(RE)INNOVATING PRESCHOOLS BY PHOTO-BASED CONVERSATIONS WITH CHILDREN

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ABSTRACT

Children are generally dismissed as being a resource for understanding and forming community projects, as, for example, the design of preschools. In social innovation and participatory design processes, however, all the stakeholders in a project are considered important for understanding and addressing complex organizational and societal challenges. This study contributes to the field of participatory design and social innovation research with practice-based reflections on how during photo-based conversations, young children can articulate their perspectives in a participatory design process. The overall aim of the project studied, *Norm-aware Pre-schools* (2016–2019), is to (re)innovate preschool premises from a norm-aware perspective on gender and play. In the study presented here, 27 children, 3–5 years of age, from three preschools in a mid-Swedish town, used an iPad to record and reflect on places in their preschool in the first phase of the project. The children explored places they liked, did not like, or rarely visited. The process explored the possibilities of engaging children as experts of their own environments though using the technique of photo-elicitation to generate data that would influence the design of their future preschool premises.

INTRODUCTION

The Swedish national curricula (Lpfö98/revised 2016) says that the indoor environment, including that in preschools, should stimulate norm-aware everyday work regarding gender and play. This means that all preschools should work systematically to achieve such an environment for children. Doing this is an important undertaking because in Sweden about 95% of all children are in preschools (Skolverket 2017). Swedish preschools include children 1–6 years of age, and are free of charge for children 3-years-old and up. Thus, the preschool in Sweden is a place that forms children in several ways, including in their understanding of the world. The project *Norm-aware Pre-schools* (2016–2019) is a social innovation and design project. Its overall aim is to (re)innovate preschool premises from a norm-aware perspective regarding gender and play. The project is in line with "the norm-aware" turn in Swedish educational system, which means a greater focus in schools on using approaches that support equality, approaches which are not only related to education, but also to gender-related theories.

In *Norm-aware Pre-schools,* the architecture is considered as an important part of children's learning environment. In previous research, the school environment has been called "the third teacher" because it is considered to be of great importance for learning (Strong-Wilson and Ellis 2007).

One goal of the project is to rethink preschool practices, interior environment and processes in order to inspire inclusive and norm-aware play and learning. In this article, which presents a study of the first phase of the project. In this study, we focus on how and what we can learn about children´s places and how to make the children's experience of them important in a redesign process for inclusive and norm-aware gender and play. The paper provides examples of how a photo-elicitation interview (PEI) was adjusted for children 3 to 5 years of age so their perspectives could be a part of a design and social innovation process. The paper also shows the potential and delimitations with the method from a research point of view. The paper also present examples of how PEIs contributed to the projects' continuation.

CHILDREN'S PERSPECTIVES

In an innovation and design process seeking to rethink practices and redesign preschool buildings, there are many stakeholders. From a multi-stakeholder and social perspective in innovation and design processes, all stakeholders are considered important because they could play a role in finding new ways to solve complex challenges (Gottlieb, Larsen and Sørensen 2013). Multiple stakeholder views can contribute to developing more innovative solutions with greater social impact (ibid). Designers have highlighted the importance of participatory and human-centered approaches and of engaging the network of stakeholders in design projects (Polaine et al. 2013; Segelström 2013).

PLACES FOR CHILDREN AND CHILDREN'S PLACES

The preschool that adults design and experience should not be confused with the preschool that children experience. Children create their own relations to the pre-schools, to places, to habits, to functions, to understandings and to feelings (Rasmussen, 2004). In research, these two perceptions of place are called the places for children (adults' perspective) and children's places (children's perspective) (Figure 1). Sometimes they overlap (Rasmussen 2004:165).
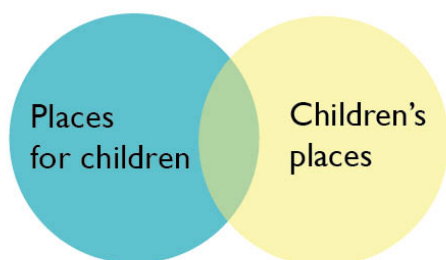

Figure 1: "Places for children," the preschool building and its premises from an adult perspective and "children's places," the places from the children's perspective.

Young children are usually misunderstood and not seen as expert communicants of their own cultures or as a resource in community issues (Burke 2005). However, children can articulate important perspectives. Rasmussen (2004) suggests, based on studies on children's places for play, that children should be actively involved when planning and renovating key places for children. He asserts that a child can easily guide adults to the limitations and boundaries in the areas for play and for learning (Rasmussen 2004).

PARTICIPATION IN SOCIAL INNOVATION AND DESIGN

Social innovation studies (Brandsen et al. 2016; Brundenius et al. 2016; Moulaert et al. 2013) provide analytical tools for distinguishing which norms, competences and values are being used in shaping the preschools of the future and how various stakeholders are being mobilized in the process. These studies have generally delineated social innovation as a novel approach to meeting social needs or to delivering social benefits to communities (Moulaert et al. 2013). Some describe social innovation as addressing social problems in a more effective, efficient, sustainable or just way than established solutions (Brundenius et al. 2016). Social innovation thus implies complex organizational and societal processes of satisfying unfulfilled social needs, reconfiguring social relations and empowering disadvantaged and marginalized groups of people (Brandsen et al. 2016; Moulaert et al. 2013). These processes include new ways of identifying and involving the stakeholders in formulating and addressing social needs. They include new forms of cooperation across organizational and sectorial boundaries to realize solutions that address complex societal and organizational challenges (Lindberg 2017; Lindberg and Nahnfeldt 2017). Social innovation in public education and school settings, as focused on in this paper, has rarely been studied, and when it has it has mainly been in terms of education on social innovation (Alden-Rivers et al. 2015) and the role that universities play in social innovation (Brandsen et al. 2016; Brundenius et al. 2016).

User participation, in which users take an active part in the design and innovation processes, is wide spread in the academic world and in designers' practices. Buur and Matthews (2008) point out that industry has been slow to adopt user-centered approaches to product development and innovation and has retained a traditional structure that does not support user-centered methods of innovation. As the initiative presented here shows, while municipalities in Sweden are starting to become interested in user participation in innovation, they still have structures in place that inhibit development of user-centered approaches. Buur and Matthews (2008) describe the unique contributions that both design anthropology and participatory design offer to participatory innovation. Design anthropology, which ideally involves working and living with the people concerned in the issue at hand for a long period, has value because it is a way to radically recontextualize and portray the familiar as strange. This puts other stakeholders' assumptions in new light and provides a societal orientation. Participatory design can introduce novel user-driven practices to organizations that have traditional ways of working, bringing together stakeholder with different perspectives, and designers can provide strong design competence that can accentuate use and user issues and practices. Participatory design is a complement to design anthropology (ibid).

In participatory design and design anthropology, the use of different kinds of visualizations are common practice. Designers and design researchers have different reasons for including tools for visualizations, depending on the purpose and the context of the design challenge

(Sanders, Brandt and Binder 2010). A study of service designers (Segelström, 2009) found the designers had several different reasons for capturing raw data visually. One was to *"keep empathy with the stakeholder."* Here the designers used visualizations to remain empathetic with stakeholders so as to make sure that they did not forget the users' input during the design process. Otherwise, they risked ending up with a self-centered, rather than a user-centered, design (Pruitt and Aldin 2006 in Segelström 2009). A second reason for the use of visualizations was to "communicate insights" and a third was to "articulate insights."

Studies on the use of visuals to involve different stakeholders in participatory design studies has been concerned with adults, children with profound disabilities and teens (Arcia et al. 2015; Börjesson et al. 2015; Hall et al. 2007; Literat 2013; Larsen and Hedvall 2012; Segelström 2009; Wang et al. 2004). However, little research has been done involving children 3 to 5 years of age in a socially innovative and participatory process of redesigning preschools and play environments from a norm-aware perspective.

In the pedagogical field, PEI is one form of visualization that has been used with children. The photos may be taken by the participant or the researcher. Auto photo-elicitation techniques mean that the participants are given cameras to document and explore their environments, so their own images and experiences are the starting point for conversations (Harper 2002, Schaeffer 2014). PEI has been found to be a key tool in studies on how to involve children and other actors in discussing their learning environment. This has been done mostly with children over 5 years of age (Clark 2010, Clark 2011; Epstein et al. 2006; Hartnell-Young and Fisher 2007; Koralek and Mitchell 2005) and not with a gender perspective. Burke (2005) discusses the ability of young children (6–12) to contribute to the development of play environments and believes that PEI provides data for influencing planning and change strategy for play at local and national levels. PEI was also used with children 11–16 years in rebuilding a UK secondary school (Woolner, 2010). Rasmussen (2004) used photos with children between 5 and 12 years of age to research meaningful places for children. Alli-Khan and Siry (2013) also researched the experience of a learning environment using PEI with 4 to 6-year-olds. PEI has shown promise with children 3 to 5 years of age (Clark, 2010, Clark, 2011). Photo studies have let the children document their lives. The result shows that cameras can offer the children a photographic voice, a visual voice, which they do not have access to otherwise (Magnusson, 2017). Pyle (2013) used PEI with children 4 to 5 years of age to have them share their classroom learning experiences. Pyle (2013) asserts that children 3 to 6 years of age can share accurate personal experiences.

METHODS IN USE

In this project as a whole, our approach was to embrace a human-centered, multi-actor perspective, and for this paper, we focused on the children's perspectives. In other words, the study as a whole is using a combination of tools and techniques strategically put together to address the goal of (re) innovating preschools. PEI was the method used for this aspect of the study, and this paper focuses on how it was used to get a better understanding of the children's current experience and to get inspiration for ideas and design concepts for the future. The studies done by Clark (2010), Magnusson (2017) and Pyle (2013) supports the assumption that it is possible to use photos in interviews to have children as young as 3 years of age articulate their views about a preschool building.

The interviews were done in three preschools. Twenty-seven children 3–5 years of age participated. Preschool A was in an area of the municipality where most of the children (0–17 years) live in economical challenged families, had the lowest incomes and the highest number of days in which illness was reported. Preschool B was in an area where families had medium levels of income and had a high number of days with illness reported. Preschool C was in an area with higher income levels than the other two preschools and where the number of days with reported sickness was three times less than at preschool A (Götlin, 2016). Because having consent and a relaxed atmosphere are important when involving children in research (Banks and Zeitlyn 2015, Phelan and Kinsella 2013), before the interviews started the children were informed (orally by their teacher) and so were their parents (in written form by the researchers in a letter of agreement).

The first author was in charge of the PEI with the children. She partook in the morning gathering and sang songs with the children and the teacher, just following their ordinary daily routine. Then she briefly told them, because they already might have heard, that the preschool was to be rebuilt and that their thoughts about the preschool were important for their future building. To underline the voluntariness and to reduce the length of the interviews, she told the children that they could come to her during the day when they wanted to have three short photographic missions, like a little game. She said the missions included taking photographs with an iPad. Then she clarified that every one that wanted could join, but they did not want to that was fine. After the morning gathering, she was at the preschools and children came to her, sometimes with their teacher for company. She stayed at each preschool until everyone that wanted to had had time to do the "mission"; this took about one day at each school. Each interview took 10–30 minutes. With two exceptions, all the children at the preschool on the day of the interview (in one of the preschool, half the group was at home due to flu) came

to see her. One exception was a 3-year-old boy who wanted to keep playing and the other was a 4-year-old boy who, while on his photographic mission, became more interested in what happened in the playroom and did not continue after his first mission. In line with recommendations on ethical issues (Phelan and Kinsella 2013) on the importance of reducing power balance by, for example, the way one dresses, the researcher wore jeans and a simple college sweater similar to the way the teachers' dressed. In line with reducing power balance and bring in playfulness and reducing the information load, the researcher had the children first test the iPad by taking a photo of a motif according to their interests at the moment. Then she gave them one mission at the time, based on the three points below and used both verbal and body language to communicate the missions.

1. Your first mission. Think about a place in or outside the preschool that you like to be and play in and take a photo of it.
2. Your second mission. Think about a place that you don't like to be and play in and take a photo of it.
3. Your third mission. Is there a place in the preschool where you have not been so often and you would like to take a photograph of?

The redesign was to be done place on the inside of the preschool unit, but the children were not restricted to taking photographs indoors. Since the researcher, Jennie (J), had not tried the method with children before, one intention was to sensitively follow the way they wanted to carry out the interview. She quickly discovered that the children liked to talk about the photos in the same room that they took them in, and so they did this if it was not too noisy.

Because of issues of consent, we did not publish pictures if they included other children. It is not clear whether such young children can understand what giving consent to be in someone else's photo means (Phelan and Kinsella 2013). The children were also given a pseudonym to protect their privacy.

The material provided a base for different interesting analyses. All interviews were recorded and transcribed. For this publication, the choice was made to analyze all the material in a group analyze with three researchers, two architects and four students to find examples of limitations and boundaries in the areas for play and for learning in the children's stories related to gender, and then provide a few long examples of children's places and how the children presented them. Some methodological concerns were found in the interviews and the transcripts. For example, we choose to cite a 3-year-old boy twice from the same interview in order to illustrate the possibilities and limitations of using the method with 3-year-olds.

RESULTS — THE CHILDREN'S PLACES

The results fit into two themes *border between genders* and *power play between children's places and places for children*. The material contains 184 images and interviews of over 8 hours.

BORDER BETWEEN GENDERS

On her first mission photographing "places I like" one 4-year-old girl Lene (L) in preschool A, immediately went to a room with a small kitchen for children, a bed with dolls and a place with dresses for dressing up as a princess. She took a photograph and said that her motif was the clothes, the mirror and some letters on the mirror (see Figure 2). The preschool teacher was in the background. When Lene discussed the photo in the interview, the dresses and the mirror seemed to be more in focus than the letters (see Transcript 1).
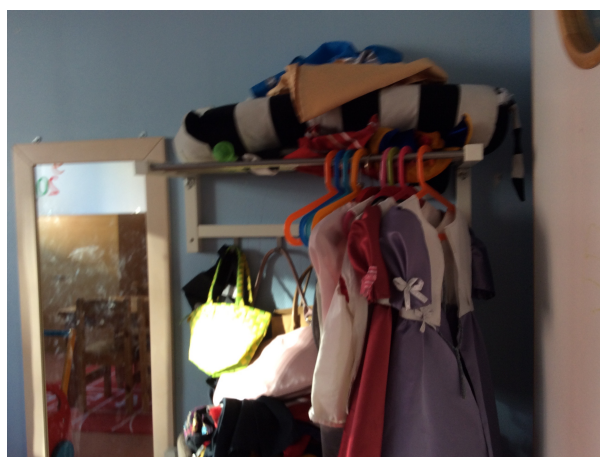

Figure 2: A place that I like to be in "The clothes, the mirror and some letters" by a 4-year-old girl in preschool A. Photographed while standing on a table.

In the example, Lene talks about her fascination with this place, which is full of nice dresses in different colors. The teacher is supporting her by saying that the first time she met Lene she went into the "dolls room" and came out with some dresses. No boy photographed this corner with clothes although the room as a whole was a popular motif for both boys and girls. The story of Lene showed something about inclusive play and learning in preschool. Firstly, this place prevented girls from trying roles other than being a princess. Secondly, for some reason, it is not a place the boys in this preschool chose to describe.

It may be, at least in the dominant culture of what boys "can photograph" that the boys have learned not to see that place as a one to create relationships with? In not being represented by the boys, the place with princess dresses appears in the study as something that can be called boys "non-place." If so, it reinforces the separation between boys and girls by strengthening the understanding of which places and roles the children can play with relation to gender.

J: Och vad brukar du göra här?
And what do you usually do here?
L: Jag brukar sätta på mig klänningar
I usually dress up in dresses.
J: Mm, jag ser det.
Mm, I can see that.
L: En där, och en där.
One is there, and one is there
J: Det är en lila klänning
It is a purple dress.
L: Och en röd.
And a red.
J: Och en röd klänning.
And a red dress.
[…]
J: Och sen är det spegeln också. Men vad är det som du tycker om att leka med här då? Vad är det som gör att det är en rolig plats?
And then it is the mirror also. But what is it that you like to play with here then? What makes this place a fun place?
L: Jag tycker om att ha väskan och klänningarna och dockan, nej jag menar kudden.
I like to have the bag, the dress and the doll; no, I mean the cushion.
J: Och vad gör du här vid spegeln då?
And what do you usually do here with he mirror then?
L: Jag tittar på mig.
I look at myself.
Läraren: Ska vi berätta nu, första gången jag träffade dig så en av de första sakerna du gjorde var att du gick in i dock-rummet och kom ut med klänningarna som du vill ha på dig. Första gången jag träffade dig.
Teacher: Should we tell that the first time I met you one of the first things you did was go into the dolls' room and come out with the dresses that you wanted. The first time I met you.
J: Brukar du leka här själv?
Do you usually play here alone?
L: Nej.
No.
J: Brukar det vara andra med också?
Do you usually play with others here?
L: Mm.
Mm.

Transcript 1: Lene, 4 years old describes a place she likes to be in.

From a methodological perspective, this example highlights the teacher's involvement in the interview. The teacher was in the background during the interview because the child wanted that, but also engaged in the story. In this case, it partly gave a greater understanding of the context and of how children can be socialized into gender roles, but it also led to the child beginning to search for the correct answers in the interviews, (i.e. answers similar to what the teacher wants to talk about).

Nils (N), a 3-year-old boy in preschool A, took photographs in the same room as Lene and talked about one (see Figure 3). The room that the teacher called the "dolls room." Nils (N) called "the babies and the bed" (see Transcript 2).

Figure 3: Nils, a 3-year-old boy, made a photograph of a row of dolls as a response to places in the preschool where he did not like to play. He said that the dolls were boring and sitting on the bed.

J: Det här rummet då, vad heter det?
This room then, what is it called?
N: Det, det är bejbisarna och sängen.
It, it is the babies and the bed.

Transcript 2: Nils, a 3-year-old boy in preschool A, describes the place he calls ´the babies and the bed"

From a gender perspective, it is interesting that the naming of the rooms differed between how the teacher chose to name the "places for children" and the children names for "the children´s places." The room that the teacher called *"Dockrummet"* [the dolls' room] reinforces one norm of what the room is about, while the children's names are more open and multifaceted: in Nils' words "the babies and the bed" (see Transcript 2) and in Lene's "clothes, the mirror and some letters" (see Transcript 1).

From a methodological perspective, the next extract from the conversation with Nils illustrates a challenge with PEI as used here (Transcript 3).

[…]
J: De här? Är det tråkigt att leka med dem?
Those? Is it boring to play with them?
N: Och sitta på [pekar på dockorna på sängen]
And sit on [pointing at the dolls in the bed]
J: När de sitter såhär? Mm. Ska vi ta ett foto på det också?
When they sit like this? Mm. Should we take a photo of this to?
N: Ja.
Yes.

Transcript 3: Nils, a 3-year-old boy in preschool A, continues to describe the place he calls "The babies and the bed"

In the interview Nils says that he "does nothing" in the room and that the dolls in the bed are boring. The interview also revealed that relationships with things in another part of the room, the kitchenette, relationships that indicate active play with the dolls. In the interview Nils was encouraged to take a photo because he became so engrossed in pointing and telling stories about the room. So even if the question were open, it's hard to know if it the child was really willing to take a photo of the bed or just answered yes to a question (see Transcript 3).

In preschool B, Emma (E), a 5-year-old girl made two photographs under a sofa, a place that likely few adults have the same relation to as Emma and her friend F (Figure 4). The story around the sofa evolved from mission two "if there is somewhere here at the preschool where you do not like to play" and the answer was: "Not in the playroom." She sometimes hides under the sofa when she does not want to be in the playroom (Transcript 4). From the interview, the sofa comes out as a children's place of refuge.

Figure 4: Emma, a 5-year-old girl made a photograph under a sofa, a response the question about somewhere she does not like to play (the playroom) where she sometimes does not like to be.

Related to inclusive play and learning, the actions of the boys made Emma and her friend flee from a place where they felt excluded to somewhere else, under a sofa, where they feel safe. The sofa is what we would like to call a reactive place, one that Emma escapes to from another place, the playroom, where she sometimes does not like to be.

A methodological observation is represented in this example; at the end of Transcript 4 Jennie asked if she could carry the iPad. It was clear that the iPad was a bit too heavy for the smaller children, the 3 year olds as well as 5-year-olds, to carry around themselves during all three missions.

E: Inte i lekrummet.
Not in the playroom.
J: Du tycker inte om att vara ...
You don't like to be…
E: De [pojkarna] brukar inte leka fint där med mig.
They [the boys] usually don't play there nicely with me
J: De brukar inte leka fint där med dig ...? Vad betyder det att man?
They usually don't play there nicely with you…? What does that mean that they…?
E: Då brukar jag och F [flicka] gå och gömma oss under soffan eller där.
Then I and F [girl] go and hide under the sofa or there.
J: Brukar ni gömma er under soffan eller under bordet?
Do you hide under the sofa or under the table?
E: Mm, här eller där. Där de inte ... För vi blir lite arga.
Mm, here or there. Where they do not…Because we become a little mad.
[…]
E: Och
And
J: Får du fota under soffan också? Får vi se om vi ser något under soffan, man ser små rör i alla fall, kryper ni under där?
Can you take a photo under the sofa, too? Let's see if we can see something under the sofa; you can see small tubes. Do you crawl under there?
E: Och så kryper vi
And then we crawl
J: Ja, ni kryper under där?
Yes, you crawl under there?
E: Och så sätter vi oss lite ner där annars [pekar på hörnet bakom soffan]
And then we sit a little there also [pointing at the corner behind the sofa].
J: Ah, och så sätter ni er där? Och vad händer då?
Ah, and then you are seated there. And what happens then?
E: Då hittar ingen mig och F [flicka].
Then no one finds me and F [girl].
J: Nej, då hittar ingen er. Och vad händer då? Då är det lugnt?
No, then no one finds you. And what happens then? Then it is calm?
E: Ah. För de brukar inte vara lugn och så slåss de mot mig och F.
J: *Ah. Since they are not usually calm and then they fight me and F.*
[…]
J: Jag bär den här jag.
I can carry this one.

Transcript 4: Emma, a 5-year-old girl, describes the place under the sofa.

Another interesting result was that even if, in some cases, PEI was a challenge to use with a 3-year-old (see Transcript 3), the method also seemed to give legitimacy to the youngest children to "push" their stories. Since the children understood that they should make photographs, they acted as though they should have access to any place they wanted to photograph and did not hesitate to enter into quite complicated interaction to get there. Below is one example, again involving Nils (N) from preschool A. He was trying to explain that there was an inflatable car and some doll´s pram that he seldom played with but liked to play with in a storage unit behind a locked door (Figure 5 and Transcript 5).

Figure 5: Nils, the 3-year-old boy from preschool A. A place I rarely play at: the inflatable car.

In this example, Nils tried to communicate his story orally because there was no way for him to photograph the things behind the locked door. He said, "There, has pain in ears. This one and ears" (see Transcript 5). He kept on trying to tell the story, and the teacher's assistance was needed to unlock the door and give the researcher a context. The teacher also supported the story from her knowledge of the car and trolleys. It came out during the interview, that for him the inflatable car was a place he seldom visited, but remembered as something he liked and could not get access to. He had been told that the car and trolleys were too noisy for the teachers.

N: Den är Bill som har ont i öron.

It is Bill that has pain in his ears.

J: Vad sa du?

What did you say?

N: Bil som har, som inte har ont i öronen.

Car [bil] that has, that has not pain in his ears.

J: Har Bill ont i öronen? Var är han någonstans? Jag ser inte.

Has Bill pain in his ears? Where is he? I cannot see him?

N: Ja. Och får inte då, tar de bilen nej …

Yes. And then it is not allowed then, take the car no ...

J: Nej… Är det något du ser på, är det här du ser på bilderna?

No ... is it something you look at; is it something you see in the images?

N: Bola. (paus 5s) En bola. Titta. Bola som lekar. [pekar på dörren]

Bola.[paus 5 sec] A bola. Look. Bola that plays. [points at a door]

Lärare: Ska vi titta här inne så du kan visa… [låser upp en dörr]

Teacher: Should we look inside [unlocks the door]

J: Är det innan för dörren som är det …

Is it something inside the door that is what ...?

Lärare: Visa upp det själv.

Teacher: Show it yourself

J: Det var något med öronen.

It was something with the ears.

N: Där har ont i öronen. Den och öronen.

There, has pain in ears. This one and ears.

J: Är den ont i öronen? Är det liksom en bil? Kan du förstå det här?

Is this pain in the ear? Is it a sort of a car? Can you understand this?

Läraren: Det är den här som kan stor bil som kan stå och sen…

It is this that can big car that can stand and then ...

Lärare: Nej. De här, fröknarna brukar också säga att de här gör så att vi får ont i öronen när ni kommer tillbaka.

No. These ones, the teacher usually says that this makes us feel pain in our ears.

J: Jaha är det, är det? Tycker du inte om den eller är det fröknarna som inte tycker om den?

Oh yes. Is it that? Don't you like it or is it the teachers?

N: Ja tycker det är fröknarna.

I think it is the teachers.

Lärare: Ja, det var bra.

Teacher: Yes that was good.

J: Jaha, jag förstår.

Oh yes, I understand.

Lärare: För vi har haft den framme för länge sen och då har vi varit en pedagog mer och det ska vi vara förstås, två stycken i bilen och då … […]

Teacher: We used it a long time ago, but then we were one more teacher and that is what we should be of course, two in the car and then […]

Transcript 5: The 3-year-old boy Nils in preschool A shows the inflatable car and some trolleys hidden in a storage room behind a locked door.

Figure 6: A 4-year-old boy Fredrik from preschool B photographed the painting room.

A similar example of barriers between the children's places and the places for children was put forward by Fredrik (F) a 4-year-old boy and several other children at preschool B, who photographed a rarely used painting room that the children longed to use (see Figure 6 and Transcript 6). The room had been made in to a storage room by the preschool staff and was seldom used for painting.

F: Jag har inte varit här någon gång.

I have not been here at all.

J: Du har inte varit här någon gång? Okej.

You have not been here. Okay.

F: Men det här målar-rum, man målar, det är därför det är färg här.

But this is a painting room. You paint, that is why there are colors here.

J: Ja det är ett målar-rum man målar i ja. Vad är det som gör att du inte varit här då?

Yes, it is a painting room where you paint. Why have you have not been here then?

F: För att jag aldrig har fått måla här!

Because I have never been allowed to paint here!

Transcript 6: Fredrik, 4-years-old, photographed a place he seldom was in but liked to spend more time in.

DISCUSSION AND CONCLUSION

In this study, the descriptions of the children's places led to further insights into children's experiences and norms in the culture they live in. The photographs and stories tell about the preschools both as a building and as a social organization, which thus could be socially reinvented, as was the goal of the project. Articulating the barriers perceivable in the stories from all the PEIs has been a means for generating ideas and concepts for the next step in the redesign process of the preschool premises. The children provided clues for identifying children's places that they liked and did not like and the reasons why. From their responses, we also learned about their practices and how they used different places. We can see that some practices that children (and teachers) had developed created barriers for inclusive play and learning in the preschools. Yet places that create barriers for norm-aware play and learning can still be popular. For example, the place that Lene and other girls in preschool A liked, the corner with dresses (see Figure 2), limited play from a norm-aware perspective to such an extent that no boy photographed it. It had become a "non-place" for the boys. Such a place creates barriers between girls and boys and reduces the possibilities in play from a gender perspective. These places can be called the "reducing-choices places" and in the generation of concepts, this gave the researchers and architects input to work with "increasing-choices places." Thus, material and organizational (normative) barriers come out in the children's stories; it seems that these barriers further generate interactional barriers. These interactional barriers are generating non-inclusive, such as reducing-choices places or "reactive places" that are described below. One example of "reactive places" came out in Emma's story about how she used the place under the sofa. Such places support privacy but, at the same time, their use limits how girls and boys can act and think. Emma and her friends use of the playroom in relation to the sofa shows that boys were allowed to break rules and take space and girls had to adjust. In the design process, this provided input to work with concepts of "activating places" places that supported privacy but also encouraged activation of taking space and sharing space. There was also a struggle between the children and the adults who took away things that sounded too loud, like the doll's prams or provoked noisy play, like the inflatable car (see Transcript 5) or changed things so the preschools did not have the resources to support the children in playing in some places (see Transcript 5 and 6). This division between the world of children and adults (Rasmussen, 2004) seems to exist inside the preschools. An input to the design process was then to ask how we could design a preschool that created interferences instead of divisions between places for children and children´s places. One interesting point in line with the theories of Rasmussen (2004) was that the children used and thought about places designed for them in personal ways and their stories could guide adults to discover challenges in the child's everyday life at the preschool. For example, Emma's use and relation to the place under the sofa revealed how artifacts are a part of a practice that the social life in the preschool provokes. As adults, we can make assumptions about children's places but cannot know the feelings, usages and knowledge they have of a place and of artifacts. Even though the study had some methodological problems related to the 3-year-olds' participation, thoughts and experiences were expressed that we as a project team of adults could not have articulated. Later, this material would become an important part of the design process, thus advancing the knowledge on how children's perspective can be included in social innovation and participatory design processes.

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