
Sampling young children's experiences with cultural probes

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Abstract

This paper discusses our experience with combining Cultural Probes and Experience Sampling as a design research method for inquiries involving young children. While we report on just a single case, we believe this to be a valuable experience showing some of the problems that have to be addressed in surveying emotions and experiences over time, some of the solutions we proposed but also the potential of the method.

Keywords

Cultural Probes, Experience Sampling, Young Children.

ACM Classification Keywords

H5.2. Information interfaces and presentation (e.g., HCI): Miscellaneous.

Introduction

"Cultural Probes" is a design research technique that has gained enormous popularity since its introduction [3] as a way understanding target users. There is little experience yet of using this method with children; Iversen and Nielsen [2] worked with children 11-13, using mobile phones as a data capture device and found that they provide access to children's every day life that are not accessible through other means. This makes the method particularly interesting for use in the

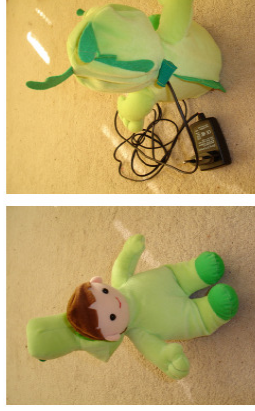


Figure 1. The cultural probes package (top) and the stuffed toy with the phone used for experience sampling (bottom).

design of artifacts supporting daily life activities and out of a classroom context. Wyeth [5] reports on her use of cultural probes with children 11 to 13. She found her informants not so motivated to carry out some of the activities traditionally associated with the method, like diary keeping and collages. This represents a serious drawback as obtaining self-report of experiences and attitudes over a particular period of time with diaries is one of the strongest elements of the method.

We report here on a single-case case-study conducted as part of a design project, where we needed to sample experiences of a very young child who could not read and write over time. Despite that there was only one child involved, we believe this experience is useful to share, a) because it shows some of the challenges of working in a domain where it is hard to motivate participants to take part in the study, and b) because it shows how some of the challenges described above were resolved with a very young informant.

The adaptation of probes described here is inspired by the Experience Sampling method [3], and illustrates how some of the difficulties of obtaining self-report by children over time can be overcome by involving parents and by using appropriately defined playful assignments in the form of cultural probes.

Context

The design project aimed to create an interactive application that could help siblings of premature children cope with the changes in their life and the stressful times associated with the birth of a premature brother or sister.

Whereas most newborns leave the hospital quickly after birth with their parents, premature babies have to stay for prolonged periods under intensive care. Parents spend a lot of time at the hospital, are often stressed by the health problems of the newborn and have to cope with several emotional and practical issues. Often, the older siblings are victim to these circumstances, having to spend a lot of time with the grand parent or with other adults (e.g., grandparent, baby-sitter), also spending themselves lot of time also at the hospital.

Method

The participant in this study was a four year old boy, whom we shall call Tom in the remaining of this paper. Tom could not yet read and write, so his father agreed to help him carry out the experience sampling tasks.

We wished to learn about Tom's day as it unfolds rather than general expectations for the week schedule or general post-hoc impressions and about his feelings at different times of the day. In order to inquire about these issues, we decided to use a mobile phone programmed to ring at specific moments through the day. In order not to overload Tom or his father, we decided to only prompt Tom to respond to questions three times a day. The phone was placed inside a stuffed animal, that he would enjoy been given and to carry around. The toy concealed the phone, leaving access only to an opening for the battery charger. Tom's father agreed to take care that the phone would be charged from time to time.

We gave Tom and his father a probes package including the diary/booklet for Tom and one for his father, stickers, a disposable camera, pencils, colored paper, drawing paper, crayons, an empty CD-ROM (to burn

happy to be with the baby and his pictures of “Me and my hero” and “Something I am proud of” both depicted the baby.

An interesting outcome that perhaps should not have surprised us is the positive effect of the study itself upon the situation. The study itself focused the attention of Tom’s father on Tom’s feelings and was itself a joint activity that helped increase the involvement of Tom to the new situation. This in itself was a useful finding for the design process.

Conclusions

The study presented complemented interviews with parents and with hospital staff, providing also the perspective of the child. On retrospect, we find the method easy to set up and quite successful in its aims. This success can be largely attributed to the involvement and punctuality of the parents. It is clear that this experience is too small to generalize from; it does however present some of interesting lessons for future research:

- A combination of cultural probes and experience sampling seems a promising way to study experiences and feelings of young children over prolonged periods of time.
- The cooperation of the parents was something that we counted on, and which in this case was indispensable.

Looking to future studies of this sort, we see the need for more playful and automated ways for experience

sampling. The combination of a toy doing the prompting and a sticker-book ‘diary booklet’ was perhaps more attractive to the informants than activities typically given to children. Typically experience sampling requires more frequent sampling that we did, so to really know if the method works, we have to extend our demands towards participants.

Considering our interest in feelings and the close link of the emotions of our participant with the involvement of their parents, an approach such as ours influences directly the situation studied: Tom’s father became very aware of how Tom experienced this part of his life, largely because of participating in the study. From a design perspective, this limitation is acceptable and even beneficial as it can provide leads as to how a product can affect its users in corresponding ways.

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