facilitating role, their option to design is taken away and given over to the client (Tomico et al., 2011). Designers achieve and hone their skills through years of experience with design projects. It is, therefore, hard to believe that non-designers can attain this same level of skill through a few workshops (Ling, 2010; Tomico et al., 2011).

What should the role of the client be then? The client is an expert on their own firm and competences (domain expertise). Stompff (2018) indicates that the client is suited for data collection, analysis, evaluation and reflection. Verganti & Öberg (2013) describe this as not only being experts, but also being critics who can improve the quality of a concept. According to Stompff (2018), idea generation and realization is best left to the designers (see figure 18).

Tomico et al. (2011) have explored this theme of the designers autonomy by creating a process called co-reflection. Co-reflection allows the designer to both facilitate and design. In co-reflection, designers perform their own idea generation session before having a co-design session with the client. The designer, in this scenario, should be acknowledged as an expert designer, who brings creativity and design culture (Manzini, 2016). It is said that more

innovative solutions occur when there is a conflict to be resolved between the vision of the designer and the criteria for the solution (Cross, 2011).

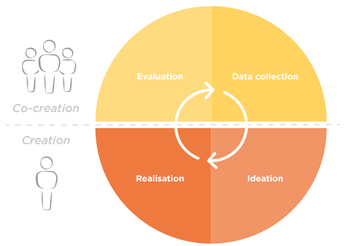


Figure 18. New co-creation scheme with iteration based on Stompff (2018) & Russo-Spena & Mele (2012)

Manzini (2018) emphasizes this by explaining that different people in a collaboration can be motivated by different factors, but share the same need to achieve a certain result. Everyone should be able to find their own way of participating. Meaning that expertises should be exploited and respected. Escobar (2018) expresses that in these collaborations, the different people should respect each other's abilities.

3.3.2 Meaning-driven innovation

The goal of co-reflection (Tomico et al., 2011) is to confront the vision and ideas of the designers, with the vision and ideas of the client team. Verganti & Öberg (2013) propose to do this through iterative debate. Adopting an iterative process can also aid in defining the implicit values of different actors mentioned before.

To have successful debate, Verganti & Öberg (2013) stress the importance of including networks in the context of meaning-driven innovation. Meaning-driven innovation is a form of radical innovation which radically changes the meaning of things (Norman & Verganti, 2013). By including networks, different views can be included as "meanings are co-generated — in between different minds that interact with each other." (Verganti & Öberg, 2013, p. 89) They stress the importance of using these different viewpoints as critics to reach a mutual understanding, same as in the literature on co-reflection.

Next to this, Norman & Verganti (2013) state that radical innovation cannot succeed without incremental innovation. Where radical innovation creates a potential for major changes, incremental innovation is how the value of this potential is captured. Tying this to the previously mentioned proposed roles in co-creation by Stompff (2018) and Tomico et al. (2013) and the dialogic design vision of Manzini (2016). Here, I see the role of the designer as the creator of radical innovation by offering a new and fresh perspective in the shape of their own vision and through their ideas. The role of the client will entail to pose the criteria as the incremental innovation. The principles defined by the above discussed sources can be found in figure 19.

Figure 19. Principles based on Tomico et al. (2011), Verganti & Öberg (2013), and Norman & Verganti (2013)

3.3.3 Dialogic design

Manzini (2016) also offers a view on the autonomy of the designer in co-creation projects based on debate, or dialogue. Recall what was mentioned before about Manzini's definition of three types of design: expert, diffuse and co-design. In this view, Unplugged should be the expert designer and the client the diffuse designer, who work together in a co-design project. In his paper, Manzini calls the current emerging design culture limited. The absence of debate in this emerging culture prevents it from being a driver of change. This culture is driven, among other things, by participation-ism.

Participation-ism refers to the facilitating role designers have taken in the new emerging design culture. Where they fail to express themselves and only guide stakeholders through a creative process by writing the stakeholders' opinions and wishes on "small pieces of paper and sticking them on the wall and then synthesizing them, following a more or less formalized process" (Manzini, 2016, p. 58). Manzini adeptly calls this 'post-it design'. The transition into a more facilitating role reduces the creative role and input of a design expert causing creative ideas and design culture to disappear (Manzini, 2016).

Designers should have a much more expressive role in solving these complex problems. Manzini (2016) emphasizes that the discussion on "issues that are or should be typical of design: from the criteria by which to orient and assess the quality of solutions, to the broadest visions of the world toward which we work" should return to design (p. 52). I see this as the criteria of the client, and the vision of the designer. A discussion, or confrontation (Tomico et al., 2011), between the two should take place. The way Manzini proposes this discussion should be returned is through a dialogic approach, in which all stakeholders, including the designers, should be able to express their ideas, values and visions. He calls this 'dialogic cooperation'. In dialogic cooperation the role of the designer is to listen, but also to speak.

3.3.4 Ba

Nonaka, Toyama & Konno (2000) describe the concept of 'Ba'. Ba is a place, or project context, where information is interpreted to become knowledge. Knowledge is seen as "a dynamic human process of justifying personal belief toward the 'truth'" (p. 7).

Figure 20. Principles based on Verganti & Öberg (2013), Norman & Verganti (2013), Manzini (2016), Escobar (2018), Nonaka et al. (2000) and Manzini (2018)

Information is only knowledge if it is a meaningful addition to the project context (Baha et al., 2013). A good 'Ba' should be build and energised.

Knowledge is divided into two types: 1) Explicit knowledge such as data and manuals which is easily shared and, 2) Tacit knowledge which contains deeply rooted commitment, ideals and values and is implicit and hard to share (Nonaka et al., 2000). Especially tacit knowledge is important in the autonomy in co-creation framework. Nonaka et al. (2000) further explore Ba as the context for knowledge conversion. They propose different types of Ba for the different knowledge conversion processes. Here, I will only discuss the Ba for socialization (tacit to tacit) and externalization (tacit to explicit) as those are concerned with tacit knowledge conversion.

'Originating Ba' is where socialization happens. Here tacit knowledge such as world views, mental models and emotions can be shared. From Originating Ba, trust and commitment can emerge. Meaning that by sharing mental models you can create trust in a collaboration. Manzini (2018) indicates a similar finding. He reports that from collaboration trust and the capability to listen to each other can emerge. He further emphasizes that the success of collaboration rests on autonomous choices and is characterized by the quality and density of the conversations between people and their capacity to transform these conversations into actions to achieve the desirable result. For these conversations to take place, an appropriate space of opportunity should exist.

'Dialoguing Ba' is suited for externalization. Here, mental models and skills are shared, converted into common terms, and articulated as concepts. The tacit knowledge is shared through dialogue. Dialogue is defined as "a process of negotiating meaning aiming to lead to a shared consensus on the meaning discussed" (Bofylatos & Spyrou, 2015, p. 3). Through this dialogue a common understanding can be reached. Meaning that through dialogue between mental models you can reach a rich understanding of each other's mental model. The principles defined by the above discussed sources can be found in figure 20.

3.3.5 Values

Autonomy is a human value (Schwartz & Bilsky, 1987). Rindova & Martins (2018) argue that "deeply held personal values of strategists provide distinct cognitive resources that affect many key aspects of the strategic choices involved" (p.324). The authors define five attributes that collectively make values cognitive resources, two of which are relevant here: 1) "values are transsituational and can direct and integrate many specific choices across domains of activities" and 2) values "are tied to one's personal identity, which emphasizes a sense of personal autonomy and is experienced by individuals as 'core' and 'unique'" (Rindova & Martins, 2016, p. 326; originally Schwartz & Bilsky, 1987; Tappolet & Rossi, 2016; Feather, 1995; Hitlin, 2003).

Since values define what we find important, they can initiate value-consistent behaviour (Rohan, 2000). Values of a higher importance have a higher chance of initiating this value-consistent behaviour (Gollwitzer, 1996). Meaning that people will prioritize their actions to achieve this value, creating a long-term commitment. This way, a shared view on salient values can ensure autonomy in decentralized processes. Interactions between different parties can be shaped by common goals derived from this shared view (Rindova & Martins, 2018) or common understanding (Turner, 2000). A common understanding can help clarify the strategic objectives of the business and provides a touchstone for everyone's actions (Turner, 2000). When this common understanding is reached all decisions during the project can be made based on this understanding (Daalhuizen et al., 2006; Anand, 2019). This creates an opportunity for autonomy. The principles defined by the above discussed sources can be found in figure 21.

Figure 21. Principles based on Nonaka et al. (2000), Rindova & Martins (2011) and Manzini (2018)

3.4 THE DESIGNER-CLIENT AUTONOMY FRAMEWORKS

In this sub chapter, two theoretical frameworks will be presented. One contains the principles for autonomy in co-creation which were explained separately in the previous sub chapter. The other is a cause-effect framework to show how the different principles are interrelated in the context of a project.

3.4.1 Frameworks autonomy & co-creation

Based on the literature review and observations mentioned in the previous sub chapter, two frameworks were created. One consisting of needs for successful autonomy (yellow in figure 22), the other of needs for successful co-creation and collaboration (orange in figure 22). These frameworks and their sources can be found in appendix 7.

3.4.2 Autonomy in co-creation framework

By combining the autonomy and co-creation frameworks with the literature review on autonomy in co-creation, a new theoretical framework was created. The framework (see figure 22) entails principles to safeguard autonomy in co-creation.

The framework is shaped like a wheel. All principles follow, and are dependent on each other to be fulfilled. The wheel is grounded in trust. On the one hand, the client needs to trust that the expertise of Unplugged will generate good outcomes for the project. They need to be more open and less controlling. On the other hand, the designers of Unplugged need to feel secure to voice their own visions and ideas and need to trust in their expertise as a designer. The wheel ends with having shared decision-making as described by d'Anjou (2011). However, to reach this point the rest of the wheel should be achieved as well.

3.4.3 Cause-effect framework

The cause-effect framework (figure 23) shows the interrelations between the different factors of the autonomy in co-creation framework. The physical opportunity space (Manzini, 2018) is the project context. The iterative design dialogue (d'Anjou, 2011; Manzini, 2016) happens between the two mental models of the designers and the client by sharing values, beliefs and ideals (Nonaka et al., 2000; Rindova & Martins, 2011). Here, a confrontation takes place between the autonomy of the designer, or design expertise, and the autonomy of the client, or domain expertise (Tomico et al., 2011; Cross, 2011). From this, a rich understanding about each others expertises emerges, creating a more common ground for the project.

By-products of the dialogue and understanding are trust, commitment (Nonaka et al., 2000; Manzini, 2018) and mutual respect for each others expertise (Escobar, 2018). With these means the balance between autonomy and conformity, or the respect and

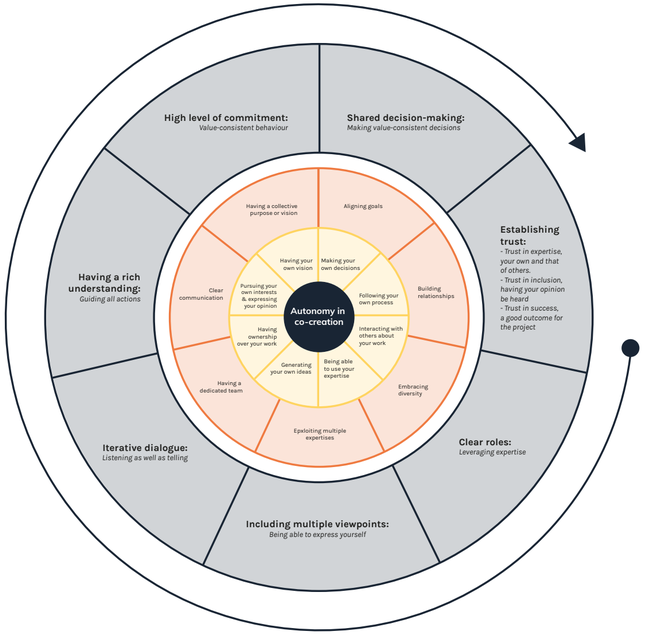


Figure 22. Autonomy in co-creation framework (Autonomy framework (figure 18); Co-creation framework (figure 19); Tomico et al., 2011; Rindova & Martins, 2018; Manzini, 2016; Turner, 2000; Stompff, 2018; Cross, 2011; Verganti & Öberg, 2013; Norman & Verganti, 2013)

exploitation for the expertise of the designer and client, can be achieved.

The rich understanding in turn can direct the project process and the actions taken during the project. The new information collected during the process can, in turn, provide input for the rich understanding in the shape of knowledge (Nonaka et al., 2000), which can be iterated through dialogue (Manzini, 2016; Norman & Verganti, 2013).

Next to this, the rich understanding can justify the decisions made about the project (Daalhuizen et al., 2006), resulting in shared-decision making (d'Anjou, 2011). The rich understanding acts as a sort of gavel which can maintain order in times of conflict throughout the project. It can also aid in providing clarity regarding the objectives of the project. This gavel can steer the course of the project and make sure that decisions are made in the best interest of the project while regarding the autonomy of both the client and the designer.

Due to the scope of the project it is not possible to solve the whole framework and implement it throughout the project. Therefore, we should look at the starting element of the cause-effect

framework (figure 23). To achieve the end goal of shared-decision making (d'Anjou, 2011), first a good dialogue should be achieved in which the expertises of the designer and the client are respected. From this dialogue a rich understanding can emerge. This dialogue will be explored in the following subchapters.

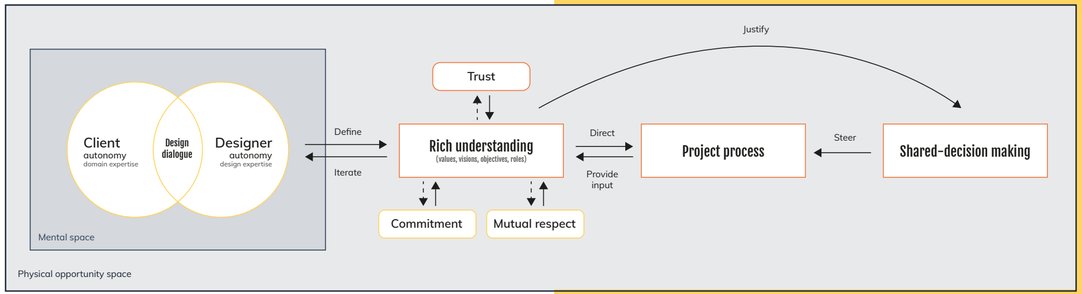


Figure 23. Cause-effect framework

3.5 THE FRAMEWORKS IN PRACTICE

In the following paragraphs, the analysis in §3.2.2 will be synthesized based on the findings from the literature review and resulting frameworks. The aim is to identify in what shape the dialogue between Unplugged and the client is currently present during the projects. The result is a synthesized journey, which can be found in figure 24.

3.5.1 Synthesized journey

For the synthesis a simplified version of the designer journey in figure 10 was used. This journey is portrayed on the x-axis as the different stages of a design process (Design Council, 2007) and its corresponding sessions and activities Unplugged currently performs. These activities were easy to sort into the different stages of the design process as I am, as a designer myself, familiar with this process and the different activities performed in it. The y-axis portrays the experience of the designer. These positive or negative experiences were derived from the interviews based on how the participants described situations. For example, when they used words as 'frustrating' a negative experience was identified, when they used words as 'cool' or 'great' a positive experience was identified.

When looking at the journey, the noticeable events are the ones in orange frames. Based on the literature study, it is expected that only when a designer has high autonomy a positive experience can occur and vice versa. The orange framed events are situations in which a designer either had low autonomy and still a positive experience or had high autonomy and a negative experience. Note that in the green framed events, the autonomy of the designer is respected, but not at the expense of the clients expertise. The red frames represent negative situations which correspond with the findings from literature.

An experience was identified as having high autonomy when designers spoke of 'we did this', indicating that Unplugged performed the action. An experience was identified as having low autonomy when words like 'control' or 'decisions' were used when referring to the client.

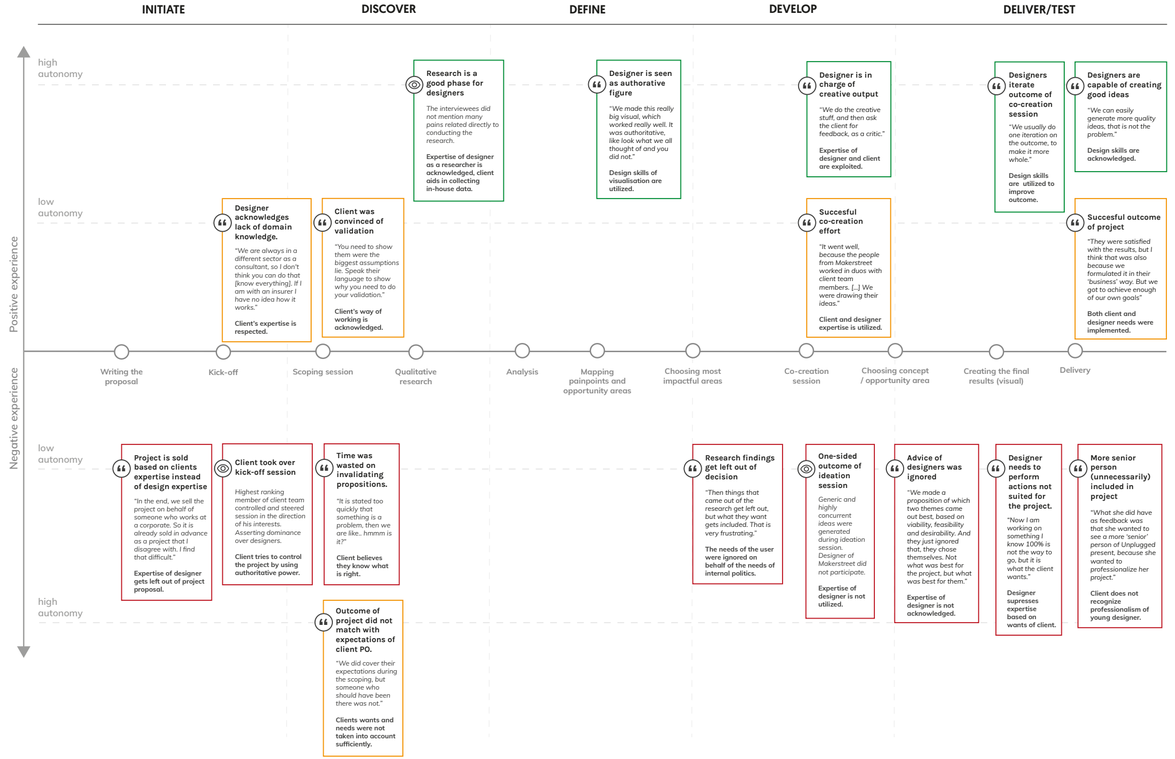
Based on the synthesis, it can be concluded that, currently, the client autonomy model (d'Anjou, 2011) is most dominant in the design process of Unplugged. The designers of Unplugged take on a more submissive role where they provide input for decisions the client makes. The domain expertise of the client respected throughout the process. However, there is a lack of respect for the expertise of the designer. In order for the expertise of the designer to be respected, they should be allowed to take on a more autonomous role in the parts of the process they hold design expertise in. Clear roles to leverage expertise is one of the principles for autonomy in co-creation identified in the framework in figure 22 and the first step in establishing trust and reaching the rich understanding on which the shared-decision making can be based.

3.5.2 Implication for practice

From this synthesis, it can be concluded that the right balance between autonomy and conformity is reached when the expertise of the client and the designer are respected and exploited. In the case of the client, this entails their domain expertise which they get from their years of experience in the field. In the case of the designer this means design expertise, such as knowledge of the design process, research skills and idea generation and concepting skills.

In order for the collaboration between Unplugged and their clients to be successful a rich understanding about these expertises should be achieved. The client will need to become more open. They will need to trust that the project will have a good outcome and relinquish a portion of control. On the other hand, the designers of Unplugged will have to have more trust in their own capabilities and expertise to let their voice be heard. They need to step out of their submissive role.

▶ Figure 24. Synthesized experience journey of Unplugged designer based on full analysis in §3.2.2



3.6 CONCLUSION

3.6.1 Validation

The context of a lack of autonomy for the designer was validated through conversations with the Head of Unplugged, the literature reviews and in conversations with the supervisory team of this thesis. As mentioned before, the Head of Unplugged indicated that:

> "I think that as Unplugged, we place too much value on keeping stakeholders happy. [...] And forget that we are actually very good at what we do."

Indicating the tension between autonomy and conformity. In the following chapter, another validation exercise was performed.

3.6.2 Conclusion

The aim of this chapter was to identify the cause of the problem:

During the length of the project with a client, the design process as intended by the designer is continuously disrupted. This means the full potential and value of a design approach is not being achieved, which results in less desirable outcomes for the client and Unplugged.

It was discovered that the problem is caused due to the tension between autonomy and conformity with regard to social trusteeship.

A literature review was conducted to gain insight into the subject of autonomy in co-creation. The definition, benefits and extremes of autonomy were discussed. Various directions in literature were reviewed to identify principles for autonomy, co-creation and autonomy in co-creation. This literature review resulted in two frameworks: autonomy in co-creation, which establishes principles for maintaining autonomy in co-creation, and the cause-effect framework, which establishes how these principles are interrelated during a project.

Based on these frameworks a synthesis was performed on the tension between autonomy and conformity with regard to social trusteeship in the current process of Unplugged. Based on this synthesis it was concluded that the client is highly dominant in the process, whereas the designer takes on a submissive role, even when it regards their own expertise.

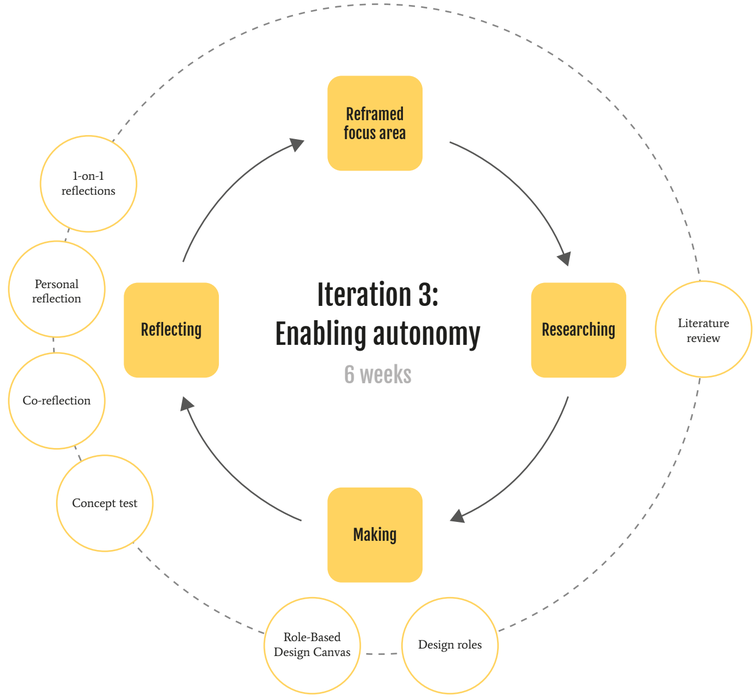
A balance should be struck in the currently imbalanced power structure in the projects of Unplugged. This can be achieved by creating a rich understanding through dialogue. For this, the designers need to step out of their current submissive and facilitating roles. The new balance and corresponding new roles will be explored in the following chapter.

4

ITERATION 3:

FACILITATING AUTONOMY

In this chapter, the concept to deal with the tension between autonomy and conformity will be explained. To this end, a literature review was conducted on the roles of a designer. These roles were validated through a co-reflection session with the designers of Unplugged. Lastly, the final concept was designed to improve the autonomy of the designer based on these roles. An overview of the activities of this phase can be found in figure 25.



▶ Figure 25. Overview of activities performed in iteration 3

4.1 EXPLORE ROLES

In this sub chapter, an exploration into design roles will be performed to answer the question of which roles the designer and client should take during the dialogue. This exploration will be compared to the context of Unplugged and several roles will be defined in §4.2 which are applicable to this context.

4.1.1 Re-framed focus area

The cause of the lack of autonomy in the projects of Unplugged is a lack of understanding of the designer's and clients expertise. The client has a high level of domain expertise. The designers have design expertise and a fresh perspective. However, the designers are currently hindered in expressing this perspective due to the perceived difference in status of the team members (Agueverre et al., 2020). This causes the client to take over control and try to force their domain expertise in an attempt to ensure good outcomes, inherently achieving the opposite.

The designers of Unplugged should step out of their submissive role to ensure good outcomes for the project (Cross, 2011) and a more positive work experience for themselves (Schwartz & Bilsky, 1987). As Manzini (2016) said, designers need to take on a more expressive role. He does not define, however, what this expressive role is. The following paragraph will explore what this role(s) should be. Roles to ensure that the expertise of both the designer and client are used in favour of the project. The roles serve as a way to break down the power hierarchy which exists inside the projects.

4.1.2 Design roles

The roles of a designer are discussed in literature. However, one coherent set of roles is missing. Howard & Melles (2011) identify the roles of a designer as: design lead, teacher, facilitator and director. Valtonen (2005) identifies the roles of creator, end-user expert, co-ordinator, experience creator and innovation pusher. Baratta (2017) explores the expertises associated with being a T-shaped designer. Sleeswijk-Visser (2018) studied the different roles present in Research Through Design co-creation projects. She identified the roles of designer, design researcher, theory researcher and project lead. In her article, she briefly mentions an identification of Rygh (2013) who sees designers as connectors, facilitators and instigators. Calabretta, Gemser & Karpen (2016) offer another role of the designer, namely the educator, envisioner and translator. Lastly, Cao (2015) defines the roles of the Leader, the Analyst, the User Advocate, the Facilitator and the Generalist.

The roles of the client are defined as problem owner and project lead (Sleeswijk-Visser, 2018). For the roles of the client, the results of the demographics survey were studied (appendix 10). Participants filled in the job description of the client team members they worked with. The most common jobs were PO (see glossary), business developer and marketing experts. Earlier in this thesis (∫3.2/3), the roles of domain expert, co-creator, data supplier and critic were identified. Depending on whether the client is involved in the discovery phase of the project, they can also be seen as co-researcher.

4.2 DEFINE ROLES

4.2.1 Roles of designer and client

Establishing clear roles is the first part of the autonomy in co-creation framework in figure 22. This builds the trust in own expertise as described in the framework. The aim of the roles is to establish Unplugged more firmly as an expert, while not losing the expertise of the client. Manzini calls this being an Expert Designer versus being a Diffuse Designer (Manzini, 2016). Currently, Unplugged is not acting as an Expert Designer but as a Facilitator.

The roles of both the designer and the client identified from literature were synthesized and combined into a set of roles based on the context of Unplugged. The roles were synthesized to make them suitable for designer-client interactions instead of just embodiments of competences.

The aim of identifying these roles is to determine how the project can benefit from the stakeholders at the right moment, by determining the roles in which stakeholders can contribute, collaborate and generate relevant insights based on their expertise (Sleeswijk-Visser, 2018). In other words, pinpoint which part of a designers expertise should be used in each phase of the project with the corresponding expertise of the client. According to the research by Sleeswijk-Visser (2018), "being aware of different roles helps in planning, integrating expertise, dividing responsibilities and collaboration of all involved stakeholders" (p. 6).

The synthesis is based on the findings from the field, literature research and the synthesized journeys in figure 10 and 28. First, overlapping roles from literature were combined. For example the role of teacher (Howard & Melles, 2011) and that of educator (Calabretta, Gemser & Karpen, 2016) were combined to form the role of educator. Then the remaining list of roles was compared to the journey of Unplugged in figure 10 and matched to the correct phase. Unfitting roles were left out. For example, theory researcher (Sleeswijk-Visser) was left out as theory research is less present in the work of Unplugged as their research is often qualitative and/or quantitative user research. The synthesized overview can be found in figure 26. The analysis in appendix 11.

The overview was reflected on with designers of Unplugged and iterated several times to come to the current set of roles. The resulting roles are that of Initiator, Challenger, Interpreter, Creator and Instigator. These roles stand across from the following roles of the client, respectively: Project Owner, Domain Expert, Business Expert and Decision Maker. A description of the roles is given in figure 30. The tools in figure 26 are either tools which Unplugged already uses or recognized tools from the Delft Design Guide (2010). They are meant to support the roles.

The soft skills matched to each role were derived from synthesizing human resource management and business education literature (e.g. Andrews & Higson, 2008; Schulz, 2008; Hegman & Kautz, 2012; Nabi, 2003) and researching recruiter websites such as

Indeed (2020) and PlanetTalent (2020). Hard skills were left out as many of the Unplugged designers share the same education and are likely to have the same hard skills. Soft skills differ for each designer.

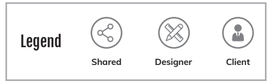
The roles should not be seen as set in stone. It can happen that someone wants or needs to perform a different role. The current roles were derived from this study. They are meant as guidelines to express the expertise of the client and designer.

4.2.2 Role awareness

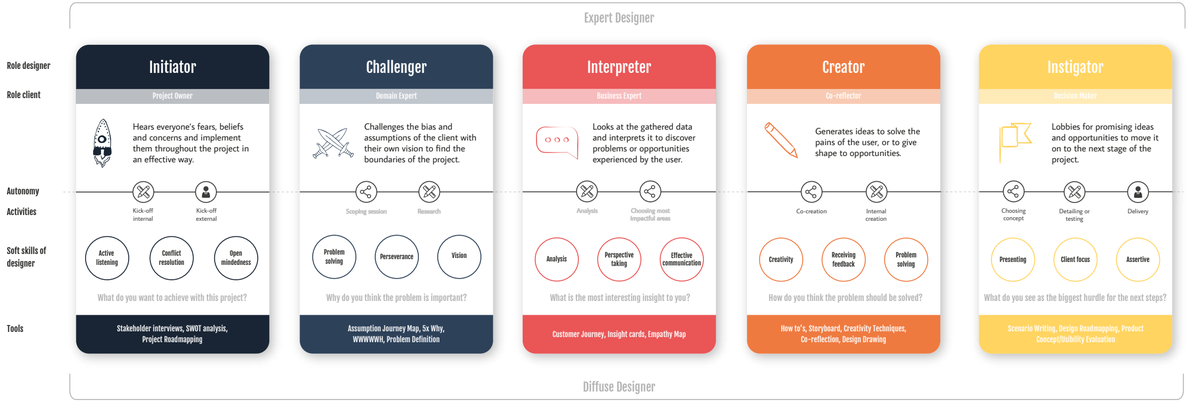
The co-reflection exercise indicated that there is a lack of awareness within Unplugged with regard to each other's roles. The designers indicated they would want to be aware of the abilities of their colleagues so they could ask for help when needed and stimulate each other in exercising their roles (see appendix 12). The participants also indicated that in order to implement the roles they would need a clear overview for when each role is appropriate in the process. This overview is given in figure 26.

Tackling the issue as a collective Unplugged where the designers can stimulate and learn from each other was seen as an important driver for implementation. Therefore, Unplugged should take time to get to know each other's preferred roles and ambitions for future roles.

With the role cards (see figure 26), the designers of Unplugged can host a session in which they can identify which roles they enjoy and which roles they would like to improve based on the soft skills. These cards are meant for internal use. The identity session is outside the scope of this thesis. The cards serve as a boundary object to provide a concrete means for the designers 'to specify and learn about their differences and dependencies' (Carlile, 2002, p.452).



▶ Figure 26. Roles in client-designer interaction



4.3 ROLE-BASED DIALOGUE

In this sub chapter, the concept designed based on the roles in figure 26 will be presented. The purpose of the concept will be explained, followed by the practical use.

4.3.1 Role-Based Dialogue

The co-reflection session with the designers of Unplugged served as a kick-off for concept generation. Based on the insights gained from the co-reflection session and earlier ideation attempts a new concept was created for Unplugged with the aim to improve the autonomy of the designer, through roles. This without reducing the involvement of the client, to make sure both expertises are exploited, through a rich understanding. The concept is a new approach to designer-client interactions, called Role-based Dialogue.

The aim of Role-based Dialogue (see figure 27) is to actively create room for the autonomy of the designer through respect and a rich understanding. It aims to do so by changing the moment in the process in which dialogue between the designer and client takes place

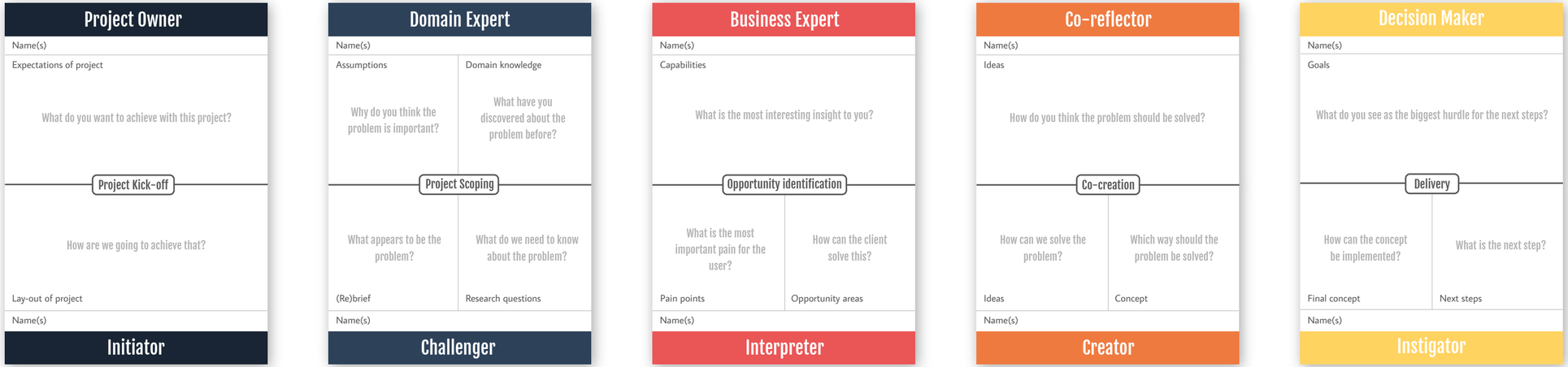


Figure 27. Role-Based Dialogue in each project phase

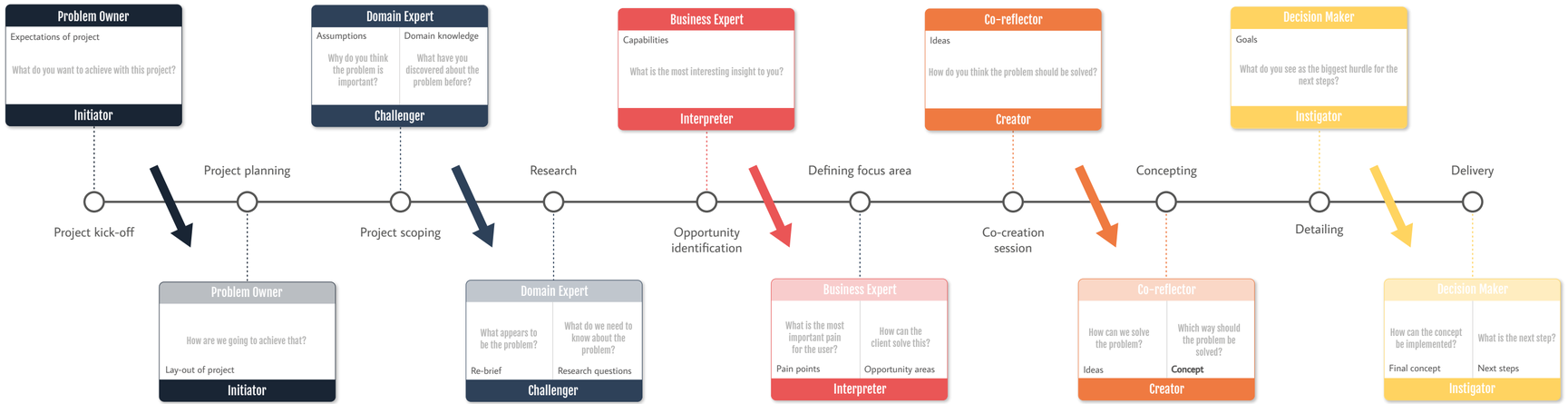


Figure 28. Dialogue points after implementation of role-based dialogue tool

(see figure 28). Currently, the dialogue takes place after the designers have performed their work in each phase (see figure 29). The result of the dialogue is the client making the decisions and giving feedback.

By changing the moment of dialogue, the designers can first retrieve the expectations and opinion of the client and shape the rich understanding needed for the balance in autonomy (∫3.4). This rich understanding creates boundaries in which the designers can practice their autonomy, portrayed by the overlapping mental models in the cooperation model of d'Anjou (2011). These boundaries can be seen as positive constraints. Positive constraints structure and direct a creative process (Agueverre et al., 2020). During the 1-on-1 reflections, a participant indicated that holding Role-based Dialogue at the current dialogue moments would not lessen the control. The situation would then still be that the designers create something, and ask the client if they like it and let the client make the decision, like they do now (see figure 29).

The top part in figure 27 is where the rich understanding is shaped with the client. This understanding is used as input for the bottom half (indicated by the see through role of the client in figure 28). The bottom half contains suggestions for ways to use the expertise of the designer (and client) based on Unplugged's current process. The questions in the

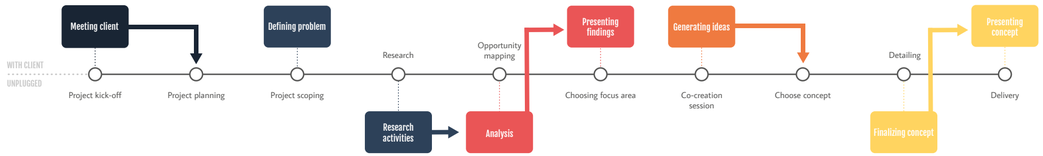


Figure 29. Current dialogue process of Unplugged through feedback

top part are meant as triggers for dialogue: questions a designer should ask the client in that specific role.

Per phase, the constraints have a different function based on the expertise and roles of the client and designer. In figure 28, the different blocks of the tool are assigned to sessions in the current process of Unplugged. For example, in the fourth block, the capabilities from the client, with regard to the research insights are defined. Meaning what they can and want to accomplish with their current resources/goals. Based on these capabilities, the designers can reflect on their insights and define a focus area (pain point and/or opportunity area) to continue with in the next phase of the project. Figure 28 contains a simplified project process for communication purposes. The tool can be used in more sessions as shown in figure 26.

4.3.2 Role-based thinking Hats

The bottom half of figure 28 is not necessarily new for Unplugged. They are either already performing these actions or have experience with them. The novelty of the tool lies in the top half of figure 29. In the top half, the role of designer and client are opposed to each other in dialogue with the goal of reaching rich understanding. To shape this dialogue, the 'Six Thinking Hats' technique by de Bono (1985) was adapted. The Six Thinking Hats are a decision making tool which ensures that all perspectives with their corresponding opinions and beliefs are taken into account (de Bono, 1985). Exactly what is aimed to achieve with the roles: making shared decisions while taking the expertise of the designer and client into account. Because what else are roles, but a means to look at the situation from a certain perspective? The hats in figure 30 differ from de Bono's hats as they incorporate the dynamics of working in designer-client co-creation projects, as portrayed by the roles.

4.3.3 Explanation of use: thinking hats

During the different sessions, as indicated in figure 29, the designers and client can put on their respective hats to look at the situation at hand. Currently, the sessions take about 4 hours each at Unplugged, so this should leave enough time for the exercise. The 'Six Thinking Hats' technique is known to drastically reduce meeting times (de Bono Group, n.d.). Therefore, it is likely that 4 hours will not be needed to perform the exercise. This is a positive result, as during every observed sessions, the participants indicated four hours was too long. During the session, you can go around the table and express your opinions from your role's perspective. This can generate a reaction from the party wearing the other hat. This way, conflicts can be resolved before they occur (naturally) in the process by creating a rich understanding beforehand.

The thinking hats were tested in a role-playing exercise. The roles used in the test were those of Challenger and Domain Expert. For this exercise, a conflicting scenario was used. This scenario was a real scenario from a previous project of Unplugged. The conflict used was the client picking a target group, which from research by Unplugged did not want to use the proposed solution (proposition), while Unplugged had identified another target group that did.

In the test, an empathy map was filled in by both actors about the

Figure 30. Role-based thinking hats (adapted from de Bono (1985))

situation (see appendix 13). The discussion about the empathy map rendered the following emotions:

> Designer: "I feel misunderstood and I don't get it. Why is this target group so important? [...] I feel frustrated: why am I still doing this when they [the client] don't listen anyway, and my opinion is not taken into account."

> Client: "I feel a lot of uncertainty. I also panic slightly. So, I say that we cannot do that [switch target group] because we are already this far, we cannot suddenly change a proposition, because we wanted to reach that target group. And I was not looking for a proposition for the [different target group]"

This was the state before the dialogue and roles. Negative feelings such as frustration and panic are experienced by both parties. From these quotes you can already derive a possible cause of these negative feelings, a misunderstanding.

After the roles were introduced, a dialogue was held. The dialogue confirmed the hunch about a misunderstanding between the designer and client. As it turns out, the designer thought they had to validate the proposition. However, for the client, it was all about reaching that specific target group:

> Client: "So we are actually looking diligently to approach that [target group], and with that we are looking for as many ways we can do that as possible. And we thought we had it here. But it is actually very much about that target group that we want to reach [instead of the proposition]."

If they had discussed this more beforehand, as proposed in the Role-Based Design approach, this conflict would not have occurred and the outcome of the project would have been different. It could have created the positive constraints for the designers to perform their research in. The constraints being, for example, to focus on the target group, instead of the proposition. This way, they could have identified that the target group did not want the proposition, but they would have known to explore further and could have generated a new proposition for the client the target group did want. Instead, as in the real scenario, the client was left unhappy:

> Client: "So we don't really know anything now. Except that it is not the right target group for [this proposition]. We do know who the target group is. But we also don't know what the [intended] target group wants. So this is of no use to us."

The response of the designer (see below) to the previous statement of the client already hinted at an opportunity to improve the outcome of the project. Which could have been the first outcome, if the conflict was prevented. This was the end state of the dialogue:

> Designer: "I think we know what this target group wants, namely doing it yourself and not spending money. They do want to rent a van. So we can respond to that. We did not broaden the investigation beyond moving, because that was not the task. But that would be an interesting new research, so maybe we can start a new project there."

Through the dialogue in the test, a (simple) misunderstanding which caused dissatisfaction and friction in the real project turned into a rich understanding. This is a first validation step for the concept of Role-Based Dialogue.

During the session, the participants understood their roles. The intended use of the roles, to facilitate dialogue, was confirmed in the test:

> "I noticed that from the role of Challenger I started asking a lot of questions. And not filing my own vision, but really asking questions. And at some point I had to get out of there, and say we found this, what do you think about that? But I think a challenger really asks questions, I think it is a pleasant role. It gives you more understanding." (TP1)

In the (short) dialogue, the designer asked why three times. Asking questions about each other's points of view was exactly the way the dialogue was intended to take place.

A last take-away from the test was that using the roles in this way, through role-playing, was seen as a useful tool to better understand the client. One participant indicated:

> "It is very good for us to be aware that they [the client] have these role. [...] It actually gives real insight into the needs of your client. That is very valuable." (TP1)

The other participant indicated:

> "Because we have to help them [the client]. So we have to be aware that they have this role. And we may have to do this ourselves from the clients perspective. [...] I see that very much, if you would have had this role, this [the conflict] might have never happened." (TP2)

4.3.4 Take-aways from concept test

In conclusion, the following insights were taken from the concept test. These insights will be incorporated in the final tool, which will be explained in the following sub chapter:

1. Using Role-based Dialogue as a roleplaying exercise with designers can also generate a rich understanding of the client.
2. The tool was also seen as an effective internally used tool (see point 1).
3. The dialogue creates room for the autonomy of the designer.
4. Through the dialogue, the parties better understood each other's perspectives.
5. The roles were understood correctly and followed.
6. Asking why is a suitable way to generate dialogue, for example, the 5x Why technique can be used.

4.4 THE DESIGN FOR UNDERSTANDING TOOLKIT

In this sub chapter, the design of the final toolkit will be presented. The contents of the toolkit will be explained and how to use them.

4.4.1 Contents of the toolkit

The toolkit, see figure 31, contains a carddeck and canvases. An overview of the cards in the carddeck can be found in figure 32. The canvasses are a means to document the sessions (see figure 27 and 33). In the co-reflection exercise, the designers indicated that the client needed to be taken along in the process more and that it was good to better document the sessions and agreements made with clients, as they would often revoke earlier agreements (see appendix 13). This seems contradictory to the idea that there is a lack of autonomy, but the motivation behind these ideas was to create a better understanding for the client of what the designer needs, to generate autonomy through that understanding. This strengthens the solution direction of a rich understanding.

4.4.2 Explanation of use: toolkit

Based on the results of the concept test, the toolkit can be used in two scenarios. The first being externally with the client. The second being internally with the designers of Unplugged.

Figure 31. Role-based dialogue toolkit

Toolkit use with client

There should be one facilitator present to lead the session with the client (de Bono, 1985) and document the outcome. This can be another designer of Unplugged. To document the session, canvasses were created (see figure 27, 33 & 35).

The facilitator can use the cards in the card deck to lead the session. They can follow the different steps as explained on the grey step cards (see figure 32). Which cards are meant for who is indicated on the cards by a D, C or F, for Designer, Client or Facilitator, respectively. At the start of the session, the facilitator should explain the exercise and the roles used in that exercise, as described on the session cards (figure 32). They should explain that only those hats will be used as perspectives today. The client and designer each get the proper thinking hat card, explaining the role.

Next, the client and designer each get a turn to express their perspectives. After both have taken their turn, the dialogue can begin in which they can react to each other's statements, for example, through using the '5x why' technique. The understanding resulting from this dialogue should be documented by the facilitator.

A more detailed explanation of the steps taken during the sessions can be found in figure 32. The carddeck also includes a card with guidelines for the facilitator and the session cards which indicate which roles are performed in which session.

Figure 32. Cards in toolkit, see appendix 14 for larger renders

Toolkit use with designers

The toolkit can also be used to generate a better understanding of the client through role-playing exercises with the designers. This session can look like the test performed in this thesis. The designers can take a certain scenario during the project and perform the role-playing exercise to get a better understanding of the client. As shown in the test, the Empathy Map (EM) is a good tool to prime the participant for the perspective of designer and client. The filled in EM's from the test and an empty version which can be used as a template can be found in appendix 13.

After filling in the EM template, the designer and 'client' can follow the steps as described in the cards. For step 3 and 4 they can use the EM's. Through the role-playing exercise the toolkit still generates a rich understanding of the client. It leaves the designers better equipped to help their clients and reach desirable outcomes.

4.4.3 Flexibility of tool

As mentioned during the 1-on-1 reflection sessions and the co-reflection session, the design process is often not as linear as the tool makes it appear. For example, a project phase is performed twice. If so, the same thinking hats can be used again. Next to this, when other roles are identified, the tool can be adjusted to incorporate more roles. The tool can be used both offline and online. In remote workshops, tools like Miro or MURAL can be used to document the session. Video programs such as Zoom or Microsoft Teams can be used for the dialogue.

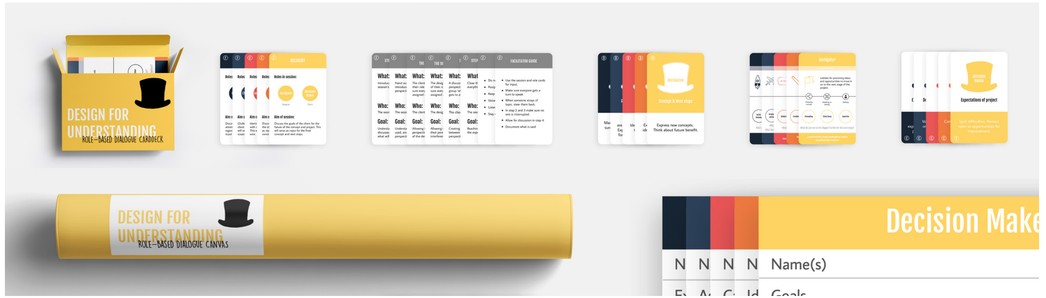


Figure 33. Contents of toolkit

5

CONCLUSION AND FUTURE WORK

In the following chapter, the conclusion of this thesis is given. The contribution and relevance of the thesis will be discussed. Limitations of the research are presented. Lastly, recommendations will be given for further research.

▸ Figure 34. Carddeck from toolkit

5.1 CONCLUSION

5.1.1 Conclusion of research

The original brief given by Unplugged for this thesis was as follows: “Unplugged does a lot of (user) research to get insights for our clients. Translating these insights to concepts (ideation) is crucial for successful innovation. We notice in practice that this is a difficult transition. The context of studio and company plays a major role in this, for example, through co-creation.”

This brief was re-framed to incorporate the entire design process of Unplugged, instead of only the ideation phase. To tackle this assignment, three iterations were performed. In each iteration, several types of research were performed, such as interviews, observations, questionnaires and literature reviews.

Based on the findings it was concluded that there is a lack of autonomy for designers in co-creation projects. Designers take on a facilitating role, whereas the client takes on a dominant role in the project. The facilitating role of the designer is enforced by an existing tension between the autonomy (independence) and conformity (obedience) with regard to social trusteeship (acting in the best interest of the client). In other words, giving the client what they ask or giving the client what they need. The tension is strengthened by the perceived difference in status of the team members, in which the younger designers (low-status members) conform to the more senior client team (high-status members). The contribution of this thesis aims to lessen this tension.

5.1.2 Contribution of thesis

This thesis proposes a new approach to designer-client interactions during co-creation projects. The new approach is based on the identification of five roles for both the designer and client to use in dialogue. The roles of the designer were identified as: Initiator, Challenger, Interpreter, Creator and Instigator. The roles of the client were identified as: Problem Owner, Domain Expert, Business Expert, Co-reflector and Decision Maker. The aim of the dialogue is to create room for the autonomy of the designer by generating respect and trust in each other’s expertise through rich understanding. The concept proposed is a role-based dialogue toolkit. This toolkit includes thinking hats based on the roles, a lay-out of how the dialogue sessions should be held and canvasses to document the sessions.

5.1.3 Relevance for Strategic Product Design

With the rise of ‘post-it design’ (Manzini, 2016), designers have taken on a facilitating role in co-creation projects (Tomico et al., 2011). This facilitating role causes the expertise of the designer to get lost in the process. This, in turn, has a negative effect on the quality of the outcomes of the project as experienced by Unplugged. This thesis identifies roles and introduces a new approach to designer-client interactions in co-creation projects.

5.2 FUTURE WORK

5.2.1 Limitations of research

During the field research of this thesis, only the perspective of the designer was used. The perspective of the client was only observed during external sessions. This should be taken into account when using the results, as it may have led to oversight of the clients situation. The roles of the client are currently only validated based on the ideas of the designers and desk research.

The study was conducted in the context of Unplugged and Makerstreet. The designers interviewed were, therefore, only designers from within Makerstreet. This could limit the transferability of the findings to other situations. By validating the findings with literature, it was attempted to ensure transferability to other designer-client projects. Further validation can come from interviewing a wider variety of agencies.

Due to the scope of the project and COVID-19 the proposed solution was not tested extensively. Validation relies more on reflection on use than actual use. Further test efforts are required to validate the solution.

5.2.2 Recommendations for future work

The largest part of this thesis was dedicated to unravelling the complexity of the problem. Future research can focus on taking the findings from this research and creating (more) concepts to try out in practice. For example, by taking a different approach to facilitating dialogue. The existing concept should be explored further as well. The card deck should be tested with the client, to validate that all the steps are there and it reaches the desired results. The concept test in this thesis was only a first step towards validating the concept.

When using the card deck in a role-playing exercise with only designers, it should be evaluated in which manner the Empathy Map and in which manner the roles contribute to the dialogue. Currently, the Empathy Map is seen as a primer to delve into the feelings of the client and designer. The roles are seen as a source of awareness of the roles and also a primer to get into the role.

As in this thesis, the perspective of the designer was most dominant, an interesting future project would be to look at the situation from the perspective of the client. This way, further evaluation can take place whether the client indeed takes on the defined roles.

In the end, the tension between autonomy and conformity in social trusteeship is a highly complex problem. This thesis is only a starting point and one way to look at this problem. The focus on roles was used. Future research has many options to discover the problem from a different angle.

6

WORK AND PERSONAL REFLECTION

In the final chapter of this thesis, I will first reflect on the outcome and process of my thesis. Next, on my personal ambitions and principles for good design.

▸ Figure 35. Canvas tube, canvas and card from toolkit

6.1 REFLECTION ON WORK

6.1.1 Reflection on work

This whole thesis started from a brief which said to look into the ideation phase and create a concept to support this phase. Along the way, my thesis took me in a different direction. At the beginning, I would have never imagined that this would be the end result of my thesis. Therefore, I would like to reflect on the connection between the brief and the outcome of my thesis.

In the brief, Unplugged described difficulties converting insights from research to action, or concepts, in co-creative ideation sessions with their clients. In my mind, the outcome would have been very focussed on ideation. Instead, I designed a toolkit to be used throughout the project to create a richer understanding between client and designer. Still, I believe, the Design for Understanding Toolkit is very much a tool to aid the transition from insights to action, as it aims to create a richer understanding between designer and client in every aspect of the project, including ideation.

6.1.2 Generalization

This thesis was performed in the context of Unplugged. To still make the results transferable to other contexts, I used a more general design process than the Unplugged specific process described in the journey in figure 10. Next to this, according to literature, the tension between autonomy and conformity and the resulting facilitating role of the designer is certainly more widespread than just Unplugged. Other design consultancies can benefit from creating a richer understanding with their client. It can also be good practice for design students to make them more equipped to face the increasingly complex design challenges of today. Then, the role-playing variant of the toolkit can be used. The toolkit is aimed at a design process. The roles and phases of the project used in the toolkit are all based on a design process. If the concept were to be used in a different sector, this should be iterated and made suitable to fit that sectors actors and process.

6.1.3 Feasibility, viability and desirability

Based on the concept test, the feasibility of the toolkit is high. The participants understood the role cards and the dialogue commenced naturally. The viability of the concept is also high. Production costs of the toolkit should not be high, and the cards and canvases can always be printed by the user themselves. The desirability of the concept can be validated more. The problem it aims to solve is clear and validated through literature and field research. The designers in the concept test enjoyed using the tool. However, the desirability for the client can be improved as the concept was never tested with them. The shape in which it is presented should be validated as desirable. However, based on the benefits of autonomy and a rich understanding and the positive outcome of the concept test, the concept should be desirable for the client.

6.2 PERSONAL REFLECTION

6.2.1 Principles of good design

At the beginning of this thesis, I formulated six personal principles of good design. Here, I will reflect on how these principles are present in my concept. I believe my principles for good design are highly present in my concept. Good design is just and does not take advantage of a lesser party. The very purpose of Role-based Dialogue is to make designers more confident in exercising their expertise and limit the power high-status members try to exercise on them. By creating the rich understanding, the design becomes reassuring. The opinions of all actors are taken into account. It makes the experience of the designers more pleasant due to the positive effects of autonomy on work experience and a better collaboration with the client. Through this, it also aims to make the experience of the client better.

This design is definitely passionate, as I am very passionate about this topic. Whether my design really works can be validated more. Theoretically it works and the concept test was promising, but only one test in one situation. By actively acknowledging this, I aim to make my design honest and transparent.

6.2.2 Personal process

At the start of my thesis I framed several personal learning goals for myself. Here, I will discuss two as I found those most relevant for the unexpected occurrences during my thesis. Graduating during a global pandemic definitely threw some unexpected obstacles on my path. One of my learning goals was to become more open about my work and talk about it more with others. Being in a smart lockdown and prohibited from seeing people made this more difficult. Instead of just chatting with my peers while at the faculty, I now had to schedule meetings online. I tried to still achieve my goals by scheduling meetings with my supervisory team every week. I also tried to still schedule meetings with my friends and peers, such as the brainstorming sessions. This did not happen as much as I would have liked and I do think this gave me some form of tunnel vision during the project. By constantly being in your own bubble your mind focusses. Through the 1-on-1 brainstorming sessions I tried to break this tunnel-vision. It helped me take the final step in generating my concept.

The other learning goal was to work more iteratively. Contradictory to the previous goal, this was strengthened by the smart lockdown. The more theoretical focus the lockdown gave my thesis allowed me to constantly take a step back and further reflect on, build and validate my work. I think this has made the end result stronger.

Overall, I am very satisfied with my thesis. I could work on this topic for many more months and I do aim to keep working on it in the future. But, for now, this is what it is. I hope you have enjoyed reading my thesis!

REFERENCES

Aguerrevere, A. L., Alleblas, J., Mueller, R. M., Graves, M., & Thoring, K. (2020). The impact of status anonymity on team dynamics in co-creation workshops. *In Proceedings of the Design Society: DESIGN Conference (Vol. 1, pp. 1465-1474)*. Cambridge University Press.

Amabile, T. M., Conti, R., Coon, H., Lazenby, J., & Herron, M. (1996). Assessing the work environment for creativity. *Academy of management journal, 39(5)*, 1154-1184.

Anand, A. (2019). *The need for designers to start speaking business.* Retrieved from https://uxdesign.cc/the-need-for-designers-to-start-speaking-business-41edd59520e0 on 26 March, 2020

Andrews, J., & Higson, H. (2008). Graduate employability, 'soft skills' versus 'hard'business knowledge: A European study. *Higher education in Europe, 33(4),* 411-422.

Baha, S. E., Dawdy, G., Sturkenboom, N., Price, R. A., & Snelders, H. M. J. J. (2018). Good Design-Driven Innovation. *DRS 2018*, 5.

Baha, S. E., Sturkenboom, N., Lu, Y., & Raijmakers, B. (2013). Using design to initiate collaborative networks. *In Proceedings of the 2nd Cambridge Academic Design Management Conference (CADMC 2013)* (pp. 4-5).

Baratta, D. (2017). The "T" shaped designer expertise. The "reverse-T" shaped designer horizon. *The Design Journal, 20(sup1)*, S4784-S4786.

Berry, J. (2017). *Corporate innovation: how to overcome unique challenges.* Retrieved from: https://econic.co/corporate-innovation-how-to-overcome-unique-challenges/ on 25 March 2020

Birks, M. Mills, J. (2015). Essentials of grounded theory. *Grounded theory: a practical guide.* (2nd ed., pp. 10-14). London: SAGE.

Blazo, K. (2016). *Co-design is easy: 5 ways you can include client teams in user research projects.* U1 Group. Retrieved from: https://www.u1group.com/co-design-is-easy-5-ways-you-can-include-client-teams-in-user-research-projects/ on May 26, 2020

Boeijen, A. V., Daalhuizen, J., Zijlstra, J., & Schoor, R. (2010). *Delft design guide.* Delft, Netherlands: Faculteit Industieel Ontwerpen.

Bofylatos, S., & Spyrou, T. (2015, April). A four layer of abstraction communication framework supporting design dialogue. *In 11th European Academy of Design Conference: The value of design research*, Paris France.

Bos-de Vos, M., Wamelink, J. H., & Volker, L. (2016). Trade-offs in the value capture of architectural firms: the significance of professional value. *Construction management and economics, 34(1)*, 21-34.

Bos-de Vos., M. (2019). Work-in-progress: framework values for designing for values.

Calabretta, G., Gemser, G., & Karpen, I. (2016). *Strategic Design: Eight essential practices every strategic designer must master.* Bis publishers.

Cambridge English Disctionary. (2020). *Autonomy.* Retrieved from: https://dictionary.cambridge.org/dictionary/english/autonomy in April, 2020

Cao, J. (2015). *5 roles every great designer must play.* Retrieved from: https://thenextweb.com/dd/2015/07/21/5-roles-every-great-designer-must-play/ on May 26, 2020

Cardello, J. (2013). Nielson Norman Group: *Three Uses for Analytics in User-Experience Practice.* Retrieved from: https://www.nngroup.com/articles/analytics-user-experience/ on June 3rd 2020

Carlile, P. R. (2002). A pragmatic view of knowledge and boundaries: Boundary objects in new product development. *Organization science, 13(4),* 442-455.

Cook, S. (2008). The contribution revolution: Letting volunteers build your business. *Harvard business review, 86(10)*, 60-69.

Cover art by CharlieHR: https://www.charliehr.com/blog/improving-autonomy-at-work/

Cross, N. (2011). *Design thinking: Understanding how designers think and work*. Berg.

Csikszentmihalyi, M. (1996). *Creativity: Flow and the Psychology of Discovery and Invention*. New York: HarperCollins.

d'Anjou, P. (2011). An ethics of authenticity in the client-designer relationship. *The Design Journal, 14(1)*, 28-44.

Daalhuizen, J., Badke-Schaub, P., & Batill, S. (2009). Dealing with uncertainty in design practice: issues for designer-centered methodology. *In 17th International Conference on Engineering Design* (pp. 147-158). Design Society.

Dam, R.F., Teo, Y.S. (2020). *Affinity Diagrams – Learn How to Cluster and Bundle Ideas and Facts.* Retrieved from: https://www.interaction-design.org/literature/article/affinity-diagrams-learn-how-to-cluster-and-bundle-ideas-and-facts

De Bono, E. (1985). *Six Thinking Hats: An Essential Approach to Business Management*. Little, Brown, and Company.

DeBono Group. (n.d.). *Six Thinking Hats.* Retrieved from: http://www.debonogroup.com/sixthinkinghats.php on June 24, 2020

Deci, E.L., R.M. Ryan. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior.* New York: Plenum Press.

DiNome, B. (2018). *Soft-skills assessment.* Retrieved from https://tekmountain.com/soft-skills-assessment-harder-than-it-looks/ on June 4, 2020

Dorst, K., & Cross, N. (2001). Creativity in the design process: co-evolution of problem–solution. *Design studies, 22(5)*, 425-437.

Dow, S., Ju, W., & Mackay, W. (2013). Projection, Place and Point-of-View in Research through Design. *The SAGE Handbook of Digital Technology Research*, 266-285.

Dunne, D. (2018). Implementing design thinking in organizations: an exploratory study. *Journal of Organization Design, 7(1)*, 1-16.

Escobar, A. (2018). Autonomous design and the emergent transnational critical design studies field. *Strategic Design Research Journal, 11(2)*, 139-146.

Filson, A., & Lewis, A. (2000). Barriers between design and business strategy. *Design Management Journal (Former Series), 11(4)*, 48-52.

Girotra, K., Terwiesch, C., & Ulrich, K. T. (2010). Idea generation and the quality of the best idea. *Management science, 56(4)*, 591-605.

Gutman, R. (1988). *Architectural Practice: A Critical View.* New York: Princeton Architectural Press.

Heckman, J. J., & Kautz, T. (2012). Hard evidence on soft skills. *Labour economics, 19(4)*, 451-464.

Hekkert, P., Mostert, M., & Stompff, G. (2003, June). Dancing with a machine: a case of experience-driven design. *In Proceedings of the 2003 international conference on Designing pleasurable products and interfaces* (pp. 114-119).

Hey, J., Joyce, C. K., & Beckman, S. L. (2007). Framing innovation: negotiating shared frames during early design phases. *Journal of Design Research, 6(1)*, 77-99.

Howard, Z., & Melles, G. (2011). Beyond designing: roles of the designer in complex design projects. *In Proceedings of the 23rd Australian Computer-Human Interaction Conference* (pp. 152-155).

Hower, M. A. (2012). *Faculty work: Moving beyond the paradox of autonomy and collaboration* (Thesis). Retrieved from: https://aura.antioch.edu/cgi/viewcontent.cgi?article=1120&context=etds

Indeed. (2020). *Soft Skills: Definitions and Examples.* Retrieved from https://www.indeed.com/career-advice/resumes-cover-letters/soft-skills on June 4, 2020

INOVIS. (2019). *The skill set of a strategic designer.* Retrieved from: https://www.inovis.cc/chances/61-the-skill-set-of-a-strategic-designer on May 26, 2020

Jaatinen, M., & Lavikka, R. (2008). Common understanding as a basis for coordination. *Corporate Communications: An International Journal.*

Kazadi, K., Lievens, A., & Mahr, D. (2016). Stakeholder co-creation during the innovation process: Identifying capabilities for knowledge creation among multiple stakeholders. *Journal of business research, 69(2)*, 525-540.

Kelley, T. (2001). *The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm*. Currency.

Kolltveit, B.J., Grønhaug, K., 2004. The importance of the early phase: the case of construction and building projects. *Int. J. Proj. Manag. 22*, 545–551.

Kristensson, P., Matthing, J., & Johansson, N. (2008). Key strategies for the successful involvement of customers in the co-creation of new technology-based services. *International journal of service industry management.*

Kromer, T. (2019). *Strategy of Innovation vs. Innovation Strategy.* Retrieved from https://grasshopperherder.com/strategy-of-innovation-vs-innovation-strategy/ on 1 April 2020

Laursen, M., Svejvig, P., 2016. Taking stock of project value creation: a structured literature review with future directions for research and practice. *Int. J. Proj. Manag. 34 (4)*, 736–747.

Lewicki, R. J., & Wiethoff, C. (2006). Trust, trust development, and trust repair. *The handbook of conflict resolution: Theory and practice*, 92-119.

Ling, B. (2010). *Design thinking is killing creativity.* Design Sojourn. Retrieved from http://designsojourn.com/design-thinking-is-killingcreativity/ on 4 March 2020

Ling, B. (2010). *How can we fix the problems of design thinking?*. Design Sojourn. Retrieved from http://designsojourn.com/how-can-we-fix-the-problems-of-design-thinking/ on 25 March 2020

Lorenz, C. (1994). Harnessing design as a strategic resource. *Long Range Planning, 27(5)*, 73-84.

Manzini, E. (2016). Design culture and dialogic design. *Design Issues, 32(1)*, 52-59.

Manzini, E. (2018). Autonomy, collaboration and light communities. Lessons learnt from social innovation. *Strategic Design Research Journal, 11(2)*, 162-166.

Maylett, T. (2016). *6 Ways to Encourage Autonomy With Your Employees.* Retrieved from: https://www.entrepreneur.com/article/254030 on May 4, 2020

Mazo, D. (2016). *What a strategic designer* does.* Medium. Retrieved from: https://medium.com/strategic-design-lab/what-a-strategic-designer-does-b942f295379 on May 26, 2020

Nicholson, S. (2015). A recipe for meaningful gamification. *In Gamification in education and business* (pp. 1-20). Springer, Cham.

Nimkulrat, N. (2012). Hands-on intellect: Integrating craft practice into design research. *International Journal of Design, 6(3).*

Nonaka, I., Toyama, R., & Konno, N. (2000). SECI, Ba and leadership: a unified model of dynamic knowledge creation. *Long range planning, 33(1),* 5-34.

Norman, D. A., & Verganti, R. (2014). Incremental and radical innovation: Design research vs. technology and meaning change. *Design issues, 30(1),* 78-96.

O'Hern, M. S., & Rindfleisch, A. (2010). Customer co-creation: a typology and research agenda. *Review of marketing research, 6(1)*, 84-106.

Patton, M. Q. (2002). Qualitative Interviewing. *Qualititative research & evaluation methods (3rd ed., pp. 339 - 418).* Thousand Oaks, CA: SAGE.

Paton, B., & Dorst, K. (2011). Briefing and reframing: A situated

practice. *Design studies, 32(6)*, 573-587.

PlanetTalent. (2020). *De soft skills lijst om mee uit te pakken op je cv.* Retrieved from https://www.planet-talent.com/blog/soft-skills-lijst-om-mee-uit-te-pakken-op-je-cv on June 4, 2020

Rindova, V. P., & Martins, L. L. (2018). From values to value: Value rationality and the creation of great strategies. *Strategy Science, 3(1),* 323-334.

Rokeach, M., (1973). *The Nature of Human Values.* The Free Press, New York.

Russo-Spena, T., & Mele, C. (2012). "Five Co-s" in innovating: a practice-based view. *Journal of Service Management, 23(4)*, 527-553.

Rye, S. (2018). *Design as strategy?.* Medium. Retrieved from: https://medium.com/fieldnotes-by-sam-rye/part-i-design-as-strategy-2a40baab43ba on May 26, 2020

Sanders, E. B. N., & Stappers, P. J. (2008). Co-creation and the new landscapes of design. *Co-design, 4(1),* 5-18.

Sanders, E. B.-N., Stappers, P. J. (2012). *Convivial design toolbox: Generative research for the front end of design.* Amsterdam: BIS publishers.

Schulz, B. (2008). The importance of soft skills: Education beyond academic knowledge. *NAWA: Journal of Education and Communication. Vol. 2,* Pp. 146–155

Schwartz, S. (2006). A theory of cultural value orientations: Explication and applications. *Comparative sociology, 5(2-3)*, 137-182.

Schwartz, S. H., & Bilsky, W. (1987). Toward a universal psychological structure of human values. *Journal of personality and social psychology, 53(3)*, 550.

Sheppard, B., Kouyoumjian, G., Sarrazin, H., Dore, F. (2018). *The Business Value of Design: McKinsey Design.* Retrieved from: https://www.mckinsey.com/business-functions/mckinsey-design/our-insights/the-business-value-of-design on 26 March 2020

Sleeswijk Visser, F. (2018). Structuring roles in Research through Design collaboration. In C. Storni, K. Leahy, M. McMahon, P. Lloyd, & E. Bohemia (Eds.), *Proceedings of DRS 2018; Vol. 1* (pp. 368-380). London: Design Research Society. https://doi.org/10.21606/dma.2017.297

Stappers, P.J. & Giaccardi, E. (2017) Research through Design. Chapter 43 In A. Zahirovic et al. (Eds.) *The Encyclopedia of Human-Computer Interaction, Denmark, Interaction Design Foundation.* http://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd- ed/research-through-design

Steen, M., Manschot, M., & De Koning, N. (2011). Benefits of co-design in service design projects. *International Journal of Design, 5(2)*, 53-60.

Stompff, G. (2018). *Design Thinking. Radicaal veranderen in kleine stappen.* Boom.

Stone, C. (2019). *Examples of Autonomy In The Workplace & How To Get More Of It.* Retrieved from: https://www.gqrgm.com/examples-of-autonomy-in-the-workplace-how-to-get-more-of-it/ on May 4, 2020

Storgaard, M. (2013). Strategic designer competence framework: Towards new understandings of the foundational skills. *In Cambridge Academic Design Management Conference.*

Tomico, O., Lu, Y., Baha, E., Lehto, P., & Hirvikoski, T. (2011). Designers initiating open innovation with multi-stakeholder through co-reflection sessions. *Proceedings of IASDR.*

Turner, R. (2000). "Design and business who calls the shots?." *Design Management Journal (Former Series) 11.4*: 42-47.

Unplugged. (2019). *Graduation opportunity, Unplugged - Makerstreet Amsterdam* [pdf]. Retrieved from: https://www.tudelft.nl/studenten/faculteiten/io/onderwijs/afstuderen-master/graduation-opportunities/?lookup%5Bpage-321201%5D=3

Valtonen, A. (2005). *Six decades–and six different roles for the industrial designer.* Nordes.

Van Marrewijk, A., Ybema, S., Smits, K., Clegg, S., Pitsis, T., (2016). Clash of the titans: temporal organizing and collaborative dynamics in the Panama Canal Megaproject. *Organ. Stud. 37 (12)*, 1745–1769.

van Mierlo, H., Rutte, C. V., Vermunt, J. K., Kompier, M. A. J., & Doorewaard, J. A. M. C. (2006). Individual autonomy in work teams: The role of team autonomy, self-efficacy, and social support. *European Journal of Work and Organizational Psychology, 15(3),* 281-299.

van Turnhout, K., Hoppenbrouwers, S., Jacobs, P., Jeurens, J., Smeenk, W. & Bakker, R. (2013). Requirements from the Void: Experiences with 1:10:100. *CreaRE 2013, 31–40.*

Veeneman, W., de Bruijne, M., Dicke, W., 2009. From clouds to hailstorms. A policy and administrative science perspective on safeguarding public values in networked infrastructures. *Int. J. Public Policy 4 (5)*, 414–434.

Velthouse, B. A. (1990). Creativity and empowerment: A complementary relationship. *Review of Business, 12(2),* 13.

Verganti, R. (2009). *Design driven innovation: changing the rules of competition by radically innovating what things mean.* Harvard Business Press.

Verganti, R., & Öberg, Å. (2013). Interpreting and envisioning—A hermeneutic framework to look at radical innovation of meanings. *Industrial Marketing Management, 42(1)*, 86-95.

Weick, K.E., Sutcliffe, K.M., Obstfeld, D., (2005). Organizing and the process of sensemaking. *Organ. Sci. 16 (4)*, 409–421.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of management review, 18(2)*, 293-321.

Zmijewski, B. (2015). *Lead by Design.* Retrieved from https://zurb.com/blog/lead-by-design on June 5, 2020

Zwikael, O., Smyrk, J., 2012. A general framework for gauging the performance of initiatives to enhance organizational value. *Br. J. Manag. 23*, S6–S22.