

SOCIALLY INNOVATIVE REMODELLING OF PRESCHOOL FACILITIES

Malin Lindberg^{1*}, Jennie Schaeffer², Mia Heikkilä²

Luleå University of Technology¹
Mälardalen University²

*corresponding author: malin.lindberg@ltu.se

Abstract: Despite the prominent role of norms and values in public education policy and practice social innovation studies have rarely investigated how these are converted into practical transformations in the educational sector. The study therefore aims to provide further insight into the impact of contextualized and materialized norms and values in educational social innovation, using a remodeling process of preschool facilities in a Swedish municipality as an illustrating case study. Seeking to ensure equal and inclusive play, learning and development, the studied process exposes the impact of materialized norms and values on enabling and disabling rooms, furniture and materials in the preschool facilities. As such norms and values impact social transformation process regardless of the contextual specificities, the results may be useful also in other preschools in Sweden and internationally.

Keywords: gender, norms, preschools, social innovation, values.

Resumen: Con el fin de arrojar luz sobre las escuelas públicas occidentales como sitios desatendidos en el ámbito de la innovación social, el artículo presenta un estudio de caso basado en un proceso de reconstrucción en instalaciones preescolares en un municipio sueco. La innovación social se enfoca en una reconstrucción basada en el valor de las escuelas, con el objetivo de garantizar la igualdad de género, el aprendizaje y el desarrollo entre los niños. El caso destaca la innovación social como un proceso contextualizado ideológicamente y localmente, que refleja la dinámica cultural y los procesos políticos en el contexto público preescolar. Señala la materialización de las normas y valores en relación con las aulas, mobiliario y materiales de los centros preescolares públicos. El estudio expone cómo a menudo los estereotipos se atribuían tanto al personal, en su interacción con los niños, como a los propios niños mientras jugaban y participaban en otras actividades, lo que obstaculizaba el juego equitativo, el aprendizaje y el desarrollo.

Palabras clave: género, normas, preescolares, innovación social, valores.

Introduction

The rapidly expanding field of social innovation studies has analyzed the aspirations, challenges and mechanisms of tackling societal challenges of inequality, poverty, unemployment, migration, etc. through innovative solutions and processes in varying contexts (Brandsen et al., 2016; Brundenius et al., 2016; Moulaert et al., 2013; Nicholls et al., 2015). These studies have acknowledged the social embeddedness of innovation processes in specific contexts, where ideological, cultural and organizational factors affect their initiation, implementation and

success (Brandsen et al., 2016; Jessop et al., 2013; Styhre, 2013). Social innovation is consequently perceived as a contested issue among stakeholders with varying perspectives and interests (Segnestam Larsson and Brandsen, 2016). It remains to be more fully investigated, however, how contextualized norms and values are converted into practical transformations of organizations and societies (cf. Haxeltine et al., 2017; Westley et al., 2017).

Despite the prominent role of norms and values in public education policy and practice, not the least regarding democracy and gender equality in the Nordic countries (Heikkilä, 2016),

social innovation studies have rarely investigated how these are converted into practical transformations in the educational sector (cf. Alden-Rivers et al., 2015; Brundenius et al., 2016; Martinelli, 2013; Ümarik et al., 2014). This study therefore aims to provide further insight into the impact of contextualized and materialized norms and values in educational social innovation, using a remodeling process of preschool facilities in a Swedish municipality as an illustrating case study. Despite the specific geographical, ideological and organizational context of Swedish preschools, the study provides potentially universal insights regarding how localized and materialized norms/values may impact social transformation processes, regardless of their specific character. The results may thus be useful also in other educational contexts, both in Sweden and internationally. The guiding questions for the study are “How are norms and values contextualized and materialized in the studied case of social innovation?” and “How does this contextualization and materialization impact prospects of practical transformations of organizations and societies?”.

The article starts with an outline of the theoretical framework, focusing studies of social innovation, as well as of norms and values in Western public education. This is followed by an account of the single case study design, carried out as part of a participatory research methodology. The studied remodeling process are thereafter described and discussed, focusing how norms and values are contextualized and materialized. It is subsequently discussed how the results can be interpreted in light of previous studies, presented in the theoretical framework. The article ends with conclusions on how these insights serve to advance the knowledge of the impact of contextualized and materialized norms and values in educational social innovation.

1. Theoretical framework

Social innovation studies

As a rapidly growing field of study, social innovation studies engage scholars from numerous disciplines, in different parts of the world (Howaldt et al., 2018; Moulaert et al., 2013; Nicholls et al., 2015; van der Have and Rubalcaba, 2016). These studies generally conclude that social innovation implies development and implementation of new ways to address societal challenges and meet social needs, especially among disadvantaged and

marginalized groups. The process may engender both tangible and intangible solutions, including new services, methods, products, principles, regulations, systems, etc., that deliver social benefits on individual, organizational and societal levels – including individual and collective empowerment (Brundenius et al., 2016; Moulaert et al., 2013). Social innovation is initiated and managed by various stakeholders from the public, private or nonprofit sectors – often in cross-organizational/sectoral constellations (Lindberg, 2014, 2017, 2018). Studies expose that unoccupied spaces – denominated as “clearings” – between existing organizations and services in a social landscape, allow social innovations to develop more freely from established structures (Segnestam Larsson et al., 2016).

Social innovation implies complex organizational and societal processes, that seek to reconfigure social relations (Brandsen et al., 2016; Moulaert et al., 2013). It has consequently been characterized as a dynamic, discontinuous and unpredictable process of structural transformation (Haxeltine et al., 2017; Westley et al., 2017). Recent studies have investigated this complexity further, in terms of how inclusive ambitions and ideas are transformed into organizational and societal change (Haxeltine et al., 2017; Westley et al., 2017). This has improved the understanding of how social innovations emerge, take shape and are integrated into the repertoire of established solutions in organizations and societies (Brandsen et al., 2016). Such processes are perceived to be socially embedded in their specific ideological, cultural and organizational contexts, that impact the initiation, implementation and success of social innovation (Brandsen et al., 2016; Jessop et al., 2013; Styhre, 2013). The outcome is dependent on “a decisive set of environmental factors” (Cattacin and Zimmer, 2016:21). The level of freedom and diversity, the nature of political cultures, traditions, and arrangements, as well as social relations and constellations of actors, are factors believed to restrain or reinforce social innovation (Brandsen et al., 2016; Cattacin and Zimmer, 2016; Jessop et al., 2013; Styhre, 2013).

Recent studies show that prevalent structures may be challenged and changed, if institutional reorientation is synchronized with empowering collective agency of concerned stakeholders (Haxeltine et al., 2017; Westley et al., 2017). The social and collective aspects of social innovation is thus underscored, in contrast to the economic and individualistic focus of

traditional innovation studies (cf. Styhre, 2013). Synergies between collective agency and institutional reorientation seem to be hampered, however, by conflicting interests among various stakeholders, creating resistance and opposition to the initiated change (Segnestam Larsson and Brandsen, 2016). The values, actions, and outcomes of social innovation may thus be contested, due to their normative nature (Brundenius et al., 2016). Social innovation is consequently recognized as “a context-dependent process which is implicitly and fundamentally informed through the social agendas and consensus of those involved” (Daniel and Klein, 2014:23).

Some studies in the field of social innovation have focused on public education *about* social innovation (cf. Alden-Rivers et al., 2015) and social innovation *through* education (cf. Brandsen et al., 2016; Brundenius et al., 2016). Social innovation *within* public education are rarer, except from analyses of general school reforms (cf. Ūmarik et al., 2014). Studies of social service innovation often mention education alongside health care, employment services and other welfare areas, but generally lack empirical and analytical accounts from the educational area (cf. Copus et al., 2017; Martinelli, 2013; Sirovátka and Greve, 2014). Renewal of public education has nevertheless been studied in other academic fields than social innovation, in regard to space, pedagogics, professions, equality, digitalization, etc. (cf. Bushouse, 2009; Cherney and Dempsey, 2010; Clark, 2010; Lindahl and Folkesson, 2012; MacNaughton, 2000; Sheridan et al., 2011; Skelton et al., 2006; Yelland, 2005).

Some studies of social innovation have highlighted aspirations for gender equality in such processes, pinpointing the identification of unfulfilled needs for greater gender equality in various contexts (Cukier, 2018; Johnson Ross and Goddard, 2015; Lindberg et al., 2015; Lindberg and Berglund, 2016). They have also analyzed the development of new solutions that serve to diminish segregating, hierarchical, and stereotyped notions of gender in organizations and communities. We can also identify an intersectional dimension in the aspirations that drive social innovation, striving to improve the well-being, quality of life, relationships, and empowerment of groups disadvantaged by ethnicity, age, unemployment, disability, and other social factors (Brandsen et al., 2015; Nicholls et al., 2015).

Norms and values in Western public education

In Sweden, public preschools provide care for children from 1–5 years of age before entering elementary school (Andersson Tengnér and Heikkilä, 2017; Sheridan et al., 2011). They are managed by local municipalities and are complemented by privately managed preschools, run by nonprofit associations or commercial companies. Preschool facilities in Sweden are generally built in the 1960s and 1970s, when their primary task was to provide public childcare as a supplement to private homecare. This was later expanded to encompass additional missions to enhance children’s play, learning and development, including active and systematic promotion of equal rights and opportunities, regardless of children’s gender, ethnicity, religion, disability, age, sexual orientation or transgender identity/expression. The regulations specify that no child should be constrained by stereotyped notions of gender in the school. They further underscore the obligation to respect human rights and basic democratic values, including freedom, equality, gender equality, integrity, and solidarity. As will be shown further on, the construction of the preschool facilities pose challenges to staff and children when implementing the new missions.

Preschools exist in numerous countries throughout the world, providing care for children before entering elementary school (cf. Bushouse, 2009; Yelland; 2005). Some countries provide publicly managed and funded preschools, others rely on private establishments. Varying denominations occur, e.g. kindergartens, nurseries, daycare facilities and playschools. Even if each country embeds its preschools in specific geographical, organizational and ideological contexts, all provide some sort of facilities designated to joint childcare. These are often obliged to fulfill some sort of public agenda with certain norms and values, established at either national, regional or local level. This makes the case study of Swedish preschool remodeling relevant for all contexts, regardless of their specific norms and values.

Previous studies have identified schools as key sites for the mutual construction and learning of stereotypical masculine and feminine identities and behaviors among children, at the same time as they strive to fulfill policies and regulations on equal rights and opportunities (cf. Cherney and Dempsey, 2010; Heikkilä, 2016; MacNaughton, 2000; Paechter, 2007; Skelton et al., 2006). Such guidelines include the UN

Convention on the Rights of the Child, which states that all children should have the right to develop to their full potential, to play, to express their opinions, and to gender equality, among other things, regardless of their gender, ethnicity, religion, language, abilities, or any other status (United Nations, 1989). These clearly articulated values in preschool contexts challenge established notions of masculinity and femininity as fixed identities among children (cf. Paechter, 2007; Skelton et al., 2006). They particularly challenge the myth of a natural and innocent childhood where interventions to ensure gender equality are unnecessary (MacNaughton, 2000). This adds a ‘heteroglossic’ understanding of gender inequality to the dominating ‘monoglossic’ understanding (Francis, 2010). It does so by recognizing the occurrence of individual gender-transgressive performances beyond dualistic notions of femininity and masculinity that have served to maintain patterns of gender inequality.

This highlights the constant negotiation of norms in everyday life in public schools, with respect to what is possible, what is right or wrong, what is normal or deviant, etc. (Andersson Tengnér and Heikkilä, 2017). Previous studies distinguish stereotypical norms in the everyday operation of preschools, including in their activities, interactions, and premises (Andersson Tengnér and Heikkilä, 2017; Paechter, 2007). Barriers and hierarchies regarding gender and other social factors have been distinguished in the construction, naming, positioning, and usage of both rooms and materials (such as toys or books) in preschool settings. Different rooms, materials, colors, and symbols are ascribed gendered attributes by both staff and children. The color pink is, for example, primarily linked to girls and femininity, and toy trucks to boys and masculinity. The size, furnishing, decoration, naming, visibility, flexibility and equipping of rooms in preschools have been proven to affect these notions and determine and limit children’s play and learning. The central role of toys in children’s play can have both amplifying and moderating effects on gendered toy preferences, which are adopted at an early age. Children also use toys to negotiate gender (Heikkilä, 2016; Serbin et al., 2001).

Play has been proven to be essential to children’s learning and development (Davies, 1989/2003; Heikkilä, 2016). Play requires equity and equality, at the same time as it forces children to relate to the power relations that prevail in the surrounding context, organization, and society, which may result in segregated and

hierarchical play. These power relations are manifested both in the interactions among the children and between children and preschool staff (MacNaughton, 2000; Paechter, 2007). Swedish studies have shown that staff use softer voices, more words, and more-intimate body language when interacting with girls (Andersson Tengnér and Heikkilä, 2017, Heikkilä, 2016). The demands that staff place on boys are correspondingly lower with respect to rules, behavior, social skills, maturity, and independency. Self-reflection among staff is needed in order in order to change such stereotypical interactions, driven by a common knowledge-base regarding norms and power (Andersson Tengnér and Heikkilä, 2017; MacNaughton, 2000).

2. Research Design

The study was designed as a single case study of the remodeling process of preschool facilities in a Swedish municipality. The single case study design has been proven to be fruitful when exploring new complex contemporary phenomena in real-life contexts (Yin 2009). In such contexts, researchers have limited control over events and whether research questions will begin with “how” or “why”. The single case study approach was thus deemed to be the most promising method for developing new knowledge on the complex topic of social innovation values in preschool remodeling. The case was chosen due to its unique ambitions to remodel preschool facilities based on values of democracy and gender equality in relation to children’s play and learning. The authors had access to this case thanks to existing contact between the municipality in charge of all public preschools and the lead researcher of the study (and co-author of this article), resulting from her extensive research on gendered relations and change in preschools.

Three preschools were singled out for remodeling in dialogue between the municipality and the lead researcher. The study was part of a research and development project funded by Sweden’s national innovation agency, VINNOVA, during 2016–2019. This larger project aims to promote knowledge on norm-critical innovation processes through the remodeling of preschools. The study encompasses the first phase of the project, where prevalent barriers for children’s equal play and learning in preschool facilities were identified as a basis for subsequent remodeling.

A participatory research approach was essential to enable scientific analysis of the remodeling process (cf. Aagaard Nielsen and Svensson, 2006; Gunnarsson et al., 2015; Reason and Bradbury, 2008). This approach included continuous dialogue and interaction between the municipality, architects, preschools, and university researchers throughout the process. The participatory research approach prescribes the joint development of knowledge by researchers and social stakeholders involved in the issue under analysis. This makes the resulting knowledge more socially robust and thereby increases the contextual validity of the study (cf. Gunnarsson et al., 2015). The municipal representatives, preschool staff, and architects were mainly involved via interactive dialogue sessions that were scheduled on an ongoing basis during the process. In these sessions planning and insights were discussed together, based on previous theoretical and practical knowledge regarding norm-creative processes in preschool settings.

The preschool children, who were 3–5 years old, were involved through photo elicitation, where they were given digital reader-pads they could use to freely take pictures of their everyday preschool facilities. One of the researchers then conducted individual discussions with each child about their chosen motifs. Previous studies have identified photography as a beneficial method to allow such young children to articulate their perspective on which places were important to them, enabling a better understanding of the way children create meaning in their everyday preschool contexts (cf. Andersson Schaeffer, 2014; Clark, 2010). All parents were informed about this procedure and asked to provide their approval through consent forms. Participant observations were then carried out at the three preschools in order to identify how children and staff were using the facilities. The study further made use of document review of project documentation that formulated guiding values for the process and remodeling described the remodeling phases. Literature reviews on social innovation values and contextualization, as well as social norms in public school settings, also inform the study. This triangulation of data collection methods follows Yin's (2009) observation that the richness of studied phenomenon in single case studies requires multiple data sources in order to grasp the numerous relevant variables.

The data that was gathered was initially sorted into a comprehensive chart that mapped normative barriers and hierarchies in the three

preschools. The results of the chart were then used as a springboard for designing a “provotype”¹, illustrating the most undesirable preschool construction imaginable. The provotype amplified the most excluding and constraining features, in order to evoke critical insights into normative play and learning. The prototype was used as an “anti-vision” when outlining the remodeling for the three preschools. This study focuses the identified barriers in the preschool facilities as outlined in the chart and as converted into the provotype. These barriers were analyzed in light of previous studies on social innovation and social norms in public schools. The goal of this analysis was to further expand existing theories on social innovation regarding the role of norms and values for practical transformation (that is, to achieve analytic generalization).

3. Results

The main aim of the studied process was to carry out remodeling of three public preschools in a municipality in the middle region of Sweden, that sought to enhance equal play and learning among children and move beyond limiting norms of gender and other social factors. The experiences and results of the process were intended to be used as inspiration in the design of new standards for preschool remodeling. The process was motivated by the need to remodel outdated Swedish preschool buildings, that had been designed for a narrower mission than today's schools. The municipality in charge of the preschools in the case study had a legal incentive to find new ways to make its facilities and operations more socially inclusive, as public law prescribes active and systematic promotion of equal rights and opportunities, regardless of children's gender, ethnicity, religion, disability, age, sexual orientation or transgender identity/expression. Preschool staff also called for more knowledge and practical tools for fulfilling these missions. The process was hence guided by a vision to allow children to engage in creative play through equal, inclusive, and norm-challenging facilities and operations. The dual aspiration in the remodeling process was to increase the preschools' fulfillment of national

¹ A provotype is a provocative prototype, used in design processes to provoke and engage people to imagine possible futures (<https://medium.com/@thestratosgroup/moving-from-prototyping-to-provotyping-cedf42a48e90> accessed 2018-03-16).

obligations regarding equality and inclusiveness and to inspire playful learning and development among all children, regardless of social factors. The remodeled facilities were intended to provide new solutions, new configurations, and new patterns of play and learning. It was hoped that more norm-challenging preschool rooms would shape play in an equal and inclusive manner. In turn, more equal and inclusive play would shape the rooms in a norm-challenging manner. Children's voices were perceived as especially important to acknowledge in the process, since they are seldom consulted on matters that concern their everyday situation in preschools, despite regulations stating that they should be allowed to influence their environment.

The study combined data from the photo elicitation, dialogue sessions, and participant observation, to identify common obstacles to equal and inclusive play and learning in the preschools. These were formulated into a comprehensive chart, with three main identified barriers, described below.

Barrier 1: Disabling vs. Enabling Rooms

This barrier concerned the impact of preschools' interior layouts on inclusiveness and norm-challenging effects in children's play, learning, and development. One of the identified arrangements placed shelves with materials (toys, books, etc.) at a level that was either accessible or inaccessible. Formal and informal naming of rooms reflecting more or less stereotyped norms of gender other social factors – “the doll room,” “the workshop,” or “the girls' corner” – was also noted. Differences were thereto detected in the usage of various rooms. Some were dedicated to specific activities or interests, while others were not used at all. Some were assigned to a distinctly fixed use, with fixed walls, furniture, and specific instructional and play materials. There were several cases of separate rooms for different types of materials (including toys, books etc.), activities, and even children (e.g. daycare vs. overnight care).

Room size was noted to affect usage and play. Limited physical space often implied limited mental space. Some rooms were more messy and noisy than others. Fixed, separate, small, and noisy rooms seemed to result in homogenous groupings of children playing and occupying the space there, especially in regard to gender and age. However, in some cases a more

varied usage of rooms was detected. Such rooms allowed children to creatively shape their own new spaces within the existing rooms by rearranging the interiors. This was especially true in rooms that enabled and inspired creative usage through features such as movable or temporary walls. A subcategory within this type of barrier was oversight vs. privacy. To maintain order, the staff needed to have oversight of children's play and behaviors, while to achieve free play, the children needed private spaces out of the view from others. The former need was addressed by numerous windows, not only on the exterior of buildings but also between interior spaces. The staff would sometimes impose restrictions on the maximum number of children playing in the same room, which constrained children's opportunities to hide among – and from – each other. In spaces where children themselves were able to rearrange furniture and materials they enjoyed increased opportunities to create hiding places for free play. Safe spaces, such as cozy sofas, were also used as a kind of hiding space.

Barrier 2: Fixed vs. Flexible Furniture and Materials

This barrier concerned the intended or interpreted usage of, and identification with, varying objects in the preschool facilities. Some furniture and materials were identified as linked to fixed gender stereotypes. Examples include identifying objects such as “girls' dolls,” “boys' traffic carpet,” and “girly costumes,” or objects designed in colors and shapes that were primarily associated with one gender or the other. Fixed rules about how to use furniture and materials, and by whom, were also noted. Examples include reserving use of a reading corner for primarily calm children.

There were several instances of furniture and materials present, without reflection on the part of staff. Instances of broken furniture and materials that could not be used in the intended manner were also detected. Commonly present furniture and materials were sometimes used in ways that were more creative and flexible than intended. Some children would play under furniture, or move furniture and materials from their original positions. Such usage was encouraged by furniture and material arrangements that were less fixed. In some instances, this was further enforced through materials that inspired and enabled creative usage.

Barrier 3: Staff vs. Children and Children vs. Children

This barrier concerned the hierarchy that the researchers identified between staff and children. Staff possess the ability to determine children's play by deciding on norms, rules, and limits for play and usage of rooms, furniture, and materials (including toys, books etc.). Expectations among staff regarding how the children ought to behave in each room were noted. Their expectations also concerned how interior spaces ought to be used. For example, certain activities were to be performed in certain places. A belief among staff was noted that each child ought to like everything – or at least something – in each room. Staff generally needed to keep noise levels in play at tolerable volumes. These expectations relate to staff's goal of ensuring a safe and healthy environment for themselves and for the children. Staff also imposed such restrictions in order to uphold the formal rules and regulations of the preschool. Staff reported feeling torn between the ambitious regulations, their concern for the children, and the practical limitations of the everyday operations at the preschool.

In some regards, staff expectations served to reinforce or challenge limiting norms regarding gender and other social factors. The most commonly reinforced norms regarded gender stereotypes. This resulted in gender segregated and hierarchical play and usage of rooms. Boys were generally allowed to take up more space, physically and audibly. These norms were also reflected among the children, who often described girls and boys as separate categories in their daily routine at preschool. However, we also discovered that children took pleasure in unwarranted behaviors that broke prevalent norms. Children imposed expectations on each other and on themselves regarding both gender and age when playing in using the preschool facilities in other ways. Boys generally were more messy and noisy, while girls behaved in a calmer and more mannerly way. Girls were held responsible and assumed responsibility and concern for the consequences and perception of play activities. These patterns of interactions seemed to be influenced by the level of normative predetermination in the preschool facilities. Low levels of flexibility in materials (e.g. toys and books), furniture, and rooms seemed to result in more stereotypical interactions and attitudes.

The Provotype

The barriers described above guided the design of a provotype in the project, materializing the most undesirable preschool construction imaginable. The *most excluding and limiting features* were amplified in this provotype. The goal was to prompt critical insight into normative play and learning among staff, municipality representatives, and us researchers. This would serve as inspiration to then move on to outlining the *most inclusive and equal preschool imaginable*. The provotype took the form of a digital sketch of a preschool with different rooms that included a hallway, a cafeteria, playrooms, and a monitoring room for staff. The hallway was designed as a small room with poor lighting, broken windows, shabby wallpaper, and cluttered with shoes, coats and so on. The cafeteria was designed as a huge room with one big table where the children had to remain seated during meals, with one corner containing a fixed set of toys where only a few children were seated. The playrooms were designed as small rooms with distinctly fixed activities and toys. One room was specifically designed for girls in a stereotypically "feminine" manner, using pink colors, frilly curtains, and dolls. In another room all the toys and books were placed on high shelves that children could not reach. The monitoring room was designed so that staff could supervise children's activities and behavior using joysticks and buttons for various commands. The personnel in the monitoring room were depicted as puppets on a string, supervised by cameras, illustrating their own powerlessness in the preschool system.

4. Discussion

In this case study, social innovation – a novel approach to meeting social needs, delivering social benefits, and address social problems (cf. Brundenius et al., 2016; Moulaert et al., 2013) – was motivated by the perceived need to ensure equal and inclusive play, learning, and development in public preschools. The remodeling of outdated preschool facilities can be regarded as a more effective, efficient, sustainable, and just way to fulfill the expanded requirements for Swedish preschools (cf. Andersson Tengnér and Heikkilä, 2017). This case study thus serves to scrutinize the moral virtues and ethical norms of social innovation (cf. Jessop et al., 2013), as the studied process was based on clear moral and ethical incentives that aligned with the preschools' prescribed mission

to enforce values of equality, inclusion, and democracy in their operations (cf. Andersson Tengnér and Heikkilä, 2017). It thus agrees with the impact of normative systems on organizational and societal change, acknowledged in previous studies on social innovation (cf. Jessop et al., 2013). This is especially true with regards to the aspiration to counterbalance the social exclusion, created by unequal rights and opportunities regarding play, learning, and development linked to stereotypical notions of gender, ethnicity, religion, disability, age, sexual orientation or transgender identity/expression (cf. Andersson Tengnér and Heikkilä, 2017; Brundenius et al., 2016).

The studied preschools' focus on gender and other stereotypical norms in their remodeling process shares similarities with previously identified aspirations of gender equality in social innovation processes (cf. Lindberg et al., 2015; Lindberg and Berglund, 2016). This concerns their identification of unfulfilled needs for improved gender equality in the preschool context, and their development of new solutions that serve to diminish segregation, hierarchies, and stereotyped notions of gender in the preschool operations. In their ambition to enforce norm-challenging approaches in their operations, the preschools added an intersectional dimension to their innovation process. This included aspirations to improve disadvantaged children's well-being, quality of life, social relationships, and sense of empowerment (cf. Brandsen et al., 2015; Nicholls et al., 2015). The study thus serves to expand our knowledge of how innovation in social services can challenge and change limiting norms by identifying and addressing needs of users. The same is true for the empowerment of service users, the transformation of relations between service providers and users, and the safeguarding of universal access to social services on equal terms (cf. Martinelli, 2013). The normative focus of the studied case serves to highlight social innovation as an ideologically and locally contextualized process (cf. Cattacin and Zimmer, 2016). This reflects the cultural dynamics and political processes of the municipal preschool context (cf. Brandsen et al., 2016; Jessop et al., 2013).

The local contextualization in the studied case is further distinguished through the materialization of abstract norms and values in the physical form preschool facilities. Making preschool facilities more norm-challenging was intended to shape play in an equal and inclusive manner. In turn, more-equal and -inclusive play was intended to shape the facilities in a norm-

challenging manner. This is in line with previous distinctions of stereotypical norms in several everyday routines at preschools, including their facilities (cf. Andersson Tengnér and Heikkilä, 2017; Paechter, 2007). The chart of existing barriers delineated factors that either inhibited or enabled equal play and learning at preschool facilities. It thus reflects and expands on previously identified barriers and hierarchies regarding gender and other social factors in preschool rooms, materials, and interactions (cf. *ibid*). In a conclusion similar to that emerging from previous studies, different rooms, materials, and colors were ascribed stereotyped functions both by staff in their interaction with children and by children themselves while playing and participating in activities (cf. *ibid*). The name, size, and intended use of rooms served to inhibit or enable equal and inclusive play and learning. The same is true of the placement, interpretation, and use of toys and books within these rooms. This finding aligns with previously identified distinctions of size, furnishing, decoration, naming, visibility, flexibility, and equipping of preschool rooms as determinative of such limitations (cf. *ibid*).

This case study is especially helpful in highlighting how fixed, separate, small, and noisy rooms tend to result in homogenous gender and age groupings and play. In contrast, flexible rooms that are large enough to allow creative use and rearrangement by the children seemed to facilitate more diverse groupings and activities. This reflects a duality noted in previous studies, where equity and equality in play is valued, at the same time that it is necessarily embedded in the power relations that shape the immediate and distant surroundings (cf. Davies, 1989/2003; Heikkilä, 2016; MacNaughton, 2000; Paechter, 2007). The resulting everyday negotiations of norms that previous studies of school settings have identified are thus perceivable in our data in children's attempts to achieve free – and sometimes hidden – play among the children. Such un-observed play seems to provide a space where prevailing norms regarding what is possible, right or wrong, normal or deviant can be challenged and perhaps changed (cf. Andersson Tengnér and Heikkilä, 2017; Paechter, 2007).

The free spaces created in such play share similarities with the “clearings” identified in previous research on social innovation (cf. Segnestam Larsson et al., 2016). There, unoccupied gaps in social landscapes are used for developing new practices independent of established structures. The ability to exploit such

clearings is, according to the data, dependent both on the disabling and enabling character of preschool rooms and materials. It is also dependent upon the power relation between staff and children, as well as among children. Our data helps highlight the power that staff hold to determine the norms, rules, and limits for children's play and usage of rooms, furniture and materials. At the same time, we acknowledge finding that staff were occasionally powerless against preschool regulations and also faced practical limitations. Power relations among children are also significant. Boys generally were allowed (and perhaps expected) to be messier and noisier, and while girls were expected to behave in ways that were more mannerly and calm.

Similar to the conclusions from earlier studies on social innovation, in the studied preschool setting the ability to exploit clearings for social change seems to be dependent on a combination of bottom-up initiatives by children as they seek to create spaces for free play, and top-down reorganization by staff and the municipality that seeks to ensure the prerequisite environment for equal and inclusive play and learning (cf. Moulaert et al., 2013). We suggest that these multiple levels for entry into transformative clearings can be labeled "reactive clearings" and "proactive clearings", respectively. The former refers to children's spontaneous identification of free-play zones: behind a couch, for example. The latter refers instead to room design and usage that intentionally allows norm-challenging play rather than requiring that it take place only as a countering reaction to limiting spaces. Such multi-level transformation has previously been identified as crucial to social innovation (cf. Haxeltine et al., 2017; Lindberg, 2014, 2017, 2018; Westley et al., 2017).

We can identify the dual nature of social innovation as both process and result in the case study's combination of stakeholder involvement and their clear incentives and visions (cf. Moulaert et al., 2013). The incentives included the municipality's goal of finding new ways to create more socially inclusive facilities and operations, preschool staff's goals to gain more knowledge and practical tools to fulfill their pedagogical mission, and children's ambitions to achieve free, creative and norm-challenging play. The studied process thus serves to illustrate how viewing social innovation as both process and effect can motivate the involvement of involved stakeholders in identifying and addressing social needs. It may also motivate the construction of

new forms of cooperation across organizational and sectorial barriers in order to achieve sufficiently encompassing solutions to complex societal and organizational challenges (cf. Haxeltine et al, 2017; Lindberg, 2014, 2017, 2018; Westley et al., 2017).

The various vantage points were reflected in the conversion of the identified barriers in the chart used as the provotype, which amplified the most excluding and limiting features of the preschool facilities and was used as a springboard to outline its opposite in the subsequent remodeling projects. The provotype reflects an understanding of inequality in school settings based on gender and other identities or categories, something that previous research has labeled monoglossic (cf. Francis, 2010). From this perspective, dualistic and stereotypical notions of femininity and masculinity or other social factors seem to maintain patterns of inequality and fixed identities among children. This is enforced through distinctly fixed rooms, activities, and toys (cf. Francis, 2010; Paechter, 2007). By amplifying preexisting elements of exclusion and inequality in preschool facilities, the provotype served to challenge the previously identified myth of a natural and innocent childhood phase where interventions aimed at gender equality and other forms of inclusiveness seem superfluous (cf. MacNaughton, 2000). This helps distinguish the role of guiding norms and values in materializing socially innovative change, transforming a monoglossic understanding of equality, into a heteroglossic one (cf. Francis, 2010). The latter not only acknowledges the occurrence of individual, gender-transgressive performances, but also enables these by norm-challenging premises (re)modelling.

This transformation reflects the established notion of social innovation as a transformation of institutions (cf. Moulaert et al., 2013), in this case public preschools. Oppressive power structures that enforce limiting norms regarding gender and other social factors are challenged and changed. This is achieved through the collective agency of the stakeholders involved, who initiate empowering social relations. In this case, this took place both among the children and between children, preschool staff, municipal representatives, and so on. The institutional transformation is, however, currently limited to the three preschools that participated in the case study. The actual effects of the future remodeling projects remain to be analyzed in both the short and long term. As noted in previous studies, however, the cumulative effects of small-scale

solutions might be more important to organizations and society in the long run (cf. Brandsen et al., 2016). This is because it is difficult to directly take complex solutions to thorny problems in one context and apply them in another without considerable translation and modification (cf. Segnestam Larsson and Brandsen, 2016).

The need for theoretical engagement with complex dynamic processes, discontinuous and unpredictable systems – articulated in earlier research (cf. Moulaert et al., 2013) – is underlined in the chart of barriers that was created in this study. The chart highlighted the complex hierarchical and limiting relationships between the staff and the children, as well as between among. In the provotype, these limitations were amplified into a monitoring room that illustrated opposing concepts. It ensured staff supervision of children’s activities and behavior while at the same time it exposed the staff’s own helplessness as controlled puppets within in the preschool system. Flexible rooms, furniture, and materials are able to evoke equal and inclusive play and learning. The same is true of hiding places, delimiting the staff’s oversight of the children’s play. Children’s interactions in free play may continue to reflect hierarchical and normative limitations, however. This highlights the additional matter of diverging interests among the stakeholders involved. Children’s desire for free, creative and norm-challenging play might clash with staff goals of play that serves a democratizing and developmental role. This agrees with conclusions from previous studies regarding the contested character of values, actions, and outcomes in processes of social innovation (cf. Segnestam Larsson and Brandsen, 2016).

Conclusions

This case study of a Swedish preschool remodeling process shows that the contextualized norms and values of equality and inclusiveness confront material and immaterial barriers of gender and other social factors in preschool facilities. The barrier of *disabling vs. enabling rooms* illustrates the impact of preschools’ interior arrangements on inclusiveness and norm-challenging effects in children’s play, learning, and development. The sub-category of barriers we have called *oversight vs. hiding places* illustrates the contrast between staff’s need to maintain surveillance over children’s play and behaviors and the need that children have to achieve free play that is not subject to such

oversight. The barrier *fixed vs flexible furniture and materials* (including toys, books, clothing, etc.) concerned the intended or interpreted usage of, and identification with, varying objects in the preschool facilities. The barrier of *staff vs. children* concerned the hierarchy that was identified between staff and children, where the former possess the ability to determine the latter’s play by deciding on the norms, rules, and limits for play and for usage of rooms, furniture, and materials. The related barrier of *children vs. children* concerned limitations related to various social factors that children imposed on each other and themselves when playing in and in other ways using the preschool facilities. These barriers were further materialized in the *provotype*, which manifested the most excluding and limiting preschool (re)model possible.

In this study, social innovation can be viewed through the lens of a value-based remodeling of public preschools, as a solution to a perceived need to ensure equal and inclusive play, learning, and development. The fact that innovation in this case focused on norms and values serves to highlight social innovation as an ideologically and locally contextualized process, reflecting the cultural dynamics and political processes of the municipal preschool context. It thereto serves to highlight the materialization of norms and values in relation to rooms, furniture, and materials in public preschools. These were ascribed stereotypical notions both by staff in their interaction with the children and by children themselves while playing and participating in other activities. The name, size, and intended usage of various rooms were identified as barriers to equal and inclusive play and learning, as were the placement, interpretation, and usage of toys and books in these rooms. Children’s attempts to find free spaces for play, where they could challenge and perhaps change prevalent norms, were enabled by “clearings” – that is, unoccupied gaps in the social landscape of preschool that were exploited to develop new practices that were partly hidden from established structures. This was enhanced by rooms, furniture, and materials that enabled and inspired creative usage, such as movable or temporary walls and less fixed designs. In this, we identify both “reactive clearings” that allow children to spontaneously identify free-play zones and “proactive clearings” that result from intentionally enabling room design and usage.

The preschools’ prescribed mission to enforce values of equality, inclusion and democracy reflects the tendency to underscore the moral virtues and ethical norms in social

innovation. The findings help distinguish the role of guiding norms and values for materializing socially innovative change, especially regarding the transformation of a monoglossic understanding of equality into a heteroglossic one. The occurrence of individual, gender-transgressive performances is then not only acknowledged but also enabled by norm-challenging facility design and remodeling. The results thus indicate that normative systems impact organizational and societal change, something also highlighted in previous studies of social innovation, especially as regards the aspiration to counterbalance social exclusion caused by stereotyped notions of gender, ethnicity, religion, disability, age, sexual orientation or transgender identity/expression. The study contributes to expanding the understanding of how social service innovation can challenge and change limiting norms as it identifies and addresses needs within social services. The same is true for norms with respect to the goal to empower service users, transform relations among service providers and users, and ensure universal access to social services on equal terms.

The study highlights the complex power relations between staff and children, distinguished in the staff's ability to determine the norms, rules and limits for children's play and usage of rooms, furniture, and materials. At the same time, at times staff are helpless in relation to preschool regulations and practical limitations. This case therefore serves to illustrate how social innovation, viewed as both a process and an effect, can motivate stakeholder involvement. This includes involvement in identifying and addressing social needs, as well as in the construction of new forms of cooperation across organizational and sectorial barriers. The main

contribution of the study thus concerns how social innovation norms and values are contextualized and materialized, specifically with regard to how a norm-critical understanding of enabling and disabling rooms, furniture, and materials can be translated into norm-creative preschool facilities.

These insights have wider theoretical and practical implications than the specific geographical, organizational and ideological context studied here. As localized and materialized norms/values impact social transformation process regardless of the specificities of each context, the results are useful also in other preschools in Sweden and internationally. This means that the approach and ambitions of the studied case may be practically applied also in other preschools, within or without the Nordic welfare state context. Even if local and national policies may determine the material and social configurations of preschool facilities in context-specific ways, remodeling of these facilities nevertheless impact prospects of social transformation. Further studies could provide additional insights into potential variances in this impact in various geographical, organizational and ideological contexts, based on cases from other preschools and countries. The main policy implication for the educational area in Sweden and internationally, is improved insight into the importance of synchronized regulations and guidelines for preschool education and facility construction, due to the socio-material interplay delineated in the study. It remains to be seen, however, if individual remodeling projects are sufficient to spur upscaled, societal transformation in terms of public policies that deliberately and systematically enhances inclusive preschool facilities.

References

- Aagaard Nielsen, K. and Svensson, L. (Eds.) (2006). *Action research and participatory research*. Maastricht: Shaker Publishing.
- Alden-Rivers, B., Armellini, A., Maxwell, R., Allen, S., Durkin, C. (2015). Social innovation education: towards a framework for learning design. *Higher Education, Skills and Work-Based Learning*. 5(4): 383-400.
- Andersson Schaeffer, J. (2014). *Spaces for innovation*. Doctoral dissertation. Mälardalen University.
- Andersson Tengnér, L. and Heikkilä, M. (2017). *Arbeta med jämställdhet i förskolan: med normmedveten pedagogik (Work with gender equality in the preschool: with norm-aware pedagogy)*. Stockholm: Gothia förlag.
- Brandson, T., Cattacin, S., Evers, A., Zimmer, A. (Eds.) (2016). *Social innovations in the urban context*. New York: Springer.
- Brundenius, C., Göransson, B., Carvalho de Mello, J. M. (Eds.) (2016). *Universities, Inclusive Development and Social Innovation: an international perspective*. Cham: Springer.

- Bushouse, B. K. (2009). *Universal Preschool: Policy Change, Stability, and the Pew Charitable Trusts*. New York: State University of New York Press.
- Cattacin, S. and Zimmer, A. (2016). Urban Governance and Social Innovations. In Brandsen, T., Cattacin, S., Evers, A., Zimmer, A. (Eds.). *Social innovations in the urban context*. New York: Springer, pp. 21-44.
- Cherney, I. D. and Dempsey, J. (2010). Young children's classification, stereotyping and play behaviour for gender neutral and ambiguous toys. *Educational Psychology*. 30(6): 651-669.
- Clark, A. (2010). *Transforming children's spaces: Children's and adults' participation in designing learning environments*. New York: Routledge.
- Copus, A., Perjo, L., Berlina, A., Jungsberg, L. Randall, L. and Sigurjónsdóttir, H. (2017). *Social innovation in local development: Lessons from the Nordic countries and Scotland*. Nordregio Working Paper 2017:2. Stockholm: Nordregio.
- Cukier, W. (2018). Gender and Diversity as Cross Cutting Themes. In Howaldt, J., Kaletka, C., Schröder, A., Zirngiebl, M. (Eds.). *Atlas of Social Innovation – New Practices for a Better Future*. Dortmund: Sozialforschungsstelle, TU Dortmund University, pp. 58-61.
- Daniel, L. J. and Klein, J. A. (2014). Innovation agendas: the ambiguity of value creation. *Prometheus Critical Studies in Innovation*. 32(1): 23-47.
- Davies, B. (1989/2003). *Frogs and snails and feminist tales: preschool children and gender*. Cresskill: Hampton press.
- Francis, B. (2010). Re/theorising gender: female masculinity and male femininity in the classroom?. *Gender and Education*. 22(5): 477-490.
- Gunnarsson, E., Hansen, H. P., Steen Nielsen, B., Sriskandarajah, N. (Eds.) (2015). *Action Research for Democracy – New Ideas and Perspectives from Scandinavia*. New York: Routledge.
- Haxeltine, A., Pel, B., Dumitru, A., Avelino, F., Kemp, R., F., Bauler, T., Kunze, I., Dorland, J., Wittmayer, J., Jørgensen, M. S. (2017). *Towards a TSI theory: a relational framework and 12 propositions*. The TRANSIT project.
- Heikkilä, M. (2016). Children's Gendered Play and Toys in Preschools. In Patte, M. M. and Sutterby, J. A. (Eds.). *Celebrating 40 Years of Play Research: Connecting Our Past, Present, and Future*. Play & Culture Studies, Volume 13. Lanham: Hamilton Books, pp. 81-98.
- Howaldt, J., Kaletka, C., Schröder, A., Zirngiebl, M. (Eds.) (2018). *Atlas of Social Innovation – New Practices for a Better Future*. Dortmund: Sozialforschungsstelle, TU Dortmund University.
- Jessop, B., Moulaert, F., Hulgård, L., Hamdouch, A. (2013). Social innovation research: a new stage in innovation analysis. In Moulaert, F., MacCallum, D., Mehmood, A., Hamdouch, A. (Eds.). *The international handbook on social innovation*. Cheltenham: Edward Elgar.
- Johnson Ross, F. and Goddard, C. (2015). *Unequal nation – The case for social innovation to work for a gender equal future*. London: The Young Foundation.
- Lindahl, M. G. and Folkesson, A-M. (2012). ICT in preschool: friend or foe? The significance of norms in a changing practice. *International Journal of Early Years Education*. 20(4): 422-436.
- Lindberg, M. (2018). Relating inclusiveness and innovativeness in inclusive innovation. *International Journal of Innovation and Regional Development*. 8(2): 103-119.
- Lindberg, M. (2017). Promoting and sustaining rural social innovation. *European Public & Social Innovation Review*. 2(2): 48-60.
- Lindberg, M. (2014). From exclusion to inclusion in public innovation support? Innovative practices in bottom-up networks. *Scandinavian Journal of Public Administration*. 18(4): 91-107.
- Lindberg, M. and Berglund, K-E. (2016). Gendered social innovation – a new research stream for gender inclusive innovation policy, research and practice. In G. A. Alsos, U. Hytti, E. Ljunggren (Eds.). *Research Handbook on Gender and Innovation*. Cheltenham: Edward Elgar Publishing, pp. 214-228.
- Lindberg, M., Forsberg, L., Karlberg, H. (2015). Gendered social innovation – a theoretical lens for analysing structural transformation in organisations and society. *International Journal of Social Entrepreneurship and Innovation*. 3(6): 472-483.
- MacNaughton, G. (2000). *Rethinking gender in early childhood education*. London: Chapman.
- Martinelli, F. (2013). Learning from Case Studies of Social Innovation in the Field of Social Services. In Moulaert, F., MacCallum, D., Mehmood, A., Hamdouch, A. (Eds.). *The international handbook on social innovation*. Cheltenham: Edward Elgar.
- Moulaert, F., MacCallum, D., Mehmood, A., Hamdouch, A. (Eds.) (2013). *The international handbook on social innovation: collective action, social learning and transdisciplinary research*. Cheltenham: Edward Elgar.
- Nicholls, A., Simon, J., Gabriel, M. (Eds.) (2015). *New Frontiers in Social Innovation Research*. New York: Palgrave Macmillan.
- Paechter, C. F. (2007). *Being boys, being girls: learning masculinities and femininities*. Maidenhead: Open University Press.

- Reason, P. and Bradbury, H. (Eds.) (2008). *The Sage Handbook of Action Research. Participatory Inquiry and Practice*. London: SAGE Publications.
- Sandberg, A. and Pramling-Samuelsson, I. (2005). An Interview Study of Gender Differences in Preschool Teachers' Attitudes Toward Children's Play. *Early Childhood Education Journal*. 32(5): 297-305.
- Segnestam Larsson, O. and Brandsen, T. (2016). The implicit normative assumptions of social innovation research: embracing the dark side. In Brandsen, T., Cattacin, S., Evers, A., Zimmers A. (Eds.). *Social innovations in the urban context*. London: Springer.
- Segnestam Larsson, O., Nordfeldt, M., Carrigan, A. (2016). Inertia, clearings and innovations in Malmö. In Brandsen, T., Cattacin, S., Evers, A., Zimmers A. (Eds.). *Social innovations in the urban context*. London: Springer.
- Serbin, L. A., Poulin-Dubois, D., Colburne, K. A., Sen, M. G., Eichstedt, J. A. (2001). Gender stereotyping in infancy: Visual preferences for and knowledge of gender-stereotyped toys in the second year. *International Journal of Behavioral Development*. 25(1): 7-15.
- Sheridan, S., Williams, P., Sandberg, A., Vuorinen, T. (2011). Preschool teaching in Sweden – a profession in change. *Educational Research*. 53(4): 415-437.
- Sirovátka, T. and Greve, B. (Eds.) (2014). *Innovation in Social Services: The Public-private Mix in Service Provision, Fiscal Policy and Employment*. Farnham: Ashgate.
- Skelton, C., Francis, B., Smulyan, L. (Eds.) (2006). *The SAGE handbook of gender and education*. London: SAGE.
- Styhre, A. (2013). *A social theory of innovation*. Malmö/Copenhagen: Liber/Copenhagen Business School Press.
- Ümarik, M., Loogma K., Tafel-Viia, K. (2014). Restructuring vocational schools as social innovation?. *Journal of Educational Administration*. 52(1): 97-115.
- United Nations (1989). *Convention on the Rights of the Child*.
- van der Have, R. P. and Rubalcaba, L. (2016). Social innovation research: An emerging area of innovation studies?. *Research Policy*. 45: 1923–1935.
- Westley, F., McGowan, K., Tjörnbo, O. (Eds.) (2017). *The evolution of social innovation: building resilience through transitions*. Cheltenham: Edward Elgar Publishing.
- Yelland, N. (Ed.) (2005). *Critical issues in early childhood education*. Maidenhead: Open University Press.
- Yin, R. K. (2009). *Case Study Research: Design and Methods*. London: SAGE.