

# Climbing, Hiding and Having Fun: Schoolchildren's Memories of Holistic Learning in a Norwegian Kindergarten

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## ABSTRACT

Firmly planted in the Nordic tradition, policies that guide practice in Norwegian kindergartens emphasize a holistic approach that integrates care, play and learning and promotes well-being and development through relationships and experiences in the natural environment. While the holistic approach enjoys support both politically and within the profession, a political call for increased learning has resulted in a number of programs embracing school-based methods of learning infusing the field. The aim to increase learning has increasingly relied on a concept of learning that is the result of intentional pedagogic practice and high quality engagement between educators and children. This understanding of learning does not embrace learning related to children as biological beings in a vital phase of growth; that occurs outside of situations crafted to be learning situations. In this article, we address learning as a biological and social phenomenon, and consider how schoolchildren's recollections of life in kindergarten can shed light on how and what children learn in the unique learning environments of Norwegian kindergartens. Our approach offers an opportunity to understand what holistic learning in ECEC can mean for children as biosocial beings.

**Keywords:** *holistic learning, ECEC, biosocial education, play, retrospective*

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## Introduction

*Poor kids, they only want to sit inside playing games  
If it's not game, it's a movie  
No, they won't go out, climb high up in a tree  
And I never have to worry about them falling down*

*No more stealing apples, no more ring and run  
No more hitting balls, no more broken windowpanes  
No more moms and dads hollering "come in!"  
Come in and have dinner, just to run out again  
No kids are out today (our translation)  
(Lillo-Stenberg, 2016, side A)*

The parameters of leisure and educational institutions increasingly regulate children's lives in the Nordic countries. The popular song above written by the Norwegian group de Lillos, whose members were born in the 1960's, laments changes in the lives of young children in today's Norway. The song reflects the fact that in Scandinavia and abroad, children are reportedly spending more time engaged in sedentary activities (Andersen et al., 2017; Lester & Russell, 2008) and less time outside, playing. The Norwegian Agency for Quality Assurance in Education (NOKUT) (2010) conducted an evaluation of early childhood teacher education (ECTE) in response to the increase in participation of children under three in kindergartens. NOKUT (2010) emphasized that ECEC institutions in Norway have taken over functions which previously took place in the home and community, necessitating an education that provides "another and more comprehensive competence" (our translation) for ECTE students. Ten years later, just what "another and more comprehensive competence" might entail remains unexamined. We suggest it has something to do with the broad learning opportunities that home and community have traditionally provided, in indoor (Poikolainen & Honkanen, 2019) and outdoor environments (Beery & Jørgensen, 2018). We will consider in this article how holistic learning environments provide opportunities for experiential learning that previously took place in the home and community. We hope to initiate a discussion on what 'another and more comprehensive competence' may look like and how it can support children's learning.

## Norwegian kindergartens

As of 2019, 92% of all children from 1–5 years in Norway attend full day, play-based kindergartens (SSB, 2020). Firmly planted in the Nordic tradition, policies that guide practice emphasize a holistic approach that integrates care, play and learning and promotes well-being and development through relationships and experiences in the kindergarten environment (Norwegian Directorate for Education and Training (NDET), 2017). Nordic kindergartens follow a social-pedagogy approach, which is distinct from the school-preparatory approach practiced in many English and French-speaking

countries, where subject learning and specific outcomes for individual children are emphasized (Kaga, 2008). The Norwegian ECEC curriculum (NDET, 2017) is process-oriented, and loosely structured around subject areas with the aim to ensure many and varied opportunities for child-initiated play, physical exercise, and social interactions with peers and staff (Kragh-Müller, 2017). The play-based structure of Norwegian kindergartens is rooted in Froebel's kindergarten concept from the late 1800's that viewed children as organisms in environments, and natural learners for whom learning occurs through care, and opportunities to engage with the environment (Wasmuth, 2020). Play, understood as voluntary and child-initiated, permeates children's lives in Nordic kindergartens (Kragh-Müller & Isbell, 2011). Children spend up to two-thirds of their time in outdoor unstructured play (Moser & Martinsen, 2010).

While planted in the social-pedagogical tradition, the field is also influenced by the knowledge economy (Nygård, 2017), and is under political pressure to professionalize practice, and increase learning outcomes (Ministry of Education and Research, 2019–2020). One way kindergartens are working toward meeting this demand is by incorporating programs developed by commercial actors into their pedagogy with the aim of improving behaviour, literacy and/or numeracy (Pettersvold & Østrem, 2020). Equating learning with literacy, numeracy and self-regulation overlooks the myriad of learning experiences that children have historically engaged with through unstructured outdoor social play with peers (Prince, Allin, Sandseter & Årlemalm-Hagsør, 2013). Play with peers is a vital aspect of learning in childhood for many animals, including humans (Burghardt, 2016). Learning in this sense is not primarily about factual knowledge or the acquisition of specific skills (Lester & Russell, 2008), but a holistic process that is ongoing and occurs as children interact spontaneously with people and things (nature, toys, objects) in the world around them. In this article, we examine children's perspectives (Winger & Eide, 2015) on what they experienced in ECEC to try to better understand the learning potential of their experiences from a biosocial perspective (Youdell & Lindley 2019).

In this article we ask, *What can schoolchildren's memories of ECEC tell us about what and how children learned in a Norwegian ECEC centre?* To answer this question, we re-analyse retrospective interviews with schoolchildren that focus on memories from their time at a Norwegian kindergarten.

## Approaches to learning in ECEC

Increased quality in Norwegian, play-based kindergartens is often equated with improved learning outcomes (see f. ex. Størksen et al., 2018) and a more intentional pedagogy (Bøe, Steinnes, Hognestad, Fimreite & Moser, 2018). Yet, the kind of play that preschool teacher-led activities afford do not provide the learning that is provoked by the broad spectrum of emotions and experience possible in autonomous, child-initiated play (Sutton-Smith, 2003; Vygotsky, 2004).

Vygotsky's zone of proximal development (ZPD) is widely considered a model for scaffolding children's learning (Karlsen & Lekhal, 2019). Using the ZPD model,

high-quality staff–child interactions involve open-ended questions and supporting concept development. The practice of scaffolding, or, supporting children’s development just beyond their current knowledge or capabilities, has been shown to lead to increased learning of language and mathematics (Sylva, Melhuish, Sammons, Siraj-Blatchford & Taggart, 2008). Though the idea of scaffolding is central in early childhood teacher education and research, pedagogic practice in Norway has been found to favour flexibility, relationships and the here and now, rather than interacting with children with the aim of developing certain knowledge and skill sets (Børhaug et al., 2018). Sheridan and Gjems (2017) found for example that preschool teachers spend time listening and having casual conversations with children, rather than intentionally expanding on children’s conceptual understandings with additional knowledge and suggests that the social pedagogical emphasis on children’s participation could cause preschool teachers to resist teaching. Karlsen and Lekhal (2019) also note so-called low-quality interactions between preschool teachers and children in Norwegian ECEC centres, characterized by short interactions that do not attempt to extend children’s thinking, but only to support or encourage their play.

If we understand the ‘here and now’ approach described by Børhaug et al. (2018) as its own form of intentional pedagogy reflecting a holistic approach to pedagogical communication with children, we can look beyond what it does not do, and begin to ask what kinds of learning this mode of relating to children affords. What is it possible for children to learn from the here and now approach of Norwegian kindergartens that perhaps would not be possible in a format permeated by a more result-oriented concept of learning and ECE? We argue that a move toward a ‘more intentional’ pedagogy in Norwegian ECEC (Børhaug et al., 2018) runs the risk of overlooking the intention of holistic pedagogy and neglecting the largely unexamined learning mechanisms holistic pedagogy offers that relate to foundational learning involved in the biosocial act of growing and living during the first five years of life.

## **Biosocial learning**

Biosocial research is an emergent field that combines expertise and perspectival understandings from the biological and social sciences (Chung, Cromby & Papadopoulos, 2016; Chung, Cromby, Papadopoulos & Tufarelli, 2016). The field has sprung out of a paradigm shift, with new technologies and findings from the fields of neuroscience and epigenetics revealing a paradigm of non-reductive biological sciences (Rose, 2013) in which the biological is not a blue-print, but a starting point. Genes and environments are interwoven, meaning local conditions become biological conditions (Goodman, 2013). Biologically, humans are always in a process of learning and change, which occurs in response to perception and interaction with the environment, both human and nonhuman. Development is not linear or determined, but plastic, mutual and dynamic (Malabou, 2008). The social and the biological are understood to be interrelated and mutually determinant (McDade & Harris, 2018) as social structures provoke particular interactions and emotional possibilities that provoke learning

and development in a myriad of possible directions. Experiences that provoke learning include feelings of being cared for and caring, joy, excitement, disgust and love (Kringelbach & Berridge, 2010; Lester & Russell, 2008; 2014). Learning is understood as an assemblage of social and biological dimensions. With a learning concept that is ongoing and biosocial, children's self-initiated learning through interactions with the environment that occurs parallel to or in addition to intentional teaching practices become highly relevant.

Youdell and Lindley (2019, p. 147) call on education researchers to consider deeply how children's learning capacity is affected by and, even regulated through, their manifold relationships with people and things, sketching out four dimensions of learning: *the making of memory*, *interactions between people and things*, *embedded ways of being in communities* and, *recognition between individuals*. The making of memories relates to the field of epigenetics that has shown that everything we experience provokes bio-chemical reactions in the brain that become memory. Interactions with people and things amount to learning that occurs through the perceptions of people and things that our interactions provoke. Embedded ways of being has to do with learning through unspoken culture. It is how we do things and the underlying agreement in a community about what is important and valuable. Finally, recognition between individuals is about learning through relational experiences of love, care, being seen and seeing others.

John Lennon (1980) famously sang "Life is what happens to you while you're busy making other plans". From a biosocial perspective, learning happens beyond our intentions; it happens for example through the making of memory, interpersonal relationships, interactions with people and things and embedded ways of being in communities (Youdell & Lindley, 2019), all of which are taking place while preschool teachers and politicians are busy 'making other plans'. We can imagine when children climb excitedly up a jungle gym and swing toward their friend on the other side, how a myriad of feelings, senses and thinking processes are underway in the child. The weight of their body held up by the grip of their hands, the smooth, steel bar of the gym offering robust resistance, the excitement of meeting their friend's body in motion and the uncertainty of being able to jump down from the apparatus. During this experience, a child's sense of self is formed as body-mind-environment (Shapiro & Stolz, 2018), extending in and through the physical environment, and their relationships to their friends and the world around them (Prince et al., 2013). Without denying the value of certain staff led activities and support (Siraj-Blatchford et al., 2002), the foundational ability and desire to relate to oneself, others and the world around us is literally built into everyday, in-between interactions and experiences of joy, interest and excitement (Kringelbach & Berridge, 2010), while educators are busy 'making other plans'.

## Method

Our data is a re-analysed dataset, inspired by Greve and Lundøy's (2012) re-analysis of data in their respective doctoral theses. The dataset originates from Baaslands

master's thesis designed and conducted while she was employed as director of an ECEC centre we will call *Fallbrook*. The original study's aim was to produce knowledge about what children's memories can mean for an understanding of learning in ECEC (Baasland, 2014). Amidst the backdrop of the increasing use of mass produced learning programs focused on language and mathematics flooding the Norwegian ECEC sector (Pettersvold & Østrem, 2020), we wanted to revisit and reanalyse this rich dataset to cast light on modes of learning in holistic settings that may occur outside of pedagogical control. In order to utilize what we perceived as the untapped potential of the data, we reframed the data (Wästerfors, Åkerström & Jacobsson, 2013) using a biosocial perspective that locates learning in all experience, as a multi-dimensional concept, offering insight into how experiences children recall may have contributed to their learning processes outside of structured learning activities.

The twenty-two children in this study were aged six to thirteen years and chosen to achieve an even spread of ages among past kindergarten attendees. All the children had attended *Fallbrook* while Baasland was director. Permission was gained from parents by telephone and interviews took place in the director's office, which children were familiar with from their time at *Fallbrook*. There was a small playhouse with teddy bears and little finger puppets in the office, and pictures and books were available. From the office, they could look out the window during the interview/conversation, with a view of a playground and football field. However, the little woods, climbing apparatus and hut that children often mentioned during the interviews, were not in view. The interviews were semi-structured and conducted with a Dictaphone, lasting between fifteen to nearly forty minutes.

A retrospective method entails asking a selection of people about relationships from the past, relying on memory. Research in memory development shows that school-age children are able to correctly recall events that occurred during their preschool years (Graf, Ohta & Ohta, 2002). Despite children's ability to recall events, memories are generally considered unreliable. Memories of specific events, however, are considered more reliable than memories that explain reasons behind actions or emotions involved in remembered events (Snelgrove & Havitz, 2010). Our re-analysis focused on children's responses that spurred specific stories about their experiences with people and things. In interviews, questions posed to the children ranged from addressing what they learned in ECEC, to what they liked best to do there, what they could decide and in what ways their friends and staff at the kindergarten were important to them.

### **Limitations**

We have focused on common tendencies in our analysis, rather than differences. We have not examined data in relation to social and biological differences. Children's recollections were almost all 'positive'. There is a risk that children's responses were coloured by wanting to please the interviewer, who held a role in the children's lives as the director, the person who was in charge of the kindergarten. However, children also shared information freely about things they did in the past that they weren't supposed



to do at that time. The history and warm relationships Baasland had with the children granted a certain shared knowledge. Some answers may have been impossible to understand completely were the interviewer not able to ask follow-up questions built on a shared knowledge of Fallbrook. As interviewer, Baasland may have been coloured by her hopes and intentions in her role as director of the kindergarten. An interviewer who was not invested in the kindergarten may have responded in other ways to the children, provoking other memories.

## Analysis

Taking children seriously involves understanding issues that affect a child from a child's perspective (Mason & Fattore, 2005). Building on the concept of learning as an assemblage of social and biological dimensions, we sought to understand the children's perspectives on a holistic learning environment. Children's experiences involve conceptual understandings that can differ from adults' conceptual understandings (Aslanian, 2018) and their perspectives on learning in ECEC can therefore differ from adult conceptions and assumptions. Elwick, Bradley and Sumsion (2014) problematize the search for children's perspectives through interpretation, arguing adults can only interpret based on their own viewpoints. We cannot circumvent our own viewpoints and interpretations. To mitigate the risk our adult understandings posed to understanding the children's perspectives, we chose to conduct a theory-based analysis of our data. Aslanian and Andresen re-analysed (Wästerfors et al. 2013) the interview transcripts using three dimensions of learning (Youdell & Lindley, 2019), *interactions between people and things, embedding ways of knowing in communities and recognition between individuals*, as codes before drawing out emergent themes in the coded data. The fourth dimension emphasized by Youdell and Lindley, *the making of memories* refers to learning as biochemical changes in the brain resulting from experiences that become memory. From this perspective, everything remembered reflects learning – but not everything we have learned can be consciously remembered (Graf et al., 2002). Children's responses were thus the result of certain available memories of learning.

Aslanian and Andresen read and categorised the data independently. They compared categorisations of data, and adjusted when there was disparity after discussion. They sought out themes that emerged in data categorised across the three dimensions of learning. Themes were discussed with Baasland in an effort to remain both sensitive to the contextual specifics of Fallbrook and to construct generalizable theory regarding holistic learning in Norwegian ECEC (Charmaz, 2014).

## Results

Our analysis led to three emergent themes regarding what and how children learned: *Playing outside and having fun; making, breaking and following rules; and being with friends*. Within these three themes, we found that children learned through engaging with physical limits, ethical limits, and personality limits via child-initiated play with

peers and a loosely structured pedagogical learning environment that offered ethical guidelines and afforded experiences of autonomy.

### Playing outside and having fun

Children described engaging with physical limits as well as exploring the physical limits of other species while playing outside and having fun. While some children remembered playing with Legos, playing dress up or playing with toy cars inside, most children stressed an array of physical activities that took place in Fallbrook's outside play area, a neighbouring wooded area and field trips. One child explained succinctly: "The most important thing I did throughout the day in kindergarten was to be outside and have fun." The most common activity described by children was climbing in one form or another (Baasland, 2018). Children remembered climbing on the large jungle gym on the playground, in trees, onto rocks and roofs, the outdoor "hut", and over the entrance gate. Climbing and being outside allowed children to get to high places. Children often mentioned the joy and safe feeling of being up high where they could see over others, on roofs or on top of climbing apparatuses.

Children described learning to cross physical thresholds through engaging with the outdoor environment, alone and with peers. "... Victoria taught me how to climb. Because I tried. First, I couldn't. But then I did it because I tried. Because it was a little difficult to get up on that jungle gym." As Melhuus (2012) described "the Hut" in her observations of children and their outdoor centre, "The place is not only a given structure to which the children have to comply, but also a possibility of becoming someone else through participating in its routines and activities." In our study, being outside seemed to be a catalyst for change for many children. Children described how other children challenged them and taught them how to achieve physical feats that were just beyond their capabilities such as hanging upside down, climbing higher and hopping from tree to tree. We want to draw attention not only to the achievements of new skills, but to the process children described of learning from each other, confronting their perceived limits and exceeding them, with peers.

Some thresholds were events we would intuitively categorize as painful memories, such as getting hurt or injured. The pain of getting hurt however was not the main point of children's descriptions of getting hurt. When asked about the most fun she had had at Fallbrook, Stina replied, "It was probably when we were sledding. And I got injured pretty bad. (Interviewer: was that fun?) It was pretty fun. At least before I got injured. Just before I got injured, it was fun. (Stina laughs)" Stina's memory of getting injured was connected to a feeling of fun. Children's perspectives often differ from adult's perspectives. Preschool teachers spend a fair amount of time protecting and minimizing risk. For many preschool teachers, a child getting hurt, even if the accident does not cause permanent damage, is a worst-case scenario. Accidents are a part of life and learning, and for Stina, her accident became a meaningful memory of fun times at Fallbrook.

Children described developing relationships with nature independent of guidance from staff. They found 'special places' which they named, such as "the Fika tree" and



an area with dirt that could be dug up called “the gold soil”. Liv (8 years) explained, “Silje and I were mostly in the Fika tree here, I remember. Me and Silje, we were more into the Fika tree and playing. That tree over by the fence and the gold soil. (Interviewer: Did you call the tree that?) Yeah, Silje came up with a name for it.” Children remembered collecting snails together, and finding other insects which they explored with curiosity, being excited by different insects’ behaviour during their interactions.

### **Making, breaking and following the rules**

Children also described their engagements with ethical limits and dilemmas. Knowing the rules seemed to be an aspect of what was part of being “we” in the kindergarten. Rules were mentioned relating to where it was allowed to go and what was allowed to be played with, as well as how to behave toward other children. Being kind and not hurting others were rules in kindergarten mentioned by all of the children with certainty. While following rules was important, it seemed equally important to break the rules if they stood in the way of an exciting plan. Breaking rules was associated with positive feelings and memories for most of the children, who also reported that they rarely broke rules. When they did break rules, it was with friends and associated more with glee than fear of reprisal. Anna (10 years) tells Baasland: “We played in those trees at the end of the day. And then we played monkeys in the trees, but then one kindergarten teacher said that we had to go down because they could break or something. But when she was gone. (She gives a little giggle)”. An early sense of rules that defined nested “we’s” was learned, including ‘we’ adults and children in kindergarten, ‘we’ children in kindergarten, ‘we’ children from the same cohort, ‘we’ friends. Along with the ‘we’s’ came ‘others’, such as the younger children and the older children and the underlying threat of becoming an ‘other’. Children also explained how they kept the ‘we’ together, through keeping each other in check with their own rules, taught in their own way. Liv (8 years) explained how she and her friends Simone and Silje made and followed their own rules “(...) we tried to get Silje to stop deciding. That’s why we went to the Fika tree, and then she bossed us around less and less. (Interviewer) Then she learned? (Liv) Ummm, then she learned if you are bossy, no one will play with you”. Liv described how she and her friend taught another friend acceptable behaviour in a specific situation, autonomously deciding on enforcing a rule based on the situation they were in together, rather than because of, or by referring to a universal rule about ‘not being bossy’.

Children’s experiences of autonomy were also evident when asked about what they were able to decide at Fallbrook. The children surprised us regarding their perceptions of their own degree of agency relative to the agency of the other children, as well as the adults. “Mostly, I got to decide what to do, everything really”. (Interviewer: That’s how you felt?) “Yes, I guess there was some kind of plan where it said what we should do, but we were free to do those things how we wanted”. Some of the children talked about what they could decide in relation to other children, “Sometimes I could decide, because sometimes Sonja wanted to be called Maja. And she let me decide to be called

Maja or not. (Interviewer: Wow. So actually, even though Sonja wanted to be called Maja, it was you who could decide?) Mhmm. Sonja wanted to be Maja most. So I said we could take turns being Maja every other week. (Interviewer: Was that a good solution?) Mhmm. Then we managed it.” There were plans imposed by staff and other children, but children expressed that they felt free to navigate around these plans. This was evident in the excitement felt when the children challenged the stated rules of the teachers. The children’s feelings of autonomy are evident in stories of challenging limits related to physical boundaries, “we played completely on the outskirts, just by the fence”, or by more ethical dilemmas, “The dead bird (bird found outside), we didn’t quite know if we were allowed to bury it, but we did it anyway. We didn’t tell anyone”. Children navigated situations of uncertainty (Lester, 2014), engaging with ethical decision-making and making existential connections to each other and the world around them.

Children also described experiences of breaking the centre rules leading to valuable learning. Børre (10 years) remembered his experiences with nettles and Aloe vera: “You know the nettle bush over there. Sometimes John and I crawled in there and saw them. (Interviewer: To see if you managed to avoid getting stung, or?) It was a little hard to avoid getting stung, but there was a kind of gel in Blue (the name of another group/section of the centre). (Interviewer: Yes! The gel from the Aloe vera plant.) Yes, and sometimes we took and tore off a bit from it without anyone noticing. And then we took and smeared it on there and it went just fine. But we waited a while until the plant grew back again and no one saw it.” Børre related getting stung by the nettles and finding Aloe vera with learning at Fallbrook. “It was really excitement. That’s the way I learned things back then. For example, the nettle thing.” Other sources of excitement and experiences of risk-taking were spying on teachers and passers-by, smearing dirt on benches when no one was looking, hiding under stairs from the older children, climbing over or straddling the entrance gate and climbing higher up in trees than was allowed. Children followed, made and broke rules with their peers.

### Being with friends

Being with friends was a constant in the children’s responses, and the children described how they changed as people as a result of relationships with peers. Andrine (11 years) explains the excitement of seeing her friends every day. “It wasn’t until the next morning that we all saw each other again. And if we had had some quarrels the day before, then we would have completely forgotten them the day after. And then it was very nice to be able to be with them again.” Olav (11 years) emphasizes how quickly disagreements were forgotten, “... if you had a fight then the next day everything was gone, everything was forgotten. It could even have been after a minute.” While staff members may focus on discussing disagreements and apologizing, children seemed to appreciate the ease with which they forgave each other.

The learning ranged from knowledge of how to be a good person to cultural knowledge, aesthetic, physical and linguistic skills. Jens (10 years) explains his first

impressions of Norwegian culture and language after he began at Fallbrook, “I learned quite a bit from Sindre (peer) about “russe” cards (a Norwegian phenomenon of name-cards from soon-to-be high school graduates), I had no idea what that was. And from Jonas and Andrine I learned to speak Norwegian. Or, I learned it from all the kids, but mostly them. Because Jonas said “hi” a lot, and eventually I began to say ‘hi’ to everyone who passed, so I sat there and said hi, hi, hi, hi, hi, hi.” Jens remembered his relationships with other children as catalysts for understanding aspects of Norwegian culture and language.

Ranja (8 years) described the impact her friend had on her outlook on life. “... we did make a lot of make-believe together and I learned something from Simone, it was to never change oneself.” Children also explained how other children changed the way they behaved or even how they thought. Helene (10 years) explained what she learned from the other children “It has also been how I have thought about things. After all, Eva was very fond of making things. And she was also very kind. So if maybe Eva hadn’t been there, I might have turned out really bad or very weird.” Children extended this appreciation of how experiences with friends influenced their present selves and their ability to make new friends at school. Finally, children described sharing the joy of doing activities together in kindergarten. Line (10 years) explained: I was very excited about the club! I shared this joy with others as well. (How?) I said to them: Are you excited too? And they were”. Sometimes it was a lot of work though, those times weren’t so good. (But what was good?) The field trips were important.”

Overall, other children featured in children’s memories of Fallbrook, rather than the adults, who were described as always kind when asked, and there when needed—but rarely needed. As Else (9 years) explained: “There were very few times that I called for the adults. So, there wasn’t a lot of attention I needed. (Interviewer: Was it because you always had someone to play with?) Yes, but it wasn’t because they weren’t there. I saw them, but it was that I was interested in something else”. The ‘something else’ that interested Else was being with her friends and playing outside.

## Discussion

In this article, we have asked *What can schoolchildren’s memories of ECEC tell us about what and how children learned in a Norwegian ECEC centre?* We re-analysed data regarding children’s memories of attending a Norwegian kindergarten in order to enrich our knowledge of what and how children learn in the unique learning environment of a Norwegian ECEC. Within our three themes, we found that children learn (i.e. experienced meaningful change) through engaging with physical limits, ethical limits, and personality limits via child-initiated play with peers in a loosely structured pedagogical learning environment that offers ethical guidelines and affords experiences of autonomy. In our discussion, we will focus on our findings concerning the children’s preference for being outside and the conveyed sense of autonomy, having fun, feeling excitement and experiencing and engaging in risks. These memories describe learning in ECEC through *exceeding and engaging with physical limits, ethical limits, and personal*

*limits*. We ask how a holistic, play-based learning environment contributed to these experiences and consider how these experiences might be affected by the move toward a more intentional pedagogy (Børhaug et al., 2018) when understood from a biosocial learning perspective.

### **How did the holistic learning environment contribute to children's learning experiences?**

Children conveyed memories that included experiences of fun, excitement, risk and autonomy, through playful relationships with peers and the physical environment. Both friends and the outdoors figured prominently, with children describing climbing trees, rocks, playground apparatuses and being out on field trips with the 'club'. These memories involved experiences related to typical characteristics of Nordic ECEC (Kragh-Müller, 2017), such as time spent outside and in child-initiated play activities. Their memories of creative and open daily routines reflects an open curriculum with broad learning goals related to holistic development and well-being, that give room for children's own learning practices, rather than mainly specific subject-learning outcomes or didactic approaches. Children did remember learning activities during their 'club', but were clear that it was being on fieldtrips and outings that they looked forward to most.

Children's relationships with individuals are established, changed, and sometimes end, but the biosocial impacts of relationships live on in those who experience them (Youdell & Lindley, 2019, p. 147). The way children in this survey emphasize the importance of each other in experiencing, learning and in their wellbeing can relate to Koch's (2013) study, which showed that children had a different perception of well-being and joy than their preschool teachers. The children's perception was linked to the children's community and their own activities with other children. The staff mattered to the well-being of the children, but the children created their own well-being by both living up to and at the same time by challenging the staff's expectations. This is recognizable in our survey as well. The experiences and encounters children engage in produce biochemical responses. (Youdell & Lindley, 2019, p. 145). Children described varied emotional reactions to the different aspects of learning activities, "looking forward to the club" and sharing this excitement and joy with others. Many children remembered travelling by train to Oslo together. Fieldtrips offer a safe experience of uncertainty and tension, whereas assignments had predictable expectations and definitive outcomes (Youdell & Lindley, 2019).

Experiencing autonomy is necessary to build executive functions and self-regulation (Bronson, 2000; Gloeckler, 2006; Rimm-Kaufman, Curby, Grimm, Nathanson & Brock, 2009), and the development of resilience (Hewes, 2014). Despite the fact that children were not in control of when they came or went home, they seemed to experience themselves and their activities with peers as autonomous. Children expressed a love of climbing up to high places, also echoed in Merewether's (2015) study of children and outdoor spaces, reaffirming the sense of autonomy children described

experiencing. The flexible, here and now focus of Norwegian kindergartens (Børhaug et al., 2018) is conducive to children's expressions of autonomy through minor rule-breaking activities, which children remembered as meaningful and related to pleasure. The loosely structured and holistic form of Norwegian ECEC may function as a corrective for the imperfections of individual staff members and passing trends in pedagogy. While video observations conducted by Bøe and Hognestad (2017) highlighted preschool teachers' interactions with the children as modes of supporting and developing learning in groups, our study shows that children placed foremost emphasis on what they learned through their experiences away from preschool teachers, during play with peers. The concept of learning underlying the call for a more intentional pedagogy contrasts with the here and now focus of Norwegian pedagogy (Børhaug et al., 2018). What does pedagogy look like when the here and now approach is understood as intentional? Can providing substantial time for children to play freely together and in a variety of ways be another way to increase children's opportunities to learn in ECEC?

Through the interviews, the presence of staff seems somewhat distant when the children describe their exploration and experiences in the kindergarten. Most did not remember needing help, but described the teachers as a 'friend when in distress'. As Else 9-year-old expressed "there were very few times that I called for the adults. So, there wasn't a lot of attention I needed, but it wasn't because they weren't there. I saw them, but it was that I was interested in something else". What does the decentralized role of the Norwegian kindergarten teacher as conveyed through children's perspectives produce? One way to understand the children's statements is to see the preschool staff as 'stage hands' working behind the scenes. The preschool teacher is very much present in children's play, but not through playing with children or trying to develop children's play in a particular direction, but by making pedagogical choices that make the play possible. The holistic model is open-ended, which is in itself risky, but like the role of risk in play- it is the risk that gives the model its power (Biesta, 2013). The open-ended quality of a holistic approach is open because it gives room for children to contribute to the formation of the learning process. What children bring "to the stage" is unknown, but the stage is prepared as an arena that is both safe and potent with possibility.

### **How might these experiences be affected by the move toward a 'more' intentional pedagogy?**

The call for a more intentional pedagogy (Børhaug et al., 2018), is legitimized by positive learning effects in terms of literacy and numeracy (Rege et al., 2019). How could increased staff-child interactions aimed at developing thinking skills and concept development have contributed to Børres experience with the Aloe vera plant? The sensitivity to the here and now and relationships prominent in Norwegian kindergartens relates to a traditional focus on care (Børhaug et al., 2018). Caring is central to learning (Youdell & Lindley, 2019, p. 149), not only because of the importance of caring interactions between teachers and children, but because of what caring relationships make

possible for children to experience beyond those relationships (Aslanian, 2017). The capacity to learn is plastic and can be developed through strong, caring relationships, which are pivotal to enacting change (Youdell, 2016). The way staff in Fallbrook are described by the children indicate care and support as the “heart of their encounters” (Youdell & Lindley, 2019, p. 147) with the children.

What might be lost when preschool teachers seek to increase specific and pre-defined skills? What *should* children learn during their first five years through free-play that preschool staff cannot provide? The staff described by children may not be intentionally supporting children’s ZPD, but they did produce opportunities for children to engage in activities that contributed to learning that reaches far beyond knowledge of language and mathematics or school preparation. Learning in the early years is about foundational brain architecture (Twardosz, 2012) and connections between a child’s brain and body via emotions, which are provoked through complex and intense interactions that cannot be guided, but must arise between individuals and safe environments, through navigating the unknown, uncertainty and risk (Lester & Russell, 2014). The situations children recalled supported these foundational learning processes. Their experiences of autonomy when looking back on climbing up to high places and deciding what to do throughout the day, supported the development of executive functions and self-regulation (Bronson, 2000; Gloeckler, 2006; Rimm-Kaufman et al, 2009). Similarly, the children had opportunities to navigate their own and each others’ learning processes, such as when children remembered enjoying being with each other and finding ways to discipline each other through rule making. Children learned different and according to the children, better ways of being in the world, from each other. Loosely structured ECEC gave children opportunities to experiment with self-expression, building a foundational desire to be a part of the world (Kringelbach & Berridge, 2010), building connections between themselves and the world around them. (Kok & Fredrickson, 2010). Children remembered experiences of navigating uncertainty and risk, climbing higher than allowed, hanging upside down and breaking the rules, building resilience and self-esteem (Lester & Russel, 2014). None of this learning was planned by preschool teachers or could have been; and none of this learning can be measured.

## Conclusion

The song “No more stealing apples”, reprinted at the start of this article describes an imagined lost world of childhood in which children played freely, were active outside and did things that adults did not guide or sanction. Being outside and breaking rules is nostalgically remembered as freedom and fun, much as the children interviewed looked back on their small misdeeds.<sup>1</sup> Our study has built on knowledge from

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1 We acknowledge that injury in childhood is the leading cause of death in childhood, and children did get hurt more often in the 1960’s (Peden et al., 2008).



the natural sciences as well as the social sciences in order to understand the nuances of what makes play a powerful catalyst for change and growth in children's lives and how a holistic approach can protect opportunities for children to play extensively during their pre-school years. Play can build social cohesion, not only through learning to get along with each other, but also through learning to stretch the rules in an effort to seek out and experience joy, building a foundational will to live that is essential for social cohesion, learning and development, and that cannot be taken for granted. Through providing an environment for play, children experience risk and the payoff of engaging in uncertain (but adequately safe) situations. Preschool teacher-led activities and play do not necessarily provoke the emotional responses necessary for play to induce foundational learning. Understanding what makes play powerful can support preschool teachers' work to support children's access to feelings of uncertainty, excitement and joy to learn *beyond* subject learning in the rapidly developing field of ECEC.

## REFERENCES

- Aslanian, T. K. (2017). Ready or not, here they come! Care as a material and organizational practice in ECEC for children under two. *Global Studies of Childhood*, 7(4), 323–334. <https://doi.org/10.1177/2043610617747979>
- Aslanian, T. K. (2018). Recycling Piaget: Posthumanism and making children's knowledge matter. *Educational Philosophy and Theory*, 50(4), 417–427. <https://doi.org/10.1080/00131857.2017.1377068>
- Andersen, E., Borch-Jenssen, J., Øvreås, S., Ellingsen, H., Jørgensen, K. A. & Moser, T. (2017). Objectively measured physical activity level and sedentary behavior in Norwegian children during a week in preschool. *Preventive Medicine Reports*, 7, 130–135. <https://doi.org/10.1016/j.pmedr.2017.06.003>
- Baasland, T. (2014). «Først så kjente vi hverandre ikke»: Hvilke erfaringer tar barn med seg fra barnehagen og hvordan kan de forstås? (“At first we didn't know each other”: What experiences do children hold on to from kindergarten and how can they be understood?). Høgskolen i Buskerud og Vestfold, Institutt for barnehagepedagogikk og profesjonskunnskap.
- Baasland, T. (2018). Klatring som erfaring og fenomen. *Barnehagefolk*, 4(35), 54–60.
- Beery, T. & Jørgensen, K. A. (2018). Children in nature: sensory engagement and the experience of biodiversity. *Environmental Education Research*, 24(1), 13–25. <https://doi.org/10.1080/13504622.2016.1250149>
- Biesta, G. J. J. (2013). *Beautiful Risk of Education*. London: Taylor & Francis Group.
- Burghardt, G. M. (2016). What is the state of play? *International Journal of Play*, 5(2), 212–214. <https://doi.org/10.1080/21594937.2016.1203922>
- Bøe, M. & Hognestad, K. (2017). Directing and facilitating distributed pedagogical leadership: Best practices in early childhood education. *International Journal of Leadership in Education*, 20(2), 133–148. <https://doi.org/10.1080/13603124.2015.1059488>
- Bøe, M., Steinnes, G. S., Hognestad, K., Fimreite, H. & Moser, T. (2018). *Barnehagelæreres praktisering av en helhetlig tilnærming til læring*. Skriftserien nr 9. University of South-Eastern Norway, Norway.
- Børhaug, K., Brennås, H. B., Fimreite, H., Havnes, A., Hornslien, Ø., Moen, K. H. & Bøe, M. (2018). *Barnehagelærerrollen i et profesjonsperspektiv – et kunnskapsgrunnlag*. Oslo: Kunnskapsdepartementet.
- Charmaz, K. (2014). *Constructing grounded theory*. Thousand Oaks, CA: Sage.

## Climbing, Hiding and Having Fun

- Chung, E., Cromby, J. & Papadopoulos, D. (2016). Biosocial challenges and opportunities: Epigenetics and neuroscience. *Sociological Review Monographs*, 64(1), 168–185.
- Chung, E., Cromby, J., Papadopoulos, D. & Tufarelli, C. (2016). Social epigenetics: A science of social science? *Sociological Review Monograph Series: Biosocial Matters: Rethinking Sociology–Biology Relations in the Twenty–First Century*, 64(1), 168–185. <https://doi.org/10.1002/2059-7932.12019>
- Doverborg, E. & Samuelsson, I. P. (2000). To develop young children’s conception of numbers. *Early Child Development and Care*, 162(1), 81–107. <https://doi.org/10.1080/0300443001620107>
- Elwick, S., Bradley, B. & Sumsion, J. (2014). Infants as others: Uncertainties, difficulties and (im)possibilities in researching infants’ lives. *International Journal of Qualitative Studies in Education*, 27(2), 196–213.
- Gloeckler, L. (2006). *Teacher/caregiver practices influencing the early development of emotion regulation in toddlers*. (Phd), University of North Carolina at Greensboro.
- Goodman, A. H. (2013). Bringing culture into human biology and biology back into anthropology. *American Anthropologist*, 115(3), 359–373. <https://doi.org/10.1111/aman.12022>
- Graf, H.-P., Ohta, N. & Ohta, N. (2002). *Lifespan development of human memory*. Cambridge, MA: MIT Press.
- Greve, A. & Løndal, K. (2012). Læring for lek i barnehage og skolefritidsordning. *Nordisk Barnehageforskning*, 5(14).
- Hewes, J. (2014). Seeking balance in motion: The role of spontaneous free play in Promoting social and emotional health in early childhood care and education. 1(3), 280–301.
- Kaga, Y. (2008). *What approaches to linking ECEC and primary education?* N.44 UNESCO Policy Brief on Early Childhood. Retrieved from <http://www.waece.org/contenidoingles/notas/44eng.pdf>
- Karlsen, L. & Lekhal, R. (2019). Practitioner involvement and support in children’s learning during free play in two Norwegian kindergartens. *Journal of Early Childhood Research*, 17(3), 233–246. <https://doi.org/10.1177/1476718X19856390>
- Koch, A. B. (2013). Når børn trivsel i børnehaven. (Phd dissertation). VIA systeme, Aarhus.
- Kok, B. E., & Fredrickson, B. L. (2010). Upward spirals of the heart: Autonomic flexibility, as indexed by vagal tone, reciprocally and prospectively predicts positive emotions and social connectedness. *Biological Psychology* (85), 432–436.
- Kragh-Müller, G. (2017). The key characteristics of Danish/Nordic child care culture. In C. Ringsmose & G. Kragh-Müller (Eds.), *Nordic Social Pedagogic Approach to Early Years* (Vol. 15). Switzerland: Springer.
- Kragh-Müller, G. & Isbell, R. (2011). Children’s perspectives on their everyday lives in child care in two cultures: Denmark and the United States. *Early Childhood Education Journal*, 39(1), 17–27. <https://doi.org/10.1007/s10643-010-0434-9>
- Kringelbach, M. L. & Berridge, K. C. (2010). The neuroscience of happiness and pleasure. *Social Research*, 77(2), 659–678.
- Lennon, J. (1980). Beautiful boy. On *Double Fantasy*. Geffen Records.
- Lester, S. & Russell, W. (2008). *Play for a change. Play, policy and practice: A review of contemporary perspectives*. London: Play England.
- Lester, S. & Russell, W. (2014). Turning the world upside down: Playing as the deliberate creation of uncertainty. 1(2), 241–260.
- Lillo-Stenberg, L. (2016). Aldri epleslang (No more stealing apples), side A. On *Aldri epleslang* (No more stealing apples). Norway: Drabant Music.
- Malabou, C. (2008). *What should we do with our brain?* (S. Rand, Trans.). New York, NY: Forham University Press.

- Mason, J. & Fattore, T. (Eds.) (2005). *Children taken seriously: In theory, policy and practice*. London: Jessica Kingsley Publishers.
- McDade, T. W. & Harris, K. M. (2018). The biosocial approach to human development, behavior, and health across the life course. *The Russell Sage Foundation Journal of the Social Sciences: RSF*, 4(4), 2–26. <https://doi.org/10.7758/RSF.2018.4.4.01>
- Melhuus, E. (2012). Outdoor day-care centres – a culturalization of nature: How do children relate to nature as educational practice? *European Early Childhood Education Research Journal*, 20(3), 455–467.
- Merewether, J. (2015). Young children’s perspectives of outdoor learning spaces: What matters? *Australasian Journal of Early Childhood*, 40(1), 99–108. <https://doi.org/10.1177/183693911504000113>
- Ministry of Research and Education. (2019). *Meld. St. 6 Tett på- tidlig innsats og inkluderende felleskap i barnehage og SFO*, (2019–2020).
- Norwegian Directorate for Education and Training. (2017). *Framework plan for the content and tasks of kindergartens*.
- NOKUT. (2010). *Evaluering av førskolelærerutdanning Del 1: Hovedrapport*. Retrieved from [https://www.nokut.no/contentassets/40568ec86aab411ba43c5a880ae339b5/hovedrapport\\_flueva.pdf](https://www.nokut.no/contentassets/40568ec86aab411ba43c5a880ae339b5/hovedrapport_flueva.pdf).
- Nygård, M. (2017). The Norwegian early childhood education and care institution as a learning arena: Autonomy and positioning of the pedagogic recontextualising field with the increase in state control of ECEC content. *Nordic Journal of Studies in Educational Policy*, 3(3), 230–240.
- Peden, M. et al. (2008). Injury: A leading cause of the global burden of disease. Retrieved from <http://whqlibdoc.who.int/publications/2002/9241562323.pdf>.
- Pettersvold, M. & Østrem, S. (2020). *Problembarna: manualer og metoder i barnehage, skole og barnevern*. Oslo: Cappelen Damm akademisk.
- Poikolainen, J. & Honkanen, K. (2019). Urban residential areas as children’s learning places and spaces. *Nordic Studies in Education*, 39(2), 89–103. <https://doi.org/10.18261/issn.1891-5949-2012-02-02>
- Prince, H., Allin, L., Sandseter, E. B. H. & Årlemalm-Hagsør, E. (2013). Outdoor play and learning in early childhood from different cultural perspectives. *Journal of Adventure Education and Outdoor Learning*, 13(3), 183–188. <https://doi.org/10.1080/14729679.2013.813745>
- Rege, M., Størksen, I., Solli, I. F., Kalil, A., McClelland, M., ten Braak, D., ... Hundeland, P. S. (2019). Promoting child development in a universal preschool system: A field experiment. CESifo working paper no. 7775. Retrieved from: <https://www.cesifo.org/en/publikationen/2019/working-paper/promoting-child-development-universal-preschool-system-field>
- Rimm-Kaufman, S. E., Curby, T. W., Grimm, K. J., Nathanson, L. & Brock, L. L. (2009). The contribution of children’s self-regulation and classroom quality to children’s adaptive behaviors in the kindergarten classroom. *Developmental Psychology*, 45(4), 958–972. <https://doi.org/10.1037/a0015861>
- Rose, N. (2013). The human sciences in a biological age. *Theory, Culture & Society*, 30, 3–34.
- Shapiro, L. & Stolz, S. A. (2018). Embodied cognition and its significance for education. *Theory and Research in Education*, 17(1), 19–39. <https://doi.org/10.1177/1477878518822149>
- Sheridan, S. & Gjems, L. J. E. C. E. J. (2017). Preschool as an arena for developing teacher knowledge concerning children’s language learning. 45(3), 347–357. <https://doi.org/10.1007/s10643-015-0756-8>
- Siraj-Blatchford, I., Sylva, K., Muttock, S., Gilden, R. & Bell, D. (2002). *Researching effective pedagogy in the early years*. Research report RR356. Retrieved from: <http://www.327matters.org/docs/rr356.pdf>

## Climbing, Hiding and Having Fun

- Snelgrove, R. & Havitz, M. E. (2010). Looking back in time: The pitfalls and potential of retrospective methods in leisure studies. *Leisure Sciences*, 32(4), 337–351. <https://doi.org/10.1080/01490400.2010.488199>
- Statistisk Sentral Byrå (SSB). (2020). Barnehager, 2019, endelige tall.
- Steiner-Khamsi, G. (2016). New directions in policy borrowing research. *Asia Pacific Education Review*, 17(3), 381–390.
- Størksen, I., ten Braak, D., Breive, S., Lenes, R., Lunde, S., Carlsen, M., ... Rege, M. (2018). *Lekbasert læring – et forskningsbasert førskoleopplegg fra Agderprosjektet*: GAN Aschehoug.
- Sutton-Smith, B. (2003). Play as a parody of emotional vulnerability. In J. L. Roopnarine (Ed.), *Play and educational theory and practice* (Vol. 5). Connecticut: Praeger.
- Sylva, K., Melhuish, E. C., Sammons, P., Siraj-Blatchford, I. & Taggart, B. (2008). Final report from the primary phase: Pre-school, school and family influences on children's development during Key Stage 2(7–11) DCSF RR 061.
- Twardosz, S. (2012). Effects of Experience on the brain: The role of neuroscience in early development and education. *Early Education & Development*, 23(1), 96–119. <https://doi.org/10.1080/10409289.2011.613735>
- Vygotsky, L. S. (2004). Imagination and creativity in childhood. *Journal of Russian & East European Psychology*, 42(1), 7–97. <https://doi.org/10.1080/10610405.2004.11059210>
- Wasmuth, H. (2020). *Fröbel's pedagogy of kindergarten and play. Modifications in Germany and the United States*. New York: Routledge.
- Webster-Stratton, C. (2001). The incredible years: Parents, teachers, and children training series. *Residential Treatment for Children & Youth*, 18(3), 31–45. [https://doi.org/10.1300/J007v18n03\\_04](https://doi.org/10.1300/J007v18n03_04)
- Winger, N. & Eide, B. J. (2015). "Nytråkk" i gamle spor. Retrospektivt blikk på hverdagslivet i en småbarnsgruppe. *Nordisk Barnehageforskning*, 9.
- Wästerfors, D., Åkerström, M. & Jacobsson, K. (2013). Reanalysis of qualitative data. In U. Flick (Ed.), *The Sage handbook of qualitative data analysis* (pp. 465–480).
- Youdell, D. (2016). *Genetics, difference and solidarity in education: The case for critical bio-social studies in education*. Paper presented at the NERA 44th Congress, Helsinki, Finland.
- Youdell, D. & Lindley, M. R. (2019). *Biosocial education: The social and biological entanglements of learning*. New York: Routledge.