
Reflexively Applying PD Methods Toward Understanding Child- Centred Accounts of Communication

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ABSTRACT

This paper presents a case study on designing with children who have severe speech and physical impairments (SSPIs). Based on qualitative fieldwork with primary aged children with SSPIs we argue that mix methods and reflexivity are crucial aspects of the design process. This summary describes some of the insights and challenges we have encountered through PD methods.

AUTHOR KEYWORDS

Participation; communication; children

CCS CONCEPTS

• **Human-centred computing ~ Human Computer Interaction (HCI); Participatory design**

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INTRODUCTION

Participatory design (PD) that is motivated by democratizing having a say and mutual learning is increasingly being called upon for design work with disabled people. These motivations can be a strong starting point for legitimately involving end users in the design of new technologies for communication. However, in practice adapting traditional PD methods can be difficult and not always possible. Involving children who have very different ways of communicating can be especially challenging, prompting considerations of whether children's participation in design work actually enables them to voice what is important to them or impact on design decisions. In order to extend the discussion about these ongoing challenges, taken from a doctoral project, this work investigates designing for digitally mediated communication. A major goal of this work is to capture what children express as being important about communication within the context of their everyday lives. These accounts will inform the creation of design tools that capture holistic and credible accounts of children's communication experiences. Acknowledging the challenges of involving children with SSPIs in legitimate ways at every point of the design process, this work reflexively problematizes the nature of participation. Through preliminary findings, this work summarises some insights and challenges of PD work with children who have SSPIs.

CHILD-CENTRED ACCOUNTS OF COMMUNICATION

Given that interaction design researchers have often started with a 'frame' on technology to be designed [2] this work focused on understanding children's communication in the context of their everyday lives. The research took place in a primary special educational needs school located in a major city in the UK. A critical case sampling approach was used to recruit five primary aged children with SSPI. Similar to [1] our goal was to go beyond literal meanings discernible in the research toward a deeper understanding of child experience. We paid attention to how methods enabled the generation of multi-vocal and credible knowledge about individual children. Mixed methods were used to maximize opportunities for engaging with the meanings underlying children's contributions as opposed to relying on one method [3]. Each method was chosen to reveal a different dimension about how children communicated and what they expressed about themselves. We collected data through: observations, photo capturing and retelling, design workshops and stakeholder involvement. We reflexively applied PD methods toward developing multivocal and credible understandings of what children expressed *about* their communication and *through* their communication.

Insights

Some of the children's ideas were pervasive across the different design methods used. In evidencing this consistency, we were able to ascertain which ideas captured children's true intentions and were thus credible. Our use of mixed methods was vital in establishing rich and multi-vocal views on children's lives. Triangulation helped us identify strong and consistent ideas that children expressed across data sources providing us with evidence of credibility in our findings. It also enabled us to develop multilayered accounts of children's communication characterising

their contexts of communication and whom they communicated with, alongside their deeper attitudes and motivations. Moreover, in approaching knowledge construction as inextricably tied to methods, we were able to observe *why* children communicated in certain ways during the research.

Challenges

Whereas most of the methods used allowed us to foreground the child in our analysis, we touch on one of the methods that hindered this goal. Contrasting with our other methods, photo-capturing through life-logging was neither multi-vocal nor credible as it removed the researcher's knowledge of context and placed participants in a passive role. Whilst it acknowledged the effort of taking photos by automatically recording them and offered us a glimpse into the home context, it also took away control from children to actively participate. In the absence of children's own accounts of their data, and in losing the insider perspective held by the researcher participant, we faced tensions interpreting the photos in a credible way.

DISCUSSION & NEXT STEPS

In short, we argue methodological reflexivity is critical in any research, and even more so when it comes to children with disabilities where it is often difficult to capture authentic and credible knowledge in order to claim that children's agendas were considered. In the next stage of this work, we use these insights to create design tools, based on descriptive narratives of children's communication experiences. In doing so, our goal is to advance the emancipatory promise of PD by hearing and acting on what children say through designer empathy.

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