# Enhancing Change in Creative Sessions at LEF Future Center.

Suzanne van Beek

# Enhancing Change in Creative Sessions at LEF Future Center.

Master Thesis
by Suzanne van Beek

# ABSTRACT

Change can be defined as deliberate activities that move an organisation from its present state to a desired future state (Harigopal, 2016). A form of facilitating change is to organise a creative session, which is a group process of applied creativity with the ultimate goal to create a product. The product is the desired future state of a creative session and does not have to be tangible. Most importantly, the product has to be further developed or implemented after the creative session in order to achieve a successful process of change.

**LEF Future Center facilitates breakthroughs by organising creative sessions for the Dutch Public Works and Water Management (Rijkswaterstaat). LEF is the context of the research and the aim of this thesis is to enhance change in their creative sessions. The scope of this research is set on creative sessions of which the problem owner desires an outcome that requires implementation into the associated organisation.**

First, complete understanding is created on how a creative session facilitates change. Organisational change management and integrated Creative Problem Solving (iCPS) were compared in a literature review. Revealing that iCPS follows similar steps to organisational change management. Afterwards participant observations complemented the research to understand how LEF facilitates change in sessions. The most promising opportunities that resulted from the research are; (1) Ensure a thorough understanding of the problem as given by the problem owner. (2) Define and phrase the goal of the session. (3) Compose a diverse and balanced resource group. (4) Document creative sessions. (5) Inform the problem owner on its role as a change leader.

To ultimately influence the implementation of change over the full process, the design focuses on the beginning of the LEF-process. The intake meeting is chosen as the specific context for the design.Considering this meeting could educate all partakers on their respective roles regarding the goal of the creative session, whilst engaging in all elements of an intake meeting. The partakers of an intake meeting are the facilitator, problem owner and account manager.

The final design resulted from three evaluation sessions, performed during actual intake sessions at LEF. The *Intake Session* is the new form of starting the preparations of a LEF-session.

The *Intake Session* is a combination of context specific table and clear instructions, which supports all partakers to fulfil the meeting in three phases. The first phase is introductory. The second phase critically identifies the purpose and reason of the LEF-session. Hereby the partakers give shape to the LEF-session together. The tangible aspects of the table, remind the partakers of all intake elements. During the third phase of the Intake Session, all partakers will evaluate what is in their power to reach the goal of the session and wrap-up with a picture of all that has been written on the table top.

The physical aspects of the *Intake Session* fit with LEF's identity and support all partakers. LEF is aware of their prominent opportunities to enhance change. However, LEF lacks a sufficient intake where these opportunities are used. The 'Intake Session' provides an essential physical and visual reminder of how to make a good start in the LEF-process, so LEF can flourish during the creative session and facilitate a breakthrough.

# PREFACE

In front of you lies my master thesis, a work that concludes seven years of learning at Delft University of Technology. In the course of these years, I have strengthened my passion for people and their interactions. I chose to do the master programme Design for Interaction. Studying and designing interactions is ever surprising, and I got particularly interested in facilitating the creative process to others.

Learning about creative facilitation brought me to LEF Future Center, where they have special attention for the human side of a creative session. It was very inspiring to see how two of my main interests, people and creative facilitation, got together.

During my two months internship at LEF, I observed the importance of having sessions that continue in the minds of its participants. A creative session does not only facilitate a creative process, it also facilitates change. That insight was the starting point of the journey that was my master thesis. I learned incredibly much about changing organisations, and I got to experience the considerable challenge of making a creative session effective.

Mostly, through learning, I have changed a lot myself. The value of design methodologies and intuition has become much clearer to me. Working on the master thesis encouraged me to consider different directions and even more to develop my ability to make decisions. I have grown as a researcher, designer and facilitator.

It would not have been possible to learn this much without the knowledge and support of others. I would like to thank those. Starting with the team at LEF Future Center for welcoming me. Daphne, Linda, Nel, Marinda, Maaike, Marjolijn, Jeannette, Azzadine, Theo, Nicoline, Robert, Addy, Sanne, Rudy and Marlinde thank you for allowing me to join your working routines, answering my numerous questions and mostly for inspiring me. Nathan and Eefje, my fellow LEF-graduates, you have helped to put things into perspective and to have fun. A special thanks to Martijn, my company mentor, for placing confidence in my abilities and giving me the freedom to shape the project.

To Stefan, I am very grateful for your time, critical thinking and understanding me as a student and an individual. Your eye for detail and divergent mind always surprise and challenge me. Katrina, thank you for showing me the fun and serious side of creative facilitation. My work would not have reached this level without your on-point questions, pertinent advice and clear guidance.

Furthermore, my appreciation for Eva and Frank for showcasing the value of creative sessions by facilitating two productive sessions. Thanks to Albert, Tobias, Sander, Sophie, Kees, Job, Bram, Richard, Emil and Eva for roleplaying and participating in my design interventions. Alexander, what a man you are for understanding my drawing. Esther, Sander and Evelien, a huge thanks for bringing the report to the next level.

My appreciation for 42 for spending lunches, nights and weekends with me. Your caring questions and crazy diversions have helped me a lot. My gratitude to Dymph and Tara for always being there for me. To Adinda for your much-needed graduation advice, hugs and scrubbing my back. Gracias Alejo, for bringing me sunshine.

Finally, Bas and Eva, you will always be my little brother and sister, but I could not have imagined better care from you. The same applies to my amazing mother and strong father, thank you for always believing in me.

# CONTENTS

# 00.

# INTRODUCTION

This chapter provides an overview of the master thesis by presenting its relevance, the context, the objective of the research and approach to achieve the objective.

# 1.   OVERVIEW

The following section introduces the topic of this master thesis and provides an overview of the content.

Many companies adopt creative techniques to innovate. A way of pursuing creativity within a company is to organise creative sessions. A creative session is a group process of applied creativity with the ultimate goal to create a product. The product of a creative session is not necessarily tangible, it is the explicit result of the creative process.

The product of a creative session is rather a starting point for innovation than its completion. For that reason, a creative session entails much more than a flow of creative techniques. A creative session is a delicate group process guided by a facilitator. Which, ideally, does not only lead to a product, it also prepares the group for the phases that will follow after the session. This asks for a change. For example, change in mindset, group cohesion, inspiration, ideas or network of the participants.

This master thesis researches 'change' in the context of a creative session to enhance the process of change in creative sessions at LEF Future Center.

Enhancing change, in this case, focuses on creative sessions of which the problem owner desires an outcome that needs implementation into the organisation of the problem owner.

The first chapter will explain some prior knowledge about creative sessions and creative sessions at LEF Future Center before describing the research in chapter two.

Chapter two provides an analysis of change models, creative sessions and the practice at LEF, leading to an overview of opportunities to improve LEF's approach. The research then focuses on the preparations of a LEF-session. In particular, the intake meeting is researched as the context for the future design.

The third chapter summarises the design goal, interaction vision and design requirements in a design brief. This is the starting point of the design process, which is illustrated by chapter four, describing the ideation and conceptualization, leading to one final design.

The output of the design process is presented in chapter five, accompanied by recommendations for the future development of the product and intake meeting at LEF Future Center.

Chapter six is the conclusion and explains to what extent the design, design process and research have achieved the objective of this master thesis.

Finally, a reflection on the anticipated and unexpected learnings of the process will be described in chapter seven.

# 2.    RELEVANCE

Researching change originated from the gap in the existing literature on the execution of impactful creative sessions. This section explains the gap and thus, the relevance of this master thesis.

The first section of this chapter, 00.1. Overview, described how the product of a creative session is often a starting point. The product needs to be further embedded, developed or implemented after the creative session. The effect on its participants measures the success of a creative session.

Harigopal (2016) describes change as deliberate activities that move an organisation from its present state to a desired future state. A creative session is a form of change by applying creativity on a group process to bring them to a desired future state. Although creative sessions are not explicitly referred to as a process of change.

Buijs et al. (2009) describe a case of a creative session of which the implementation was a failure, because the acceptance finding process was insufficient. Acceptance finding is a process to deliver change in the context of creative sessions. With the ultimate goal to further implement the product of a creative session.

The classical five-stage creative problem solving (CPS) model of Parnes (1967) is a linear process in which acceptance finding is the final step (figure1). However, Buijs et al. (2009) argue the integrated creative problem solving (iCPS), in which "Acceptance finding starts right at the beginning of each innovation project".

iCPS is based on four sub-processes that form the basis of each creative session. The overarching sub-process of project management should endorse acceptance finding, next to information finding and content finding (these sub-processes are further explained in chapter 01.1). Unfortunately, there is few constructive information about the implementation of these sub-processes into a creative session simultaneously.

If a creative session aims to deliver a desired future state, the process of acceptance finding and change is most important to consider. The research in this master thesis contributes to the knowledge of change in creative sessions. The research is situated in the specific context of LEF Future Center.  The design, resulting from the research, also provides pragmatic insights into the implementation of change.

Mess Finding

Problem Finding

Idea Finding

Solution Findiing

Acceptance Finding
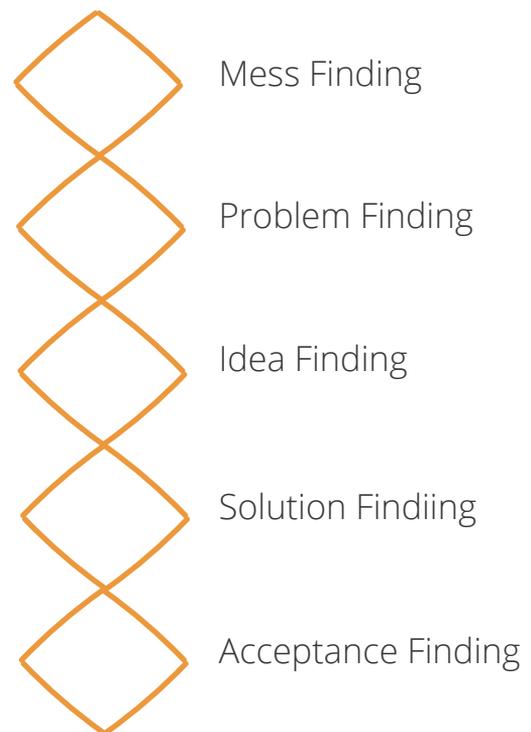
**Figure  1:** *Parnes linear model including acceptance finding*

# 3.  CONTEXT

This section introduces LEF Future Center as the context of the master thesis by describing the vision, variety of sessions, users and relation to the topic of change in creative sessions.

The context of this master thesis is LEF Future Center is part of the Dutch Public Works and Water Management (Rijkswaterstaat) based in Utrecht. LEF facilitates sessions which focus on breaking patterns and routines in the way people think and act.

The regular full or half-day sessions typically take place in the spaces of LEF itself. Everything has been designed to facilitate in an unconventional environment. This way, the catering and spatial layout are adapted to enrich each session, which is based on modern understandings of the human brain (Rijkswaterstaat, 2019). Apart from the regular sessions the offer of LEF also includes LEF-on-location sessions, LEF-events and a multi-session process, a LEF-program, to tackle large and complex problems.

Most sessions at LEF are organised for Rijkswaterstaat. However, other governmental organisations and external companies also have

the opportunity to work on breakthroughs with LEF. The goal, flow and output vary greatly for each session. A recurring theme at the moment is sustainability, endorsed by the Dutch government's ambitious climate goals for 2030.

The variety of sessions, topics, facilitators and participants makes LEF a research playground to gain rich insights and full understanding of the challenge. In return, this thesis will provide LEF with essential information to improve their product: sessions that facilitate a breakthrough, thus change.

Although the result of a creative session is dependent on its purpose, the implementation of the result is necessary to create an impact. All actions of a creative session strive to reach that desired future state, or in other words to accomplish change.

# 4. RESEARCH OBJECTIVE

The objective and questions guiding the research are presented in the following section.

The objective is to enhance change at LEF Future Center and formulated in the research question below. The sub-questions will lead to a better understanding of the process of change and opportunities to enhance change in the context.

*"How can change in creative sessions at LEF Future Center be enhanced?"*

1.  *How does a creative session facilitate change?*

2.  *How does LEF Future Center currently facilitate change in their creative sessions?*

Chapter six will reflect on reaching the objective. Both sub-questions are answered in chapter two.

# 5.  APPROACH

The design approach of this master thesis fits with the double diamond model as described by the Design Council in 2005. Throughout the process, there has been an emphasis on human centered and participatory design.

## 5.1.  DOUBLE DIAMOND

There are four consecutive stages that are typical for the creative process. The Design Council describes these stages as Discover, Define, Develop and Deliver in the double diamond model.

### Discover & Define

In the first diamond the challenge and context are explored in the discover stage, gathering a lot of information. Followed by the define stage during which the information is processed to make sense out of all discoveries.

In reality, the discover stage is messy and adventurous, recognised by an overload of information. During discovery creative sessions, LEF Future Center and change were explored through a literature review and participant observations.

Then the intake meeting at LEF was defined as a suitable scope to enhance change. To get a good understanding of the scope, the intake meeting was further researched with participant observations.

Finally, the insights of with the discover and define stage were summarised in the design brief, being the hinge between both diamonds.

### Develop & Deliver

The design brief is the starting point of the second diamond, where the design is being made. During the develop stage, inspiration and ideas are gathered to explore the solution space. The final stage, deliver, converges the ideas into a solution that can be implemented.

The develop stage is a divergent process of ideation where ideas were developed in brainstorms and creative sessions, which led to six prototypes. Interaction with the prototypes, has shown the importance of several design components that are fundamental to the final concept.

Conceptualization is the process in the deliver stage. One concept was developed and several iterations have been made on that concept with active involvement of its future users to prepare the concept for implementation.

Both diamonds are concluded by the presentation of the final design in chapter 05. The Product.

**Figure 2:** *Double Diamond*
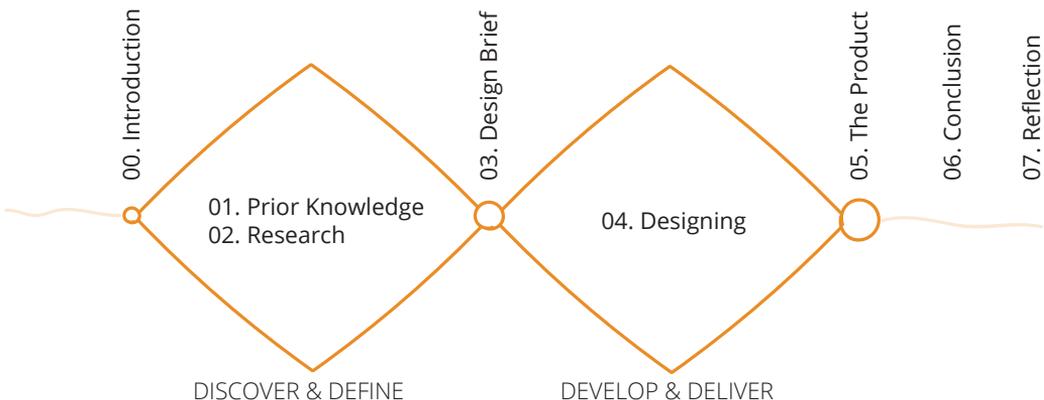
## 5.2. HUMAN CENTERED AND PARTICIPATORY DESIGN

All stages described above were executed with and around LEF, which gave a full understanding of the context and users. This approach fits with human centered design, involving participatory design approaches as the users were not only researched to design for, but also to design with (Sanders, 2002). The value of involving potential users was to boost creativity and reach fitting results.

Human centered design:

*"Innovation powered by a thorough understanding, through direct observation, of what people want and need in their lives and what they like or dislike about the way particular products are made, packaged, marketed, sold, and supported."*

*- Brown, 2008*
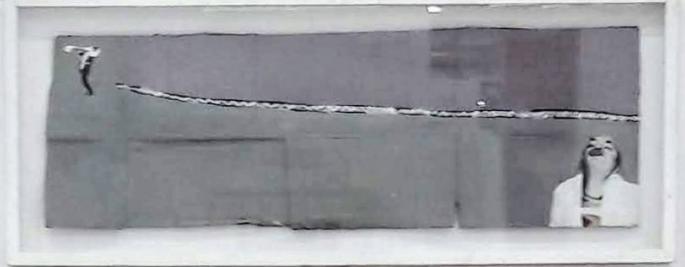
# 01.

# PRIOR

# KNOWLEDGE

Before digging into the research, it is important to introduce background knowledge on creative sessions and what sessions at LEF Future Center resemble. With a better understanding of these concepts, the chapter concludes by specifying what a creative session means in the following research.

# 1. CREATIVE SESSION

A creative session is a group process of applied creativity with the ultimate goal to create a product. The product of a creative session is the explicit result of the creative process.

This section describes the theory behind a creative session. The main players during a creative session are introduced first, hereafter integrated Creative Problem Solving (iCPS) is further explained.

## 1.1. MAIN PLAYERS

The three main players during a creative session are the facilitator, the problem owner and the resource group.

The facilitator plays a crucial role in the form and execution of a creative session. They are experts in designing and facilitating a creative session by taking the goal, stakeholders, program, process and group energy into account.

The problem owner feels responsible for solve a certain problem through a creative session and has requested the facilitator and resource group to help doing that.

The resource group fulfils the essential role of participating voluntarily in the creative session. (Buijs & Van der Meer, 2014)

## 1.2. INTEGRATED CREATIVE PROBLEM SOLVING

Creative processes are often defined by a continuous circle of broad exploration of options, organizing these options and ultimately selecting or creating the most promising options. These same steps apply to the process of a creative session. Creativity techniques can be used to support these steps (Buijs & Van der Meer, 2014). Different methodologies are built around the principle of these steps, but execute them in different manners, e.g. creative problem solving, theory U or design thinking. This master thesis follows the theory of integrated creative problem solving (iCPS) as a theoretical guideline, to gain a good understanding of a creative process and to be consistent in the terminology.

iCPS was developed as a method at Delft University of Technology and suitable as a theoretical guideline for its holistic approach. The method describes many different aspects of a creative session, from practicalities like needed supplies to abstract models based on research into creativity and innovation. Being able to link the underlying knowledge to daily practice is valuable in the process of designing a specific solution for LEF.

Also, most of LEF's clients are Dutch, which makes iCPS a fitting method as is has been researched and developed in a Dutch environment. An example is the integrated approach to acceptance finding, because especially Dutch resource groups have the need to feel part of a development, to accept its outcome. The next paragraph will explain more about the integrated approach of iCPS.

## Sub-processes

iCPS is based on the knowledge of creative problem solving (CPS). The fundamental difference lies in the sub-processes that should be integrated throughout the creative session instead of being steps of a linear process.

These integrated sub-processes are information finding, content finding, acceptance finding and project management (figure 3).

Information finding refers to the actions required to acquire extra, outside information that helps to evaluate, test and validate new ideas. This might encourage needed support for fragile, wild ideas to become something big.

Content finding focuses on the substantive process, which starts with an undefined problem and continues to a validated solution. Most existing creativity techniques are a form of executing content finding.

Acceptance finding concerns all aspects needed to develop and implement the product of the creative session into the destined context.

Project management is a way of connecting the previous sub-processes and involves all organisational and managerial elements of a creative session. This involves for example physical circumstances, like the space or materials, time management and agreeing on responsibilities like documenting result. Project management helps to include all sub-processes from the beginning to the end: the preparatory meetings and agreements, executions of the creative session and evaluation afterwards.

> *"Our knowledge and understanding of acceptance finding was, and still is, very limited."*
>
> *- Buijs et al., 2009*

Acceptance finding is the most relevant sub-process in the search to enhance change in creative sessions. However, it is unclear what a creative session should entail exactly to endorse acceptance finding. Appendix B provides an overview of what is currently known about acceptance finding.
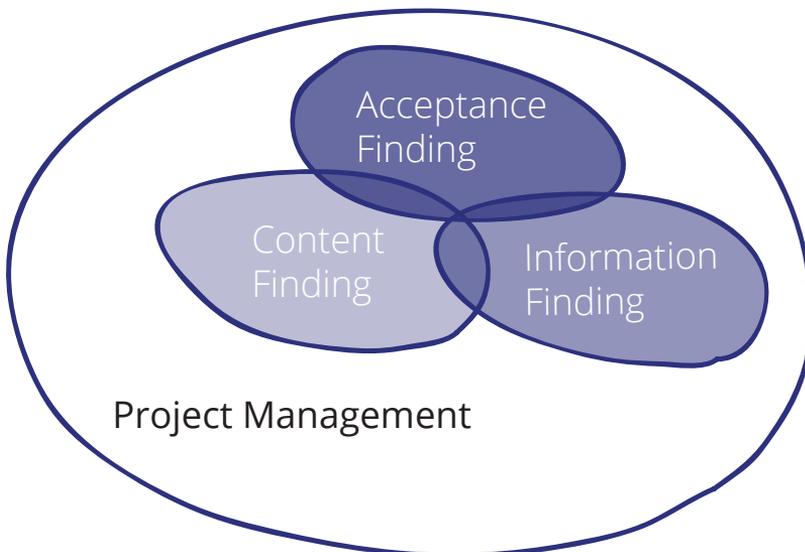


**Figure 3:** *Integrated sub-processes of iCPS according to Buijs et al. (2009)*

# Creative Diamond

iCPS defines the three steps of a creative process as a creative diamond of divergence, clustering and convergence. (figure 4).

- **Divergence** is the step where possibilities to solve a proposed task are explored broadly.

- **Revergence** is the step where an overview is created by organising the previously made possibilities.

- **Convergence** is the step to evaluate, judge and select the most promising possibilities, which leads to making optimal decision to move on to the next creative diamond.

A creative session is a follow-up of different creative diamonds. Figure 5 shows the sequential model of the three most common phases:

- **Problem definition**: analysing and rephrasing of the problem.

- **Idea generation**: constructing and selecting interesting ideas.

- **Idea improvement**: developing ideas into implementable solutions (Buijs & Van der Meer, 2014)

Task appraisal and reflection are added steps compared to the creative diamond as explained above, based on the ideas of both Geschka and Lantelme (2005), and Tassoul and Buijs (2007).

- **Task appraisal** refers to investigation of the task that lays ahead in the upcoming diamond by deciding if any alterations and iterations are needed.

- **Reflection** is about evaluating the previous creative diamond. Evaluation and understanding of what is needed next, automatically provides input for task appraisal.

These steps help to make the transition between phases and normally supplement each other, as you can see in figure 5. In those moments the facilitator can decide to repeat or include certain phases into the creative session. Therefore there are many alternatives to the model of problem definition, idea generation and idea improvement.



**Figure 4:** *The creative diamond (Tassoul & Buijs, 2007)*
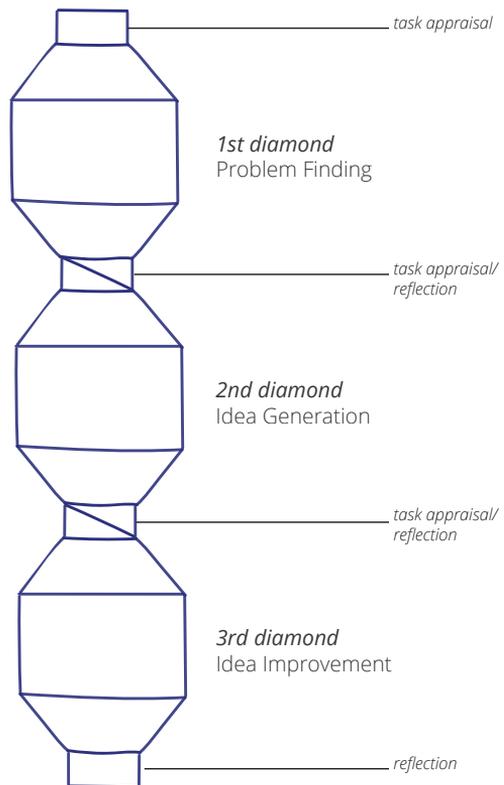


**Figure 5:** *The sequential model of the overall CPS process. (Buijs & Van der Meer, 2014)*

# 2.   CREATIVE SESSION AT LEF

With a better understanding of the process of a creative session, the way LEF organises their sessions to facilitate a breakthrough will be explained. The main players are introduced first, then the process around each session and the method they developed to apply in sessions.

## 2.1.  MAIN PLAYERS

The team working at LEF supports the process around their product: LEF-sessions. The LEF team is an addition to the players of an iCPS process as described before. The account managers at LEF are closest involved with the sessions and therefore further described below, along with a more elaborate description of the facilitator and problem owner.

### Account manager

The account manager oversees the process of a LEF-session from the beginning to the end (figure 6). They know what is possible and also keeps an eye on whether the application, organisation and quality of a LEF-session equals the standard of LEF.

The account manager links the problem owner with a fitting facilitator in the beginning of the process. When the facilitator starts designing the session plan with the problem owner, the account manager takes on a more supporting role, as they usually manage a variety of sessions at the same time.

### Facilitator

The facilitators working for LEF are responsible for the preparations and execution of a creative session and experts in the field of content finding. They have a lot of experience, also outside of LEF, as most facilitators are freelancers and not used to working within an organisation.

All facilitators have different competences, with which they are selected to facilitate certain LEF-sessions. This relies on the amount of experience they have and what methods and techniques they are familiar or certified with. Therefore each session at LEF is different and certainly not all sessions explicitly follow the iCPS principles. Even though facilitators possess different competencies amongst each other. All are well equipped with social skills, which are equally, if not more,

important as their knowledge on methods and techniques. Their abilities to steer and support a group through a creative process relies on these skills and can only be gained through experience.

### Problem Owner

The problem owner is the LEF's client and the reason to organise a LEF-session. It is the owner of all the relevant information about the content leading to the session and has direct connections to the participants. The problem owner usually works with most of the participants and invites them to the LEF-session.

Problem owners are in general unfamiliar with the creative process and possibilities a LEF-session provides. Still, there are many examples of problem owners that return to LEF regularly for sessions. They are familiar with the process and possibilities, yet the facilitator remains the expert in setting up the session.

### Participants

The participants in a LEF-session fulfil the same role as the resource group. The problem owner usually participates in the session as well. All participants together can be seen as the subject of change. They are the ones who will take the product of the session out into the real world to implement or develop it further.

## 2.2. LEF-PROCESS

LEF follows the same procedure around each session, which is shown in figure 6.
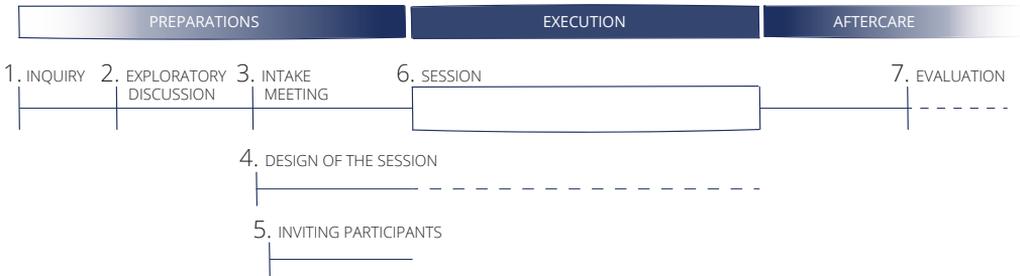


**Figure 6:** *The sequential model of the overall CPS process. (Buijs & Van der Meer, 2014)*

1. The problem owner files a request in the online system LEF uses. The LEF team decides if the inquiry is fitting for a session at LEF.

2. An account manager will meet with the problem owner to discuss the inquiry and to find out what kind of session is needed. According to this meeting a facilitator is selected.

3. The facilitator, account manager and problem owner meet to discuss the goal and organisation of the session.

4. The facilitator starts designing the session after the intake and often communicates with the account manager and problem owner.

5. The problem owner invites the participants for the session after the intake.

6. The facilitator is in the lead of the session and steers the problem owner and participants through the program.

7. Both the facilitator and problem owner evaluate the session several weeks after the session.

## 2.3. LEF-SESSION

LEF has developed a model for their sessions based on the natural internal process of perception, response, judgement and decision (De Graaf & De Graaf, 2017).

The model, figure 7, applies the parameters individual-social and divergent-convergent (IS-DC). These help the LEF-facilitator to adjust the space to the state of the brain needed during the particular phase of the group process. All interior spaces are designed to execute sessions, as the environment of the sessions has a large effect on groups and how the brain functions, e.g. the colour of lighting can encourage either divergent or convergent thinking.

The parameters of the IS-DC model constitute four quadrants, which correspond with phases during a session.

The individual-convergent phase focuses on the self-interest of the participants. Objective information is shared and everyone is provided with the possibility to determine their own point of view. Sharing these point of views is part of the individual-divergent phase. The participants are given the chance to adjust their point of view and be open to new possibilities. The social-divergent phase then refers to brainstorming, during which different solutions are explored by the participants. During the social-convergent phase the participants work towards a collective decision. Together they build a commitment to the implementation of the solution.

The phases have a logical sequence, but do not have to be executed in the same order. It may even occur that a session applies the model only partially, e.g. the individual-convergent phase and individual-divergent phase could suffice when a breakthrough can be achieved once the participants open up to new points of the view in a session.

Applying a clear distinction in time, space and atmosphere between the phases, helps the participants to maintain the appropriate focus during each phase (RWS-LEF, Maturana Parraquez, & Cuppens, 2018).
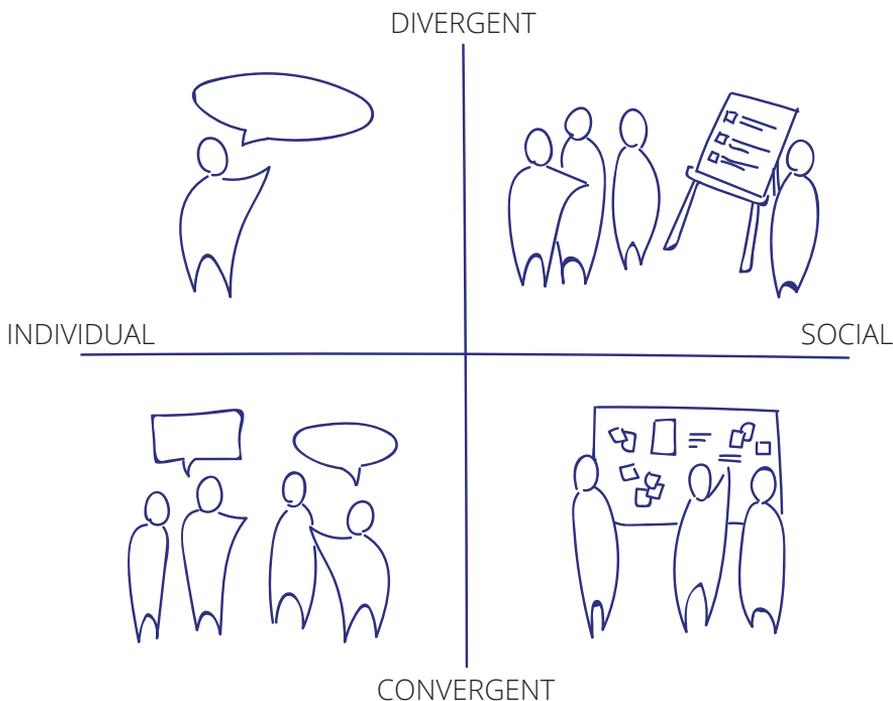


*Figure 7:* *The IS-DC model of LEF Future Center (RWS-LEF, Maturana Parraquez, & Cuppens, 2018)*

# 3. CONCLUSION

Below is being explained how the methods of iCPS and LEF overlap and where creative sessions at LEF focus on a wider range of outcomes than most iCPS sessions do. Finally the section specifies what kind of change this thesis aims to enhance.

It has become clear that a creative session is an advanced concept. The iCPS model provides an overview of the process during and around a creative session. The model used by LEF has similarities to the iCPS model and demonstrates how a group process of diverging and converging can be applied for purposes surpassing creativity.

Where a creative session based on iCPS mostly leads to validated solutions like ideas or concepts, the product of a LEF-session can be any form of a breakthrough. This means that the creative process is used for broader purposes than creating validated solutions, for example better teamwork or understanding of a topic, as long as this leads to a breakthrough supporting the problem owner's cause.

The objective of the master thesis is to enhance change at LEF. It is important to define what kind of change is being pursued, knowing there is such a wide variety in the result of a creative sessions. Even though the results can be very different, the process shows strong similarities.

*From now on the research and design focuses on creative sessions of which the problem owner desires an outcome that requires implementation into the associated organisation.*

The product of change could therefore go in many directions, for example developing a new strategy for the department the problem owner works at, forming new alliances to work with in the future and creating a set of ideas to further iterate after the creative session. As long as the problem owner has the intention to use, implement or further develop the result of the creative session, it is a suitable change to enhance.

# 02.

# RESEARCH

The research into change in creative sessions at LEF Future Center will be described in the following chapter. The first section, 02.1 Researching Change, summarises research into change, which is a synthesis of a literature review and participant observations. The research into change concludes with certain opportunities to enhance change in creative session and at sessions at LEF.

The time-frame and partakers of an intake meeting at LEF are a fitting scope to exploit a majority of these opportunities. Therefore section 02.2 Researching the Current Situation explains the focus on that specific moment and illustrates the research into the current situation of an intake meeting at LEF.

The conclusion (02.3) of this chapter will recap the outcomes of the researches and provide an integrated overview of the information that forms the basis of the design brief in the next chapter.

# 1.  RESEARCHING CHANGE

Employees at LEF Future Center were asked in a questionnaire to indicate what they consider a successful session. The answers (appendix C) showed that reaching a desired result, which usually related to the behaviour of the participants, is of great importance to the success of a LEF-session. A creative session helps the problem owner to get from A to B, a present state to a desired one. Therefore a creative session is a way to facilitate change.

A literature review and participant observations were performed to gain an in-depth understanding of change and how creative sessions, according to iCPS and at LEF, relate to change. This section first describes the goal of the research, then the method and hereafter the results are presented.

The results are presented in the conclusion, providing directions to enhance change in creative sessions and specific opportunities for LEF to do so.

## 1.1.  GOAL

The reason to research change is to understand the process towards the desired outcome of a creative session at LEF. With that understanding, opportunities can be defined to enhance change for LEF-sessions. The goal of the research is to answer the sub-questions as presented in 00.4 Research Objective:

1. *How does a creative session facilitate change?*

2. *How does LEF Future Center currently facilitate change in their creative sessions?*

Insights from literature and qualitative research at LEF Future Center will be integrated to answer both research questions. The next paragraph describes how the researches were performed.

## 1.2. METHOD

The process of change in creative sessions has to be understood first, to comprehend LEF's performance when it comes to change. Therefore the first part of the research answers the first sub-question and consists of a literature review. The second part of the research consists of participant observations at LEF to answer the second research question.

### Literature Review

Knowledge on iCPS was compared with existing knowledge on organisational change management, which is the process of implementing a planned change in organisations. The sources used on iCPS (figure 8) have overlapping authors, which were involved with the development of the method. Other publications, referred to by the sources in figure 8, in the field of creativity, brainstorming and creative sessions have been reviewed as well.

Burnes (2004) stated that change is an ever-present feature in organisations and a lot of theory has been developed over the years within the field of organisational change management, for example, the ADKAR model or Lewin's three-phase change process. These models can provide a framework to evaluate how a creative session facilitates change.

The available theories and models are however criticised. There is a high failure rate of initiated change programmes and a lack of a valid framework, as there is a wide variety of approaches. Lastly, many assumptions about change are unchallenged (Todnem By, 2005). For that reason, selected literature on organisational change management has to meet the following criteria:

- The study considers different existing models on organisational change management. Because there is a wide range of possibilities and a clear consensus between the models does not exist.

- The study considers scientific evidence. Popular models tend to prescribe actions that have not been challenged or extensively researched. Ultimately the literature review should give insights to enhance change in the specific context of LEF. Therefore purely theoretical models do not provide a solid base to work with.

- The study reviews organisational change management in general. The context of each creative session can vary greatly and therefore the study should not be focused on a specific field or context.

- The study should be published in the past three years (2017-2020), so that recent findings are considered.

- The study is published in English.

- The study is published in international peer-reviewed journal articles. Books generally focus on a specific approach or model and do not fit with the first criterium.

Applying those criteria has led to an article written by Jeroen Stouten, Denise M. Rousseau and David de Cremer named *'Successful organizational change: Integrating the management practice and scholarly literatures'*. The article was published in 2018 in the Academy of Management Annals and based on widely used, practitioner-oriented change models. Stouten et al. (2018) have integrated seven prescriptive change models, by reviewing each model and available evidence of *"what is known, contested, untested and underused in change management."*

The article is particularly valuable as the reviewed change models are integrated into ten evidence-based steps. Figure 10 shows the ten change steps and the seven models they were based on.

These steps form the basis of the literature review. The steps are like a coat rack (figure 9), where the iCPS theory could be hung up on to identify the change process of a creative session. How LEF wears the objects on the coat rack, thus applies change in their sessions, is the next part of the research. The procedure of that research is explained in the next paragraph.

| Authors | Title | Published |
|---------|-------|-----------|
| Buijs, J. A., & Van der Meer, H. | Professioneel wyberen: het organiseren en leiden van creatieve sessies. | 2014 |
| Buijs, J., Smulders, F., & Van der Meer, H. | Towards a more realistic creative problem solving approach. | 2009 |
| Heijne, K. & Van Der Meer, H. | Road Map for Creative Problem Solving Techniques: Organizing and Facilitating Group Sessions. | 2019 |

*Figure 8:* Literature sources on iCPS



*Figure 9:* Literature review is the basis upon which LEF's performance can be evaluated.

## Participant Observations

Participant observation has been selected as a tool to collect data on how LEF currently facilitates change, as it provides a holistic understanding of the culture at LEF.

Participant observations are a type of fieldwork where the researcher gains entrance into a community. This involves joining in a variety of activities over a period of time to understand the behaviours and motivations of a cultural group. Insights are clarified through interviews, informal conversations and organised as field notes.

For that reason, several days a week were spent at LEF to immerse in the daily routines of the future center, which helped to build an integral apprehension of the organisation.

*"Where to begin looking depends on the research question, but where to focus or stop action cannot be determined ahead of time"*

*- Merriam, 1998*

Therefore the research started off with descriptive observations, during which the researcher assumes to know nothing and observe everything. This involved joining daily activities, for example, weekly team meetings, lunches and conversations at the coffee machine.

The change steps as described by Stouten et al. (2018) provided a more focused framework for participant observations and the full procedure of the LEF-process (chapter 02.2.2) was observed, which guided the observations. The researcher participated in the activities in different roles to understand different perspectives, for example from being a participant in a creative session to facilitating a creative session.

Data was collected through field notes, pictures and audio recordings. Appendix D describes some of the LEF-sessions and activities that were observed.

# Summary of Prescriptive Change Models

| Summary of Change Steps Stouten et al. (2016) | Lewin (1948) | Beer (1980, 2009) | Cooperrider and Srivastva (1987) AI |
|---|---|---|---|
| Assess the opportunity or problem motivating the change | Unfreeze | Mobilize commitment to change through joint diagnosis of business problem | Discovery |
| Select and support a guiding change coalition | | | — |
| Formulate a clear compelling vision | Transition | Develop a shared vision of how to organize and manage for competitiveness | Dream |
| Communicate the vision | | Foster consensus for the new vision, competence to enact it, and cohesion to move it along | — |
| Mobilize energy for change | | Spread revitalization to all departments without pushing it from the top | Design |
| Empower others to act | | | Destiny |
| Develop and promote change-related knowledge and ability | | — | — |
| Identify short-term wins and use as reinforcement of change progress | | — | — |
| Monitor and strengthen the change process | Refreeze | Monitor and adjust strategies in response to problems in the revitalization process | — |
| Institutionalize change in company culture, practices, and management succession | | Institutionalize revitalization through formal policies, systems, and structures | — |

**Figure 10:** *Summary of change steps by Stouten et al. (2018)*

| Judson (1991) | Kanter et al. (1992) | Kotter (1996, 2012) | Hiatt (2006) ADKAR |
|---|---|---|---|
| Analyzing the organization and planning the change | Analyze the organization and its need for change<br>Create a sense of urgency | Establish a sense of urgency | Awareness |
| — | Line up political sponsorship | Form a powerful guiding coalition | |
| — | Create a shared vision and a common direction<br>Separate from the past | Create a vision | |
| Communicating about the change | Support a strong leader role | Communicate the vision | |
| Gaining acceptance of the required changes in behavior; making the initial transition from the status quo to the new situation | Craft an implementation plan; communicate, involve people, and be honest | — | Desire |
| | | Empower others to act on the vision | |
| — | — | | Knowledge<br>Ability |
| — | Develop enabling structures | Plan for and create short-term wins | Reinforcement |
| Consolidating new conditions and continuing to promote change to institutionalize it | | Consolidate improvements and produce more change | — |
| | Reinforce and institutionalize change | Institutionalize new approaches | — |

# 1.3. RESULTS

On the following pages the ten change steps as summarised by Stouten et al. (2018) are shortly described, followed by the related theory about creative sessions. The theory of creative sessions has been split up in three phases: the preparations, execution and aftercare of the creative session (see figure 6, chapter 01.2.2. LEF-Process). This distinction has been made by the author to give a clearer idea of the context and people involved during each step.

The analysis also summarises the observations at LEF for each step. The observations can be recognised by the cursive text and are always introduced by the 'eye'-icon.

## Step 1: Assess the Opportunity or Problem Motivating the Change

Various change models recommend a diagnosis to get a good understanding of the problem or opportunity for change (Beer, 1980; Judson, 1991, Kanter et al., 1992)..

### *Preparations*

The preparations of a creative session start with an exploratory meeting and intake meeting. Especially during the intake meeting the facilitator and problem owner try to dig into the 'Problem as Given' (Heijne & Van der Meer, 2019). Understanding the underlying need for the change is better than implementing a solution of a poorly identified problem.

*Observations have revealed that the problem as given is discussed during the intake meeting, but often not thoroughly explored. The facilitator meets the problem owner for the first time during the intake meeting, while the account manager and problem owner have already analysed the problem together in the exploratory meeting.*

## Step 2: Select and Support a Guiding Change Coalition

A guiding coalition of organisation representatives can have an important role in overseeing and endorsing the change process. A diverse group is recommended for their different viewpoints and contributions regarding the change. The diversity of their background and opinions supports a broad analysis.

Change leaders have a central role, according to Stouten et al. (2018). They are individual leaders that communicate the nature of the change in a supportive, honest and transparent way.

### *Preparations*

The facilitator and problem owner have the shared responsibility of composing the resource group. Involving the correct stakeholders is essential for the effect of a creative session. They offer a diversity of inputs and will be ambassadors of the newly gained knowledge.

*The problem owners are asked what resource group they have in mind during the intake meeting at LEF. Usually, the facilitator digs a little deeper by checking the possible resistance in the group. However, the composition is rarely reconsidered, and resource groups tend to be rather large without questioning the purpose.*

## Step 3: Formulate a Clear Compelling Vision of the Change

Change models separately focus on composing a stimulating vision and how this is later communicated. Some of the important features Stouten et al. (2018) describe, is that the vision should express the change's end goal or state in a compelling way (Kanter et al., 1992), translates opportunities in to action (Kotter, 2012) and appeals to a variety of stakeholders (Kotter, 1996).

### *Preparations*

The facilitator and problem owner should try to phrase the problem statement when they have a clear understanding of the need for change (Heijne & Van der Meer, 2019).

Ideally the problem statement is specific, positively formulated, ambitious, relevant and kept simple (Heijne, 2011).

 *The LEF-process obliges the account manager to fill in a form describing the goal of the creative session. This form is filled in individually and, in general, not shared with the facilitator and problem owner.*

*The goal of the session is also discussed during the intake meeting, but is not phrased into a clear problem statement.*

## Step 4: Communicate the Vision

How the people involved in the change are approached, has a large influence on their understanding of the importance and value of their contribution (Hiatt, 2006). Kotter (1996, 2005) emphasises that open and transparent communication create better support for the change.

### *Preparations*

At this stage communicating the vision refers to inviting the resource group to the creative session. The resource group has been composed during the second change step with a clear understanding of how they can contribute. Buijs & Van der Meer (2014) highly recommend to communicate transparently with the resource group and inform them well on the subject of the creative session beforehand.

*The problem owner is responsible for inviting the resource group and is provided with an email format by LEF. The invitation processes differ amongst each other, there are examples of resource groups that were approaches personally and ones that were invited through the standard email explaining the subject and course of the day. Overall, there is no special attention for communicating the relevance of the creative session and what the resource groups contribution is.*

### *Execution*

Even though the resource group has been iThe resource group has been briefed of both the reason and the goal of the creative session. Nevertheless, it is of importance to reintroduce the vision well with the resource group during the session.

The Problem as Given has been defined during preparations and the creative session starts with reformulating it into the Problem as Perceived (Heijne & Van der Meer, 2019). The resource group generates ownership over the problem statement by rephrasing it in their own language. Even more so, this will actually increase the quality and originality of the idea generation (Mumford et al., 1994).

*The process described above corresponds with the individual-divergent phase from the LEF-method, where the resource group adjusts their individual viewpoints by sharing them. Therefore the LEF-facilitators highlights the individual encouragement of acceptance finding.*

*As the phase is divergent, the process rarely converges towards a SPARKling problem statement (Heijne, 2011) as a starting point for the brainstorming phase.*

## Step 5: Mobilize Energy for Change

Mobilizing energy for change means building a plan of how to implement the actual change. Having sufficient information about the change, helps to plan interventions, the sequence of activities and involve important people to support the change (Hiatt, 2006; Kanter et al., 1992). An important part of information is to assess to what extend the organisation is ready for change (Hiatt, 2006). Also, the importance of a change leader should not be underestimated to create a psychologically safe environment for different opinions, mistakes and learning.

*Preparations*

In addition to the previous change step of communicating and informing, the resource group has to be motivated to participate and be present during the creative session.

The facilitator builds a session plan, including interventions to prepare the resource group for the creative process, considering their level of experience.

👁 *Step 5 might seem obvious, but the no-show percentages tend to be high at LEF. The problem owner is responsible for inviting the resource group and motivating them to show up.*

*LEF also offers design sessions, during which the most important stakeholders are invited to help compose a fitting session plan together with the facilitator. Such sessions are also short creative processes.*

*Execution*

Working with creativity techniques might be difficult and new to the resource group. The facilitator has to make sure to create a safe environment during the session, ways to do so are an introduction, icebreakers and energisers.

👁 *Working with creativity techniques might be difficult and new to the resource group. The facilitator has to make sure to create a safe environment during the session, ways to do so are an introduction, icebreakers and energisers.*

## Step 6: Empower Others to Act

Empowering employees to act consistently with the vision, helps them to develop ideas and ways of working that follow from their own understanding of the change (Judson, 1991; Kanter et al., 1992; Kotter, 2005). Meaning that change needs to be facilitated by actions and interventions to create opportunities for changed behaviour, instead of only communicating (Burnes, 2015).

### *Execution*

Creativity techniques enable the resource group to generate new knowledge regarding the change. This is the sub-process of content finding according to the iCPS model (Buijs et al., 2009).

Using a fitting process and techniques the product of a creative session will be a shared establishment, including the resource group's understanding of the problem or challenge.

*Facilitators are experts on content finding. Observations show their extensive knowledge of creative techniques. They are able to adapt a technique to a specific creative session and resource group.*

## Step 7: Develop and Promote Change-Related Knowledge and Ability

Learning new skills and knowledge are an essential part of effective change. Even those motivated to change may not have enough knowledge or ability to do so (Hiatt, 2006; Kotter, 1996), which stresses the importance of learning and good support.

### *Execution*

Through ideation the resource group creates new knowledge, which means they combine pieces of information to create new insights. The newly gained knowledge, the idea, can be fragile in the real world. This is what Katz & Allen (1982) referred to as the Not Invented Here Syndrome and entails how people that were not present during the session have no affection with and understanding of the idea.

There are techniques facilitators can include in their session plan to prepare the resource group for this prospect.

Apart from the creative session's substantive knowledge, the resource group has been introduced to a new way of working and thinking.

*There are no observations of creative sessions that explicitly prepare the resource group for the follow-up of the creative session.*

*However, it has occurred that participants have been inspired to adopt creative techniques into their working routine.*

## Step 8: Identify Short-Term Wins and Use as Reinforcement of Change Progress

If people in an organisation experience progress and short-term wins, they will reinforce the positive change in the coalition's work. Even more, it will show that it is possible to implement the vision practically, which helps to convince those that are critical that the change is possible (Kotter, 1996).

### *Execution*

Heijne & Van der Meer (2019) emphasise that a creative session should end with a concrete result and an action plan. In that way, the resource group, especially the problem owner, starts to consider the next steps of the change process and have some future steps to hold on to.

*Although, the fourth phase of the LEF-method entails social converging and making decisions, it has not been observed yet that an action plan was made during a creative session.*

## Step 9: Monitor and Strengthen the Change Process over Time

Kotter (2012) stresses the importance of keeping the pace moving and reminding people of the change's urgency.

### *Execution*

Most facilitators monitor the energy of the resource group intuitively during a creative session. The facilitator reminds the resource group of the problem statement throughout the session and reflects on their performance constantly, explained as task appraisal and reflection in chapter 1.1.2. It is not uncommon that the session plan is adjusted by the facilitator during the creative session to improve the process.

Furthermore, it is highly recommended to document the process and results (Heijne & Van der Meer 2019).

 *The facilitators at LEF are highly aware of the energy in the group and have extra possibilities to influence that with the design of the interior spaces.*

*However, adjustments in the session plan are complicated due to the often large resource groups.*

*LEF does not offer a documenting service. The problem owner is expected to organise such a service or hire it externally. The facilitator does consult the problem owner about the possibilities and takes it into account during the session, for example, by making the resource group work with big whiteboards that can be photographed.*

### *Aftercare*

The evaluation is an important aspect of the process. Both the facilitator and problem owner are forced to reflect on the process and result of the creative session. This enables them both to make changes to their way of handling the process, which is useful experience for the facilitator and essential for the problem owner.

 *The account manager manages the evaluations at LEF. They ask the facilitator to evaluate the creative session individually and plan a meeting with the problem owner to reflect on the work of the facilitator and the creative session in general.*

*Unfortunately, the facilitator and problem owner do not get together to evaluate and generate insight about improvements and follow-up.*

## Step 10: Institutionalise Change in Company Culture, Practices and Management Succession

Finally, change has to be incorporated into daily activities (Beer et al., 1990; Kanter et al., 1992; Kotter, 2005, 2012). Recommended processes to do so are unfortunately limited.

### *Aftercare*

At this point, the facilitator is out of the picture and the resource group is on its own to institutionalise their created knowledge. The problem owner is now in charge of this process.

 *In some cases, the account manager and problem owner agree to do a multi-session LEF-program. In this case, the facilitators can vary for each creative session of the sequence.*

# CONCLUSIONS

The results provide a large overview of the steps in organisational change management, the process of a creative session and sessions at LEF. Figure 11 shows a summary of the results. A comparison between the change literature and theoretical knowledge of creative sessions is provided first. Hereafter a comparison with the observations at LEF provide is given. The blue markings and icons in figure 11 visualise key insights from the comparisons and are further explained in the following paragraphs.

| CHANGE STEP | CREATIVE SESSIONS | CREATIVE SESSIONS AT LEF |
|---|---|---|
| 1 Assess the Opportunity or Problem Motivating the Change | The Problem as Given is identified in meetings before the creative session. | The facilitator joins during the intake, after the exploratoty meeting between account manager and problem owner to discuss the 'Problem as Given'. |
| 2 Select and Support a Guiding Change Coalition | A resource group is being composed from the most important stakeholders. Change leader is not considered. | The group of participants is mostly composed by the problem owner. |
| 3 Formulate a Clear Compelling Vision of the Change | The facilitator and problem owner phrase a problem statement before the creative session. | The goal of the session is discussed during the intake and noted afterwards by the account manager. |
| 4 Communicate the Vision | Invitations to the resource group communicate the goal of the session. During the creative session the problem as given is reformulated by the resource group. | Participants are invited by the problem owner, possibly using a LEF-format. LEF-method pays attention to sharing viewpoints, but rarely phrases a shared problem statement. |
| 5 Mobilize Energy for Change | Beforehand the resource group gets motivated to join and the facilitator builts a session plan. During the creative session a safe environment has to be created. | Motivating the participants is up to the problem owner. Design session are organised to prepare the session. The space and facilitators create a safe environment. |
| 6 Empower Others to Act | A fitting session plan, consisting of a follow-up of creativity techniques, helps the resource group to act. | Facilitators use many different creativity techniques and even come up with custom techniques. |
| 7 Develop and Promote Change-Related Knowledge and Ability | Acceptance finding techniques prepare the resource group to nurture their work after the creative session. The creative session has shown them new ways of working as well. | Use of acceptance finding techniques has not been observed. Participants were inspired to adopt new ways of working. |
| 8 Identify Short term Wins and Use as Reinforcement of Change Progress | Creative sessions should finish with a concrete result and action plan. | The fourth phase of the LEF-method entails making decisions, though the making of an action plan has not been observed. |
| 9 Monitor and Strenghten the Change Process over Time | The session plan can be adapted during a session by a facilitator. Documentation is important. Creative sessions are evaluated afterwards. | Facilitator monitors the process, but group sizes complicate adjustments. Documentation is not standard. Evaluation between account manager and problem owner, no facilitator. |
| 10 Institutionalize Change in Company Culture, Practices and Management Succession | The resource group is on its own with the problem owner in charge. | LEF offers a multi-session program. |

**Figure 11:** *Overview of research and key-insights.*

# Change in a creative session

A comparison between the change steps as summarised by Stouten et al. (2018) and knowledge of creative sessions shows that a creative session is rather similar to the change steps. The similarities between the two are pointed out first and hereafter the opportunities to enhance change in a creative session are presented.

### Similarities

Creative sessions are not explicitly referred to as a process to facilitate change. Looking at the previous section, there are a lot of similarities between the change steps and process of a creative session.

Mostly the preparations and execution of a creative session have a lot of similarities with change. Both organisational change management and iCPS describe the importance of gaining a good understanding of the need for change, defining a clear vision or problem statement and communicating the statement with those involved. A change coalition or resource group, consisting of important stakeholders, need to be selected. They are the protagonists of the change. How the change will be embodied, is defined by these people when given the right tools and support. Important tools to embody change are evaluation and short-term wins or action point.

The aftercare of the creative session has similarities to change too. The evaluation helps to monitor what could have improved during the session. As well as it helps to define what can still be done afterwards by the problem owner and facilitator, for example planning a follow-up session. Another similarity is how both theories do not provide constructive knowledge on how to institutionalise change.

### Opportunities

The similarities, as described above, point out an opportunity when it comes to enhancing change in the aftercare phase of a creative session. Another opportunity is what Stouten et al. (2018) describe as a change leader.

### Aftercare

The knowledge about aftercare or 'institutionalisation of change' is explicitly described as insufficient in change models and iCPS. It has been recognised that change should be maintained and needs time to integrate into larger systems, but a good way to pursue this remains unknown, which makes it a big challenge and opportunity.

### Change Leader

The change models also show an opportunity when it comes to change in creative sessions considering the role of the problem owner.

The literature emphasises the role and responsibilities of the facilitator. The duties of the problem owner when it comes to effective change are underexposed. Stouten et al. (2018) state that leaders have a central role in change. Observations show that it is important for the problem owner to have a sense of control throughout the process. Their reputation is often at stake, as they have chosen to undertake 'something different' and will be using valuable time of the resource group by organizing a creative session. Maintaining good communication and involving the problem owner into building the session plan, truly makes the problem owner acknowledge the full process, rather than the outcome.

### Limitations

The choice has been made to use the article by Stouten et al. (2018) as a basis for the research. Though the article provides an extensive review of prescriptive research models and scientific evidence, there are still aspects of change that are not considered. For example, Seel's (2000) new insights on organisational change, considering culture, and Shaw (2003) focusing on dialogue.

The same applies to the comparison with iCPS, which is only one of the methodologies in creative sessions.

# Change at LEF

With a good overview of change in a creative session, it is useful to analyse LEF's approach to change. The result of that analysis is an overview of opportunities to enhance change at LEF.

### Opportunities

The following opportunities are all interesting for LEF considering enhancing change. After a short explanation of each opportunity, the next paragraph will illustrate which opportunities are selected to work with in the design process.

### Thorough Understanding of the Problem as Given

More thorough understanding of the problem as given is needed, to be able to define the proper purpose of the creative session. In this case, it is important that the account manager, facilitator and problem owner all have the same understanding.

### Define and Phrase

The goal of the LEF-session should not only be discussed, but also phrased into a clear and compelling statement. This way there is no confusion over the purpose of the session and it can be communicated better to the participants.

### Compose Resource Group Critically

The resource group should be composed with the most important stakeholders regarding the purpose of the creative session. Preferably there will be a mixed resource group, existing of stakeholders that support the cause and that need to be convinced.

### Balance Resource Group Size

In addition to the previous opportunity it is recommended to balance the size of the resource group. Smaller groups will have a stronger group cohesion and the facilitator will be able to manage their process better. Larger groups will deliver more ambassadors to the outside world. Each participant's contribution to change should be well considered, both during and after the creative session.

### Attractive and Informative Invitations

Adjust the invitation process to ensure that the resource group understands the purpose of the creative session, the value of their contribution and feels motivated to participate.

### SPARKling Problem Statement

Work towards a SPARKling problem statement during a creative session (Heijne, 2011), as all participants get the chance to understand and agree on the topic they will be working on. Also, having an inspiring statement helps the facilitator to remind the participants of the purpose in a motivating manner.

### Acceptance Finding Techniques

Make use of techniques that increase acceptance finding during the creative session. Examples of such techniques are force-field analysis (Lewin, 1951) and the devil's advocate (Janis, 1971). Both prepare the participants on what aspects of their creation will be fragile or strong in the outside world.

### Decisions on Follow-up

Make decisions considering the follow-up, for example an action plan, towards the end of a creative session. Considering what action will need to be taken after the session, makes the change more tangible for the resource group.

### Ensure Documentation

Documentation of the creative session, including the process and results, should be the norm instead of being recommended. A creative session is exhilarating and tiresome, which makes it easy to forget all the things that happened. Documentation helps to reconstruct actions and motivations. With that knowledge, the results of the session can be communicated and adjusted better.

### Evaluate with an Eye on the Future

Evaluate with the account manager, facilitator and problem owner. Not only to judge the performance, but also to define insights which might benefit the implementation or maintenance of the result.

### Inform the Problem Owner

Inform the problem owner well about its role in the process and follow-up. The problem owner maintains contact with most of the participants and could initiate actions or activities to enhance the change. To do so, the problem owner should be aware of this responsibility and possibility.

### Limitations

For participant observations the researcher has to be aware how, for example, gender, ethnicity and class influence the observations, analysis and interpretation (DeWalt and DeWalt, 2002). To minimise the influence of this limitation, the researcher took on different roles when participating in activities to consider different perspectives. The researcher had facilitated different creative session in and outside of LEF. Two creative sessions have been organised for the researcher as problem owner. Finally, the researcher was closest involved with the daily activities of account managers and actively participated in an intake meeting for LEF's Future Lab once.

## What Is Next?

The opportunities, as described before, occur throughout the entire process at LEF. The design process of this master thesis pays special attention to human centered and participatory design and with that approach it is helpful to define a scope as solution space.

An important time frame of the LEF-process is the LEF-session itself, because the participants and problem owner get to be influenced over that period of time. However, it poses some challenges to the design process. The context of each LEF-session is extremely different considering the goal of the session, the facilitator's choice and execution of creativity techniques and the composition of the participant group, which makes it hard to develop a solution that fits in so many different situations.

Especially the conclusion of the literature review has shown the importance and potential of paying attention to the aftercare of the LEF-session. The observations at LEF show room for improvement during that phase as well, but the organisation has more energy and experience on coordinating the LEF-session, than providing care afterwards. Even more, this part of the process mostly takes place outside of LEF, which complicated research and participatory design.

The preparations of the LEF-session are the most interesting of all. Most activities during that phase take place in the context and, more importantly, the following phases of the process can be influenced during the preparations.

> *"well begun is half done"*
>
> *- Aristotle*

Focusing on the preparations seizes the opportunities of understanding the Problem as Given thoroughly, defining and phrasing the purpose of the session, composing the resource group and ensuring documentation. Ideally, all other opportunities are influenced as well, yet informing the problem owner has been selected as the most important opportunity to focus on during the preparations of a LEF-session. The problem owner plays a crucial role, what Stouten et al. (2018) refer to as the change leader, because of its relation to the participants and organisation where the desired result should take place.

The following section will further elaborate on the preparations of the LEF-process and what research has been done to comprehend this phase.

# 2.  RESEARCHING THE CURRENT SITUATION

The focus will be on the preparations of a LEF-session. Where change is difficult to implement, it is particularly challenging after the LEF-session when participants get back to their daily routines. Focusing on the start of the LEF-process and informing everyone involved, but especially the problem owner, will potentially improve the aftercare.

As part of the preparations, the intake meeting was chosen as the specific moment to research further and design for. The intake meeting is a common starting point in the process. LEF could benefit from a structured approach during the preparations. Employees at LEF also rated the contribution of the intake meeting to the success of a creative session with a 4,4 out of 5 (n=18, appendix C).

The intake meeting is the first moment where the account manager, facilitator and problem owner get together to define important aspects of the session. During an intake meeting it is possible to get a thorough understanding of the problem as given, to define and phrase the purpose, define the resource group and arrange documentation. These themes are officially part of the intake process already, but certainly not always pursued.

Focusing on such an early step of the process has the advantage of influencing future steps as well. A good intake meeting could lead to an improved invitation process, during which the purpose of the session can be communicated clearly. The problem owner will be introduced to its responsibilities during the intake meeting, which makes it a stronger change leader.

The current intake meeting has been researched to define the current situation. The goal, method, results and conclusion of the research are described next.

## 2.1.  GOAL

The intake meeting was researched to be able to define a desired situation for the intake meeting. The goal of that research is to understand the current situation of an intake meeting at LEF.

## 2.2.  METHOD

Again participant observations was the methodology to research the current situation of an intake meeting.

Four intake meetings were observed, without the active participation of the researcher. Three of these meetings were recorded with the consent of the partakers. The recordings were replayed for further analysis. Furthermore, the researcher has participated in intake meetings in the role of problem owner, twice and facilitator twice as well to understand different points of view.
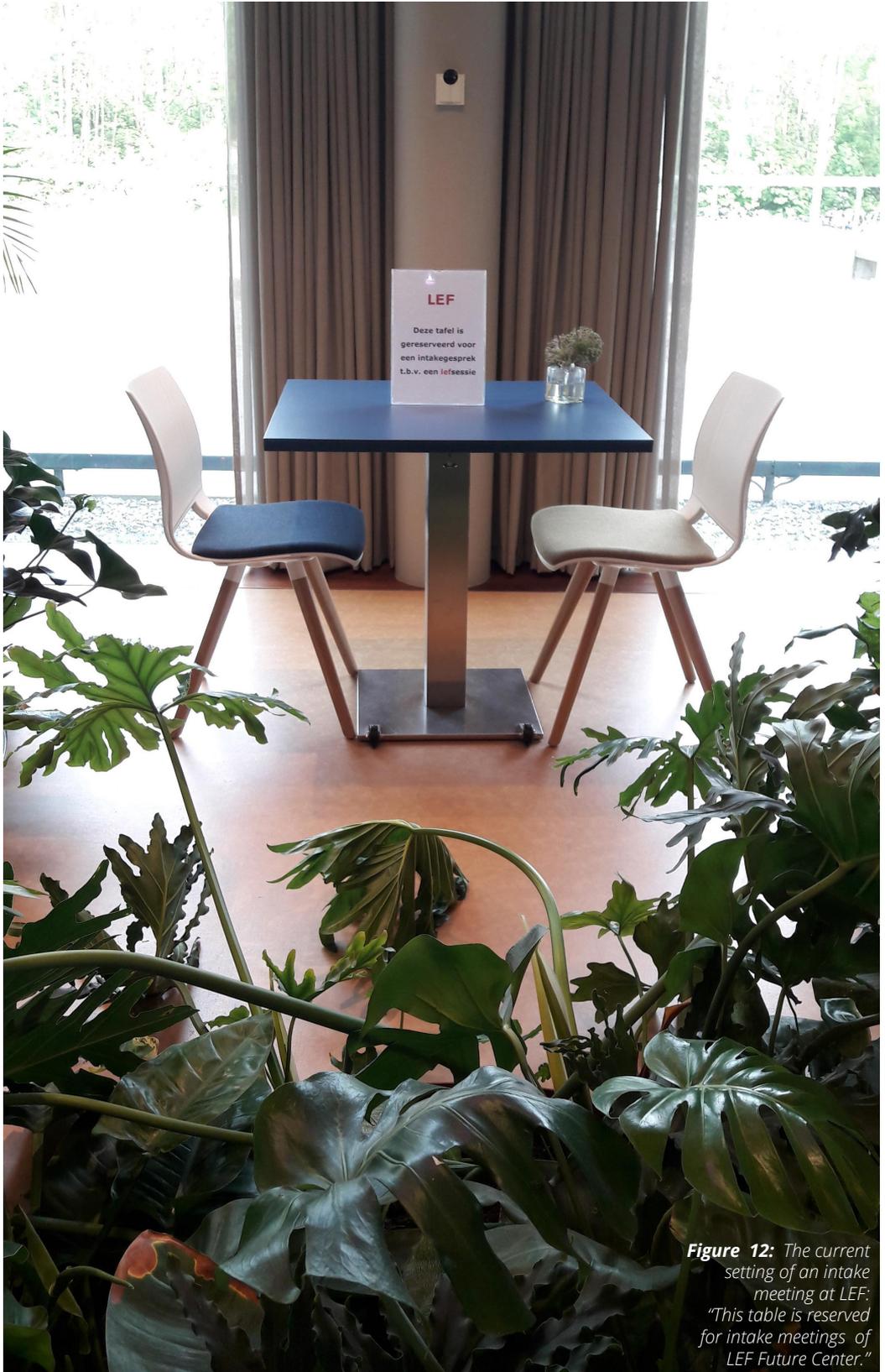
**Figure 12:** *The current setting of an intake meeting at LEF: "This table is reserved for intake meetings of LEF Future Center."*

## 2.3. RESULTS

The results of several participant observations are visualised in a scenario describing the overall process of an intake meeting at LEF.

An intake meeting takes place after the exploratory meeting between the account manager and problem owner, during which the purpose of the session has already been discussed. The purpose of the exploratory meeting is to check if LEF will be able to meet the request of the problem owner and to explore the purpose of the session. That knowledge will enable the selection of a fitting facilitator.

The facilitator, problem owner and account manager take part in the intake meeting. The problem owner can be one person, but could also be a coalition of different people. The account manager has met the problem owner beforehand to evaluate if the inquiry of the problem owner fits with LEF. The facilitator and the problem owner meet for the first time.

The facilitator is in the lead of the conversation, sometimes supported or complemented by the account manager.
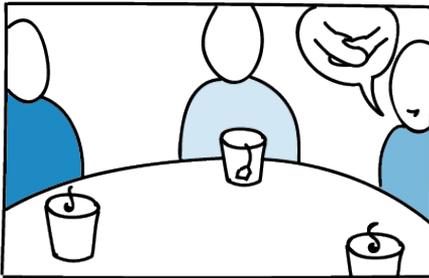


1.  *Introduction*
    The names and responsibilities are shortly introduced, but not further discussed. Therefore a clear role rigidity is missing during the intake meeting and process following after the meeting.
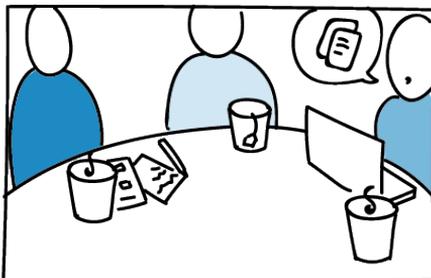


2.  *Intake Form*
    The facilitator makes personal notes during the meeting. The account manager has an intake form, which consists of useful and important questions to guide the intake meeting. This form is however perceived as unspontaneous and unprofessional and rarely used, neither by the account manager nor by the facilitator. Therefore each intake meeting has a different structure, defined by the partakers in the conversation..
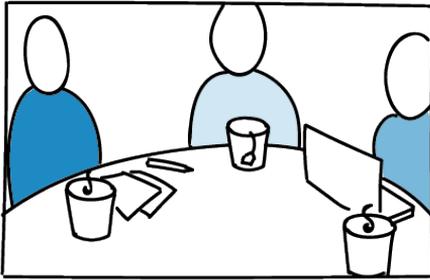
3. **Exploring the Problem**
   The problem or motive to organise a LEF-session are discussed. Questions of the facilitator mostly serve to understand the situation than to dig towards the essence and find the purpose of the session. The facilitator is receiving a lot of information, which makes it difficult to be sharp and in control when processing so much information.

*"That is a lot of information, do you mind if I take some time to take it in and then I'll contact you shortly with a proposal."*

*- Paraphrased quote by the*
*facilitator (Appendix D).*
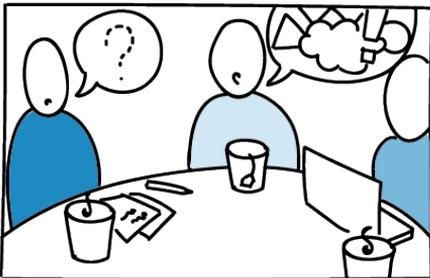


4. **Exploring the Session**
   At some point, the discussion about the problem moves towards the purpose of the session, which naturally starts to focus on the execution of the session. The latter subject is often explored thoroughly by exchanging ideas and options.
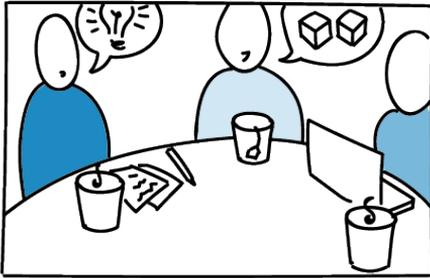
5. **Discussing the Participants**

   Somewhere along the conversation, the number of participants, the resource group, is requested. The number has already been discussed during the exploratory meeting and is rarely changed during the intake meeting. Often the potential complications in the group of participants are discussed.
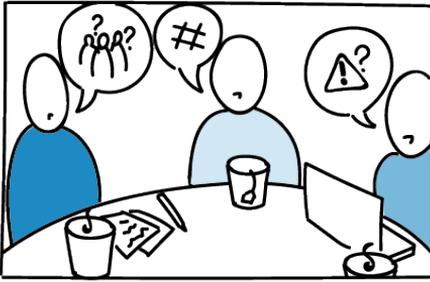


6. **Documentation**

   Often the possibility of documentation is discussed. LEF does not provide a service for documentation. The problem owner is therefore recommended to hire an external service, which leads to additional costs.



7. **Dividing Tasks**

   At the end of the meeting, the facilitator, problem owner and account manager agree on the division of tasks; e.g. the facilitator will send a concept session plan, problem owner will invite resource group.

## 2.4. CONCLUSION

Looking at the scenario of a current intake meeting, there are several aspects that stand out. The following paragraphs summarise the key insights from the current situation and the envisioned responsibilities for the account manager, facilitator and problem owner based on comprehension of the current responsibilities.

## Key Insights

The intake form of the facilitator and standard work instructions of an intake meeting describe many important topics. However, they are not discussed thoroughly during an intake meeting. The interaction between the account manager and facilitator are part of the reason that important topics are not always discussed well. The overload of information does not contribute efficiently.

There is some tension between the role of the account manager and facilitator. Facilitators usually do intake meetings individually with the problem owner outside of LEF. In this case, the account manager also takes part in the intake meeting and has already met the problem owner to discuss the LEF-session during the exploratory meeting. The account manager represents LEF and has hired the facilitator to prepare and facilitate the LEF-session for the problem owner. This leads to a complex hierarchy and insecurity about one's responsibilities, because both have very different and relevant abilities. The facilitator is very experienced with creative sessions and doing intake meetings. The account manager exactly knows what is possible at LEF-sessions has already been informed by the problem owner. The result is that certain important questions remain up in the air between the facilitator and account manager.

Another reason why important topics are not always thoroughly discussed, is the overload of information during an intake meeting. The problem owner has an extensive understanding of its need to organise a LEF-session and usually wants to explain well what the situation exactly is to receive fitting support. This easily leads to cognitive overload. Cognitive overload is when the working memory receives an abundance of information, which makes it hard to process the information and react properly to it. The intake form at LEF could help to create overview, but this is rarely used during the intake meeting.

## Envisioned Responsibilities

The main players of a creative session have been explained in chapter 01.2.1 and the account manager, facilitator and problem owner also fulfill three important roles during the intake meeting. Having a look at the current situation shows that the facilitator and account manager do not have a clear division or understanding of their roles. The role of the problem owner is an essential role, being a change leader with the closest relations to the resource group. The envisioned responsibilities for each role have been defined, following from what could be improved from the current situation. The main job during the intake meeting is described for each role. Thereafter, an overview of their envisioned responsibilities in the LEF-process in general are summarised.

### *The Account Manager*

During the intake meeting the account manager's main responsibility is to discover the core of the Problem as Given: the why and what of the LEF-session.

#### *Envisioned responsibilities*
* Evaluate if the initial question fits LEF
* Detect the purpose of the creative session
* Form a team with the facilitator
* Responsible for the process
* Evaluate
* Manage future relation with problem owner and consult about its responsibilities

### The Facilitator

The facilitator has the responsibility of defining the 'how' of the LEF-session, which can only be done with a good understanding of the purpose. Therefore the facilitator supports the account manager during the intake meeting.

#### Envisioned responsibilities
- Manage the process, actively considering acceptance finding
- Form a team with the problem owner
- Form a team with the account manager
- Choose the right techniques, leading to a result suitable for follow-up
- Consult the problem owner about its responsibilities

### The Problem Owner

The problem owner holds all the information about the purpose and participants and is therefore responsible for sharing that information and providing a clear image of its needs during the intake meeting.

#### Envisioned responsibilities
- Provide the initial question
- Form a team with the facilitator and be part of the process
- Make decisions about the content
- Involve the research group, considering acceptance finding
- Ensure documenting
- Knowledge of how to use the results for follow-up

## Limitations

The number of observed intake meetings was limited. The scenario does not include the approach of all facilitators or account managers in an intake meeting. Overall, the scenario exaggerates and summarises the key insights from the observations.

# 3.    CONCLUSION

The different conclusions throughout this chapter provide essential insights to enhance change at LEF Future Center. These insights are summed up with a short summary of reasoning to select certain opportunities.

The design process converged to the context of the intake meeting. Integrating the knowledge of the researches points out what elements should be discussed during the intake meeting and what responsibilities the account manager, facilitator and problem owner should have during the LEF-process. An intake meeting where all intake elements are discussed and the partakers recognise their responsibilities is the desired situation.

## 3.1. TO SUM UP

A literature review and participant observations have provided an overview of opportunities to enhance change.

The process of a creative session is actually rather similar to the process of organisational change management. There is a gap of knowledge when it comes to implementing the change at the end of the process in both situations, which is an important insight. Furthermore, the biggest difference is that organisational change management refers to a change leader, where creative sessions do not. The problem owner has the closest relation to the change process and would, therefore, be an appropriate change leader.

Comparing LEF-session to the change process of creative sessions helped to understand what LEF can do to enhance change in LEF-sessions.

The research then focused on the beginning of the LEF-process, to ultimately influence the implementation of change over the full process. The intake meeting is the specific context for the future design. The design will directly involve a thorough understanding of the problem as given by the problem owner. Furthermore, it will involve defining and phrasing the goal of the session, composing the resource group and arranging documentation. Though ideally all other opportunities are influenced as well, the main target is to inform the problem owner on its role as a change leader. Due to the ideal link between LEF and the participants, thus the link between the change process and implementation.

Researching the current situation of the intake meeting has shown that not all essential aspects of an intake meeting are properly discussed, whilst they are known. The division and clarity of the roles of the facilitator and account manager stand in the way of that. The fact that the intake meeting covers much information creates cognitive overload. The overload of information does not help the facilitator and account manager to have an overview of what has been discussed and what should still be discussed.

## 3.2.  INTAKE ELEMENTS

Integrating the research into change in creative sessions and the current situation of an intake meeting, has provided an understanding of what should be discussed in an intake meeting to enhance change. These intake elements are described below.

### Role Rigidity

The role of the account manager creates a triangular situation during the intake meeting that confuses the role rigidity and puts limits on the autonomy of the facilitator. Therefore it is important to establish a good understanding of roles and responsibilities. That way, all partakers know what they can expect from the others, what is expected from then and behave accordingly.

### Purpose of the LEF-Session

The purpose of the intake meeting is that everyone understands the purpose of the LEF-session fully. Even though this has already been discussed between the account manager and problem owner beforehand, it is important to review it again with the facilitator. The facilitator will need a good understanding to build a fitting session plan, and it is likely for new information to surface. Certain elements contribute to a full comprehension of the purpose.

The problem owner has a certain motivation for a session at LEF and often the motivation is a problem. The core of that problem should be defined. Asking open questions often helps to do that.

Once the core of the problem is clear the purpose of the session should be defined and phrased. Forcing people to phrase the purpose in one to several sentences helps them to make it specific. Besides, there cannot be any confusion about the purpose when it has been written down with the

agreement of all partakers. Still, the purpose could be adjusted during the preparations of the session, but this serves as a clear starting point.

Defining possible barriers towards the purpose help to get a more complete apprehension of the core of the problem and in some cases leads to adjustments of the goal. Though barriers are essential to overcome when fulfilling the purpose, successfactors should also be considered.

### Enforcement

How the session will be organised is the expertise How the session will be organised is the expertise of the facilitator, but result of efforts from all partakers in the intake meeting. The following elements enforce the purpose of the session.

The essential players should be analysed to compose the resource group with. The problem owner knows in what way people are involved with the purpose of the creative session and should be encouraged by the account manager and facilitator to consider the contribution of different stakeholders.

Lastly, there are certain practicalities all partakers should discuss. Some practicalities contribute to change, like documentation of the session, and others sketch a clearer image for the problem owner. This is essential to give the problem owner a feeling of ownership and responsibility. Such practicalities are the time, date and catering, but also invitations and first suggestions for the execution.

## 3.3. WHAT IS NEXT?

The next step is to integrate the gained knowledge into the design brief. The design brief will state clearly what the design process will focus on to create a desired situation for the intake meeting.

# 03.

# DESIGN BRIEF

The previous researches have provided an understanding of change in creative session, the opportunities that LEF Future Center has and what the context of the current intake meeting is. This is the basis, from which the design brief was set up.

The design brief summarises what the design will focus on by defining a design goal, interaction vision and requirements. The design goal is the leading statement while designing and is supported by the envisioned interaction, which illustrates the less tangible aspects of the design goal. The design brief is concluded by a list of requirements.

# 1.   DESIGN GOAL

The previous chapter has illustrated several opportunities to enhance change at LEF Future Center. The design goal, as phrased below, defines what direction the design process will go within the scope of the intake meeting.

The design goal is

*to educate the facilitator, problem owner and account manager on their respective roles regarding the goal of the creative session, whilst engaging in all elements of an intake meeting.*

## Roles Regarding the Goal of the Creative Session

Each partaker in the intake meeting must be aware of their responsibilities towards the goal, rather than the execution of the creative session. Especially the problem owner could benefit from that.

## Intake Elements

During intake meetings much information needs to be discussed. All partakers quickly lose the overview of the conversation, which leads to a less profound understanding of the intake elements. By unburdening the partakers from remembering the elements, they can focus on the dialogue.

The meeting can turn uncomfortable to establish a profound understanding of the intake elements. Think about toddlers in the 'why?'-phase and how confronting and annoying this can get for the parents. For that reason, it is important to have a safe environment, in which all can collaborate freely.

### *Elements of an intake meeting*
- Establish a good understanding of roles and responsibilities

- Define the core of the problem as given

- Define and phrase the purpose of the creative session

- Define possible barriers towards the purpose

- Define the essential players to compose a research group with

- Agree on practicalities

# 2. ENVISIONED INTERACTION

Metaphors are a powerful tool in the design process. An interaction vision is an example of a metaphor which helps a designer understand the envisioned interaction. The interaction vision is based on interaction qualities. Interaction qualities are rather abstract descriptions of the envisioned interaction and therefore hard to picture. The interaction vision, presented at the end of this section, paints a picture of a situation that one can relate to and which entails the interaction qualities.

## Interaction Qualities

The envisioned interaction is 'invigorating', 'trustful' and 'intense'. These interaction qualities are defined and explained below.

### Invigorating

*making one feel strong, healthy, and full of energy.*

*"a brisk, invigorating walk"*
*(Oxford University Press, 2019a)*

The entire process of a creative session starts with the intake meeting. The beginning has to stimulate all partakers to work on the next steps with enthusiasm and energy.

### Trustful

*having or marked by a total belief in the reliability, truth, or ability of someone.*

*"a trustful acceptance of authority"*
*(Oxford University Press, 2019b)*

Trust in each other's expertise results in an important contribution of all partakers (RWS-LEF, Maturana Parraquez, & Cuppens, 2018). Together they are able to reach the best result.

### Intense

*1. of extreme force, degree, or strength.*
*"the job demands intense concentration"*

*2. having or showing strong feelings or opinions; extremely earnest or serious.*
*"an intense young woman, passionate about her art"*
*(Oxford University Press, 2019c)*

A lot of information that needs to be processed and investigated during an intake meeting. Discovering the essence of a topic is rewarding, although the process to get there can be uncomfortable. Discomfort is often an indicator that things become interesting and therefore intensity should be embraced.

## Interaction Vision

The interaction qualities are represented in the following interaction vision.

When using the design the partakers of an intake meeting should feel like...

*a pilot putting on its uniform.*

The uniform represents the pilot's important profession, and by putting on the uniform the pilot automatically takes on a fitting role. Their appearance is perfected in all details like groomed hair, polished shoes and walking up straighter. It demonstrates the pride and responsibility they experience while wearing the uniform, which is accompanied by confidence in their personal skill and team of stewards.

The interaction vision is invigorating, because a pilot is passionate about its profession and wears the uniform with due pride.

The interaction vision is trustful, because flying and airplane is not without risk and pilots have to rely on their education, experience and teamwork. Confidence about these aspect is strengthened by wearing the uniform.

The interaction vision is intense, because the uniform is put on with eye for detail and awareness of the responsibilities that come with the profession.

*Figure 13:* *A pilot putting on its uniform.*

# 3.   REQUIREMENTS

The design will have to apply to the following requirements. These requirements are organised following the MoSCoW prioritisation method (Cadle et al., 2010) to help understand and manage priorities. This method was selected to prioritise requirements, because it provides a clear overview of the considered design space. Apart from ranking the requirements that should be met into must-haves, should-haves and could-haves, MoSCoW also makes the considered requirements that will not be part of the scope explicit.

## Must Have
*Requirements that have to be met*

1.  The design makes the facilitator, problem owner and account manager aware of their roles.

2.  The design supports the account manager and facilitator in engaging all elements of an intake meeting.

    The requirements as described above, follow from the design goal. The envisioned responsibilities, which is what a particular role entails, and intake elements have been described in the previous chapters.

3.  The design focuses on the content level of communication (figure 14).
    An important aspect of an intake meeting is communication. There are different levels of communication (figure 14), which are all relevant during an intake meeting. The content level of communication refers to the intake elements that have to be discussed.

## Should Have
*Requirements that increase the quality of the product considerably and would hurt to be left out*

1.  Enforce the expertise and experience of facilitators and account managers.
    The facilitators and account managers at LEF are well skilled and have a lot of experience with intake meetings. The design should be a platform for that experience, rather than telling the facilitator or account manager how it has to be done.

2.  The design focuses on the timespan of an intake meeting (1-2 hours).
    Facilitators are paid a specific amount of hours for each session. These hours include the intake meeting, preparations, facilitating the session and rounding off. The account manager can be more flexible, but usually manages many different sessions at the same time. Therefore the design should not take more time than current intake meetings.

3.  The design can be used intuitively, without prior training.
    The design will be used by different account managers and facilitators. Some facilitators are selected for LEF-session weekly, whilst others only get to facilitate once every few months. For that reason, use of the design cannot take a long time to understand, or users will not feel comfortable working with it.

4.  The design influences the physical level of communication (figure 14).
    LEF has developed a lot know knowledge on the influence of space and light on the interactions during a creative session. The design will incorporate that knowledge, because it will be beneficial to the interaction during the intake meeting and because it will advertise one of LEF's strengths.

5. **The design stimulates group cohesion.**
   Group cohesion benefits the performance and effectiveness of a group (Salas et al., 2015). All partakers should work well together, especially because they have different roles, to get the best result.

6. **The design facilitates the reporting of the intake meeting.**
   So far, there is no procedure to report the intake meeting, whilst many important topics are discussed and even decided on. The partakers usually make personal notes, but having a shared overview of what has been discussed ensures that everyone is on the same page.

## Could Have

*Requirements that are interesting if time allows it*

1. **The design has a recurring element during or after the creative session.**
   The time between the intake meeting and after the creative session can easily be several months. Connecting those moments could help to be aware of one's role during the aftercare.

2. **The design educates the facilitator about acceptance finding.**
   Many aspects of acceptance finding (appendix B) should be endorsed by the facilitator, but they are not always aware of the possibilities. It would be favourable when the facilitator is being made aware of what can be done in terms of acceptance finding.

## Won't Have This Time

*Requirements that are not realistic for the scope of this project, but very interesting for the future*

1. **Provide active support to the problem owner after the creative session.**
   During the preparations, the problem owner will be made aware of its role, especially when it comes to what can be done after the creative session. However, the design will not actively play a role after the creative session, as another designer at LEF is already developing a product to improve the aftercare.

| Levels of Communication | Explanation | Relevance | Example |
|---|---|---|---|
| Content | The subjects that should be discussed | Certain subjects are essential to have an effective intake meeting | The problem as given, the goal or date of the creative session. |
| Verbal | The choice of words | The emphasis of a subject can have a different interpretation depending on the choice of words | Using 'challenge' instead of 'problem' |
| Physical | Body language | Nonverbal communication influences the interaction during the conversation, especially in terms of creating trust and a feeling of mutual understanding | Looking someone in the eyes or leaning back |
| Auditory | Tone, volume and use of voice | Nonverbal communication influences the interaction during the conversation, especially in terms of creating trust and a feeling of mutual understanding | A loud and harsh tone or a moment of silence |

*Figure 14: Levels of communication*
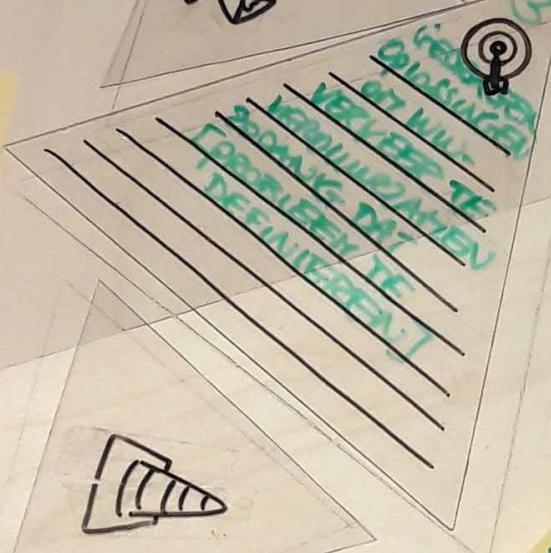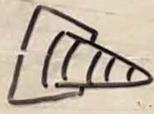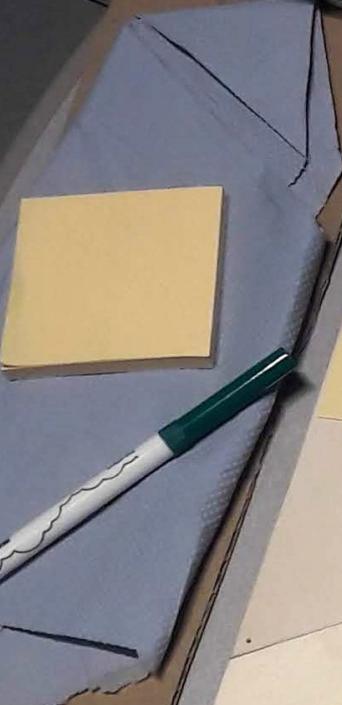
# 04.

# DESIGNING

The design brief is the starting point of the second diamond of the double diamond approach, as described in the introduction (chapter 00.5). The divergent phase of the second diamond is the ideation phase, during which ideas are developed and explored.

The broad explorations will lead to one concept during conceptualization. Conceptualization is the convergent phase of the diamond and presents the concept. Finally, concept evaluations describe how the concept was developed, considering the context and implementation.

# 1.   IDEATION

The first step of ideas was to generate a broad spectrum of ideas, gained through brainstorming and creative sessions. The gained inspiration has led to several design explorations, which revealed key insights on the interactions during an intake meeting. The insights, also referred to as design components, were the basis of further divergence in the form of How To's and inspired the concept as presented in conceptualization.

## 1.1.  GENERATING IDEAS

It is important to consider many ideas to be able to find good ideas (figure 15). The first ideas were collected in a braindump, which helps to put aside those things that come to mind easiest. Then, to generate a wide variety of ideas, two creative sessions helped to generate even more input and inspiration.

### Braindump

The first step of ideation is what Tassoul (2012) refers to as "shedding the known". Possible solutions for the design goal can pop up at any time. Writing them down helps to design with an open mind and can be retrieved during the design process. Figure 16 shows sketches of the so-called braindump (Appendix E).

*Figure 15:* *Illustration about ideas.*
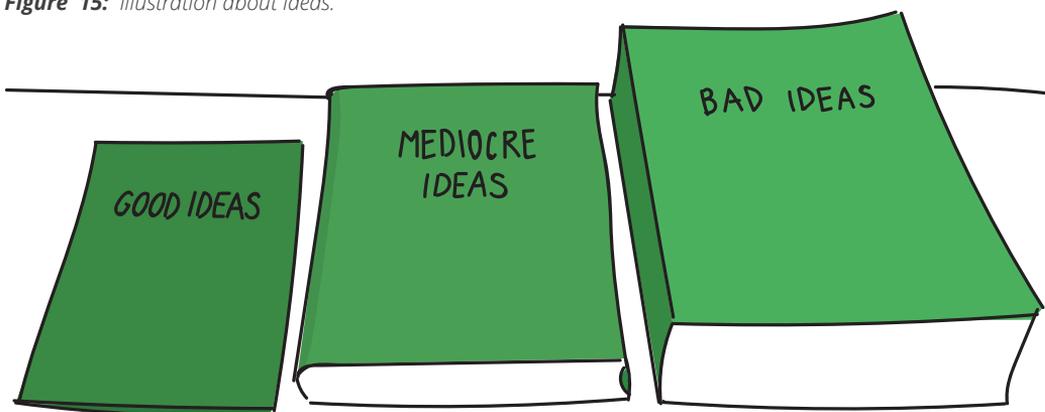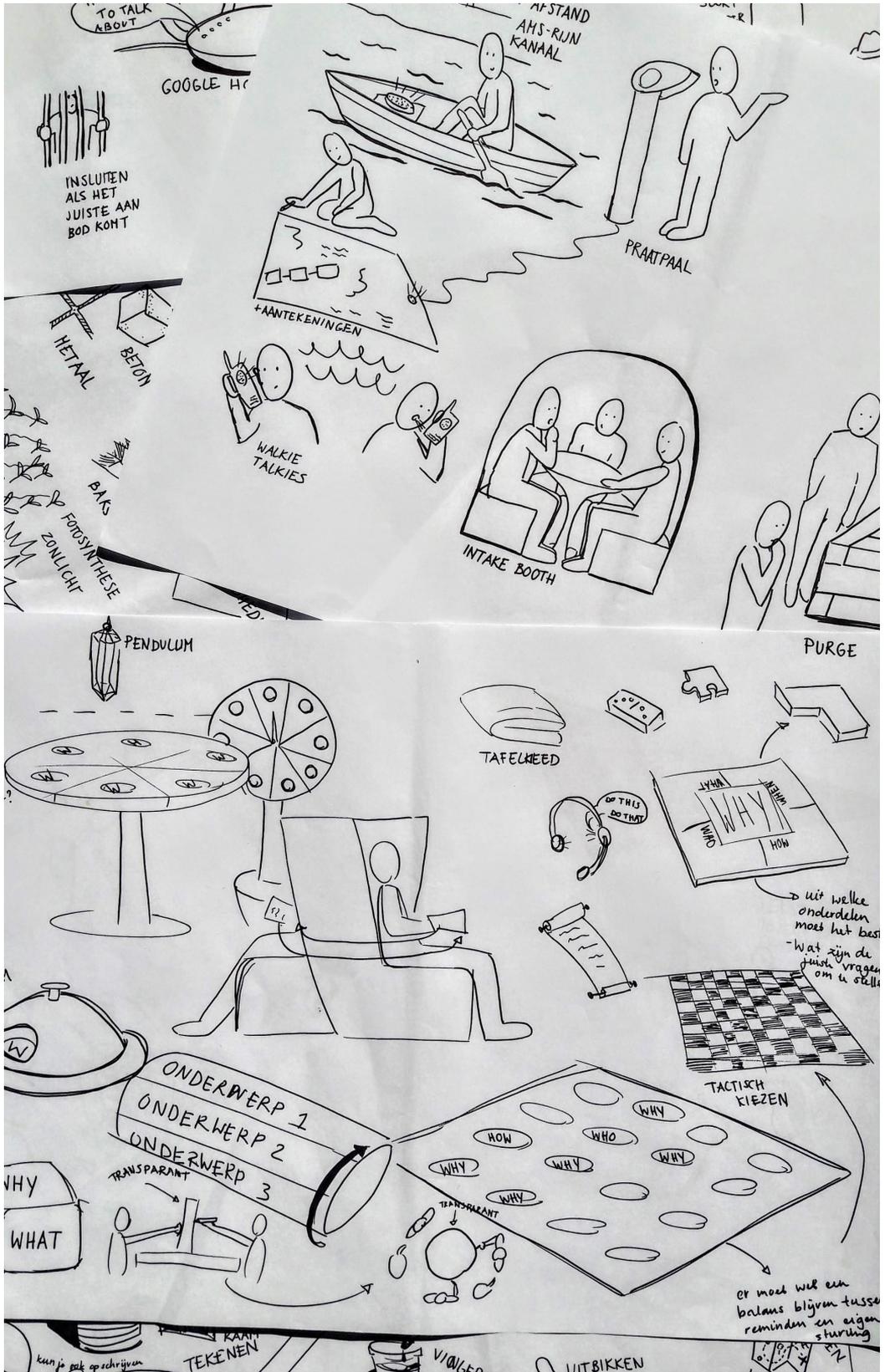
**Figure 16:** *Braindump of first ideas*

## Creative Sessions

A creative session is a valuable tool to accelerate the design process. Therefore two creative sessions were organised and facilitated by students from the TU Delft. The purpose of both sessions was to generate ideas for inspiration during ideation. Because the resource groups consist of different individuals, they are able to generate many and different ideas than a person alone would do.

The problem as given, derived from the design goal, was different for each session to create more variety. The problems were phrased as the following problem statements:

*"How to establish trust in an intake meeting".*

*"How to have structure in an intake meeting (without a list)".*

The session plan and results of both creative sessions are further illustrated in appendix F. Each creative session had several concepts as a final result. Remarking was how all concepts evolved around a full experience of the intake meeting, integrating the environment and human interactions.

Furthermore, all post-its were taken from the creative sessions. An important aspect of creative sessions is 'hitchhiking' where the ideas of others inspire to think in new directions and solutions. The post-its were clustered. In that way, an overview of ideas was created to hitchhike on. The revisiting and rearranging of ideas is part of the revergence phase (Heijne & Van Der Meer, 2019).

The ideas were arranged into clusters that were created spontaneously. The clusters showed, for example, many options to remind the partakers in an intake meeting of the intake elements, like different kinds of audio, clothing, alimentation or games. Another example is the cluster 'setting the scene', which consisted of ideas that focused on the interaction between partakers. Some ideas do not fit within a specific category or were even put into the cluster 'obvious ideas'. The name of one cluster was 'what inspires me' and included a random collection of extra inspiring ideas (figure 17).

The clusters and ideas did not directly provide input to the design process. They were all processed during the activity of clustering and together inspired the design interventions.



***Figure 17:*** *Clustered ideas after the creative sessions*

## 1.2. DESIGN INTERVENTIONS

A design intervention is a small experiment during which the interaction with a prototype is researched. The goal of the design interventions is described first and then is explained how they were executed. The results describe the key insights, which are summarised in the conclusion, along with a description of the limitations and how the insight were used to design with.

### Goal

The design interventions are still part of ideation and aim to explore relevant interactions in an intake meeting. This means that the interactions caused by the prototypes are evaluated and not the prototypes itself. Each design intervention had a specific goal to focus on and can be seen in appendix H.

### Method

There have been six different design interventions. Different 'quick and dirty' prototypes, figure 18 and 19, were made for each design intervention and every time used by new participants, meaning a total of twelve participants. The participants were selected for either being experienced as a facilitator and therefore, familiar with doing an intake or not having any experience with creative sessions.

For each design intervention, two participants would roleplay an intake meeting, which was observed. The experienced facilitator would take on the role of the facilitator. The inexperienced participant roleplayed the problem owner. The problem owner would, with support from the researcher, use a personal problem as a theme during the intake meeting.

When the roleplay had ended, both participants were interviewed together. The interview questions depended on the observations and served to understand the observed interactions better.

The design interventions and interviews were all recorded and reviewed to extract insights.

### Results

The results of the design interventions are collected insights from the observations and interviews. Appendix H provides an overview of the insights for each intervention. While analysing those, there were several insights that recurred or stood out. The following paragraphs shortly explain the key insights from the design interventions.

A recurring observation was how helpful it was to have tangible objects to hold, point at or use as a metaphor. In some cases, it would help the facilitator to remember certain aspects of the problem owner's story. It was particularly helpful in discussing abstract concepts. A discussed topic would be assigned to an object that both could refer to or reposition in reference to other objects. Which helped both participants to understand well what they were talking about.

All participants had difficulties accurately describing their roles and responsibilities, because they are complex. During the interview of the sixth design intervention the idea came to discuss roles and responsibilities. It would be easier, when one can refer to the preparations, execution or aftercare of the creative session.

When participants were asked to summarise their intake meeting, this would often start new discussions with relevant outcomes. The repetition of topics would help both participants to get a better understanding of the topic.

Some of the prototypes focused on reminding the facilitator of the intake elements, for example, using a canvas or tiles on the floor. The reminders had different levels of detail. When the intake elements would be written into ready-to-ask questions, the facilitator tended to repeat that question without considering all relevant aspect of the intake element. On the other hand, some intake elements were not discussed at all, when the reminder was

very abstract or even ambiguous. The facilitator would ask relevant questions linked to the reminder. However, the facilitator would interpret it in a different way than intended in some cases. There should, therefore, be a balance between the level of detail and abstractness.

The location and environment of the design interventions were dependent of availability and unplanned. The setting, for example, if the participants were standing, walking, facing each other or not, was part of the interventions. During the interviews afterwards, the participants would often refer to the setting and environment in their reasoning. Especially using the prototypes was a new experience for some of the problem owners. They expressed the importance of a safe environment and good introduction of the activity, the prototype had to fit with the entire experience of the intake meeting.

# Conclusion

The results have explained some important insights of the design interventions. These insights are valuable components to build a concept with. First, the key insights are summarised, then the limitation of the results are described, and finally is being explained how the design components are incorporated into the design process.

### Defining Design Components

The key insights from the design interventions will serve as design components to the concept that will be presented in Conceptualization.

1.  Make abstract concepts tangible and visible to create a common understanding and enthusiasm.
2.  Encourage discussion about roles and responsibilities considering preparations, execution and aftercare.
3.  Repetition helps to get to the essence of a topic.
4.  Reminders of the intake elements need to be balanced between an abstract level, to provide space for the facilitator's style, and a detailed level, to ensure a good understanding of the reminder.

5.  Building a full experience, with a natural flow, around the intake meeting improves the acceptance of 'doing something new'.

### Limitations

There are few limitations to the explorative character of design interventions, because all insights are valuable in the design process. However, the design interventions roleplayed an intake meeting excluding the role of the account manager. This is a very specific role at LEF and would complicate the roleplay, because most participants do not understand the dynamic of this role. Leaving out the account manager was a deliberate choice and it has been considered that intake meetings at LEF might have different interactions. There will be additional testing of the concept at LEF during conceptualization.

### Designing with Design Components

The insights that followed from the design interventions are abstract and hard to transform into tangible solutions. Therefore they have been reformulated into 'how to' questions, reflecting the different building blocks for the final solution (van Boeijen et al., 2014). The questions are broadly formulated, which makes it easier to create a wide variety of solutions. The brainstorm with the 'how to' questions (appendix G) was performed in a group of four people. The questions would rotate every few minutes to stimulate hitchhiking on each other's ideas and generate more ideas (figure 20).

The formulation of the questions was as follows:

1.  Make abstract concepts tangible and visible.
        How to visualise things?
        How to make things tangible?
2.  Discuss roles and responsibilities considering preparations, execution and aftercare
        How to separate phases?
3.  Repeat topics to approach its essence.
        How to make something stick?
4.  Make balanced reminders of the intake elements.
        How to remind?
5.  The intake meeting should be a full experience.
        How to get in the mood?

**Figure 18:** *Setting of the sixth design intervention. The participant would roleplay the intake meeting without being able to look at each other. They used a canvas prototype to guide the meeting.*

*Figure 19:* *The particicipants used LEGO for the third design intervention.*

## 1.3. CONCLUSION

Doing a braindump and collecting inspiration from two creative sessions has opened the mind to many different solutions. These activities helped to diverge on the design goal of educating the partakers on their respective roles regarding the goal of the creative session, whilst engaging in all elements of an intake meeting.

Some possible solutions were explored as design interventions. During each design intervention participants would roleplay an intake meeting using a different prototype. Analysing the interactions revealed five design components:

1.    Make abstract concepts tangible and visible.

2.    Discuss roles and responsibilities considering preparations, execution and aftercare

3.    Repeat topics approach its essence.

4.    Make balanced reminders of the intake elements.

5.    The intake meeting should be a full experience.

These are building blocks to build a concept with, but are also very abstract. Therefore 'how to'- questions have been formulated in a brainstorm session to generate ideas to inspire conceptualization.

The ideation phase of the design process has delivered a wide spectrum of inspiration, ideas and understanding of interactions during an intake meeting. Conceptualization has integrated all that into one concept, which is tested at LEF to develop further.

*Figure 20:* Brainstorm on the 'how to' questions.

**PHASE 1**
introduction
lead: AM

**problem stone, soft side**
the soft side explaines
that there is possibility
to get familiar with
each other and the
question of the PO

**personal coffeecup**
the AM, facilitator
and PO each have
their own cup which
reminds them of the
three phases of the
process: preparations,
execution & aftercare.
According to these phases
they discuss their
responsibilities

PREPARAT
SESSION
APTEKA

**PHASE 2**
digging in
lead: Facilitator
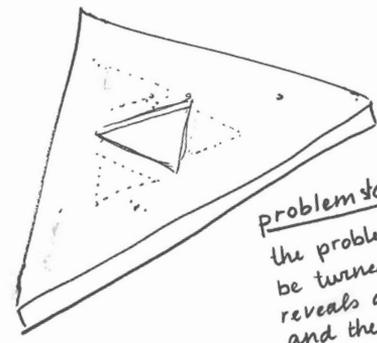
**problem stone, rough side**
the problem stone needs
be turned and this
reveals a more rough
and the element exp
below.

**lef token**
during phase 2
all users should
show LEF by asking
critical questions

LEF

**statement tile**
if the problem is w
discussed and u
the tile needs to b
with 1 sentence d
the goal of the se

**other tiles**
three smaller til
remind the use
the stakeholder
practicalities
goal.

STATEMENT

1
2
3

standing
table
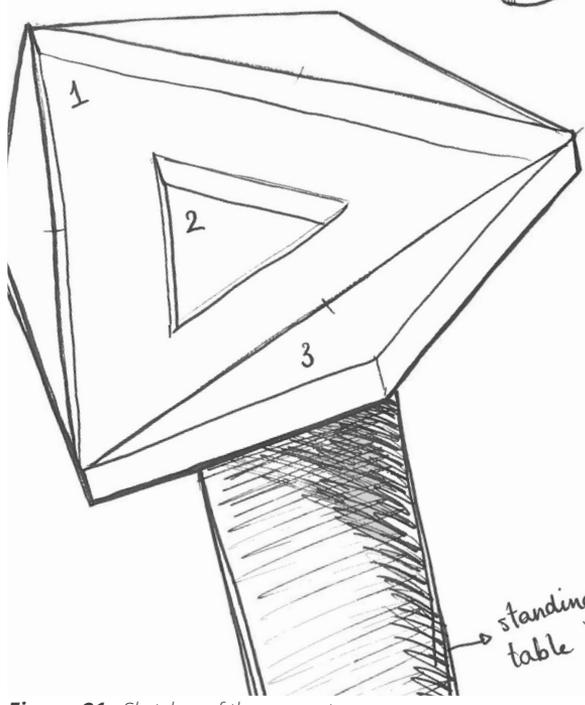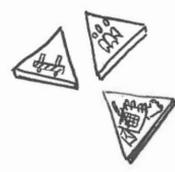
**PHASE 3**
norming
lead: Facilitator
by closing the sides of the tab
the central point once again o
to be concluded with sp

*Figure 21: Sketches of the concept.*

# 2. CONCEPTUALIZATION

Ideation has provided a large amount of inspiration to make one concept with. The concept is presented in this section. The following section, 04.3. Concept Evaluations, will describe the evaluations of the concept.

The choice to develop a single concept was based on the fact that enough time was needed to prototype, test and iterate the concept several times. The iterations, based on prototyping and testing, are a priority because they provide valuable insights about the use of the product. Future users are given the possibility to contribute to the design, which will hopefully convince them to use and promote it in the future.

## 2.1. THE CONCEPT

The concept is named the Intake Table. The concept's different features will be highlighted, starting with an overall introduction and then illustrating the different phases and features of the concept. Lastly, the conclusion will evaluate how the concept meets the requirements of the design brief and incorporates the design components.

### The Intake Table

The Intake Table is a table around which the account manager, facilitator and problem owner should stand to keep the meeting dynamic and focused (Bluedorn et al., 1999). This physical aspect fits LEF Future Center's vision to incorporate the environment.

The concept is accompanied with short instructions, that the account manager and facilitator can use to understand the product beforehand and during the intake meeting.

Salas et al., 2015, state that team cohesion is essential for the effectiveness and performance of a group. It is essential that the concept stimulates collaboration even though the timespan of an intake meeting is short. The use of the intake table is, therefore, divided into three phases that are inspired by Tuckman's model of forming, storming, norming and performing (Bonebright,2010). The concept only facilitates the first three phases, because the intake meeting is the start of a longer process. More so, the partakers should start with the performing phase after the intake meeting. Each of the phases will be described according to its purpose and parts.

### Phase 1: Forming

The forming phase of the concept introduces the partakers to each other and to the subject of the LEF-session. The account manager is in the lead during this phase, as it is the link between the problem owner and facilitator. Additionally, the account manager is already familiar with the purpose of the session as discussed during the exploratory meeting. The parts of the Intake Table that are used during this phase are the 'problem stone' and personal coffee cups.
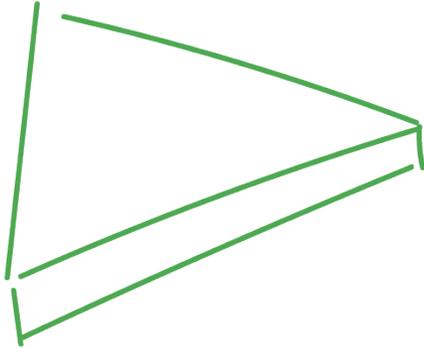
#### Problem Stone - soft side

The soft side of the problem stone represents how the discussion can stay on the surface. This phase is about getting to know each other and the topic of the session.

#### Coffee cups

There are different coffee cups for the account manager, facilitator and problem owner. Each cup represents the preparations, execution and aftercare of the session and should remind everyone of these phases while discussing the roles and responsibilities during the introduction.

Getting a coffee or tea is already an element of the intake meetings at LEF and are a way of breaking the ice. The walk to the coffee machine is often filled with valuable conversation and therefore, this form has been chosen to discuss roles and responsibilities.

### Phase 2: Storming

In the second phase the facilitator will take over being the lead in the conversation from the account manager to show the problem owner that they are a team. The phase starts by turning over the problem stone to its rough side. The big and inconvenient size ask for collaboration to turn it over and take out the other parts from underneath.
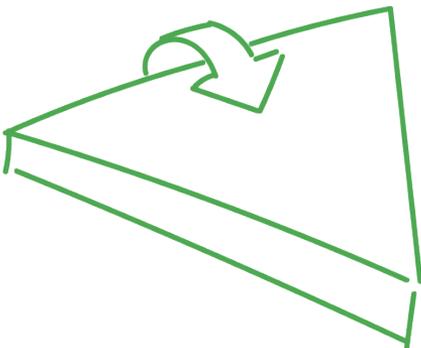
Storming means that this phase can get intense and the purpose is to leave no stone unturned when it comes to understanding the purpose of the session. The following parts, on which can be written with whiteboard markers, stimulate that phase.

### Problem Stone - rough side

The rough material of the problem stone symbolises that things can get rough and should be considered well. Turning over the stone starts a new kind of conversation where critical questions are welcomed.

### LEF-Token

The LEF-token is inspired by the acceptance finding technique the devil's advocate (Janis, 1971). It is a red coin should encourage and authorises critical questions. The colour of the token makes it stand out as a reminder. The partakers are asked to pass the LEF-token around.
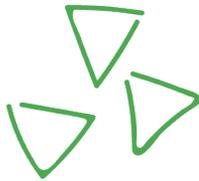
### Statement Tile

The biggest tile after the problem stone is the statement tile. The different sizes of the tiles illustrate the order in which they should be used and the importance of the topic. The lines on the tile indicate that the goal of the session should be phrased and written down.

### Theme Tiles

There are three smaller tiles to remind of important themes, based on the intake elements, that should not be forgotten. The theme tiles are discussed after the statement tile has been filled in. They trigger discussing the participants, barriers and practicalities. The symbols on the tiles remind of these subjects and give the freedom to choose one's own words to discuss them.

### Phase 3: Norming

The final phase is based on norming, where roles and norms are established (Bonebright,2010). The sides of the table can be closed and only the goal of the session will remain visible. Together the partakers summarise the meeting and write the conclusions down around the goal.

Making a picture of the table documents the summary of the meeting. The coffee cups can be taken home, especially by the problem owner, as a reminder of the responsibilities all partakers have.
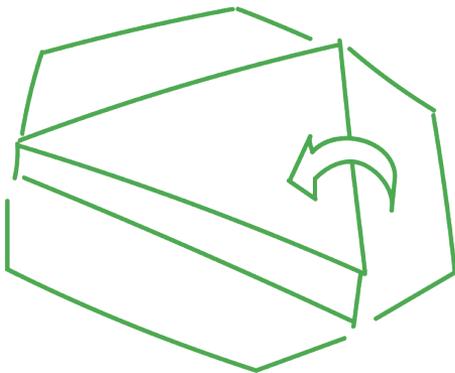
## 2.2. CONCLUSION

Having developed only one concept, means that it is likely for other fitting solutions to exist. The Intake Table is a possible answer to the design brief and it has been a deliberate choice to invest more time in prototyping and iterating than developing more concepts.

The concept is based on the requirements as presented in the design brief. Below will be explained in what way the intake table fits the most important requirements and how the key insights from design interventions are incorporated.

## Requirements

To illustrate the level of detail of the Intake Table and that it is a suitable solution, the different aspects of the design are identified for the most important requirements, as described in the design brief. The 'must have' and 'should have' requirements are the most important, as the name already reveals.

### *Must Haves*

#### *The design makes the facilitator, problem owner and account manager aware of its role.*

The coffee cups facilitate a discussion about roles, considering the preparations, execution and aftercare of the LEF-session. The partakers are encouraged to exchange their opinion on the different roles and to learn from that. In this way, there is freedom for all partakers to define the roles in a way that fits with the group dynamic, without having it defined by the design.

#### *The design supports the account manager and facilitator in engaging all elements of an intake meeting.*

The coffee cups, problem-stone, statement tile and theme tiles stand for all different intake elements and remind the facilitator and account manager that these subjects need to be discussed.

#### *The design focuses on the content level of communication.*

For the intake meeting the intake elements are the relevant content to be discussed. The problem-stone, statement tile and theme tiles steer towards that. Also, the phases of the intake table determine what is being discussed.

### *Should Haves*

#### *Enforce the expertise and experience of facilitators and account managers.*

This has been an essential requirement, as there is a lot that can be improved during the intake meeting. The facilitator and account manager should not feel as if they can stop using their own knowledge and rely on the concept. Therefore the Intake Table offers physical and figurative space for the experience and expertise of the facilitator and account manager. The different phases and tiles provide a framework of what should and should not be discussed, leaving the exact implementation to the facilitator and account manager. The tiles, for example, have icons to represent different intake elements. The icons provide freedom to decide what aspect of the intake element has to be discussed and to express it in one's own words.

#### *The design focuses on the timespan of an intake meeting (1-2 hours).*

The duration of each phase has not been determined, as the content of the intake meeting should be leading in the time management of the discussion. It is recommended to spend 10 minutes in the first phase, 40 minutes in the second and 20 minutes in the third phase, resulting in a total time of one hour and 10 minutes.

#### *The design can be used intuitively, without prior training.*

The intake table, being a physical design, provides visual and tangible reminders of what to do. Each phase makes use of the table in a different composition. The intake elements are represented in physical features as well. However, what the different features represent, should be explained for the first use of the design.

### The design influences the physical level of communication.

As the Intake Table is a table around which the partakers should stand, their position is defined already, making the meeting more dynamic and focused (Bluedorn et al., 1999). The shape of the table, being a triangle, also helps to have an equal position towards each other and gather around the same content. In addition to that, the problem-stone is large, stimulating the users to help each other in turning it over. The different tiles are separate parts, which can be repositioned, picked up and pointed at, making the meeting more dynamic as well. The statement tile specifically shows lines where the goal of the session has to be written on.

### The design stimulates group cohesion.

The three phases, based on the first three phases of Tuckman's model of forming, storming, norming and performing (Bonebright, 2010), as well as turning over the problem-stone together, should endorse group cohesion.

### The design facilitates the reporting of the intake meeting.

During the storming and norming phase of the concept, notes can be made on the surface of the Intake Table. The statement tile even requires the users to write down the goal of the session and will also stay visible when closing the sides of the table. A photo can be made at the end of the third phase, which will provide a useful overview of the intake meeting.

## Incorporated Design Components

The key insights from the design interventions have been incorporated into the design of the Intake Table as well.

### Make abstract concepts tangible and visible.

The tiles with icons are tangible representations of abstract concepts like the intake elements. The users are also able to write and draw on and around the tiles to increase visibility and understanding.

### Discuss roles and responsibilities considering preparations, execution and aftercare.

The coffee cups are a representation of these three phases. The users are instructed to discuss their roles according to these phases.

### Repeat topics to approach its essence.

During the third phase of the Intake Table the users have to recap the discussed topics. Which will make them repeat what has been decided and opens possibilities to revisit certain topics.

### Make balanced reminders of the intake elements.

The intake elements are represented by icons, giving freedom to the users to phrase the intake element in their own way. The instructions of the Intake Table will, however, explain the different icons in a specific way. The account manager and facilitator will get familiar with the design after using it several times. Then the icons will suffice as balanced reminders.

### The intake meeting should be a full experience.

The fact that the Intake Table is a piece of furniture, specifically designed for the intake meeting, creates an experience. It represents LEF and that things will be done slightly different. For example, changing the composition of the intake table for each phase like LEF uses different spaces for different phases of a creative session. Furthermore, including the introduction and getting a cup of coffee into the design, makes it a full experience.

# 3.   CONCEPT EVALUATIONS

The concept has been iterated after different evaluation sessions. Each iteration is summarised in this section, after the goal and method of the evaluations have been explained. Finally, the research questions, as presented in the goal of the evaluations, are answered in the conclusion, along with the limitations of the evaluations. The next chapter will present the final design, based on all evaluations.

## 3.1.  GOAL

The goal of the concept evaluations is two-fold: to gain valuable insights about the actual use of the product and to consider acceptance finding. Giving future users the possibility to experience the design and provide feedback, will hopefully convince them to use and promote it in the future.

The evaluation of the use of the concept was based on four research questions:

1.   *To what extent do the users users get aware about their roles & responsibilities?*

2.   *To what extent are all intake elements discussed and questioned?*

3.   *To what extent do the users experience the interactions as 'invigorating', 'trustful' and 'intense'?*

4.   *To what extent do the users experience group cohesion before and after using the prototype together?*

## 3.2.  METHOD

Prototypes of the concept were made to use for the evaluations with future users of the design. For each user test the design was updated and a new prototype was made. In total, the concept was evaluated by all four account managers, fourteen facilitators and four problem owners. The high number of facilitators that evaluated the concept is caused by a concept evaluation during a Community of Practice at LEF where many facilitators are present at the same time.

For the user tests, the participants were asked to do an intake meeting using their own expertise and using the prototype. Beforehand all participants were asked to fill in a questionnaire to measure group cohesion. Then a short introduction of the prototype was given, together with a cheat sheet that summarises the use of the prototype. Then the participants could start the intake meeting using the prototype. Afterwards, the participants were again asked to fill in a questionnaire to again measure group cohesion and how they experienced the interaction qualities: trustful, invigorating and intense. Finally, there would be time to discuss the prototype and ask the participants to explain what they liked and what they would like to change. The evaluations were recorded for complementary analysis afterwards.

Appendix I provides an elaborate description of the procedure for the first evaluation and resembles how the other evaluations were performed. In the next paragraphs will be shortly described what the setting of each specific evaluation was.

*Figure 22: Assembly of the second prototype.*

## 3.3. ITERATIONS

All three iteration cycles are described below. The circumstances were a little different for each evaluation, which is shortly explained first. Then the evaluated prototype is introduced, along with key insights from the evaluation and the needed adjustments to the design. Finally, the research questions are answered in the conclusion along with an explanation of the limitations of the evaluations.

## First Iteration

The first concept evaluation was set up as a pilot study to improve the research setup and evaluate the design before presenting is to LEF's clients in official intake meetings. Four employees of LEF, of which two account managers, and one facilitator joined the evaluation.

Together they roleplayed an intake meeting. Role descriptions were prepared for all roles. The facilitator and account manager would have their natural roles. Another employee pretended to be the problem owner, using the role description.

The prototype used for the pilot evaluation can be seen in figure 23. It contains all elements from the concept as described in the previous section, but has a relatively low fidelity. The most significant difference with the concept, is the material of the problem-stone. The problem-stone was made out of wood and did not have a soft or rough side. Furthermore, it was not possible to write on the table. The partakers had to use post-its to make notes and place these in the middle.

The evaluation exposed that certain aspects of the design were successful. The participants understood the use of the prototype after a concise explanation and using the cheat sheet. The physical elements on the table helped to have a dynamic meeting. The participants would often point at the different tiles while asking questions and referring to a topic. The facilitator also expressed that the tiles provided helpful and essential reminders. There was enough room for the facilitator to have a discussion according to the facilitator's preference. She used the tiles to ask questions in her own words.

*"What problem will this session solve?"*

*- Paraphrased quote by the facilitator*

Additionally, the table provided an overview of all that had been discussed, because everything had been written down on post-its and was placed in the middle of the Intake Table. Lastly, LEF will have a systematic approach for their intake meetings and a starting structure for all their sessions. That could improve the communication and documentation of LEF-sessions amongst account managers in general.

Nonetheless, there are points of improvement for the concept. The role rigidity should be emphasised more by giving all partakers specific responsibilities. The participants took coffee in the cups that should encourage a discussion about their roles and responsibilities according to the preparations, execution and aftercare of the LEF-session. Unfortunately that discussion never took place due to the many topics and limited time to discuss. The start of the intake meeting was also uncomfortable due to the roleplay aspect, which had an effect on the introduction. Apart from introducing each other, it should become a standard procedure to introduce the use of the Intake Table to the problem owner. The problem owner was now feeling insecure and excluded at times, because he did not understand what was happening or coming.

*"What is the red LEF-token for?"*

*- Paraphrased quote by the problem owner*

The rough side of the problem-stone should encourage an in-depth discussion of the motivation

to organise a LEF-session. However, the tiles were too tempting and directed the conversation rapidly to the goal and theme-tiles. Thus the concept should remind about the motivation leading to a LEF-session more explicitly. The phrased goal on the statement-tile was adjusted during the meeting, but the concept did not include an eraser. It is a relevant practicality of the concept. The account manager requested an additional preparation, where the account manager and facilitator prepare the intake meeting together by briefly discussing the output of the exploratory meeting. Lastly, it is

important to consider the environment of an intake meeting with the Intake Table. The participants would not have been comfortable to have the meeting in the foyer amidst of other meeting.

The concept was iterated according to these observations and feedback. Some aspects of the concept were not changed, as they could be tested once more in a real intake meeting.



**Figure 23:** *Participants during the roleplay of the first concept evaluation.*

**2. Coffee Cups**

**3. Tokens of the problem owner**

**1. Instructions**
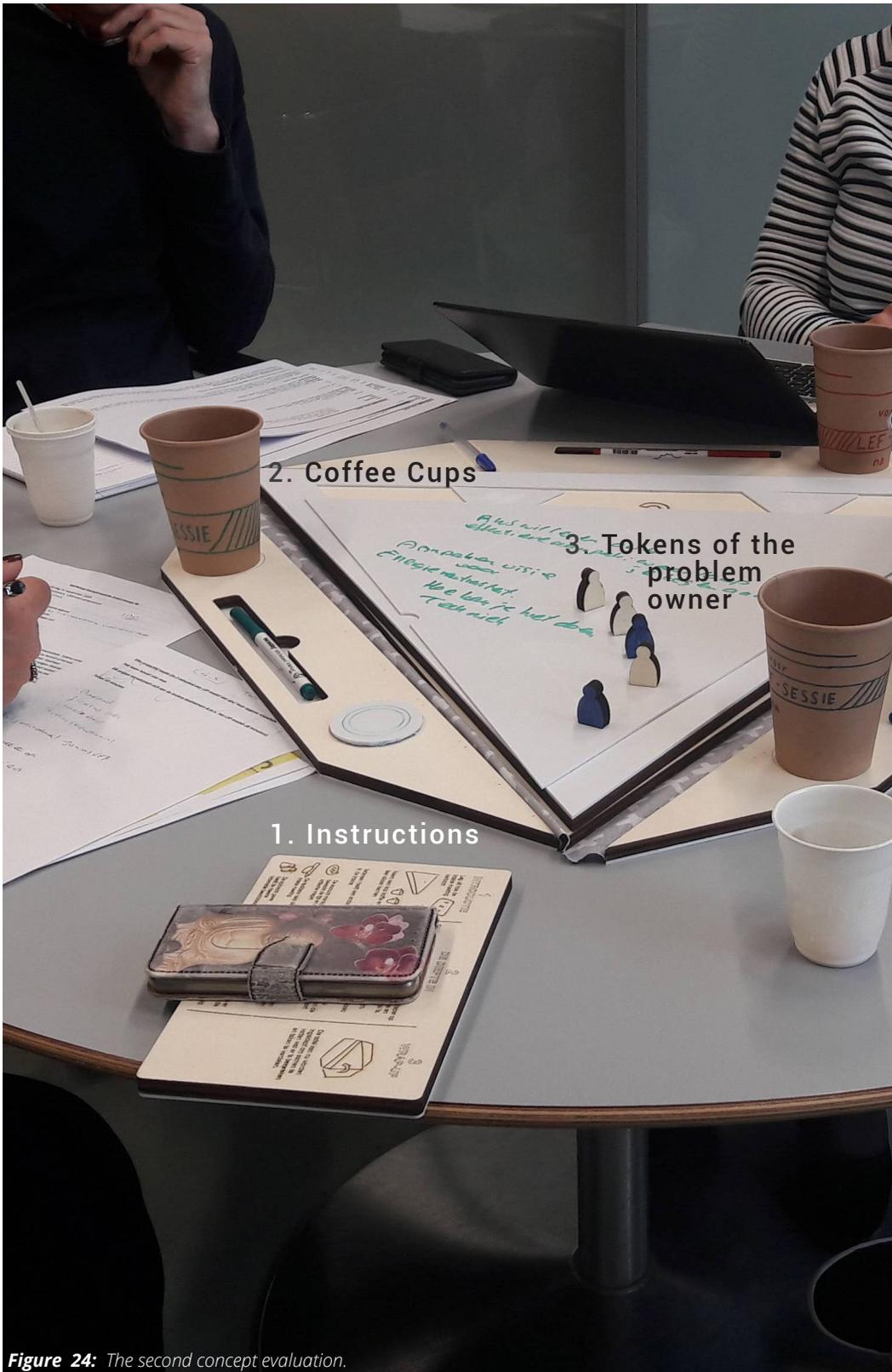
***Figure 24:*** *The second concept evaluation.*

## Second Iteration

The second evaluation took place at an intake meeting with two problem owners. One of them was familiar with LEF and the other was not. They were shortly introduced to the prototype and then asked to proceed with their intake meeting.

The prototype (figure 22 and 24) was professionalised for the evaluation with clients from LEF. The meeting had to take place at the office in Delft and there was no standing table available. The cheat sheet was professionalised as official instruction, directing the facilitator to introduce the use of the Intake Table (figure 24, 1). The backside of the instructions is a whiteboard that the account manager and facilitator fill in together prior to the meeting. The coffee cups were altered to have a different distribution of the preparation, execution and aftercare phase for each role (figure 24, 2). Furthermore, the LEF-token, stimulating critical questions, was incorporated into the role of the account manager during the intake meeting, along with the task of time management of the meeting. All participants received a token at the beginning of the meeting to represent their roles (figure 24, 3). The account manager's tokes is a clock. The facilitator was explicitly given the role of leading the full meeting. The token of the facilitator is a marker and eraser. The account manager had several wooden puppet-tokens, representing the information about the problem and people to join the LEF-session. The problem-stone was renamed into the content-tile and showed different icons to discuss the motivation for the LEF-session.

The evaluation revealed similar strength of the concept as the first evaluation.  The physical elements again helped to discuss all intake elements. The instructions were a good improvement and support for the facilitator. Having the puppet-tokens were particularly useful in discussing stakeholders of the LEF-session.

The most important improvement to the concept is to have even clearer instructions of the use of the Intake Table. So far it had been presented as a tool that all partakers and mostly the facilitator could use as they see fit. The ambiguity created confusion. For that reason, the account manager and facilitator tended to use old habits regarding the intake meeting. The concept should have strict instructions, that prevent insecurity and help to focus on the content of the meeting. All participants had coffee beforehand. The coffee cups were not discussed, also because it was not clear how to.

*"I was not sure how to interpret what was written on the coffee cups"*

*- Paraphrased quote by the facilitator*

Lastly, the size of the Intake Table needs to be larger to have enough writing space. Though there should be little space for personal notes or laptops, because they distract the participants from the discussion they are having.

These improvements were validated at a community of practice at LEF and in an intake meeting.

**Figure 25:** *Results of the final validation.*


**Figure 26:** *Final validation at the community of practice.*

## Final Validation

The iterated design is no longer presented as the Intake Table, but as the Intake Session. The design will be presented in the next chapter. The final validation of the design was performed in two parts. A specific iterated part of the concept was tested in an intake meeting and the design was presented during a community of practice at LEF.

The previous evaluations did not educate the partakers in an intake meeting well enough on their roles. The third phase was therefore complemented with an exercise. During the exercise all partakers have to write down what is in their power to achieve the phrased goal during the preparations, execution and aftercare of the LEF-session. This exercise was evaluated separately during an intake meeting, with two problem owners present. The exercise, figure 25, was a very valuable addition to the intake meeting. The goal was clearly stated for all participants. Mainly, the problem owners realised some of their responsibilities for after the LEF-session. All participants made pictures of the sheets that were provided for the exercise, without being instructed to make pictures.

Many facilitators and account managers get together during a community of practice to exchange knowledge and learn from each other. The final design was presented to two account managers and to fourteen facilitators, of which three had already seen previous versions. The evaluation was not executed like the others and mostly served to inform LEF employees about the concept. They were asked to give feedback about the design.

*"I want to use the Intake Session for my next intake meeting."*

*- Paraphrased quote of a facilitator during the community of practice*

The reactions to the concept were rather positive. Although, the new division of roles was perceived as unconventional, because there will be more responsibility for the account manager to gather important information from the problem owner. Some facilitators were feeling insecure about giving away that much responsibility. A LEF-employee stated that the current account managers are not suitable for that role. Overall, facilitators expressed gratitude for the clear division of roles during an intake meeting.

*"It's so important that the roles are clear."*

*- Paraphrased quote of a facilitator during the community of practice*

The instructions of the Intake Session were adjusted and all participants of the validation were asked to read those first. Unfortunately, all facilitators shared that the instructions included too much information to be understood quickly. A short explanation proved to be more effective.

The participants received the change from a meeting to a session well. The mindset of a session is different and the image of a meeting can be left behind, encouraged by the physical representation of the session.

*"I already like that it's a session and not a meeting."*

*- Paraphrased quote of a facilitator during the community of practice*

Finally, the turning tabletop of the design was not only perceived as functional for reading. Participants believed it would also help the partakers of an intake meeting to understand the perspective of each other regarding the LEF-session. Which is an exciting observation for further testing of the design.

**Figure 27:** *Final validation at the community of practice.*

## 3.4. CONCLUSION

The concept was iterated three times, based on the input of three evaluations. Together these evaluations validated the final design, which will be presented in the next chapter. The research questions guiding the evaluations are answered first. Then the limitations of the evaluations are summarised.

### To what extent do the users get aware about their roles & responsibilities?

The design assigns different roles to the partakers of an intake meeting. The reactions about these roles during the final validation implicate a need for a division. The division of the roles could be improved, but it already raises awareness for the need for role rigidity.

During the third phase, all partakers are asked to write down their personal contribution to the goal, regarding the preparations, execution and aftercare of the LEF-session. Validation showed that all participants were forced to think about their responsibilities.

Overall, the design improves the awareness of the different roles. The responsibilities become more concrete than in current intake meetings.

### To what extent are all intake elements discussed and questioned?

The different tiles and order of their use helped to discuss all intake elements well during each evaluation. Phrasing the goal of the LEF-session proved to be particularly useful, because it gave direction to the discussion.

The fact that all element were presented in a tangible an visual way helped all participants. Problem owner expressed curiosity about the icons and tiles. Account managers were supported in their role of asking critical questions. The tiles provided the facilitator with an overview if nothing had been forgotten.

Finally, seeing what has been discussed helped to partakers to revisit certain topics. This resulted in a common understanding of the topic and often to new insights. Especially the puppet-token for the problem owner was valuable in discussing the stakeholders, invitations and motivation to organise a LEF-session.

### To what extent do the users experience the interactions as 'invigorating', 'trustful' and 'intense'?

After the first two evaluations, the participants filled in a questionnaire with a seven-point scale, rating different interaction qualities. The envisioned interaction qualities were amongst them and rated positively (appendix J) during the evaluations. The results implicate that the design was mostly perceived as intense. The second iterations was received better than the first for all three interaction qualities. However, nothing statistically significant can be stated about the questionnaire, as it was only completed by nine participants.

### To what extent do the users experience group cohesion before and after using the prototype together?

As the same amount of participants filled in the questionnaire to measure group cohesion, these results are also statistically insignificant. The results show that the group cohesion improved during the first evaluation and slightly declined during the second. However, the questionnaire to measure group cohesion was often perceived as unclear or irrelevant by the participants. The observations and interviews were more valuable to estimate group cohesion.

The account manager and facilitator were often searching in their roles. Throughout the meeting their collaboration would improve. Turning over the problem-stone was in all cases performed together. More research on improving and measuring the group cohesion is needed in this case.

## Limitations

The evaluations focused on gaining qualitative insights to improve the concept. Although a lot of valuable insights were observed, there are several limitations to the methodology.

The different iterations of the concept were presented to many different participants. However, time was a limiting factor during the evaluations. Each prototype was only evaluated once and in only two real intake meetings. For that reason, the insights of the pilot study were considered as real results. The qualitative results were sufficient to iterate the concept, but more tested will be needed for a proof of concept. Mostly the usability and instructions of the concept need to be improved before implementation at LEF.

Performing evaluations in the context, with future users, posed limitations as well. The time for evaluations was dependant of the participants' schedules. There was limited time to interview the participants afterwards and get a deeper comprehension of their experience. The questionnaires helped to question their experiences efficiently and had space for additional comments.

Due to the limited testing and amount of participants, the results from the questionnaires are statistically insufficient. The questionnaire is normally used in different context, where participants have spent more time collaborating. The results of the questionnaire are therefore considered as unworkable. The focus would be on the interviews, observations and reviewing the recordings to implicate group cohesion.

The setting is an essential aspect of a creative session and the same applies to the intake meeting. A standing table was arranged for the pilot evaluation, but not during the other evaluations. For that reason, the prototype would be put on a normal table around which the participants would sit down. This did not show immediate differences with the pilot evaluation, where the participants were standing.

# 4.  CONCLUSION

The design brief was the starting point of ideation, followed by conceptualization. The concept was created in these phases and eventually evaluated to do three iteration cycles.

In the course of the ideation phase, many ideas were developed through brainstorming and two creative sessions. Some of these ideas were used to do design interventions, where the interaction with a prototype is being analysed.

From the design interventions, we learned that it is important to make abstract concepts tangible and visible during an intake meeting to more easily create a mutual understanding of them. Also, it is easier to consider one's role and responsibilities according to the preparations, executions and aftercare of a creative session. They divide the complexity of the roles into smaller, understandable pieces. Furthermore, the essence of a topic is understood better when people are asked to repeat or revisit the topic. The topics that have to be discussed during an intake meeting are the intake elements. The design of the reminders has to be balanced, as users can attach their meaning and choice of words to it without misinterpreting the reminder. The final lesson from the design intervention is that the intake meeting needs to be a full experience to immerse the partakers into the meeting fully.

All ideas and insights from the design interventions have led to one concept, which has been developed through different iterations, based on evaluation session with future users of the product. The concept was initially named the Intake Table, which is a table around which the user will stand to do the intake meeting. The table facilitates three phases, which are represented in the physical use of the table. All intake elements are made tangible and visible in the design.

The evaluations have shown the strength of these physical elements. The design makes the partakers of an intake meeting aware of their roles and responsibilities, because they are assigned specific roles and discuss their responsibilities regarding the goal. The evaluations have led to the final design of the concept, which is named the Intake Session. The Intake Session is presented in the next chapter.
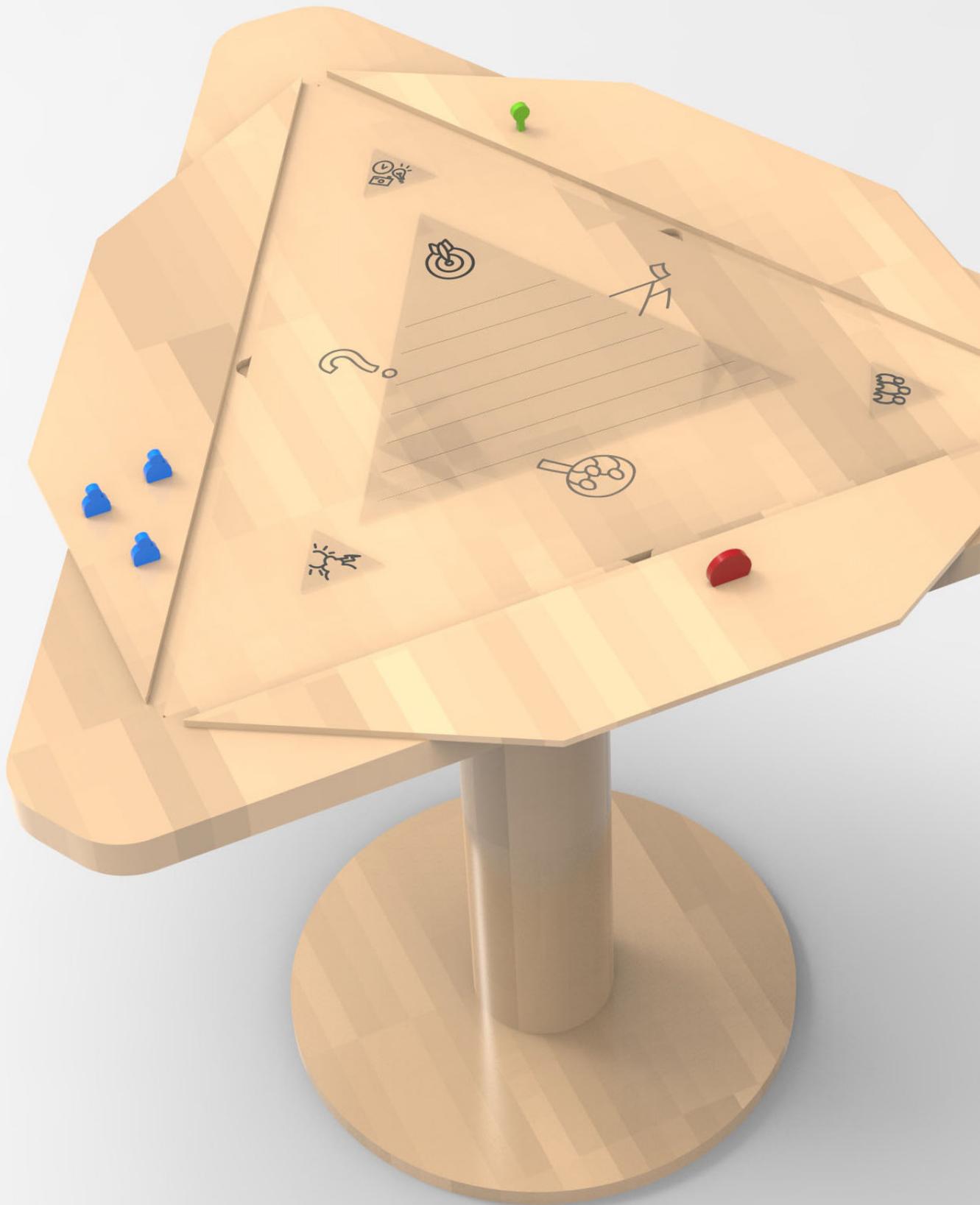
# 05.

# THE PRODUCT

The final design of the 'Intake Session' is presented in the first section of this chapter. The design was developed and validated in different user tests and the second section will present recommendations to improve the design further.

# 1.   PRESENTATION OF THE INTAKE SESSION

The final design is named the Intake Session. The session has been designed to do an effective intake at LEF Future Center and is embodied as a physical table, with a tabletop that can be rotated, that will facilitate the different phases of the session. The exact flow of the Intake Session and the features of the product will be explained according to a scenario.

## 1. Preparing the Intake Session

The account manager has already discussed the reason to organise a LEF-session with the problem owner during the exploratory meeting. The facilitator was selected as a result of that meeting. Now the facilitator and account manager meet ten to 15 minutes before the Intake Session to prepare the session together. They fill in the backside of the instructions, figure 28, with the information that is already know. In general these are the date and time of the LEF-session, the number of participants, context and goal of the LEF-session as discussed so far.
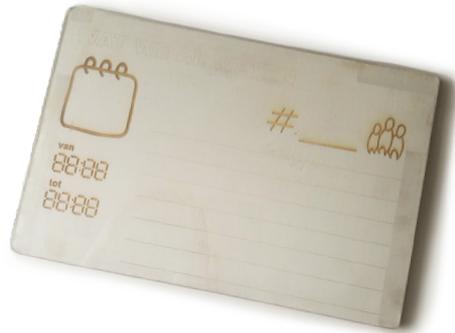


**Figure  28:**  *The backside of the instructions.*

## 2. Welcoming the Problem Owner

The problem owner arrives right on time at LEF and is being welcomed by the account manager and facilitator. Initially the problem owner wanted to bring some colleagues to the Intake Session, but the account manager advised against it. The table around which the session takes place provides room for three people and the discussions can be more effective when there are fewer people.

The account manager introduces the problem owner and facilitator to each other and they grab a cup of coffee on their way to the Intake Session, which is located in the Serre of LEF (figure 29). While walking to the Intake Session the problem owner gets to see the different spaces of the future center and the account manager explains some of the possibilities at LEF.

*Figure 29:* *The Intake Session in the Serre at LEF Future Center*

# 3.  Introducing the Intake Session

The Serre provides a lot of daylight and the view over the Amsterdam-Rijnkanaal puts all partakers of the Intake Session into an open minded and calm mood. After arriving at the table where the Intake Session takes place the facilitator takes the instructions and shortly explains to the problem owner what the Intake Session entails. To support the problem owner's curiosity and slight insecurity towards the triangular standing table.

The facilitator explains how the Intake Session has three phases. They will do an introduction first, to get to know each other, understand each other's roles and introduce the context of the LEF-session. Then they will move to the second phase to get a profound understanding of the LEF-session and decide on certain intake elements. The problem owner is warned, this will be a serious phase because there is little time and a lot to discuss. Fortunately, during the final and third phase everything will come together. All partakers will define their own responsibilities regarding the goal of the LEF-session, wrap of the session and divide tasks to start preparing the LEF-session.
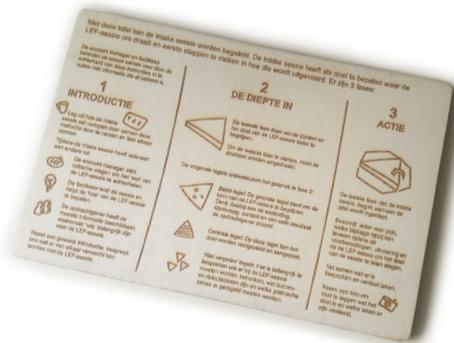


**Figure  31:**  *The instructions.*

# 4. Discussing Roles in Phase 1: Introduction

The Intake Session now starts with an introduction. The facilitator finds it important to get to know each other first and suggests to begin with asking each other how they are and telling something about themselves.



**Figure  30:**  *The tokens.*

Once everyone is introduced and comfortable, the facilitator introduces the tokens of the Intake Session (figure 30). The clock-token is for the account manager. The account manager explains that they are responsible for finding out what is important to know about the LEF-session and why it should be organised. The account manager will, therefore, be forced to ask difficult questions. The facilitator takes the creativity-token and explains that their role is to arrange how the LEF-session will become reality and effective, also the Intake Session will be facilitated by the facilitator.

Finally, the problem owner receives eight people-tokens and is asked what responsibility the token should represent. The problem owner thinks it is about the participants of the LEF-session. The facilitator confirms that by explaining that the problem owner has the closest relation with the problem and the people they would like to reach a breakthrough with.

There are some questions about this and all three partakers start discussing the context of the LEF-session a little until the facilitator states that it is time to move to the next phase.

## 5. Work Together to Get to Phase 2: Digging Deep

The base-tile has to be turned over to commence the second phase of the Intake Session. The facilitator takes the big tile to turn it over and meanwhile, the account manager takes out the elements that are in the compartment under the base-tile. The base-tile can be taken out of the table through the notches in the surface (figure 32).

## 6. Discussing the Base-Tile

On the base-tile there are three icons. The facilitator explains that they will start with discussing the motivation to organise a LEF-session along with its context en mission.

The account manager begins by asking what the problem owner thinks would be a result to dream of if the LEF-session is over. This is the start of a discussion and along their conversation they make notes on the surface of the base-tile (figure 33).

Whenever there is not enough space to make notes or someone wants to read a note that is upside down, the tabletop can be turned.



*Figure 33:* *Base-tile with notes.*

## 7. Defining and Phrasing the Goal of the LEF-Session

The central-tile has been a little in the way so far, because it is rather large. This reminds the facilitator that they should start defining the goal of the LEF-session. The central-tile is placed in the middle of the base-tile and, because it is transparent, the made notes are still visible underneath (figure 34).

Together they try to define the goal of the LEF-session before writing it down. After the facilitator has written down the goal on the central-tile, the problem owner would still like to adjust it a little. The back of the creativity token is an eraser for whiteboard markers and the goal is being erased. Then the tabletop is being turned towards the problem owner to write down the rephrased goal.
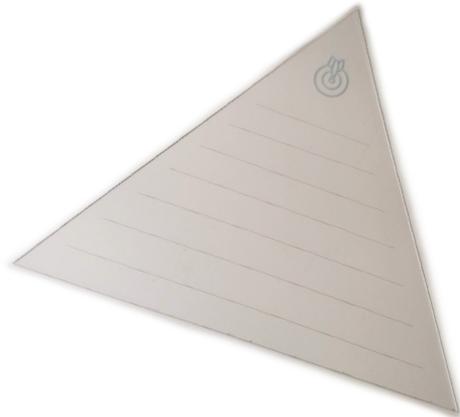
**Figure 34:** *The Statement-tile.*

## 8. Discussing the Participants, Practicalities and Success or Risk Factors.

**Figure 35:** *The Do-not-forget-tiles.*

Now the goal is clear, it is time to have a look at the do-not-forget-tiles. Which remind the facilitator and account manager to discuss the participants, practicalities and success or risk factors (figure 35). The account manager starts by taking the do-not-forget-tile that represents the participants and asks which people should definitely be present to fulfil the goal on the central-tile.

They start a discussion. The facilitator encourages the problem owner to place the people-token on the base-tile to represent different departments and groups of people. Naturally, the discussion goes on and many topics are discussed. The facilitator looks at the other do-not-forget tiles and realises that everything has been considered. The problem owner and account manager agree that it is time to wrap-up.

## 9. Wrapping Up in Phase 3: Action

The facilitator instructs everyone to fold in the side wings of the table. When doing that a lot of their notes are not visible anymore, but the goal of the LEF-session is. There is a figure on the bottom of each side wing, which represents a timeline. The facilitator now instructs all partakers to take a moment and write down what they can do themselves during preparations, execution and aftercare of the LEF-session to achieve the goal (figure 36).

After a couple of minutes everyone has written some things down and today there enough time left to discuss it briefly. The problem owner was not sure what to write down for the execution of the LEF-session, but realised that the participants need a follow-up from the session and, it will be beneficial to have it documented. The account manager suggests options for documentation and that the problem owner could, for example, welcome the participants during the execution.

When the responsibilities are clear, they summarise the meeting and define some action point.
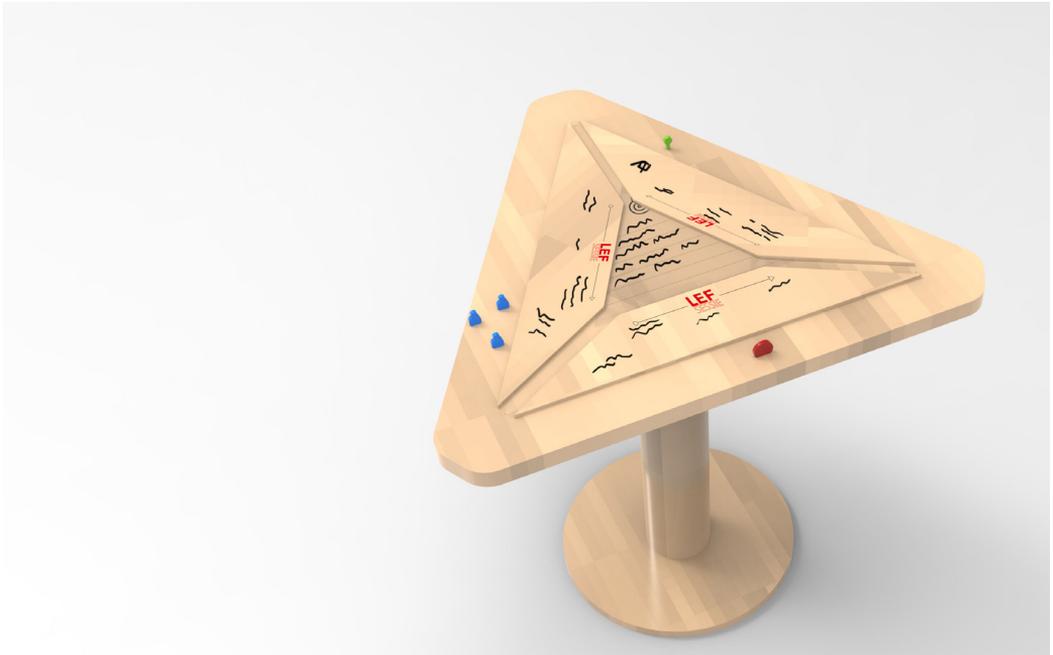


**Figure 36:** *Wrap-up in the third phase*

## 10: Capture It

The account manager makes a picture of the tabletop and promises to email it to the problem owner and facilitator. Then it is time for everyone to head to their next appointments.

The Intake Session does not advise the account manager, facilitator or problem owner on the content of a LEF-session. It only supports them to consider and recognise the most important aspects or reaching a breakthrough.

*"I cannot teach anybody anything.*

*I can only make them think."*

*- Socrates*

# 2.   RECOMMENDATIONS

The following recommendation will have to be considered before LEF Future Center can implement the Intake Session.

## Setting

As the Intake Session is a whole new way of pursuing an intake meeting, it is recommended to consider the space of the session well. The scenario in the previous section already proposes the Serre as an environment for the Intake Session. The recommendation is to place several Intake Session tables in a corner of the Serre. The space can be shared with other Intake Sessions and all problem owners get to see LEF's spaces before starting the Intake Session. Furthermore, there is a view over the Amsterdam-Rijnkanaal and ambient noise, which makes the setting of the Intake Session more comfortable than being in a silent and empty space.

The partakers of an Intake Session will need to stand during the entire session to stimulate and active position. However, the evaluation has shown that the time frame of an Intake Session can be too long to stand comfortably. Therefore bar stools should be considered.

## Instructions

Different facilitators expressed that the instructions of the Intake Session were unclear, without having a prior explanation. The aim was to design an intuitive product that would not require prior training. Unfortunately, the Intake Session contains many different elements that are overwhelming at the beginning. For each evaluation a short explanation of the design and the 'cheat sheet' where sufficient to use the design for the first time. Still, a good instruction, for example in a video, has to be developed to make sure that the Intake Session is performed and understood well. Another idea would be to have a standard email that introduces the Intake Session to the problem owner beforehand.

## The Design

The design needs to be tested more before producing the physical tables. Additional research into the importance of cohesion and how it can be stimulated during the Intake Session is highly recommended to include along with the testing.

The size of the central-tile, on which the goal of the session is phrased, and the division of roles during the Intake Session have to be evaluated. The central-tile is an important and central elements of the session. There should be enough space to write down the goal. When the goal of the session has not been defined yet, the central-tile would be in the way because of its clumsy size.

Also, the assigned roles of the Intake Session should be evaluated further. The evaluation pointed out how a clear division of roles is the most important, but doubts were also expressed about the ability of an account manager to fulfil the assigned role well. Therefore, it is recommended to start a conversation about the role of the account manager and facilitator in general as well.

The account managers are developing their relation management, and a to-go version of the Intake Session could be interesting for a scenario where account managers visit the clients more often. The physical design of the table should be fully implemented first, because projects are not always completed or communicated well at LEF. The Intake Session offers a systematic approach to perform intakes and the physical objects remind everyone at LEF to not sit down for a regular intake meeting.

A similar approach or design for the exploratory meeting and evaluation could be interesting for LEF to communicate their identity consistently.

Finally, the Intake Session offers enough freedom to experiment. Experimentation should be embraced and encouraged to inspire LEF to keep developing their products.

## Production

Only a small number of Intake Sessions is needed at LEF. Applying prototyping techniques, like laser cutting, for production is therefore recommended. A 'lazy susan' ball bearing ring is recommended to make the tabletop turn, and transparent whiteboard paint will make it possible to write in the entire surface of the design, without having high production costs.

# 06.

# CONCLUSION

The objective, presented in the introduction, was to enhance change at LEF Future Center. Answering the research questions will conclude to what extent the objective was reached.

# 1.  ADDRESSING THE RESEARCH QUESTIONS

The sub-questions to the research question will be answered first, as these have given essential insights in achieving the objective of this master thesis. Finally, the main research question is evaluated.

## 1.1.  HOW DOES A CREATIVE SESSION FACILITATE CHANGE?

Even though a creative session is not explicitly referred to as a change process, the ten change steps as summarised by Stouten et al. (2018) are very similar to the model of iCPS. A short recap of the similarities is given below.

In both cases, the process starts with identifying the opportunity or problem that motivates the need for change, and a creative session. Once the motivation for change is clear, one needs to consider who can contribute to the change. Stouten et al. (2018) refer to these people as a guiding change coalition, and for iCPS this is the resource group. Then a change vision, or problem statement for creative sessions, should be phrased. The vision has to be clear and compelling. Which is particularly important when the vision is communicated to the change coalition or resource group, as they need to understand why the change is needed. In creative sessions this means that the resource group rephrases the problem statement. Now energy for change has to be mobilised by evaluating at what level to start and how to approach the change. In creative sessions this means that the facilitator builds a session plan beforehand that fits with the resource group. Also, the facilitator makes sure to create a safe environment during the session in which the resource group can work to realise change. The session plan consists of a follow-up of creative techniques that empowers people to act and in change theories people also need tools to embody the change. This will lead to the development of change-related knowledge that can be developed and communicated to others. For iCPS there are specific acceptance finding techniques to develop such knowledge. Identifying short term wins will reinforce the process, for example by making an action plan at the end of a creative session. With the change process being set in motion, the process should be monitored and strengthened over time. The facilitator does this during a session by adapting the session plan, but also afterwards by evaluating the session with the problem owner. Another important aspect of being able to monitor and strengthen the process, is to document it. Finally, the change process has to be institutionalised into the culture of the resource group or company. Both Stouten et al. (2018) and the model of iCPS cannot provide a structured approach to how institutionalisation can be accomplished.

## 1.2.  HOW DOES LEF FUTURE CENTER CURRENTLY FACILITATE CHANGE IN THEIR CREATIVE SESSIONS?

LEF promotes their creative sessions as breakthrough sessions, where people are forced to think or act in a different way. There is a lot of knowledge and expertise available at LEF to enhance a breakthrough and change, though participant observations have shown that a lot of that knowledge is not being implemented.

LEF facilitates change well, when it comes to the environment and execution of LEF-sessions. The spaces are designed to stimulate divergent and convergent processes in the brain and facilitators regularly create custom techniques for LEF-sessions.

Special product like preparatory design sessions and multi-session programs also stimulate change. The design sessions are a way to prepare the LEF-session with different stakeholders and multi-session programs guide the participants over a longer period of time in their change process.

## 1.3.  HOW CAN CHANGE IN CREATIVE SESSIONS AT LEF FUTURE CENTER BE ENHANCED?

Answering both sub-questions has pointed out how change is facilitated in creative sessions and at LEF. While gaining an understanding of the change process, it also became clear which aspects are important and could be interesting for LEF. These opportunities are summarised before presenting the final design to enhance change at LEF.

## Opportunities to Enhance Change

The first paragraph will summarise the opportunities to enhance change in creative sessions, as a result of a literature review where organisational change and iCPS were compared. The following paragraphs will sum up the specific opportunities for LEF.

The final step, as formulated by Stouten et al. (2018), to institutionalise the change process into the organisation, is an opportunity to enhance change. There is a gap of knowledge in organisational change management and iCPS on how to keep supporting people once the change has been set in motion. Another opportunity is what Stouten et al. (2018) refer to as a change leader, who is a transparent and trustworthy leader that communicates and encourages change. However, one could think the facilitator has that role in creative session, it is the problem owner that stands much closer to the resource group. Especially after the creative session, when the facilitator is out of the picture, the problem owner can still foster the change process.

To enhance change at LEF, a more thorough understanding of the problem as given is needed, to be able to define the purpose of the session well. In this case, it is essential that the account manager, facilitator and problem owner all have the same understanding.

The goal of the LEF-session should be phrased into a clear and compelling statement. This way, there is no confusion over the purpose of the session and it can be communicated better to the participants.

The group of participants should be composed of the most important stakeholders regarding the purpose of the creative session. Preferably, there will be a mixed group of participants, existing of stakeholders that support the cause and that need convincing. In addition to the previous opportunity, it is recommended to balance the size of the resource group. Smaller groups have a stronger group cohesion and the facilitator is able to manage the process better. Larger groups deliver more ambassadors. Each participant's contribution to change should be considered, both during and after the creative session.

The invitation process has to be improved to ensure that the resource group understands the purpose of the creative session, the value of their contribution and feels motivated to participate.

All participants should get the chance to understand and agree on the topic they will be working on by rephrasing the problem statement into a compelling vision.

Techniques that increase acceptance finding during the creative session should be part of LEF-sessions. They prepare the participants what aspects of their creation will be fragile or strong in the outside world.

Make decisions considering the follow-up, for example an action plan, towards the end of a creative session. Considering what action will need to be taken after the session, makes the change more tangible for the resource group.

Documentation of the creative session, including the process and results, should be the norm instead of being recommended. A creative session is exhilarating and tiresome, which makes it easy to forget all the things that happened. Documentation helps to reconstruct actions and motivations. With that knowledge the results of the session can be communicated and adjusted better.

Evaluate with the account manager, facilitator and problem owner. Not only to judge the performance, but also to define insights which might benefit the implementation or maintenance of the result.

The problem owner needs good information and support about its role in the process and follow-up. The problem owner is the only person that maintains contact with most of the participants and could initiate actions or activities to enhance the change.

All these opportunities cover a wide spectrum of possibilities for the design process and the preparations of a LEF-sessions were defined as the scope for the design.

## The Intake Session

The final design focuses to enhance change in the intake meeting of the LEF-process, because many important decisions considering change are made and considered. The design can therefore influence the process that follows on the intake meeting. The problem as given, the goal of the LEF-session, composition of the participants and documentation are discussed in an intake meeting. Also, the problem owner can be made aware of its role as a change leader from the start of the process.

The goal of the design was to educate the facilitator, problem owner and account manager on their respective roles regarding the goal of the creative session, whilst engaging in all elements of an intake meeting.

The final design is the Intake Session (figure 29), facilitated by a standing table around which the problem owner, account manager and facilitator take place. The Intake Session has three phases, and all partakers are given a specific role during the session.

The first phase introduces the facilitator, account manager and problem owner to each other and their roles in the Intake Session. In the second phase the account manager, supported by the facilitator, will identify with the problem owner what the LEF-session should be about and why it should be organised. The facilitator complements the account manager by gaining information that will help to shape the LEF-session. During the final and third phase of the Intake Session all partakers will evaluate what is in their power to reach the goal of the session and do a wrap-up. The session is easily documented by making a picture of the tabletop.

The Intake Session will enhance change at LEF, because the account manager, facilitator and problem owner are being made aware of their role in the change process from the beginning. A good understanding of the roles and responsibilities is established by assigning specific roles during the Intake Session and reflecting on one's responsibilities at the end of the session. The Intake Session has visual reminders to discuss all intake elements: to establish an understanding of problem as given, to defining and phrasing of the purpose of the LEF-session and to define essential participants, possible barriers or successfactors and practicalities to fulfil the purpose of the LEF-session.

The physical aspects of the Intake Session fit with LEF's identity and stimulate the phases of the Intake Session. LEF is aware of their prominent opportunities to enhance change. However, LEF lacks a sufficient intake where these opportunities are used. The 'Intake Session' provides an essential physical and visual reminder of how to make a good start in the LEF-process, so LEF can flourish during the creative session and facilitate a breakthrough.

18.12.18

Shared Map.

Wanneer bewers hetstellen?

Slimme klinmaatstegel?

naters Handleidig

eners beweren

# 07.

# REFERENCES & APPENDICES

The following chapter shows the literature and figure references in this report. An overview of the appendices is also given, though the actual appendices can be found in a separate file.

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## 1.2.  FIGURE REFERENCES

Figure 15

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# 2.  APPENDICES

The appendices are added as a separate file.

## 2.1.  PART I: APPENDICES

**A. Graduation Project Brief**

**B. Acceptance Finding**

**C. Survey: What Makes a Creative Session Successful?**

**D. Participant Observations**

**E. Braindump**

**F. Creative Sessions**

**G. How To's**

**H. Exploratory Design Interventions**

**I. Script Concept Evaluation**

**J. Concept Evaluation Questionnaires**

## 2.2.  PART II: CONFIDENTIAL APPENDICES

**K. Consent Forms Design Interventions**

**L. Consent Forms Concept Evaluations**