Re-using users: co-create and co-evaluate

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Abstract. *Although user participation has become a standard ingredient of modern product design, in most cases users participate only for a moment, e.g., one afternoon. In this poster we report a case where we had users who had participated in a generative study return after four months to evaluate the resulting concept design. Our experience in this study suggests that the 'returning participants' had retained the sensitivity for the product context that was built up during the first study.*

Keywords: *user involvement, contextmapping, concept evaluation, sensitization, user experience*

1. Introduction

Users are becoming more and more involved in the design of new products. The involvement, however, is often limited to short moments, e.g. studies with a questionnaire, an interview, or a focus group session to evaluate concept proposals. In such meetings, users are blank at the beginning, and their contribution is often superficial, based on 'gut reactions', first impressions with a focus on small details of a concept, rather than a deeper assessment of the new product and its underlying thoughts.

In contextmapping studies, participants are involved over a longer period. The aim is to gather inspirational information about the contexts of product use and to get insight in the user experiences around a product's use. Their individual experiences are addressed with techniques such as cultural probes [1] and generative tools [2]. With these techniques participants do creative exercises, which stimulate them to reflect on their daily life, and create awareness about their experiences concerning

a product use. This increases their ability to express these experiences. The process of creating awareness takes time, and therefore the participants are involved for a longer period. For example, they receive a workbook with creative exercises one week before the session. This is the sensitization phase (see Figure 1). In the session, the fruits of this sensitization can then be harvested [4].

Our experience is that these users involved in a contextmapping study are highly motivated to participate later on in the process. At the end of the sessions, users continue to discuss their motivations, concerns and wishes around a specific subject (even when the 'paid' session time has passed). We tend to receive suggestions and considerations from participating users for a long time after a study.

In the case study reported below, users who participated in a concept generation study with contextmapping techniques, were brought back to evaluate the product concept that resulted. The aim of this study was to find out whether and how their earlier participation contributed to the quality of the evaluation. It addressed a list of questions: Would they still retain their earlier sensitivity? Could they judge the concept based on the knowledge they had built about their own experiences and their own construct of ideas? Might they even have deepened their insights in the period in between? Would it be possible to get useful feedback on the essence of the concept, instead of superficial feedback based on 'gut reactions'?

2. Case: The experience of acceptance and rejection

The case study was part of a graduation design project on the user-friendly design of identity control for buildings [5]. The project started with an extensive contextmapping study to get insight how people experience identity control and the connected events of being accepted ("you may pass") and rejected ("you cannot enter"). The study covered people's experience of acceptance and rejection in many contexts, such as ticket stations, customs, company offices, but also at ATMs and web pages. Results of the study (and other ingredients, such as technological and societal developments) were used to design a security admittance system for a hotel lobby. This concept design was evaluated in a second contextmapping study using
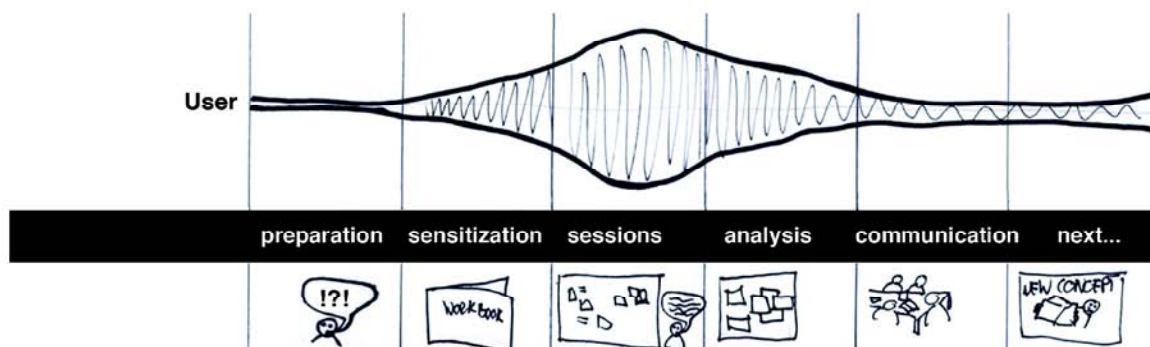

Figure 1: In the sensitization phase, the user is already involved before the actual session (adapted from [4]).
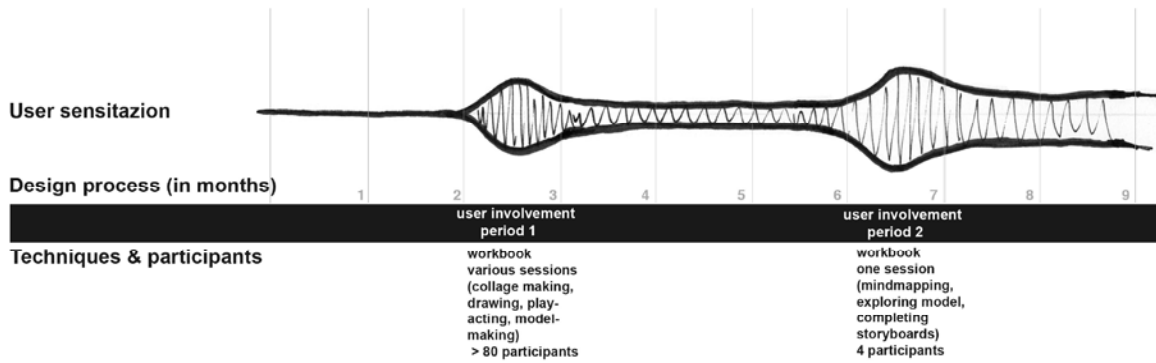
Figure 2: In this study, user sensitization was extended by a second, evaluative session.

participants from the first study. The project as a whole lasted 8 months, the participative sessions took place in the 3rd and 7th month of the project, respectively. Figure 2 shows the sensitizing line for the project as a whole.

3. First period of involvement

Participants first went through a 'standard' contextmapping sequence as depicted in Figure 1. All participants received a workbook with exercises about various aspects of being accepted or rejected. The exercises served to sensitize them, i.e., make them observe and reflect on their everyday confrontations with access situations (the locked door, the ATM, the neighbour's dog). Figure 3 shows an example exercise of this workbook.
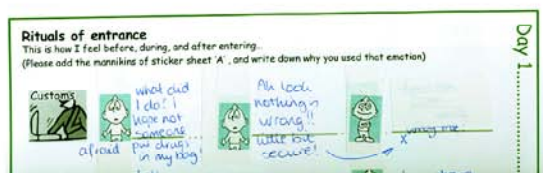

Figure 3: Part of a filled-in exercise, showing that this person first feels tensed, later relieved, when being at the customs at an airport, even when he has nothing to hide.

The group sessions started with a warming-up exercise, followed by a collage making exercise about 'how I experience acceptance' and a discussion about their anecdotes. The sessions ended with a 'create your ideal admittance/rejection system' exercise. Figure 4 shows participants play-acting the interaction of user and product with the help of scrap materials.

The outcomes of this study were analyzed and used to design a security admittance system for the lobby of a large hotel. The outcomes were formulated as a set of themes. As part of the analysis, a set of 'personal cards' was made, similar to those described in [3], summarizing experiences of individual participants (see Figure 5).
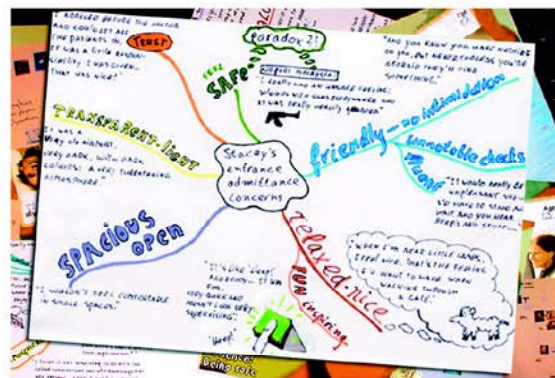

Figure 5: The cardset featuring a structured set of anecdotes of each participant.

4. Second period of involvement

One group of four participants from the first period participated in a second session to evaluate the concept design for entrance control at a hotel lobby.

The participants knew that the study was about the identity control for buildings, but the hotel environment was new to them. A week before the session, they received a workbook to immerse them in their hotel experiences. The session itself started with a mindmap exercise and a discussion about their hotel experiences. Then their earlier sensitivity for 'admittance/rejection' was addressed by giving each participant the personal card that summarized his or her contributions (see Figure 5).

Figure 4: Participants explaining their ideal admittance system: they found being rejected in public humiliating; in this little scenario, the ball represents a person and the curtain a means to establish privacy.
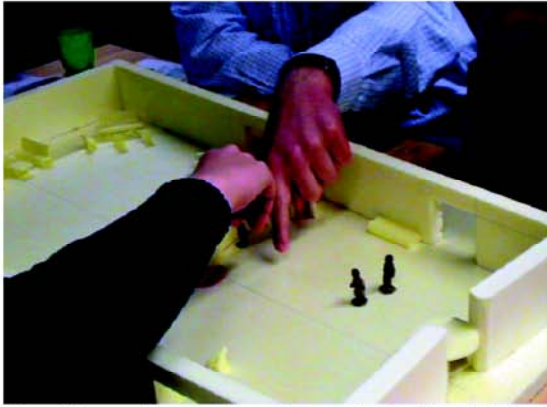
Figure 6: Two participants acting out a scenario of getting rejected.

In the third exercise, the concept design was presented in the form of a scale model of the hotel lobby, but no explanation of the design was given. Participants were told to explore the scale model, for which they could use clay manikins (see Figure 6).

After the participants had thus interpreted and discussed the model, they were shown a series of interaction scenarios presented in the form of storyboards (see Figure 7 and 8). The storyboards had gaps which participants had to complete, based on their personal imagined experience of the admittance process.

Figure 7: Participants presenting their additions to the storyboards.

5. Discussion

From earlier case studies [4] we were familiar with the richness of participants' responses. Nevertheless, we were surprised by the wealth of reactions and contributions that poured out of the participants during the evaluation session. Although this was not a formal experiment, we believe this richness is due to the ongoing construction of shared knowledge during this project. There are three lessons we would like to draw from this study.

The first lesson is how effective the sensitizing process of the participants is. Participants' insights from the earlier session were still very much alive, and participants continued to give useful feedback, based on the knowledge about their own experiences, that they had built in the concept evaluation session.
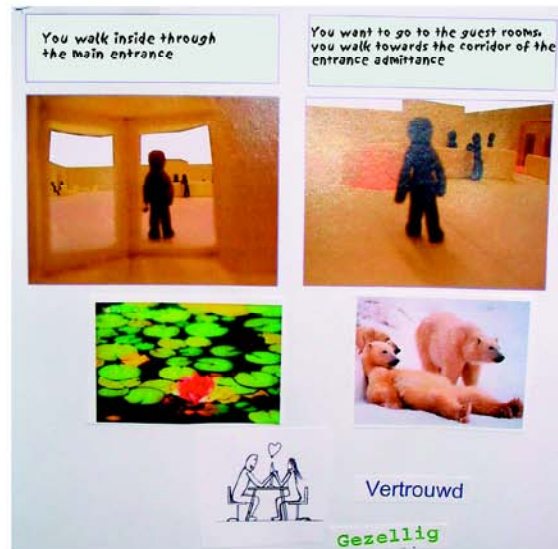

Figure 8: Part of a storyboard with added pictures and words ('cosy', 'trusted'), expressing the participant's opinion of the interaction. "It looks like a little country track and seems quite cosy, because you can look into the lobby how people are chatting at the tables and so on."

The second lesson is that letting participants go through a creation process enhances the depth of the feedback they give when they subsequently evaluate the concept design. The long-term sensitization (four months, in this case), and the scenario-making exercise with the manikin worked above expectation in enabling participants to give well-argued and well thought out reactions, rather than a first 'gut reaction' like 'yeah, could be; I'd prefer another colour'. They can judge the concept at a much deeper level of knowledge because they can compare it with their own construct of ideas. Participants explained their additions on the storyboards to a great level of detail, and delivered diverse and rich feedback.

The third lesson is the effectiveness of providing first an overview by showing the scale model followed by a set of incomplete storyboards. This combination seemed to enliven their imagination and their ability to explain the processes of admittance from first persons' perspectives (see Figure 8) based on their personal experiences. For example, one participant said: 'When I am at this turn, I start to feel insecure, because I can't see what is coming right after this', while pointing at his comments on the storyboard.

6. Conclusion

In user-centred design, users are consulted in many stages of the design process. However, often these consultations are short-term, and much of the richness of their contributions is lost for later phases. Sometimes, fresh users are chosen for reasons to avoid pre-conceptions, fixation, or other reasons of scientific purity. More often, practical reasons of cost and organization are the reason for not having users return. This case shows the potential of 're-using' users in different stages of the design process. Participants in contextmapping studies

are highly motivated to contribute and feel appreciated and responsible in their role as 'expert on their experience domains'. Although we cannot generalize on the basis of one case, we believe that involving the same users later in the process can lead to effective feedback on the concept, which is not only based on 'gut reactions', but addresses the underlying thoughts of a concept too.

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