Using collaborative reflection in service design research

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Recently, there has been increased attention to how service design can influence the behaviour of people and therefore has the potential to change communities and organizations. This transformative role of service design in changing people’s mind-sets is being explored by design practitioners and a shift can be seen from designers in the role of consultants to the role of facilitators. Instead of providing solutions to problems, designers have started to provide tools to guide organizations towards solutions that are co-created by stakeholders and customers. In this paper, we describe how applying reflective practices during service design research can initiate a mind-set change in an organization. We present a case study in which we explore how collaborative reflection can bring people together during service design research and create mutual understanding.

keywords: collaborative reflection; service design; mind-set change; learning organization

Introduction
For years, design is established as a reflective practice. Designers are trained to constantly go back to past and present experiences, empathize with users, and look forward to imagine the implications for the future. Over a period of time, designers have developed effective tools and methods that trigger reflection during their research and design activities. However, in today’s world, problems are emergent in nature, which makes them more complex to deal with. Although designers are constantly evolving to tackle these problems, new situations demand new ways of problem solving that go beyond the traditional ways of individual reflective practice. Within the framework of a service design project, we took a creative approach and aimed to introduce collaborative reflection in
different stages of solving a complex problem: from understanding user needs to designing new solutions. This paper illustrates the first step of our journey and focuses on our learnings during the research phase of the project. It is important to note that all research was done in a company setting, along with the execution of the project. The paper starts with a literature review on reflective learning practices and what has already been done in this regard in the field of service design. Then it presents a case study on designing a reflective research method, which is followed by the analysis and results of using the method in the project. It concludes with a discussion section where is described how collaborative reflection has a potential to change mind-sets and bring people together during service design research.

**Literature review**

**Reflective learning practices**

Reflection is a commonly used process to improve practice. In a workplace context, employees often “reconsider (mostly implicit) how they performed tasks, and rethink what they can do better when doing them again” (Prilla & Degeling, 2012, p. 1). This process of memorizing what happened in the past, looking back at these experiences with an analytical lens, and evaluating the situation in order to gain a new understanding for the future is what Donald Schön refers to as ‘reflection on action’ in his book *The Reflective Practitioner* (1983; in Prilla & Degeling, 2012). Reflection is often triggered by external cues, such as disturbances, uncertainties, surprises, perplexities or puzzlements. A mismatch of expectation and the actual situation, differences in individual understanding and encountering contradictory or ambiguous information can all lead to a need to reflect. These cues elicit a ‘state of discrepancy’, which gives a feeling of psychological discomfort (Knipfer, Kump, Wessel & Cress, 2013). However, reflection is often unstructured and implicit and it is bound by human memory. This memory “may fade over time or may be incomplete in terms of all the necessary details that have to be known of the situation the experience stems from in order to re-assess it” (Prilla & Degeling, 2012, p. 2). Thus, this makes the process of reflection very challenging.

For many years psychologists have researched this topic and articulated reflection models from different angles. Kolb’s learning theory (Kolb, 1984) states how observation and reflection on concrete experiences can lead to analysis and conclusion (abstract conceptualization). Whereas Gibbs’ reflective cycle (Gibbs, 1988) asks to start with a description of the situation including the attached emotions, then evaluate and analyse the experience, and conclude with coming up with alternative actions that could have been considered in order to create an action plan for the future. Nevertheless, most of the empirical research on the reflective practice by Schön, Kolb, and Gibbs focus on individual reflection (Prilla, Knipfer, Degeling, Cress & Herrmann, 2011).

Recently researchers also emphasize on the social dimension of reflection, which is called collaborative reflection and “means that people reflect together by exchanging (similar) experiences, discussing them and deriving insights together.” (Prilla, Pammer & Krogstie, 2013, p. 242). Teams often accomplish collaborative reflection in a communicative process, which is externally focussed. Learning from sharing experiences can be deepened by re-evaluating your own experiences from another perspective and together construct
new knowledge for the future. The relation between individual and collaborative reflection is reciprocal, spiral-like, which means that individual and joint reflection are closely intertwined. Knipfer et al. (2013) show how individual reflection is interrelated with collaborative reflection based on Stahl’s model of collaborative knowledge building (Stahl, 2000). Degeling and Prilla (2011) further differentiate modes of reflection into three categories: scheduled reflection, which it is planned to happen, concurrent reflection, which happens continuously, and spontaneous reflection, which occurs impulsively and in an unscheduled way. Often reflective practice leads to no result or ineffective result because of unstructured and insufficient support. Degeling and Prilla (2011) also discuss the importance of the supporting a reflective practice by means of: articulation, scaffolding and guidance, and synergizing mechanisms. They identify:

(...articulation as a means to capture experiences and communicate reflection outcomes, scaffolding and guidance as means to support the reflection process and synergizing mechanisms to converge reflection into outcomes to be three basic and decisive tasks to be supported in order to make collaborative reflection work (Knipfer et al., 2011). (Degeling & Prilla, 2011, p. 3)

Knipfer et al. (2013) argue that individual and collaborative reflection is also a “major catalyst for modification of institutionalized practices and innovation of processes and routines” (p. 44). It takes a bottom-up learning approach by democratizing the decision making power with employees, hence increasing the adaptation rate of the changes and new practices. It also helps the management of a company to reflect on how to remove a barrier and disturbances within the organization.

![Kolb's experiential learning cycle and The reflective cycle of Gibbs](image)

**Figure 1 and 2**  
Kolb’s experiential learning cycle and The reflective cycle of Gibbs

**An evolving service design practice**

Service design typically aims to design a holistic experience focusing on a customer’s first touchpoint until the last along a journey of interactions with a company. And although service design practices and theories have been evolving with an increased scale and complexity of today’s challenges, many organizations apply service design methods to
design service interactions at the periphery of an organization (Junginger & Sangiorgi, 2009).

As pointed out in the Shostack blueprint model (Shostack, 1984), service interactions on the surface are supported by a complex layers of an organizational system that determines the quality and efficiency of a service. Hence, service interactions directly impact operation, profitability and reliability of a service. In other words, there are deeper parts in an organizational system that determine the touchpoints at the surface.

There is an increased need to understand and visualize the complex systems and actors underneath a service, and service designers are scaling up to explore the contextual dimensions of services. Focus is shifting to the more systemic, organizational level (Sangiorgi, 2009). Working closely with organizations has changed the role of service designers; they have started to work within organizations instead of for them. Being part of the organization and in the role of facilitators service designers are making people aware of their own role towards a desired action or change (Sanders & Stappers, 2008).

When it comes to this transformational nature of service design projects, there has not only been attention to collaboration, participation, co-design and co-creation on the level of stakeholders, but also on the level of users of the services (Burns, Cottam, Vanstone & Winhall, 2006; Steen, Manschot & De Koning, 2011). As ‘expert of their own experiences’, users can become part of the design team, provided that they are given appropriate tools to express themselves (Sleeswijk Visser, Stappers, Van der Lugt & Sanders, 2005). Involving them in the decision-making process makes them feel engaged and involved and hereby more likely to adopt the service once it is implemented. Also, it will make people understand why implementation of solutions can take time or why things go wrong sometimes (Bradwell & Marr, 2008).

Only recently, authors have described the importance of reflection in service design interventions and how that can lead to changing mind-sets and organizations. Junginger & Sangiorgi (2009) aim to build a bridge between service design and organizational change and call for a joint-reflective process that enables learning. Sangiorgi (2011) makes a link between transformation design and community action research and emphasizes that participation and empowerment are key components to stimulate transformation of a system. She touches upon the importance of reflection in action research:

*It is intended as a self-reflection and awareness process that leads from seeing oneself as an object responding to a given system to a subject that can question and transform the system itself (as cited in Ozanne & Saatcioglu, 2008). (Sangiorgi, 2011, p. 33)*

Madden and Walters (2016) describe overlaps between action research and service design tools and how participatory action research can make people question “what they are doing, why they are doing it and think more systematically about daily functions and operations” (p. 43). Lastly, Vyas, Young, Sice and Spencer (2016) touch upon the importance of reflection in action during co-design activities and describe the role and utility of inner values in the co-design process.

The next part describes a case study of a research method that was designed for the research phase of a service design project in which a reflective method was introduced to
specifically support collaborative reflection, with the aim to initiate a change in mind-sets during the research phase.

**Background**

The overall aim of the service design project was to improve the experience of associates who interact with the internal IT service provider of a global engineering company. The IT service provider has about 4000 employees in more than 250 counties, serving approximately 32000 customers. The IT support organization of the IT service provider is structured in three parts:

7. A multi-lingual IT helpdesk that acts as a call centre; providing first, second and third level IT support from different locations,
8. Local IT support representatives present in various countries,
9. Expert IT support teams in each corresponding business unit; who handle anything that is not covered by the two front line entities above.

Earlier research amongst associates revealed problems that seemed deep rooted. The concerns that associates had shared about their IT support organization were rather organizational in nature. In their opinion, the IT support organization;

- Lacks speed and coordination skills,
- Is inefficient and fragmented in its solutions,
- Chooses numbers over quality,
- Does not provide value nor transparency,
- Is not flexible,
- Does not communicate timely,
- Is insensitive to contextual and cultural differences.

Mid 2016, the IT service provider decided to address the deeper causes for the dissatisfaction of the associates and wanted to understand the perspective of the IT support staff as part of a service design project. The main objective of the research phase was to collect data on what was hindering the support staff from providing outstanding IT support to their associates, in order to inform the design phase.

However, the research method was also designed as a moment of collaborative learning. The aim was to use the research sessions as interventions to connect the support staff working in the worldwide IT support organization in a meaningful way. This idea was inspired by insights from another research, where it became apparent that the IT support organization is divided in silos and this fragmentation leads to support staff not being able to provide good customer experience.

The following case study describes how we explored the way in which collaborative reflection can be used during the research phase to change the mind-sets of people working in the IT support organization. The research method had three distinctive

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1 We were involved in an in-depth user research with the IT support organization to understand the knowledge management practices of their employees in the IT helpdesk, the local IT support and expert IT support teams.
elements that were designed to stimulate reflection: the session setup itself and two different visual stimuli.

Case study: designing a reflective research method

The session setup
In order to connect people, it was important to bring the IT support staff physically together during the research phase. Instead of the researchers listening to the stories of the participants during a one-on-one interview, we chose a group session in which participants were encouraged to listen to each other’s stories.

We designed the session setup as a scaffolding mechanism to provide structure for the participants to go through the learning cycle together (Degeling & Prilla, 2011). Our intention was to let participants experience Kolb’s experiential learning model, where they would learn by experiencing, without consciously knowing it. Rather than telling the participants that their colleagues are valuable, we hoped that participants would experience and understand the value of each other by participating in the session together. The session setup was designed to lead them through several smaller learning cycles as a group (Kolb, 1984; Gibbs, 1988). We mapped the process of reflection as described by Boud (1985; in Prilla & Degeling, 2012) to the session setup, so that it would automatically replicate the process of scheduled reflection (Degeling & Prilla, 2011).

While we expected that bringing participants together would make them see how they are all part of the same organization, we also realized that being part of a group session and sharing personal experiences could be challenging, especially when participants do not know each other. We therefore aimed to create a pleasant environment where participants felt at ease to share their thoughts with others. Our previous experience in doing research amongst engineers in our company taught us that not everyone enjoys doing creative exercises during a research. Activities like collaging made some people feel uncomfortable. In addition, we wanted to create a research mechanism where everybody would contribute equally during the research session. Without making the participants feel forced, we aimed to make sure everyone would be involved.

We brainstormed on how we could include visual triggers in our research methods without being too fuzzy, as well as ensure that the group had the same focus and a common purpose throughout the session. We chose a game concept as a research method, as games have a clear goal and guide participants by a set of rules, as well as bring in an element of fun to reduce the pressure of sharing personal experiences with others. A game setup would also be a good anchor to map the process of reflection, without participants noticing.

After exploring several game types, we selected the tile-based game Carcassonne (Wrede, 2000) as our source of inspiration, as we felt it reflects the right amount of seriousness and play. Moreover, it includes an element of collaboration, where participants are asked to build up a world together; an element that we used to stimulate harmony.

The game play
The game, Unison, is designed to encourage discussion amongst members of the IT support organization of the company. The word Unison refers to an action that is done
simultaneously: playing a game together or collaborating in a working environment. The game can be played by support staff in any role, working in different departments of the organization, sited in various geographical locations. Unison can be played with or without a facilitator, in teams of 3 to 4 players.

The Unison game box consists of the following components:

- 26 tiles depicting a piece of an island and/or a stretch of a path,
- 35 Statement cards describing a challenging situation,
- 10 Brainstorm cards describing areas of improvement,
- 4 tokens in the form of a lion, a polar bear, an elephant, and a hippo that represent each player in the game,
- A session guide, including the rules of the game, how to set up a research session with this game, and how to facilitate a research session.

The game consists of a fun part and a serious part. The fun part is aimed at making the participants feel at ease and bring in a small component of competition. It is the visible centre of the game, where players create one landscape of islands and paths together by one after another- drawing 1 tile and place it face up onto the table, continuing the pattern. Completing an island or a path would give points and the participant with the most points would win the game.

The serious part of the game is linked to turning the tiles: turning a tile leads to playing a card- either a statement card or a brainstorm card. There are three options:

- In case you do not complete an island nor a path when placing the tile, you have to draw a statement card.
• In case you complete a path when turning the tile, you have to draw a statement card.
• In case you complete an island when turning the tile, you have to draw a brainstorm card.

Following these rules ensured that everybody got a chance to share their perspectives according to a pre-defined pattern. We consciously influenced parts of this framework to make sure reflection would take place according to the learning cycle.

While the session setup was meant to go through the learning cycle, the visual artefacts were specifically designed to evoke memories and emotions in the different stages of the learning cycle. The cards that were shown during the game focused on the reflection-side and the action-side of the learning cycle. Schön’s reflective practice theory, specifically the notion of reflection-on-action, was influential on how we designed the visual elements (Prilla & Degeling, 2012). They were designed to stimulate the first phases of the reflective cycle of Gibbs (1988) and Kolb (1984). And by using these visualizations, we guided the participants through the phases of facts, feelings, evaluation and analysis.

The statement cards and the brainstorm cards were the two most important visual elements and will be described in more detail in the following paragraph.

![Image](image_url)

**Figure 4** Four faces on the statement cards show a group discussion

**The statement cards**

The statement cards were the heart of the game and the content was informed by previous research. The card was played individually. When playing statement card, the participant was asked to read the text out loud to the other players and agree or disagree with the statement, explaining in 1 minute the reason why. The facilitator probed for more details according to the session script, in case the answer was general or not revealing anything new.
The statements describe situations that occur in the IT support staff’s workplace. Initially, we came up with around 300 statements and we grouped them into 6 design themes. We cut them down to keep the most relevant 5-6 statements per theme, and we verified with the stakeholders whether these statements could be understood by the support staff. We designed the final set as a card set of 35 statements and though the individual statements fitted into one of the design themes, we presented them randomly to the participants. The statements on the cards were constructed to stimulate reflection. The described situation was intended to recall memories and help participants to remember facts and feelings of past concrete experiences. Because the information in statements represented situations that had actually occurred in the past, it was supposed to help participants to recognize the situation and recollect the details.

Because articulation is important to stimulate reflection (Prilla et al., 2011), we carefully selected the tone and the words of the statements. We described situations in a clear and unambiguous way as we aimed to get the participants focused on a specific topic, so that it would give everyone a deeper understanding. Also, to stimulate the participants to think beyond the general and factual, we formulated the statements from the first person perspective in order to create a personal connection. Lastly, we came up with slightly provocative statements, so that it would help to spark feelings and emotions more easily and encourage to share opinions more impulsively and instinctively.

The brainstorm cards

While the statement cards were the heart of the game, the brainstorm cards were intended as a ‘breaker’ to the game-flow. Playing a brainstorm card was supposed to be an exciting surprise that would only occur a few times during a game. We selected the final set of brainstorm topics by reviewing concepts that the project stakeholders were already working on against the 6 design themes. The card is played as a group, and the person who draws it is asked to read the text out loud to the other players, after which the group can take 5 minutes to come up with concrete solutions.

When the group got to play a brainstorm card, the facilitator emphasized that it was to be a collaborative activity, where everyone could participate. In this way, the participants could build upon each other’s ideas. They were asked to be specific and concrete while sharing their ideas. And the facilitator probed for more details on why and how they were foreseeing this future solution. The final set of brainstorm cards consisted of 10 cards. Because it is difficult for people to quickly jump to brainstorming, we ensured that in most games we played at least 5 statement cards before the first brainstorm card appeared.

Examples: Statement 4: Existing channels are too limited for communicating worldwide. The person who knows best sits somewhere else and I don’t know how to reach them. Statement 17: I always find the formal updates for solutions to be out of date. I don’t rely on them anymore. Statement 22: There are too many channels for sharing my knowledge. I need more guidelines on what to share and how to create clear documentation.

The design themes were 6 areas that seemed to determine the success of a support organization from an employee’s perspective: service concept, capacity development, new product roll-out, knowledge practices, motivational concept, and customer interface.
We formulated the brainstorm assignment in the form of a question and asked the participants what ideas they have to improve the current situation. We wanted them to think about what else they could have done in a certain situation, and to formulate what can be done in future. We hoped that this would give us some valuable ideas for the project.

But more importantly, although they brainstormed on future solutions, we aimed to make them realize whether they could do something themselves to change a situation. We asked them to articulate the solutions in detail, as that may help in sustaining outcomes and trigger follow up reflection sessions (Degeling & Prilla, 2011). We encouraged them to discuss a solution from different perspectives and experience how it is to jointly work on a solution that is beneficial for all.

![Figure 5](image)

**Method**

**The research sessions**

In total we facilitated 40 sessions in teams of 3 to 4 players in 8 locations in APAC and EMEA (Bangalore, Manila, Shanghai, Suzhou, Berlin, Timisoara, Stuttgart, and Bamberg) covering the IT helpdesk, the local IT support and the expert IT support.

Each session lasted for 1.5 to 2 hours, was recorded with a voice recorder and pictures were taken while participants played the game. There were always at least 2 persons present to guide the session: 1 facilitator and 1 note taker. There were three teams conducting the sessions in different locations with various research and facilitation experience. Each team covered at least one location in APAC and one in EMEA. An additional benefit of a game as a research method is that –once the rules are designed- it is relatively easy to replicate the research as an inexperienced facilitator. However, as a support, a session guide was designed that contains instructions on the game and probing questions for facilitation, as well as a cheat sheet for the note taker, to look up the statements and brainstorm questions while documenting the discussions.

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4 Examples: *Card C*: How do you want to be guided while interacting with the customer? *Card F*: How can you align better with your colleagues in other locations?
The participants
Because the scope of the research was wide, we created a few general parameters for the worldwide selection of participants:

- Comfortable to express yourself in English,
- Be open to a gaming setting (it will not be a role play, more like a board game),
- Mix of female/male representative to the location,
- Mix of age representative to the location,
- Mix of experience level representative to the location (no. years in the company),
- Mix in competence areas or area of expertise representative to the location (e.g. Microsoft Office, VoIP, RAS, desktop/laptop SW/HW related, new ID creation, MyCloudPC, etc.),
- Mix in support level representative to the location (e.g. first level, second level, third level).

The grouping of the participants happened according to what was expected to generate uncommon exchange of views in different combinations. For example: we had groups where all participants were providing first level IT support, but responsible for different products. And we had other groups where participants were providing support for the same product, but responsible for a different level. This way, all participants had something in common that made them feel familiar with each other, while the diversity in their background was expected to stimulate curiosity to each other’s experiences.
Analysis
At the start of each session, all participants were informed about the project goal and the primary aim of the research. They were also informed about the uncommon way of doing research, however this was shared with them in an enthusiastic and compelling way.

All sessions were facilitated following the session guide, so that the learning cycle would be a constant. However, the order of the topics varied depending on how the statement and brainstorm cards were shuffled. In most sessions the turning of the 26th tile was determining the game’s end, however in a few sessions we had to stop before all tiles were played, due to time constraints.

To evaluate whether the intended reflective measures had the expected effect, several methods were used: observations (verbal response to each other, physical gestures while another person is speaking, building upon each other’s ideas, asking each other questions, way of sharing individual opinion on statements, etc.), a formal written feedback form at the end of the session, and a short informal chat after the session.

Results
The game setting created a relaxed and open atmosphere
Enabling a relaxed and open atmosphere is an important parameter for creating space for reflection and learning. In our observations we noticed that in most sessions, we did not need to facilitate much anymore after the first round of playing the game. We saw that a focus on the game elements that were lying on the table, especially the tiles, contributed to making the experience of participating in a research a pleasant one. In some cases, we observed a few tensed faces before we started playing, but they became relaxed when it was clear that we were okay with them continuing the game, as how they would do it in a
family setting. In many cases, we saw participants cheering when they would score points, or secretly laughing when another person put the tile on the ‘wrong’ (less points) place of the pattern.

In the feedback forms and the informal chats we got the insights that a game setting helped to lighten the seriousness of the topic and encouraged participants to share their own experiences. They felt that the (perceived) unstructured way of the game method was a comfortable way to express their thoughts as compared to a formal discussion. It helped them to open up to us and to each other and identify the discrepancies together. An often heard point for improvement was to take more time to play a session.

Figure 9  Quotes from the participants’ feedback forms

“‘It’s fun, mind-rehabilitating, because it provides idea for enjoyment and have time to relax while thinking.’ ~Participant from Manila

“(I liked that) we could have an open discussion about the topic.’ ~Participant from Timisoara

“Two hours is a little bit short.” ~Participant from Stuttgart

From individual reflection to collaborative reflection

Although participants were recollecting individual experiences through the statement cards, we observed that it became joint reflection moments, as soon as they shared their experiences with the group members. By reading the statement cards out loud and (dis)agreeing to them openly, the perspectives of others became directly available for everyone, which helped to complement individual memories. The statement cards enabled the participants to remember past situations in detail, and the group setting helped them to critically reflect and evaluate the situations.

In many sessions, we saw that other participants also wanted to share their opinion on the same statement; confirm a similar experience, add something, or share a different perspective. Although this was not according to the game rules, participants took the initiative, because they were triggered to exchange their experiences and reflecting on the statement helped them to rebuild a past experience.

In the feedback forms, participants shared that they found it valuable that they got to listen to each other’s stories and thereby learning other perspectives. They saw it as an opportunity to share their opinions to many different questions and it helped them in understanding each other’s viewpoints. This way, the conversations about the statements were not only us collecting our data, but it was them learning from each other and creating a mutual understanding. Creating this shared understanding is needed to synergize within the group and has to happen before going to collaborative action.
Suggested improvements were to play the session with more participants and with more frequency; almost everyone was enthusiastic to spread this game wider in the organization.

“I had the opportunity to listen to my colleagues’ opinions and views on different points.” ~Participant from Berlin

“It was a good thing I was able to know different sides/insights of my team.” ~Participant from Manila

“(I liked) the collaboration with different departments.” ~Participant from Stuttgart

“(I wish) more people to interact, in that way we would know them better.” ~Participant from Manila

“Good questions to give a view of our work and opinion.” ~Participant from Berlin

Figure 10 Quotes from the participants’ feedback forms

From reflection to action
Although co-creating solutions was not the primary focus during the research phase, we did aim to give the participants the experience of how it is to move from reflection to action, and complete one learning cycle. This is why we included the brainstorm cards in the research phase. In sessions where more statements cards were played before the first brainstorm card, we could see that the brainstorm discussions evolved more around intangible ideas. Participants came up with ideas to change the norms and values in the IT support organization to become more open and improve collaboration between different units; rather than focusing on material needs.

In the feedback forms, we also read that participants wish to have this kind of discussion more regularly and with more participants in the future. They enjoyed to share their suggestions and ideas about common issues. And a few participants stated that they hoped their ideas to be implemented in the future.
Following the learning cycle during the research sessions was an iterative process which enabled the participants to get into a reflective mood, from remembering a concrete experience to evoking feelings and analysing the situation, into stimulating collaborative learning before going over to action. The presented case study shows how applying theories of collaborative reflection during a research phase of a service design project can enable employees of an organization to reflect together and build a common understanding.

Adding an element of collaborative reflection gave the participants the opportunity to understand similarities and discrepancies in the IT support organization from a collective standpoint. It enabled them to articulate deeper organizational differences, as well as collaborative solutions, more precisely. The analysis showed that collaborative reflection has the potential to make the participants aware to question - and in some cases co-design - deeper norms and values of the organization in which they work.

Although we believe that stimulating collaborative reflection helped the participants to go through a change in their thinking and adjust their mind-set to open up to the other participants, we also recognize that for a sustainable change in behaviour, more interventions are needed. The step from reflection to action is a challenging one and requires more time.

A month after the research, we followed up with an ideation workshop, where research results served as input. This time, we brought people together from different parts of the world to reflect collaboratively. The focus during the workshop was more on the action part of the learning cycle. However, without a proper reflection, there is no basis for action. Similar to what happened during the research sessions, we observed that our artefacts and exercises helped the participants to go through an accommodation process by acknowledging other people’s experiences, and re-evaluating their own experiences.

Figure 11 Quotes from the participants’ feedback forms

“I think the brainstorming with cards makes the discussion more interesting.” ~Participant from Berlin

“It opened my mind for creativity!” ~Participant from Stuttgart

“I liked the questions where everybody could participate in the discussion.” ~Participant from Stuttgart

“(I wish) more participants to get more ideas and to share more information.” ~Participant from Manila
through the perspective of the other. They challenged their own understanding and interpretation of an experience.

Since the artefacts that we designed for the workshop were based on in-depth research results, we saw that participants were able to go deeper during the ideation and started to build upon each other’s ideas. This brought in new perspectives for both sides, and made participants subtly realize how collaborative reflection can change their own viewpoint. As a result, they came up with solution directions that are not solely geared towards technical solutions, but aimed at designing the deeper-rooted behavioural norms and values of their organization. An example that came out of the ideation workshop was an idea to create a code of conduct which should form the basis for their worldwide collaborative work practices.

At the moment, this is where the project stands, and we are currently looking into taking the ideas from the workshop further in follow-up design interventions, again including collaborative reflection to keep on stimulating a positive change in the mind-set of the people working in the IT support organization of our company.

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**About the Authors**

**Merlijn Kouprie** is a design researcher with a focus on exploring and developing new research tools and techniques. She has a specific interest in using design interventions to stimulate behaviour change.

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