Making choices and mixing methods. Extending the Fun Toolkit

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Abstract

In this paper, I describe how Read et al.'s work with respect to the Fun Toolkit evaluation measures impacted my PhD research. Their studies catalyzed a fresh view on how children can be actively involved in user experience research via new or adapted evaluation methods. In particular, their work inspired me in mixing and adapting methods across the research disciplines for user experience evaluations with preschoolers in a product choice context.

Keywords

Evaluation, methods, Fun toolkit, preschoolers, User Experience, UX, children, This-or-That, laddering

ACM Classification Keywords

H.5.3 [User Interfaces]: Evaluation/methodology

General Terms

Measurement

Introduction

January 2005. Let me take you back to the day I had the fortune to join in the KetnetKick project. KetnetKick refers to a cross-media game for children with 3D worlds, creative studios, several mini-games and a direct link to television broadcasting (cf. ketnetkick.be).

Being challenged to evaluate the game with its young users, I was in need of best practices to guide me in several methodological decisions. The evaluation of the game was an ambitious project, as the target group spanned a large age spectrum, from three to thirteen years old. At that time, being new to the field of Child-Computer Interaction (CCI), I was greatly influenced by Read and her colleagues who provided me with clear methodological techniques on how to include young children in the evaluation of new technologies [1-3].

Making choices: comparative fun

First of all, Read et al.'s work opened my eyes for the relativity of user experience judgments. They explained that many user experience evaluations deal with ranking products or activities in terms of preferences or "comparative fun" [2]. Gradually, by consulting more literature (e.g. [4, 5]), I learnt that in fact each user experience judgment is implicitly or explicitly made with reference to another (e.g. earlier) meaningful experience. In this context, Read at al. were the first researchers in the field of CCI who developed and validated techniques for measuring comparative fun. In particular, they developed the Fun Toolkit, including the Fun Sorter instrument and the Smileyometer, allowing for comparative fun evaluations [2].

In my 'KetnetKick' years, I soon realized that each adoption of methods requires creative skills from the researcher. While experimenting with Read et al.'s Fun Toolkit measures, I was soon faced with the problem that these techniques were not sufficiently suited for use with the youngest child participants, aged six and younger. This methodological challenge required more research than was possible within that one-year project. Hence, it meant the start of a four-year PhD project. Now, at the end of my PhD research, I will explain how Read et al.'s work continued to inspire me during my PhD trajectory.

Mixing and adapting methods

The second finding from Read et al.'s work on the Fun Toolkit measures that inspired my work is the fact that research with children can benefit from considering a variety of adapted methods. The creation of new or adapted methods relies on insights from other disciplines or practices used with other target groups. Further, it was explained how the right choice of method depends on the research focus (e.g. endurability, engagement, expectations [2]), or on the specific abilities of the child participants (see also [6]).

Although generally researchers have acknowledged that children can and should be involved as active research participants in research on their media behaviour and experiences, the number of studies directly involving children aged six and younger still remains limited [7, 8]. It is often believed that these young children are missing the cognitive and social competences as research participants. Moreover, media studies focusing on children's interpretation and evaluation of digital content at a deeper level are underrepresented. In contrast, a majority of media studies deal with children's access to and the actual usage of digital media [7]. Additionally, there are also plenty of CCI studies geared to presenting a particular design solution and an overall assessment [9]. Although the CCI research community acknowledges that a deeper understanding of children's likes and dislikes is necessary to design for enjoyable user experience, it lacks a common framework and the methodological knowledge to do so.

In an attempt to deal with these gaps in literature, I aimed to contribute to the field of children and digital media by critically documenting research methods and practices that are used to involve preschool-aged children in studying their media experiences. I did so by following in Read et al.'s footsteps by learning from other disciplines in the adoption and adaptation of methods for use with children. In particular, a new research design was developed by mixing and adapting existing methods for the evaluation of preschoolers' user experience. This research design is aimed at understanding preschoolers' experiences and attitudes towards various media alternatives while also revealing the underlying reasons for liking or disliking these media interactions.

Understanding preferences

Above all, my PhD research introduces and evaluates a three-phase, mixed-method research design that gives preschoolers a voice in explaining their user experiences in a product choice context. The first phase of the research design concerns the *product exploration phase*, during which the child is given the chance to interact with several digital media products. This would make the child's attitude towards his/her recent user experience more accessible and meaningful, so that a subsequent interview is more valid and successful. Observation of the child during this initial phase provides the researcher with a first impression of the child's user experience, ensures the formulation of better interview questions and results in the adoption of a critical attitude towards the data analysis.

The goal of the second phase is to reveal the child's *overall user experience ranking*. To this end, a preference elicitation and preference strength measure is introduced, relying on a nominally scaled questionnaire with unambiguous, direct attitude question items. The instrument used in the second phase resembles Read et al.'s Fun Sorter, in that it also allows for comparison of several activities on several user experience constructs. In order to account for our preschoolers' limited capabilities, the Fun Sorter approach was adapted into a simplified interview style, also referred to as the This-or-That approach [see 10].The This-or-That questionnaire relies upon response options that refer to the objects in question. It is characterized by an adult interviewer who asks direct user experience questions to the preschooler while stimulating him/her to make a choice between these objects. The child then indicates the preferred object, simply by pointing. The special technique of making explicit comparisons in combination with the use of contextual data in a face-to-face interview and pointing situation reduces some important cognitive and social issues that are often impeding research projects with young children [10].

The third and last phase suggests a child-friendly version of the *in-depth laddering interview* technique to reveal links between perceived salient product attributes and the child's experienced (un)favoured outcomes (see [11]). This interview technique provides insight into the reasons for product liking. It starts by asking the child to explain the product preference that was expressed in the second phase. It gives the child respondent a more situated context to answer, which is easier than having no concrete reference points. The laddering technique knows a long history in disciplines dealing with adults' consumer research. My PhD explored its potential for HCI and in particular CCI. Hence, it was another illustration that the field of CCI

can be inspired by other disciplines in defining new or adapted methods for children, as illustrated by Read et al. In sum, Read et al.'s work was pioneering and guiding my PhD work by illustrating…

- that (and how) children can be actively involved in (comparative) evaluations of new technologies

- how existing methods of other domains or for other target groups can be adapted and/or combined for its use with children

- that critical validation of methods is necessary.

The need to (re)consider existing or new methods to involve children in research is still a relevant topic. This is especially pertinent when it concerns very young children such as preschoolers. In general, childhood evolves, the media landscape changes, and we are adjusting our research perspectives to this new context as well. As was demonstrated by Read and her colleagues, I want to argue strongly for more critical thinking about methods for children. Instead of only using or describing them, researchers should put their methods through a critical analysis and adapt these where necessary to the needs and abilities of the specific young target group from a multidisciplinary perspective.

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