

Chapter 5

Success of and Barriers to Workshop Methodology: Experiences from Exploration and Pedagogical Innovation Laboratories (EX-PED-LAB)



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Abstract This chapter reports on the emerging findings during the first year of a design- and inquiry-based research project called *Kindergarten Teacher as a Researcher*. The project attempts to implement a design for collaboration and knowledge co-creation through a workshop methodology called *Exploration and Pedagogical Innovation Laboratories (EX-PED-LAB)*. The project was funded by the Research Council of Norway as a starting grant for the common initiative of the Agency for Kindergartens (Bergen City, Norway) and the KINDknow Research Centre [BARNkunne – Senter for barnehageforskning], located at Western Norway University of Applied Sciences (HVL). The goal of the workshop laboratory was twofold: (1) to support early childhood educational leaders and staff in enhancing the quality of kindergartens in close collaboration with researchers and (2) to research three areas of common interest: the play, exploration, and learning environment; collaboration with families; and leadership and governance. This chapter highlights a set of features for success, as well as takeaway points for the further development of the workshop methodology, tailored to future early childhood partnership research programmes. Drawing on the case of the EX-PED-LAB project, the chapter seeks to describe the features of the success of and barriers to collaborative explorative processes and knowledge-creating practices in *practices-developing research*. These insights will be beneficial for further investigations, consolidations, and refinements of the workshop methodology.

Keywords Knowledge creation · Partnership research · Cultural-historical · Collaborative exploration

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© The Author(s) 2023
C. Wallerstedt et al. (eds.), *Methodology for Research with Early Childhood Education and Care Professionals*, International Perspectives on Early Childhood Education and Development 38,
https://doi.org/10.1007/978-3-031-14583-4_5

Introduction

This chapter explores what can be learnt from using workshops as a methodology for research on early childhood education and care (ECEC) professionals, specifically how this approach can inform the research domain of knowledge co-creation, involving practitioners and researchers in what we here propose be labelled *practices-developing research*. Knowledge is understood as closely linked to personal and collective inquiries through practice, meta-dialogues, imagination, exploration, new actions, and new discoveries. These knowledge processes are relational, something always in the making, and are shaped and reshaped over time as new demands and events are encountered. Knowledge is shaped in the making and remaking, in reflecting on the past, and in exploring future events.

The chapter presents the emerging findings during the first year of a design- and inquiry-based research developing a methodology in which the co-creation of knowledge was a central premise. In design research, knowledge is created through successive judgement and process evaluations whilst designing and building an artefact. The artefact in our project was a working model for practices development research. Design- and inquiry-based research blends empirical educational research with the theory-driven design of learning environments. The Design-Based Research Collective (2003) claims that a design approach helps us understand the relationships amongst educational theory, the designed artefact, and practice. Design is central in efforts to foster learning, create usable knowledge, and advance theories of learning and teaching in complex settings. It may also contribute to the growth of the human capacity for change.

Within this overall approach, we built a workshop methodology called *Exploration and Pedagogical Innovation Laboratories (EX-PED-LAB)* from earlier engagement in participatory research, drawing theoretical inspiration from relational ontologies and using transformative change as the aim (e.g. Ødegaard, 2020, 2021; Schei & Ødegaard, 2013).

Workshop as a word has become part of our everyday language and requires no further explanation, but as a methodological concept, it should be defined. According to Ørngreen and Levinsen (2017), workshop as a concept is weakly defined from an academic perspective, as its formats and uses have been developed within authentic contexts (workplaces, the arts, and politics). As such, our chapter will contribute to an in-depth description of a series of workshops as a practice and a research methodology.

The intent of our workshop laboratory was twofold: (1) to support early childhood educational leaders and staff in enhancing the quality of kindergartens in close collaboration with researchers and (2) to research three areas of common interest: the play, exploration, and learning environment; collaboration with families; and ECEC leadership and governance. The project involved participatory, co-creative, and ethnographic methods, creating opportunities for partners to explore, investigate, and develop practice innovation and knowledge together.

Following a design- and inquiry-based research model, it was important during the first year of the project to recognise limitations and find helpful insights for further refinement and improvement. Against this background, we outline the following questions:

1. *What are the enabling features of action that drive pedagogical innovations, and what are the barriers (tensions) to the workshop methodology in partnership research collaboration in the case of EX-PED-LAB?*
2. *What are the takeaway points for the further development of the workshop methodology, tailored to future developments of early childhood partnership research programmes?*

The chapter is structured as follows. We first outline the contextual and conceptual background of EX-PED-LAB, describing the main aspects and concepts of the workshop methodology. We briefly summarise previous research that depicts a relatively recent shift in the relationship between universities and society from knowledge translation (or utilisation) to knowledge production and innovation. We include an outline of the state of the art of workshop as a practice and as a field of research. Moreover, we provide examples to illustrate some of the enabling features of action, as well as some barriers. Finally, the chapter concludes with a number of takeaway points for further development that we anticipate will be helpful when expanding the project and can indicate areas for further research.

Case Context and Rationale

In the local setting of the city of Bergen, Norway, kindergarten teacher staff, the Bergen City management team, and a research team from KINDknow worked together, funded by the Research Council of Norway (2018), as a starting grant for the common initiative of the Agency for Kindergartens (Bergen City, Norway) and the KINDknow Research Centre (HVL).

The initiative followed a growing global trend of creating knowledge in vertical interdisciplinary research teams to address the complex and challenging problems that the ECEC sector faces, with a particular interest in local demands and possibilities. Key policy documents and research identify teachers' professional qualifications as one of the core issues in qualifying early childhood services and recommend investment in innovative in-service professional development as a key long-term strategy to promote ECEC quality (Organisation for Economic Co-operation and Development [OECD], 2012, 2018). Despite a good understanding of the value and purpose of research partnerships, a follow-up evaluation of *Competence for the Kindergarten of the Future* (Sivertsen et al., 2020) showed that, in practice, such collaboration is challenging. This trend of efforts to find solutions to help bridge the gap between what is considered practical versus academic knowledge has lasted several decades (Wagner, 1997) and has proven to be a difficult issue to solve (Bentley & Toth, 2020).

In Scandinavia, participative practices have been seen as powerful democratising elements that can also be used to involve citizens and influential groups in co-creating social innovation in areas such as governmentality (Ind & Coates, 2013). In the domains of public health, medicine, and education, collaboration in interdisciplinary teams is considered crucial for a deeper and more holistic approach to solving citizens' societal and individual problems (Archer, 2012; Bærheim et al., 2022).

The development of good quality in ECEC is a common concern for national and local governments, kindergarten staff, parents, and kindergarten researchers. The benefits of collaboration between researchers and teachers have been recognised politically, professionally, and internationally (Alvestad et al., 2019; Norwegian Directorate for Education and Training, 2018). In enhancing competencies and capabilities in the sector, the transformative power of collaborative exploration and the co-creation of knowledge are often described as altering the roles of citizens, users, and professionals in ways that support sustainable public value outcomes (OECD, 2018; Pestoff, 2019; Wals, 2010).

Although there is broad consensus that innovative approaches can potentially enhance teachers' learning through networking, research-based initiatives, coaching, mentoring, counselling, supervision, teamwork, collegiality, and co-learning (Wals, 2010), we know less about the processual details in partnerships involving kindergartens and universities (Urban et al., 2012). Workshop methodology, as a framing factor for collaborative learning and partnership research, is less documented (Ørngreen & Levinsen, 2017; Borgen & Ødegaard, 2021).

The overall aim of EX-PED-LAB was to go beyond the theory-practice divide in ECEC by recognising multiple forms of knowledge and going beyond the traditional professional learning paradigm, which is structured by top-down models. In such a model, knowledge is generated outside the local practice and is transmitted or translated to teachers with expectations of the implementation of a required programme or particular content. With EX-PED-LAB as a design- and inquiry-based project, we aimed to work in a three-part collaboration, providing opportunities for head teachers (the kindergartens' managers), pedagogical leaders (kindergarten teachers), and researchers (1) to mirror, negotiate, respond to, and follow up on each kindergarten involved and on the network of four kindergartens in order to identify topics for exploration and inquiry. It could be a problem, but it could also be an area of particular interest. The issues to explore in depth were negotiated in this three-part collaboration (2) to innovate, change, and theorise practices in a collaborative effort between the participants, as well as (3) to investigate the processes at the workshops and document in-between work tasks as visual, narrative observations of children and staff.

We addressed a mutual interest in collaborative learning and transformation within the partnership. First, we aimed to support early childhood educational leaders and staff in enhancing the quality of kindergartens through exploration, with the goal of achieving pedagogical innovation and change. Second, we aimed to support researchers in finding new problems and understandings of ECEC practices and conditions for exploration and pedagogical innovation, in addition to exploring research areas and topics of common interest.

The group of researchers involved were not new to collaborating with the ECEC field and had a mixed background. Some were ECEC teachers and knew the field from various positions, including their own practices as kindergarten teachers, heads, and teacher educators and, later, through a meta-perspective on the field through research training and ECEC research. Others had a variety of disciplinary backgrounds in research and teaching at the university, and some were experts with backgrounds in other sectors. The heads who were involved were all experienced as leaders, with further education in leadership and organisational learning.

The EX-PED-LAB idea was motivated by the above-mentioned need for new knowledge on how to conduct collaborative research in partnerships. As a starting point, we based our ideas on our own previous experiences from projects that were designed and carried out in negotiation with stakeholders in the field. The concept of a *participatory agentic space*, which represents the curricular space in which children can move and act in flux with the ecological frames of institutions, was already developed in the thesis *Narrative Meaning Making in Preschool* (Ødegaard, 2007) as an attempt to conceptualise the conditions for children's participation in everyday practices. A point made here was that, even if a space is made for participation, it will be a regulated space conditioned and controlled by the structures, rules, and regulations set by authorities and further conditioned by the participants, because every form of participation involves various levels of constraints and possibilities—societal, institutional, and personal (Hedegaard, 2008). How different participants use and exploit the space for participation will influence the extent to which, and how, they can be agentic. This concept is also relevant to practices-development research.

In the context of collaboration across sectors, Edwards (2005) has developed the concept of *relational agency* to conceptualise how successful partnerships are formed and maintained. Collaboration across sectors involves tension because of the differences amongst the sectors. This is a place where different practices with different histories, knowledge, and values meet (Edwards, 2010).

Under the leadership of Elin Eriksen Ødegaard, a project initiated and funded by the Directorate for Education and Training in six regions in Norway was carried out in the county of Hordaland in 2012 in collaboration with 11 kindergartens, 150 staff members, and 4 researchers from the research group *Kindergarten as an Arena for Cultural Formation* (e.g. Kyrkjebø et al., 2013; Schei & Ødegaard, 2013). For research purposes, we later followed up on some of these kindergartens. For instance, in 2016–2017 we followed up on a narrative inquiry of the use of musical artefacts in everyday practices (Shcei & Ødegaard, 2017) and in 2020–2021 on a case study of long-time transitions and transformation into cultures of collaborative exploration of the local and global culture (Ødegaard, 2020; Ødegaard, 2021). Some of the tasks developed in this project were further negotiated, improved, and tailored to this new group of collaborators, the ECEC agency of the city of Bergen, and the researchers from the KINDknow Research Centre.

Furthermore, the EX-PED-LAB workshop methodology built on narrative inquiry (Clandinin & Connelly, 1995; Dewey, 1938; Paley, 1995) and cultural-historical perspectives, such as pedagogical experiment (Hedegaard, 2008) and

dialogism (Bakhtin, 1981). Praxeological inspirations (Kemmis et al., 2014; Oliveira-Formosinho & Formosinho, 2012), as well as knowledge inspirations from transformative learning and organisational change (e.g. Senge et al., 2000; Wals, 2010), are designated inspirations built into the methodology. These were the researchers' methodological backgrounds for entering partnership research. Also important in the construction of the model were premises of participatory design and an anchoring in the national and local frameworks on ECEC, set out by the city parliament of Bergen and the Agency of Early Childhood Education, which selected four ECEC institutions to participate in the workshops. In the further operationalisation of the workshop content, the heads of the kindergartens (called head teachers) became negotiating partners in planning the workshops and in following up on their organisations. Therefore, EX-PED-LAB was established against the background of a long-term puzzle and inquiry into understanding the drivers of transformative understanding and for achieving innovation and change in the ECEC sector, with the ultimate aim of addressing the long-term, wicked problem (Bentley & Toth, 2020) of how to best support and provide good institutional lives for children through practices-development research.

Co-creation of Knowledge

Many of the key factors affecting competencies and capabilities in the ECEC sector are social and relational. In particular, the relational aspects of the processes when people work across disciplinary boundaries appear to require more attention (Ness & Riese, 2015, p. 29). However, as Ness and Riese (2015) state, looking at Bakhtin's (1984) dialogical principle, we can see that knowledge and meaning are created in the tension between different voices, and 'meaning making occurs when different voices, different world views or perspectives get in touch with one another' (p. 30). This was illustrated in a follow-up study of a kindergarten that was working on developing and refining its practices over the years. Starting out by working with local cultures and staff when confronted with an increasingly multicultural society, and holding meetings with families that could offer more diverse resources to the kindergarten's curriculum, the staff transitioned into increasingly new activities for exploration that actualised the local culture and heritage; this has added to our understanding of how kindergarten practice conditions the cultural formation of children, going from monocultural to multicultural entities (Ødegaard, 2020, 2021).

Drawing from these insights, the design of our EX-PED-LAB project was staged as a collaborative and co-creative knowledge process based on the definition of co-creation as follows:

... a process through which two or more public and private actors attempt to solve a shared problem, challenge, or task through a constructive exchange of different kinds of knowledge, resources, competences, and ideas that enhance the production of public value in terms of visions, plans, policies, strategies, regulatory frameworks, or services, either through a continuous improvement of outputs or outcomes or through innovative step-changes that

transform the understanding of the problem or task at hand and lead to new ways of solving it. (Torfing et al., 2019, p. 802)

From the start, the view of the co-creation of knowledge was an important pillar of the project. There were several reasons for this, as mentioned; initiatives and impairments are found in political documents and in premises set out by collaborating stakeholders, all of which stem from the epistemological viewpoint of the researchers. However, claiming success in innovation and transformation through the co-creation of a knowledge approach is a tricky business. If success means being certain that a particular intervention caused change, innovation, or learning, we need to look carefully at the case level. Generalising to other settings would be difficult. Thinking with the concept of participatory agentic space, we acknowledge that a certain workshop methodology and design will always meet a complex and entangled set of conditions for the agentic participatory space given (e.g. an institutional culture, a leadership style, a participant's knowledge view, conceptualisations of research, personal attitudes, values, intellectual and creative capacity, capability, and investment of time and energy in the project). What a design- and inquiry-based project, such as EX-PED-LAB, enables us to do is to create a participatory agentic space with opportunities for the co-creation of knowledge. From learning theory, we know that being involved with a variety of voices and being confronted with different worldviews are productive for learning and development, but despite all this theoretical knowledge, it is not commonly practised or well understood (Ind & Coates, 2013).

EX-PED-LAB provides an arena for co-creative practice, which means that ideas, data, and results are elicited, presented, mirrored, responded to, negotiated, changed, and redeveloped. This arena needs to stage possibilities for productive dialogues, which can be characterised by the fact that the parties open their minds to understanding one another. In order to create and organise such a staging, we need to draw on a broad and eclectic source material rather than adopt a narrow view. The concept of co-creation has a diverse heritage from psychotherapy, management science, innovation and open innovation, design, literary theory, and creativity practice (Ind & Coates, 2013). We can also find recent relevant explorative studies with the public health domain, where co-creation is a multi-dimensional construct starting out from the very start of a research design (Darlington & Masson, 2021, Daly-Smith, et al., 2020). Based on the findings of Darlington and Masson (2021), co-creation is a voluntary-based process of bottom-up collaboration informed by values of diversity, mutual trust, openness, autonomy, freedom, respect and shared expertise, responsibility, and decision-making. This research highlights that co-creation can result in out-of-the-box, new or improved tailored health-promoting practices and projects, which address a co-defined need, for the benefit of all members of the group.

From these various strands, we can locate ideas for practice work in the workshops and in the participants' in-between tasks. Ind and Coates (2013) suggest that, from participatory design, we can learn that involving end users leads to more relevant and usable services. They state that this implies researchers' willingness to

engage with participants and incorporate their suggestions for the benefit of users and the organisation. Participatory design, such as design- and inquiry-based thinking, can involve the development of prototypes as a means of testing user reactions. We consider EX-PED-LAB, in this first year of action, as such a prototype idea being tested.

From narrative inquiry, we learn that there are interesting interconnections amongst places, people, and communities (Caine et al., 2021). This implies that new ideas we can think with and act by have been significantly shaped by our histories and by the places and social contexts we have lived in and that this complexity needs to be considered when researching practice; the aim is to understand what goes on in institutions and the conditions for acting upon the practices.

From literary theory (Bakhtin, 1981), we learn that meaning is historically co-created and always responsive. This leaves an interpretation of what is going on as a two-way process. Whilst there is authorial (e.g. organisational management) intent in creating something, meaning emerges as the ideas are used and played out by the participants. The outcome of dialogues cannot be controlled. Face-to-face (digital or real-life) interactions and organisation-led interventions will always be unpredictable, even if a common focus is agreed upon. Human interaction and organisations' cultures and conditions work in a complex flux. However, the open-source movement (Ind & Coates, 2013) posits that starting with a gift produces more generous returns. Giving something to people that creates meaning or utility generates reciprocal, responsive actions and can strengthen the sense of community. People are then willing to share their personal experiences and opinions for the joy of participation. We also learn from narrative inquiry that once stories of failure and success are shared, this triggers more stories from more participants, especially when it comes to critical event narratives, which stick in our memory because strong emotions are involved (Mertova & Webster, 2020).

From collaborative innovation, we learn that breakthroughs come from *group genius*, not *lone genius*, even if the narrative is written to idolise one specific person. The Design-Based Research Collective (2003) demonstrates this idea, as also seen in the narrative created around Mikhail Bakhtin in the Bakhtin Circle (Clark & Holquist, 1984). Since the Renaissance, innovations have been dominantly generated by groups (Johnson, 2010; Laubé & Bruneau, 2012).

From cultural psychology, psychotherapy, and neuroscience, we learn that an answer or insight is not simply out there waiting; it needs to be discovered in a co-creation process with others. The discovery of *mirror neurons* in newborn babies suggests that at this point the sensory-motor system is already set to be coordinated with other experiences (Bråten, 2009) and will continue throughout one's life. This process of shared understanding can be positioned within the concept of intersubjectivity (Bråten, 2009; Linell, 2009).

To sum up, thus far, co-creation can be a force for participation and democratisation that creates meaning for participants and stakeholders. At the same time, it is an alternative research approach that explores and exploits the skills, creativity, and capability of all participants engaged. This is called the 'postmodern pattern of sensemaking', characterised by a 'transparent, open-ended flow of social

communication built around the negotiation and renegotiation of meanings that leads to a networked, evolving social world' (Ind & Coates, 2013, p. 92). The implication for EX-PED-LAB is that co-creation is viewed as a process that provides an opportunity for ongoing interaction in which participants are willing to share experiences with others within a sphere of trust. In return, participants can generate insights and knowledge.

Workshop Methodology: Background and Components

Workshops seem to have great potential for pedagogical innovation and partnership research in the direction of strengthening exploration and knowledge-building. An increased use of workshops as a qualitative research method within different research fields has been reported (Storvang et al., 2018). The term *workshop* is used in various contexts, often with respect to an arrangement in which a group of people learn, gain new knowledge, perform creative problem-solving, brainstorm, or innovate in relation to a domain-specific issue (Borgen & Ødegaard, 2021; Ørngreen & Levinsen, 2017). Tracing the origin of the word itself, we find that the term *workshop* was used as early as 1556 with the definition of 'a small establishment where manufacturing or handicrafts are carried out' (Merriam-Webster Incorporated, 2016).

Ørngreen and Levinsen (2017) found three levels of workshop knowledge from an analysis of a literature review: workshops as a means, workshops as a practice, and workshops as a research methodology. Existing research predominantly focuses on how to conduct workshops and less on workshops as a research methodology.

Workshops as a means refers to authentic workshops aimed at domain-specific issues. These are represented in a large body of literature in which a workshop is seen as a tool for achieving a goal. Two streams of research were identified. The first was literature on how to design, orchestrate, conduct, and facilitate workshops (e.g. cookbooks, frameworks, guidelines, and instructions). The second stream reported outcomes regarding participants' new competencies, practices, knowledge, or ideas as a result of participating in authentic workshops—in-service training, design processes, workplace development, or societal development.

Workshops as a practice focuses on examining the relationships between the workshop and its form and outcomes. This literature presented authentic workshop case studies, in which two key perspectives were identified: one examining the workshop as a format and the other participants' domain-specific outcomes. Workshops as a practice were also characterised by aspects of development (e.g. the participants created work processes, designs, or other things).

Workshops as a research methodology focus on studies using the workshop format as a research methodology. Here the workshops were authentic, as they aimed to meet the participants' expectations, and they were designed to accomplish a research purpose—to produce reliable and valid data on the domain in question.

These workshop types have a set of shared features (e.g. workshops were arranged events of a limited duration, targeted at participants sharing a common

domain). Workshops promote genuine participation and typically involve a small group size in order to afford everyone personal attention and the chance to be heard. This is important because active participation and influence are expected. Both organisers and participants expect an outcome from the workshop, which could entail new insights, suggestions, or (re)designs of a product, process, or innovation. A final shared focus of these three levels of workshop knowledge is that workshops are specifically designed to fulfil a predefined, but not predictable, aim (Ørngreen & Levinsen, 2017).

Using workshops as a means for learning is not new in early childhood teacher education and staff development; they are often seen in teaching the arts and other creative means. Workshops as research blended with participatory staff development methodology are not that common; still, there are examples and traditions to learn from. These can be found in practice-developmental and practice-transformative methodologies. Some examples of these historical threads that were selected by and inspired the EX-PED-LAB group in the development of the methodology are as follows:

1. Future workshops

Future workshops (FWs) were used as an active method in the 1950s, 1960s, and 1970s, inspired by the work of Austrian futurist Robert Jungk, who developed the basic form of the workshop for the purpose of enhancing democratic municipal decision-making. The FW method was further developed as a creative technique for societal groups to address real-life problems by discussing an unfavourable status quo and dreaming about a better future (Jungk & Muellert, 1987). By exchanging ideas and engaging in shared problem-solving, groups could find ways to reach their imagined future collectively. The FW method is a democratic and student-centred method based on at least three main phases: the critique phase, in which problems are identified and structured; the fantasy phase, in which desirable future situations are envisioned; and the implementation phase, in which the most promising ideas are chosen and an action plan made (Jungk & Muellert, 1987). A follow-up phase can also be added.

All these original features were selected as inspiration for the development of the EX-PED-LAB methodology, through the inclusion of imagination and dream society perspectives as components of the workshops.

2. Praxeological and change-laboratory approaches

Praxeological education in pre-service and in-service education draws inspiration from Freire (Vandenbroeck, 2020), mainly carried out as a collaboration *with* people in context rather than *to* people (Boal, 1994; Kemmis et al., 2014; Oliveira-Formosinho & Formosinho, 2012; Paavola et al., 2004; Pascal & Bertram, 2012; Winterbottom & Mazzocco, 2014). In such a participatory approach, choice and collaborative practice with the community and staff in context are crucial. This pedagogy is grounded in real-world situations and is carried out by teachers in collaboration with the community at large, which will have a direct and passionate investment in what is occurring in the kindergarten (Pascal & Bertram, 2012).

Furthermore, it is done in the staff communities with an understanding of the domain of practice development and education as being conditional on interactions and relationships. Action and interaction drive the work in educational practices and reveal how participants can change their approaches to working with young children and their families.

Organisations are products of how their members think and interact, so they maintain both structures and cultural codes (Senge et al., 2000, p. 19). Kemmis et al. (2014) propose a practice architecture in which educational practice follows a social ontology that analyses a social phenomenon as a praxis involving change and is composed of practices. Education is seen as a complex ecology of practices and the sites where it transpires and where practices intersect and develop, and its transformation is a matter of reconfiguring practices. Practice ecologies consider the conditions under which they take place. Kemmis et al. (2014) propose analytic categories, such as sayings, doings, and relatings. Sayings, doings, and relatings shape kindergartens' practice architecture. Change and the development of pedagogical practices will involve changing this practice architecture. For participants, this will mean '[asking] critical questions of their practice and [acting] on these answers to re-form and transform practices in a cycle of critical reflection, planning, action and critique' (Kemmis et al., 2014, p. 179).

This ecological approach has inspired EX-PED-LAB to consider partner representation from a variety of stakeholders in a systemic way of thinking, and we pick up the component of the arrangement of a series of workshops with cyclic content. For the data generated, we ensure that we collect and create data on the levels of sayings, doings, and relatings.

3. Inquiry-based approaches and working with stories

According to John Dewey, inquiry is a process that begins with doubt and ends with knowledge and a set of beliefs that are so concrete that they can be acted upon, either overtly or in one's imagination (Dewey, 1938, pp. 202–8). In EX-PED-LAB, this heritage from Dewey is obvious. A driver is a continuous puzzle in which participants wonder, ask questions, explore, and seek answers in order to understand more when engaging in inquiry (Schei & Ødegaard, 2017), and Dewey adds the need to eliminate the initial doubt. Play and exploration workshops are often associated with early childhood educational approaches; however, play and exploration are also actualised in adults' collaboration in educational settings.

Experiences are best articulated and understood in narrative languages, so EX-PED-LAB uses thinking and tools from the narrative inquiry methodology (e.g. Caine et al., 2021; Clandinin, 2013; Dewey, 1910; Kurtz, 2014; Schei & Ødegaard, 2017). Narrative inquiry also problematises what counts as knowledge in research, which is considered relevant for EX-PED-LAB as a research methodology.

4. Play design for imagination and innovation

Gudiksen and Skovbjerg (2020) frame play design as a field of practice that cannot exclusively apply to a specific age or sector; rather, it can help one learn skills and build competencies to improve by acquiring a sense of detail for creating and

orchestrating prompts and triggers for play activities. Play activities can be used as vehicles for exploration and can be included in innovation processes.

Giving play a space in workshops was relevant in the EX-PED-LAB methodology in many ways, as we integrated curiosity triggers and imagination tasks and encouraged the exploration of practices for surprises and special interesting discoveries. The observations highlighted by the staff at the workshops reflected the key elements of play (humour, imagination, playfulness, disruption, and motive orientation), and by bringing children's play to the forefront of attention, the staff revealed a special ability to observe play and think with a playful mode.

5. The pedagogical experiment

Hedegaard (2008) places the pedagogical experiment within a cultural-historical tradition and its long history of using natural experiments as an intervention in everyday practice, with references to research by Vygotsky et al. (Hedegaard, 2008). The educational experiment covers elements of both paradigms of traditional experiment and action research, but according to Hedegaard there are significant differences between the respective methodologies of the educational experiment, the traditional experiment, and action research. The traditional experiment is interested in the effect of an independent variable on a dependent variable. Such studies are investigated by changing the independent variable in a predetermined way, as we can see today in quasi-experimental studies and randomised controlled trials. When it comes to the educational experiment and action research, there is a difference in the use of a theoretical premise. The pedagogical experiment is planned in relation to a theoretical system and not simply from agendas of practice.

EX-PED-LAB includes components of the pedagogical experiment tailored to local questions and motivations for entering pedagogical experiments. EX-PED-LAB follows Hedegaard's argument: theory is an important premise from the start; even if theory can be developed, it changes and is mended during the process.

These inspirations can be summed up in Fig. 5.1. The structuring components are visualised as follows:

Figure 5.1 illustrates how the acquisition of data as well as practices-development research was performed through a series of workshops. The series was based on an understanding of workshops as a transformative praxis in nine interrelated components. The structural components must not be read chronologically as they often occurred simultaneously, and some of them repeatedly; they should instead be read as a circle of fluctuating processes.

The selected components involve sharing dilemmas and disturbances of practices, as well as sharing recognition and hope, reflexivity, and critical assessment and dreams and imagination. Explorative processes should be collaborative. They also include identifying the focus for the planning of action. The research contains studies and explorations and could also include systematic experiments and testing. These processes include dialogues and the documentation of data creation/collection and knowledge acquisition. With new actions, new experiments, new sharing, and reintegration, we anticipate building competencies, capabilities, and new knowledge. As outlined in the sections above, the workshops were inspired by collaborative,



Fig. 5.1 Shared exploration and pedagogical innovation circle

dialogical, inquiry-based, and network approaches that enable shared exploration as a crucial driver of transformative processes and pedagogical innovations.

EX-PED-LAB: The First Year of the Workshop Methodology

As pointed out in the introduction, a mutual agreement was established between the city of Bergen and KINDknow. Negotiations began in 2017 in the application phase of the project. Important to both parties was the mutual effort to find ways of working in order to strengthen the sector. Participants from kindergartens were selected through a process in which the city called for head teachers to apply and participate. After a large group interview involving kindergartens that had applied, four head teachers with their kindergartens were selected. These four continued in the project throughout the first intensive year. After the first period of planning and negotiating content, we began with the first workshop, held on 1 day in January 2020. In March 2020, Norwegian society closed due to the COVID-19 pandemic. Kindergartens were shut down until the end of April 2020, and when they opened,

strict COVID-19 regulations were enforced. Despite this demanding situation, the four head teachers participated in a series of workshops. The other participants were the director of the Agency for Kindergartens, two officials, and ten researchers from KINDknow.

We formed a project leader team to carry out a more specific project focusing on the kindergarten teacher as a researcher. This team consisted of three researchers and three members of the Agency for Kindergartens, including its director. This team managed and facilitated the project at the structural level and also picked up on themes and problems derived from early project negotiation and formulated choices of action items for the first collective workshop. At each kindergarten, a project group was established. Through negotiation, three thematic areas of common interest for collaboration in practices development research were established:

- The play, exploration, and learning environment.
- Collaboration with families.
- Leadership and governance.

At the first collective workshop, more tailored tasks were set by each collaborative team for each kindergarten after the initial tasks were presented. Eliciting responses from some of the teams at in-between activities, we condensed and synthesised different responses. Further elaboration or explanations followed, as necessary. By using explorative and dialogic developed tasks, the researchers or staff did not dominate the direction of the in-depth exploration and new practices. The aim was that this would enable mutual interaction, exploration, and inquiry, which is the type of dialogue that is essential when aiming for transformative processes for change and pedagogical innovations.

A total of four explorative workshops and four in-between tasks were carried out from January 2020 to January 2021. The participants consented to participate and to be audio-recorded. The workshops were structured based on answers to the questions formulated by the staff at initial dialogue meetings and on the tailored tasks of the head teachers, the pedagogical leaders. The kindergartens also included more staff in the tasks.

To address our research questions with rich, multi-level insights into the relationship between situated work practices and institutional logics, we used an embedded single-case study design (Yin, 2009). We purposively sampled multimodal data, which included audio recordings of the group discussions at three workshops; presentations at the workshops of the in-between work by the kindergarten teachers and principals (photos, narratives, and reflections); written reflection notes on the process, provided by the kindergarten teachers and principals; and the researchers' own notes as participating researchers.

The first phase of the analysis process was conducted during and in-between the workshops as a collaborative response between the kindergartens and researchers. The participants responded, reviewed other participants' contributions, and offered feedback on and new interpretations of the material. This served to improve the quality at the kindergartens by exploring new practices. At the same time, these processes ensured that the collected data material was reviewed and further

collaboratively explored and that it pointed to an understanding of the kindergarten teacher as a co-researcher; it also provided a space for all participants to contribute to the analysis process and to succeed in pedagogical innovations.

The second phase of the analysis process was performed at the end of the workshop series. The researchers on the project leader team went through the verbatim-transcribed audio recordings, the presentations, the reflection notes, and their own notes. Based on this, they intuitively reflected together on the content of the material based on their previous experiences. These two stages of analysis contributed to the relevant data to be presented and provided a way to look at the material both internally and externally as collected and finished data material. For the purpose of this chapter, the results are presented as a summary, with a few empirical examples.

Emergent Findings: Enabling Features of and Barriers to EX-PED-LAB

The workshop design created rich opportunities for collaborative investigation through common engagement, in which questions were derived from events, activities, and projects involving staff's and children's investigation in the in-between activities. We found that a participatory agentic space was created, and it also established an institutional anchoring of the project at each kindergarten and at the research centre at the university. The co-creation of knowledge design was an important pillar of the project from the start, both as an idea and as practice.

As the participants stated their interests before being asked to participate in the project, the project team already had information on the history of projects at the participating kindergartens, as well as their competencies, capabilities, and specific initial interests in developing areas. This background information came to be important in the tailored planning of the workshops. Even if the main thematic areas were agreed upon before the workshops, these were broad themes, and at the workshop time was spent digging more deeply in search of puzzles, problems, dilemmas, and challenges to work on at the participating kindergartens.

The head teachers were highly motivated, as they had already applied and agreed to take part in the project on behalf of their respective kindergartens. Despite the COVID-19 pandemic and its challenges, the kindergarten leaders participated in the workshops and found ways to carry out the intermediate work at the kindergartens together with staff. Engagement and flexibility were also demonstrated by the project leader group and the researchers.

The joint efforts of different stakeholders in the project group to prioritise planning, presence, and follow-ups and to face challenges and find solutions together were enablers for the success of the project. For example, the researchers and the staff at one of the kindergartens shared a common interest in understanding *exploration* and finding ways to develop the practice of being explorative with children. The staff took the initiative to find suitable literature for all staff to read

and discuss and also started working systematically, writing stories from practices. The narrative approach is what both the researchers and the staff are most familiar with, and narratives of how they were explorative with the children served as reflective tools for metacommunication. They worked with a focus on formative development and bodily awareness. At the same time, some of these stories became research data.

Another enabler was the fact that the content and tasks involved imagination and creativity. All kindergartens conducted some sort of experimentation. One of the workshops also encouraged work with the dream kindergarten, a task in which the kindergartens beforehand were given the opportunity to work with the staff, the children, or their families and come up with ideas as to what a dream kindergarten could be. This was also presented as an opportunity to listen to the children's voices through drawing and to elicit their imagination of the best kindergarten experience. From this task, one of the kindergartens discovered that the children's imaginations did not involve the use of toys and materials in the expected ways. Its staff decided to conduct an experiment that removed toys and material that are traditional at kindergartens and study what happened with the opportunity to play and found that open-ended material was of particular interest to the children both inside and outside the kindergarten. This discovery was also documented through a photo and story series at another kindergarten, in which a large box was used to hold the children's interest for weeks of continued, engaged play. One of the teachers said, 'Actually, all we need is a box and some surprising stuff in it'. The researchers followed this lead of thought by arranging for more dialogue about their experiences with nurturing play and conducting a lecture on the topic of open-ended material and the opportunities for play and exploration from theoretical stances. The concept of creativity arose as a new lead to follow. The kindergartens working with valuing and experimenting with open-ended play reported engagement from parents who became involved. One of the kindergartens further developed a workshop as a makerspace there. The idea of a makerspace fuelled the theorising of children's play, exploration, curiosity, and opportunities to construct and make things. It also encouraged staff involvement in the makerspace. The experiment with an open-ended playscape and a makerspace resulted in the creation of the most popular space at the kindergarten for both children and staff to be engaged. Through this project, we could clearly identify how researchers and staff worked in processes that, over time, included observations, experiments, planning, new ideas, and theorising.

In preparation for the second round of workshops, one of the kindergartens chose to investigate the outdoor playground as an arena for play and learning. They mapped activities and the relationship between staff and teachers and presented their results at the workshops. The prepared material was made available beforehand on MS Teams, the digital platform used for sharing. One other kindergarten and two researchers were responsible for preparing feedback for the kindergarten. This resulted in a rich discussion of the meaning of certain words found to be dominant in the staff's observations and stories. A discrepancy between the most popular word used, *curiosity*, and what was found in the observations of the activities was

also revealed. At the workshop, the researchers' feedback was a theory-driven analysis of the data provided. This analysis led to further dialogues on understandings of play, impacts on kindergarten practice, and how to act in collaborative exploration with children. These observations and the stories were stored for later reuse in further, more systematic investigations of the observations as research data.

Although some of the initiatives in the project were not new to either the kindergartens or the researchers, the workshops served as new vehicles for digging deeply or refining some activities already used at the kindergartens in previous projects and attempts. An example of this was that all the kindergartens used narrative approaches in various ways. One of them was working specifically to develop its collaborative practices with the families, wanting to involve parents more in the content part of its practices and to change the way it used digital boards. It encouraged the use of dialogical board conversations instead of information boards to create a more balanced dialogue between the kindergarten staff and the families. Another example was a kindergarten that had started working with *spotting strengths* in its staff. For the duration of the project, they continued to do this, looking for competencies, special skills, and capabilities amongst the staff. The workshops enabled them to document the process and obtain feedback on their work, thus empowering the leadership strategy at that kindergarten and inspiring others. Another kindergarten used a tool provided by the research team to map all the visual material at its kindergarten and analyse the findings from an aesthetic perspective. This task led to reflexivity, new discoveries, and new practices, as the kindergarten became aware of blind spots in its exhibition tradition.

As expected, several barriers were found. Despite good intentions, everyday life at the kindergartens was not always predictable, and tensions and challenges emerged. Key personnel became sick, and one of the kindergartens also lost key staff to new employment elsewhere. Keeping track of decisions and maintaining focus were other challenges. One learning point was highlighted by one of the head teachers: 'We should've stopped more often to check our common understanding to ensure that the whole team was included'.

There were tensions in the group when it came to understanding the open project approach and the participants' role in a co-creative design. All the researchers and all the kindergartens had previous experience from collaborating with different stakeholders. However, what was new here was the shared responsibility of the three parties—the agency, the head teachers and staff, and the researchers from KINDknow.

It was more or less challenging for the participants to find a way to take responsibility for engaging in action as active participants. Whilst some were self-governed and were rich in initiatives from the beginning, some had an unclear association with the main projects, whilst still others seemed to await instructions and desire a clearer design. One point of discussion in the evaluation of the project was whether there was a relationship between the investment of time and energy in the project and its perceived success. We could see that when the kindergartens came to the workshops with prepared problems, example materials, stories and observations,

and dialogues, more engagement occurred, easily generating responses and enabling reflections and new ideas.

There was also reflection on the extent to which the project should be democratised. Some of the staff said, 'Without the researchers' examples, we would have felt helpless' and 'I'm not sure I should say this, but it felt more interesting to get feedback from the researchers than the other kindergartens'. These quotes are interesting and show the need to further develop discussions about aspects of knowledge and knowledge creation in the further development of the project. In the moment, the uncertainty of the questions 'What are we doing?' and 'What kind of project are we participating in?' resulted in a reminder by the project leader team that a model of how to conduct collaborative investigations had to be developed and that there was a need to learn from one another during the process. Whether this is an adequate answer, or a critical point that offers new possibilities for model refinements, will be explored further.

Another example illustrates the recurring challenge of uncertainty regarding the kind of project we were working on. One of the head teachers said, 'It depends on what this EX-PED-LAB group is after', and one researcher replied, 'We cannot tell you what development means for you'. During this first year, it became obvious that the participants took part in the project with a different understanding of what research is, could be, and should be. These differences were not clear-cut through the lines of expertise. Amongst the researchers, there were different kinds of approaches to what could count as research data. Amongst the staff at the kindergartens, there were different levels of project uncertainty. Whilst some kindergartens continued exploiting opportunities without worrying, others struggled more with using the opportunities that the project provided them.

The kindergarten teachers articulated the challenges more explicitly, for instance, 'The demanding part of the project is translating my knowledge and the values we're obliged to act upon according to frameworks and local plans into practice with the kids in my department'. This was also articulated by the head teachers, for instance, 'It's a challenge to translate values and knowledge into a common practice. We depend on meetings for discussing things and planning, depend on whole days for planning and doing the systematic analysis. We can agree that we've reached a stage at which we're good at reflecting on practice, but that doesn't necessarily mean we're good at acting upon that reflection'. These lines reflected the core idea of the workshop methodology of EX-PED-LAB—not to stop at reflexivity but to work on the doings, to conduct experiments and refinements, to act upon problems, and to create cultures for practices-development research.

The analytical competence of the co-researcher is diverse. One of the kindergarten teachers addressed this issue in their own words: 'Analysing the data material is difficult. I'm not sure if I have the competence to do that. Is it expected that we should use theoretical concepts in doing it? This is difficult to do in practice at the kindergarten, when the whole staff is going to create meaning out of it'. This line calls for reflection on the need to understand the implications of interdisciplinary research, and does not mean that we are all the same; on the contrary, it means that we need to understand how best to exploit the expertise of the different participants.

These self-reflexive utterances put knowledge and analytic competence on the table for discussion. What counts as knowledge? What is academic analytic competence about? A trained researcher will have the expertise to conduct scientific and conceptual analyses, but when engaging in a practices-development research project, the researchers and their competencies must fit into the new context, which can be challenging for them. In dialogue processes these analytic competencies may be restrained by the researchers themselves, if they wish to avoid lecturing, or due to uncertainty as to whether the competencies will fit into the context at hand. Furthermore, how will they be received by the staff in the moment? These tensions were found implicitly in the researchers' dialogues and explicitly in the head teachers' utterances. Consequently, the workshop methodology requires more awareness of the dialogue in the co-creation process and the development of a genre of speech and a genre of doing (Ødegaard, 2021). Here, the genre of doing is the workshop methodology, but the genre of speech—what to say, when to say it, who speaks when, to whom we address the speech, and what kind of discourse we are intertwined with—will need to be further investigated.

Summary and Takeaway Points for Further Knowledge Generation and Transformative Practices

The overall aim of EX-PED-LAB was to innovate new solutions that would enrich practice in ways that were locally anchored and sustainable, in the sense that the methodology would be of both timely and of local and international relevance. At the same time, we aimed for new knowledge about the methodology for knowledge creation processes that may eventually lead to pedagogical creativity and innovation. The laboratory idea was based on the recognition of different types of knowledge (Caine et al., 2021; Ertsås & Irgens, 2012; Fler, 2013) and on the belief that complementary expertise would be negotiated and developed within collaborating teams (Silvius et al., 2012). One of the underpinning features of EX-PED-LAB was a valuing of ECEC by the existing leadership (city authorities) and the selected kindergartens, as well as the fact that the research ideas were of common interest, developed through a series of dialogue meetings with the research team. Anchored in systemic, dialogic (e.g. Clark & Holquist, 1984, Kemmis, et al., 2014), and pedagogical innovation (OECD, 2018) perspectives, our idea was that the participants would enrich the project through their various forms of expertise.

We found a multitude of indicators that the workshops were a driver of engagement and involvement in practices-development research, which is consistent with previous research (Ødegaard, 2021). By establishing an arena for increased systematic observations, sharing, collective reflection, planning, and acting for change, the project provided participants with the opportunity to contribute to real teamwork across levels and institutions, which led to the emergence of new pedagogical practices. The four participating kindergartens chose different ways of working, and the

researchers tailored their research approaches to the opportunities provided by the kindergartens. To different extents, all kindergartens agreed to create pedagogical cultures for exploration that were adapted to their starting point. We also found that increased awareness of the use of documentation as a basis for professional reflection contributes to emergent pedagogical innovation. The link between the two might be analytical competence; analytic ability might be stronger in intersectional collaboration, as seen at the workshops during feedback sessions and at further follow-ups when the voices of researchers, staff, and city representatives were heard.

Collaborative explorative processes and knowledge-creating practices in partnership research between researchers and practitioners and teachers challenge traditional research and practice perceptions, the dichotomy of theory and practice, and traditional research roles. This study shows that such a challenge is demanding and that it entails breaking common perceptions about teachers (and children) as research objects, as also found in previous research (Eriksson, 2018). In the case of EX-PED-LAB, the workshop methodology encouraged novel ideas, the refinement of ongoing ideas that made sense for the participants, collective reflection, and the development of change strategies.

We conclude that, for both the researchers and the staff at the kindergartens, the workshop model made it possible to explore professional processes through practices-development research. Furthermore, an important effect of positioning kindergarten teachers as co-researchers seems to be the influence of an exploratory mindset at the workshops regarding the staff's exploratory behaviour with the children.

The workshops provided communicative spaces (Rönnerman et al., 2015) in which talking, sharing experiences, and reflecting together in groups with kindergarten teachers beyond their own institution and researchers promoted the development of one's own kindergarten. We also identified barriers. It was challenging for the participants to juggle moving practices with a focus on practices-development research topics. We also had to consider that the timing of the project coincided with the first year of the pandemic; however, although this situation led to additional challenges, the crisis also pushed some of the changes. Even if there were interesting barriers and tensions to be further investigated and responded to, the recognition of different types of knowledge was essential to achieving equivalence in the collaborative exploration and investigation.

The research leader group had the important position of facilitating and administering practicality in the project. This is important in all projects, as the facilitation role grounds the project and holds it together. It is important to have people who take on this role, and the systemic leadership and interdisciplinarity in this team and amongst the participants, in general, proved to be crucial for the continuation of the collaboration as the global COVID-19 pandemic shook the grounds of practice in the ECEC sector. Systemic leadership and collective intersectoral collaboration seemed essential for succeeding in continuing to work on practices-development research under the new crisis conditions.

Governance of the ECEC sector was seen as an integral part of understanding kindergartens as being located in ecologies of practice (Kemmis et al., 2014).

Therefore, it seems that participatory involvement at the owner level, as realised in this project, was a crucial enabler of continuous organisational learning. We saw that some participants desired an immediate, clear understanding of everyone's roles and expectations and of what was required of them in terms of data contribution. Whilst this is understandable, we believe that a co-creative knowledge process cannot give a one-size-fits-all formula; rather, the collaboration process needs to be negotiated, tailored, and renegotiated and retailored. The understanding of kindergarten teachers as co-researchers involves introducing a new research role in which the participants' responsibility somehow shifts in ways that not only affect the teachers but also change the researchers' roles. The authorities' participation, as carried out in this project, requires a new understanding and the practice of a new role.

Drawing on the findings regarding the project's enablers and tensions, we end this chapter by providing five takeaway points for the further development of the EX-PED-LAB design, with the aim of achieving stronger systemic, vertical, and horizontal collaboration:

A design for the negotiation of responsibilities. For the researchers, the workshop methodology for partner research meant abandoning the idea of being solely a lecturer or an expert. The kindergartens, on the other hand, were not told what to do or how to perform a task. The workshop methodology implied that we defined, explored, analysed, and made choices through dialogues; decisions were made either in the project group, at the workshops, or at the kindergartens. Whilst decisions concerning the kindergartens were made by the head teachers (managers), those concerning the study were made by the researchers. This division of labour was perceived to be reasonable and necessary for following the mandates of the various positions, but this was not necessarily clear. We entered a muddy landscape, where we needed to negotiate and reason about whose responsibility a certain issue was. The city was the project owner, but the ideas and initiatives were strongly anchored in the KINDknow project and the established agreement. The centre itself was owned by the university, but strong interest and engagement in the centre were found in the city. This leaves us with the need to further sort out and understand the issues that were up for negotiation.

A design for a strong and inclusive leadership was experienced as an essential component of succeeding in developing practices. At kindergartens, leadership is to be carried out by both the head teachers and the pedagogical leaders in their work with children, parents, and colleagues. In EX-PED-LAB, both head teachers and pedagogical leaders participated in the workshops, and representatives from the municipal government as well as researchers from KINDknow also took part. The project management group consisted of two individuals from the city management and two from KINDknow. Different stakeholders in the project leader group could be crucial for enhancing leadership energy and partnership commitment and for securing understanding, implementation, and accomplishment. The project team was formed based on the value of differences in project teams, to ensure that the project was managed based on both vision and experiments and

that it was practical and feasible (Silvius et al., 2012). For the further development of such a project, one could consider representatives from more stakeholders in the management leader group; it could be considered, for instance, whether a head teacher and a pedagogical leader should be added to management. On the one hand, their voices could increase the strong ownership and leadership in the planning of the workshop sessions and tasks; on the other hand, their voices could lead to a discussion of how valuable working hours can best be spent.

A design for digital agility in the ECE sector. Digital learning came as an added value to the project, as it was implemented during COVID-19 restrictions in 2020 and 2021. The pandemic led to delays; it was a challenging time for all participants, but had a surprisingly small effect on the project management, as we carried on and found new ways to act in collaboration. Several planned physical workshops were replaced with digital collections. This gave both KINDknow and the kindergartens realistic and positive experiences with the digital organisation of professional development work. Nevertheless, to be able to continue working with strengthened digital agility, the sector must develop a common platform and receive support to learn how to use it, as needed. It is also necessary for kindergartens to have a stable and reliable Internet connection.

A design for multiple knowledge forms. A central learning point is that we need to more clearly address what counts as knowledge and what counts as analysis in this context of practices-development research. To enable practice-developmental processes, we discovered a dilemma regarding how to use expertise. Should we consider toning down the research expertise of conceptual knowledge as the dominant view of knowledge and analysis? As explorers and pedagogical innovators, we need to value, think about, and act upon varied expertise. Whether you are trained as a researcher and academic or as a professional teacher, you will have life experiences, and all staff members have life experiences and unique access to the practices they participate in. To a certain degree, everyone has conceptual knowledge; but when it comes to scientific concepts, the academically trained person will likely have developed scholarly knowledge of concepts and theories. When it comes to reflecting and acting upon life experiences and everyday practices, these experiences could be rich, and the wisdom associated with this kind of knowledge could also be more or less developed in individuals; this does not necessarily come with degrees and education. The value of the knowledge and wisdom must be articulated in such research approaches and is often best expressed in a narrative language. But at the same time, one should be aware of the risk of misinterpreting common-sense knowledge, old habits, and sayings as wisdom. Judgement based on gut feelings, perceptions, and intuition—whether it is called tacit knowledge, embodied knowledge, or narrative knowledge—has received attention in the philosophy of knowledge of many philosophers in history. Narrative knowledge could serve the purpose of making visible certain points, insights, and connections, whereas empirical knowledge makes connections based on factual knowledge visible. We will need conceptual (theoretical) knowledge in practices-development research for the purpose of

going beyond a common-sense analysis. Theoretical knowledge can be driven collectively and should be collaborative if it is to be transformative (Fleer, 2013).

A *Design for Personal Engagement and Stronger Ambitions for Pedagogical Innovations*. One central enabler of success found in this study was engagement and commitment; when a crisis, such as the pandemic, occurred, strong engagement created a willingness to continue the project and find new solutions. At the same time, we saw that the cultures at the kindergartens were characterised by *small* wishes and demands. Even though academic, material, and economic resources were available in the project, and many efforts were made in the process to encourage more visionary plans and plans that made use of available resources, the goals were easy to achieve. Although the pandemic strained the process, which might explain why the changes were minor, it is interesting to further explore whether this is a cultural trait of kindergartens. For further development, we will work towards an even higher awareness of play, imagination, and exploration as workshop activities to determine whether this could enhance more ideas and higher ambitions for development and transformation. Researchers, authorities, and practitioners all need to adjust their mindsets in order to solve problems creatively.

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