

# This is where I like to climb. Do you want me to show you? Children's favourite places in the kindergarten outdoor playground

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## **Keywords**

Outdoor playground, children's perspectives, favourite play spaces, materiality, affordance.

#### **Abstract**

The study investigates children's view on preferred play spaces and what to play in the kindergarten's outdoor playground. Walking alongside was carried out with 128 5-to 6-years old children in kindergartens in Norway. The results indicate that children's favourite places are in, by and around fixed play equipment, often with friends, where they experience motor challenges and excitement. The children used play equipment creatively and expanded the room of action by using the play equipment in other ways than intended and in connection with role play. We also noted that children's responses are not consistent with adults' thoughts on children's favourite playgrounds.

## Introduction

Children in Norwegian kindergartens spend much time outdoors all year around (Moser & Martinsen, 2010; Kaarby & Tandberg, 2017). Outdoor play is widely recognized as an educational practice in Norwegian kindergartens (Norwegian Directorate for Education and Training, 2017) and the outdoor playground is regarded as a part of educational environments. Most outdoor playgrounds in Norwegian kindergartens are in line with traditional outdoor playgrounds – with both fixed play equipment and natural areas with trees, rocks, and lawns

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(Moser & Martinsen, 2010; Kaarby & Tandberg, 2017). The design of kindergarten playgrounds is largely created by designers and owners of kindergartens, and Janson (2013) claims that children and adults have different views on what characterize popular playgrounds (Jansson 2013). Kindergartens' playgrounds are also criticized for having play equipment with little flexibility and few challenges for the oldest children in the kindergarten. (Hagen, 2015; Hagen, et. al. 2019; Halvorsen Thorén et al 2019; Mårtensson, 2004).

Today there is not much relevant literature that focuses on children's perspective on which places they are attracted to, what they prefer to play and what creates the desire to use the various elements in the outdoor playground in a Norwegian context.

Since children are the main users of the playground, we have chosen to ask the children themselves about their opinions. The purpose of this paper is to bring forward the children's voices on where and what they prefer to play in the kindergarten outdoor playground.

This paper presents results from an ethnographic study where we have investigated where and what 128 5-to 6-years old children prefer to play in the outdoor playgrounds in kindergartens in Oslo, Norway.

Children's rights to participate is an overall goal for kindergartens in all Nordic countries, which means that the children should be able to express their views on the kindergarten's different rooms and opportunities for play. (Norwegian Directorate for Education and Training, 2017, pkt 4). Given that adults listen to the children's opinions, the children will be regarded as actors who can directly influence their own environment (Bergnehr, 2019). From an actor perspective on children in our study, children are considered as co-creators and co-actors who have an influence on how they choose to use the playgrounds facilities, when it comes to both fixed play installations and movable toys as well as natural elements on the playground. We assumed that most of the 5 to 6-year-old children in our sample had gone to the same kindergarten for several years and thus had tried out and become well acquainted with the various facilities in the outdoor playground, and that they have a good awareness of what and where they prefer to play.

The study seeks to answer the following research questions.

- Where are the favourite places to play for 5-to 6-year-old children in the kindergarten's outdoor playgrounds?
- What do the children play in their favourite play spaces?

In our study, the favourite place is where the child (mostly) prefers to play in the outdoor playground, and *play* is what the children tell and show the interviewer that they play/do. To reflect on the children's choice of favourite places and favourite play, we will relate the play to both human and non-human conditions. We expect children to repeatedly select their favourite places because of the good memories they have from these places.

This paper will firstly address studies that have investigated children's play in the outdoor playground and present some theoretical approaches used to illuminate humans interacting with the environment. We will subsequently present the results from the *walking along* and the discussion.

## Children's play in the outdoors

Based on adults' perspective, children's play is often considered (in theoretical literature) as significant for their cognitive, biological, and social development (Glenn, Knight, Holt & Spence, 2012). Children often describe play as a fun activity, and they emphasize the importance of friends and social interaction, something that is typical in for example pretend play. In this paper we understand children's play as spontaneous free, directed and controlled by children and understood from the children's perspective (Lillemyr, 2014). A body phenomenological perspective on young children involves seeing their bodily behaviour as a direct expression of their consciousness, intentions, and feelings in dynamic interaction with the environment (Merleau-Ponty, 1994). Central to this study is the idea that children understand the world through living interactively in it, and play is the children's own way of being and their primary way of expression (Ingold, 2011; Merleau-Ponty, 1994), for example when children are playing in an outdoor playground.

In the outdoor playground in Nordic countries self-chosen play as Physical Activity Play (PAP), and risky play seem to be dominating (Mårtensson, 2004; Moser & Martinsen, 2010; Hagen 2015; Hagen, et al 2019, Løndal et.al 2019; Sandseter 2010), and boys play tend to be more physically active than girls (Osnes & Skaug 2015; Pedersen, 2019; Storlie & Hagen 2010). PAP

is defined as "a playful context combined with a dimension of physical vigour" (Pellegrini & Smith, 1998, p. 577) and is characterised by excitement ,which in turn makes children seek and stay in the play for a longer period of time. The search for excitement is linked to sensory experiences (Breivik, 2001; Bjørgen, 2012), but also to *mastery motivation* described as "the inherent drive which leads young children to explore and master their environment" (Dichter-Blancher, et al, 1997, p. 545), especially what is challenging to them. The framework plan for Norwegian kindergartens also points out the importance of children experiencing physical challenges, physical activity play (PAP) and risky play (Norwegian Directorate for Education and Training, 2017).

Hagen (2015) has investigated the play of 5-year-old children in outdoor playgrounds in Norwegian kindergartens. He applied a mosaic method that entailed observation, children's panting, and interviews. The study displays that the oldest children chose to play in areas with natural elements where they could shape and create their own fantasy play and that the fixed play equipment's was uninteresting. Nonetheless, when the play equipment was used, it was often used as a backdrop for catch-and-relief- games and role-play (Hagen, 2015).

Norwegian Kindergarten teachers' opinion on which places in the playground the children preferred to play correspond with Hagen's (2015) findings (Hagen, et al 2019). In a survey where Norwegian kindergarten teachers (N854) were asked where the children preferred to play, the vast majority (80%) of the teachers meant that children's preferred spaces with nature and movable and moldable elements, that they could investigate and that allowed them to create they own world and that the fixed play equipment was not much used (Hagen, et al 2019). A study in Australia where the children were asked to show which places in the kindergarten's playground, they found most attractive, the children pointed out places for movement, places for pretended play, places for socializing and places for observing (Merewethers 2010). Niklasson & Sandberg (2010) observed children's play in Swedish kindergartens outdoor playgrounds, and the most attractive among 3–5-year-old girls and boys were places that provided opportunities for climbing, followed by areas with movable toys, moldable material, and places where they could play undisturbed.

# Children interacting with the environment

Environmental psychology focuses on how the interaction between the person and the environment is perceived and how we interact with it and affect it (Gibson 1979; Kyttä 2004; Waters 2017). Gibson (1979) launched the concept of affordance to illuminate human's, i.e., children's, perceptions of invitations to act in different environments.

Children move around in and receive and interpret information about the environment through their senses and their ability. This ability includes, among other things, preconditions, and experiences (Greeno cited in Kyttä, 2004) which are central to children's understanding of the environments' functionalities, and which determine what invitations to act upon (affordances) Reacher's as Kyttä (2004) and Waters (2017) have expanded Gibson's concept of affordance in their research on how children perceive and act in the outdoor environments. They state that what the child perceives, must also be seen in the context of norms, rules, and teaching approaches, and who is present in the child's environment, and not just the child's ability (Waters, 2017, Kyttä, 2004). Furthermore, Waters (2017) claims that a socioculturally based theory of affordance provides an improved understanding of action and interaction in different spaces. When children use toys and equipment, *materiality* is woven into their play. The term materiality is used to denote all the physical objects that surround the children in the outdoor playground. In children's play, materiality and play are interconnected. The objects become part of the cultural, relational, and social interaction in the kindergarten (Nordtømme, 2015).

In our context, the general culture in Norwegian kindergartens is to motivate and facilitate for active children outdoors (Norwegian Directorate for Education and Training, 2017). This approach will also impact the children's choice of play and action.

# Methodology

To investigate children's opinion of their favorite places to play in the outdoor playground, we have applied *walking along*. This entails that the children showed and explained to adults where they preferred to play in the outdoor playground. This method has proven to be an appropriate approach in other studies to shed light on children's perspective on play in the

outdoor playground. Moreover, when interviewing young children, - as they are at different stages in their language development - it is crucial that the children are given the possibility to show and use bodily expression in the interview. This gives the interviewer significant information. (Clark, 2005; Hagen, 2015; Kusenbach, 2003).

## Walking along

Second-grade students in the Bachelor program, Early childhood Teacher Education at Oslo Metropolitan University, completed walking along with 5-and 6-year-olds in their practice in kindergartens. This was an integrated part of the student's assignment.

We have applied an ethnographic research design that emphasis closeness to the research field. Since the students know the children and the kindergarten well, (they have just finished their practice placement) and since they have been trained in walking along/interview, we consider them as qualified co-researchers (Skaug & Osnes 2019). In addition, this also open an opportunity to obtain a larger pool of data and a broader insight into children's play in the playground.

The students were instructed how to communicate with the children and how to register the children's responses. The students used a semi-structure interview guide (appendix 1) and asked the child to show them their favourite place to play, and what they played there, and then asked about the reason, if any. The students wrote down the answers (log), as well as shorter practice stories and quotes from the tours which were relevant to the research questions.

The students were granted permission by the pedagogical leader to interview the children. They asked the oldest boy and girl in the kindergarten if they would like to show them their favourite places to play. If the child did not want to participate, the student asked the second oldest child, etc.

The tours took place during three days in mid May 2018 in 64 kindergartens in Oslo and its nearby municipalities. 64 girls and 64 boys, age 5 to 6, participated in the study. In general, it

was no problem getting the children's acceptance, but those who did not want to join, responded no, remained silent or walked away from the student.

# **Analysis**

We obtained both qualitative and quantitative data from the walking along. The students entered the information about where the children preferred to play in the outdoor playground, in an online form. This form contains categories inspired by the functional affordance taxonomy (Heft, 1988). In the same form, the student added keywords of what the children played there. Table 1 presents the frequency distribution of where 128 5-to–6-year-olds preferred to play in the outdoor playground in relation to gender and what the children played. Both the most popular play and the variations of play in the different affordances are listed.

We have used the principles of thematic content analysis as described in Braun and Clarke (2006) to systemize what the children said about their choices of play place and play.

The aim of the thematic content analysis is to systematize the information, while at the same time seeking to identify patterns and connections in the data (Braun and Clarke 2006). We read through the logs several times, made short summaries from each log in order to find key elements, patterns, themes, and sub-themes. The themes *motor challenges*, *sensory experiences - and excitement* and *to be social and play together with friends* ultimately emerged from the process. The information in the logs is not valid enough to quantify the type of play in the different places, neither what the children said about their chose of play and play places. Nevertheless, these analyses have given important information about what and why the children preferred to play in the different places.

#### Method criticism

The term "research rigor" encapsulates notions of reliability and validity (Theobald et al., 2015), which in this study primarily refers to the quality of how the tours were conducted and the quality of the data. When children are involved as research participants, the relationship between them and the researcher may be more complicated. The children's response may be

affected by the power relation between the researcher (student) and the children, even though the children and the researcher knew each other well.

The children had to choose a place that existed in their outdoor playgrounds in the month of May. We do not know if they would have chosen other places if these had been available. The children's answers would in all probability have been different if the tours were conducted in other seasons.

Validity also refers to what the student chose to write in their logs, as well as to the researcher's interpretation of data (McMillan & Schumacher, 2006; Peräkylä, 2016). Several students pointed out that it was at times hard to choose which taxonomy in the form the children's answers should be linked to. To eliminate this, the affordance categories were discussed with the co-researchers (students) both before and after the *walking along* took place. (See columns A - G in Table 1). The selection consists of the students' practice in kindergartens, and we have limited knowledge about how representative the outdoor playgrounds at these kindergartens are for all Norwegian kindergartens. Therefore, there is an uncertainty associated with the generalization of our findings to kindergartens in general.

#### Ethical considerations

When children are informants in research, one must consider both the ethical and the legal principles, regarding the research process and the protection of children (National Committees for Research Ethics in Norway, 2006, pct. 12). Our data material consists of information that cannot identify individuals directly or indirectly, hence the data is considered as anonymous. Thus, we considered it sufficient to ask the pedagogical leader for permission to talk to the children. In the cases where she or he considered it necessary to get permission from the parents, the student wrote an information letter to the children's parents. Children who verbally or physically expressed that they did not want to be interviewed were in no way persuaded to participate.

# **Findings**

Data on what and where in the playground the children preferred to play, are presented in Table 1. Column 3 consists of affordance categories of outdoor playgrounds related to the affordability taxonomy categories included in this study (Heft, 1988). The last column shows the variety of play in the different affordance categories. The table also shows areas that the kindergartens do not have.

# Children's favourite play spaces

	Areas not adapted for play N	Affordances- categories (AC)	Girls N %	Boys N %	Total N %	What did they do/ play
Α	2	In, by and around play equipment (e.g., climbing frames, swings, small house).	37 57,8%	40 63%	77 60%	Climbing To be on the top of the things. Jumping down from Hanging, do gymnastics, balancing, swinging sliding Jumping off the swing Catch-and relief games Role - play
В	26 (lawn)	Areas with flat, hard surfaces (lawn or/and asphalt)	9 14,1%	16 25%	25 19%	Cycling Ball- games as football and bandy, Catch-and-relief games (running games) Role - play
С	0	Areas in and around the sandpit	7 10,9%	2 3%	9 7%	Use of buckets, spades, toy cars, and other loose/movable sand toys. Building – shaping. Role - play.
D	14	Areas with natural loose and/or mouldable elements	6 9,4%	1 1,5%	7 5,5%	Building and shaping Play with water

						Running and jumping in puddles of water Role-play
E	5	Areas where children can find a hiding place	4 6,3%	1,5%	5 3,9 %	Building huts and hiding places. Role - play, with use of loose materials
F	2	Areas where the children can look for small animals	1 1,5%	2 3%	3 2,3%	
G	3	Hilly areas, with various types of ground surfaces	0	1 1,5%	1 0,7%	Biking Running Rough and tumble play Rolling and gymnastics- running games and competitions. Catch- and-relief games Hide – and - seek- games
J		Not registered		1 1,5%	1 0,7%	
		Total	64 100%	64 100%	128 100%	

Table 1. Affordance categories in the outdoor playgrounds - children's favourite places to play. N=128.

The result didn't show any statical differences between boys' and girls' favourite play spaces. However, we see minor differences in some affordances categories, but the number is too low to state any differences. Table 1 shows that more than half of the children (57% of the girls and 63% of the boys) chose to play in, by or around the playground equipment, such as climbing frames, playhouses, swings, and slides (affordance category A).

Affordance Categories B-G were less attractive places, but 19% of the children chose flat areas with asphalt or grass where they could play ball games, cycling and running games (B), as their favourite place to play. Only 7% of the children (9) reported that they preferred to play in the sandpit (C). Just slightly over 5% (7) preferred to play in natural areas with loose materials,

sand, sticks, rocks, water, and ice (D). Only 5% or less of the children reported that the affordance categories E-G are their favourite places. Since very few children have the affordance categories C-G as they favourite play place, these affordance categories will not be given much attention in this paper.

Registrations of affordance categories that the kindergartens did not have, show that most kindergartens have similar outdoor equipment. This is also confirmed in comparable studies (Moser & Martinsen, 2010; Hagen, Skaug & Synnes, 2019). Areas with hard surface was the category (B) that differs most and was missing in 26 kindergartens. Quite a few kindergartens (N=14) did not have nature, water, ice, and mud in the outdoor area (D).

# Children's play in the different play spaces?

What the children played at their favourite spaces, is not quantified, but is based the on the interviewer's observations from the walking along, which were written in the logs and registered in the form. The table shows both the most popular/preferred play and the variations of play in the different affordance categories.

Very few children mentioned the staff's presence in the play or that the staff have organized the activities, therefore we interpret the children's activities in the favourite play spaces as self-chosen play.

Common features of what and how children play, is that they are physically active with a large degree of gross motor movements, which is called PAP (Pellegrini & Smith, 1998, p. 577). It is also clear that different kinds of pretend/role-play take place in various areas, and that the content of the role-play is adapted to the characteristics of the place.

Dominating activities in and around the play equipment (A) were climbing, sliding, jumping, and balancing. The children emphasize that it is important to climb as high as possible in both trees and climbing frames. They explore new possibilities such as hanging upside down in the climbing frame, standing on the swing and jumping off at high speed. Many of the children also point out that the play equipment is scenery in role-play and catch—and relief- games, which increase the excitement of the play. The activities are also characterized by several children playing together.

In flat areas (B), the children say that cycling fast with friends is something they enjoy very much. They used different types of bicycles, like scooter, balance bike and tricycle with carrier. Ball games and catch-and-relief-games are also popular plays in this area. These were the only games where they mentioned that the staff also participated. A few children also emphasize the joy of just running - running fast. These affordance categories were the favorite play places of a few more boys (16) than girls (9) According to the logs it seems that ball games are the preferred plays for the boys and might be the reason for the differences.

Very few children have listed affordance categories D-G as their favorite play places. However, the children who preferred these places, played role-play that was somewhat calmer than the role-plays in category A. Other activities were building/construction by using sand and natural materials, and rough-and-tumble play was also mentioned.

# Discussion

The purpose of this study is to investigate children's perspectives on their favourite play spaces and what they prefer to play in these places in the kindergarten outdoor playground. As a supplement the students (co-researchers) also tried to get the children's reasons for why this specific play spaces were attractive to them. The children's ability to express themselves verbally differed when the children were asked why they chose a particular place and play. Some of the children are clear in their statements, whereas other children struggle to explain why they like to play in their favorite place.

One child replied: "It's kind of just sits in the body." Another child said: "It's a little difficult. I have kind of never thought about it before". We understand this as the children having bodily knowledge of what different places and materiality can provide in terms of opportunities for play, such as excitement and good sensory experiences (Merleau-Ponty 1994; Nordtømmme 2015; Rasmussen 2004). Describing bodily experiences in words can therefore be difficult and may be part of the explanation as to why some children had problems explaining why they enjoyed playing in their favourite place.

Even though some of the children did not give clear verbal expression for their choice, the interviewer has entered their interpretations of the child's bodily expression in the log.

As shown in the methodology chapter (p. 6) we applied thematic content analysis to try to understand the children's enthusiasm for their choice of location and what they were playing. The following themes emerged: *motor challenges, sensory experiences - and excitement* and *to be social and play together with friends*. These themes appear in several types of games/activities and in various locations. Sometimes separately, but more often coexisting. For the children, what they play, where the play takes place, and their motivation are closely connected. It is we as researchers who choose to divide it into different themes to try to understand the children's choices of play and play places in the outdoor playground.

To highlight the children's preferences, we use quotes from the children, obtained from the logs.

# Challenging the gross - motor skills - interaction with the environment

It was somewhat surprising that our study reveals that places with play equipment were the most popular places to play, as several other studies show that the oldest children in kindergartens often did not want to play with "man-made" play equipment (Hagen, 2015; Hagen et al 2019; Storlie & Hagen 2010). However, in line with Hagen L's (2015) findings, the children in our study expressed that it was fun to use the play equipment in other ways than intended, often in role play (together with friends). This may also indicate that children perceive other affordances than playground equipment developers, and they expand the potential of the play equipment. Moreover, like other studies we find that movement is central to much of the children's play in the outdoor playground (Hagen, 2015; Merewethers, 2010). Our data show that the children primarily chose places where they could be physically active.

The children run, jump, climb and engage in full body movement, preferably with peers. "I like to run, - run everywhere". One boy said and he expressed his joy by using his body. This quote illustrates many of the children's joy with vigorous body movement as a common explanation for the choice of play and play places. Rasmussen (2004) claims that children have an inherent urge to move. They seek physical challenges as physical activity is inherent to the human being. A body phenomenological perspective on pre-schoolers involves seeing children's physical play as a direct expression of their awareness,

intentions, and emotions (Merleau-Ponty 1994; Ingold, 2011). In addition, play is a child's own way of being and by moving around the outdoor playground, the children explore the possibilities for play (Rasmussen, 2004).

# Excitement and sensory experiences - interaction with the environment

When children move, their sensory system is activated, and the movements are "felt in the body" (Breivik, 2001; Bjørgen, 2012). One girl said; "I like when the swing has high speed. Then I get a lot of wind in my hair, and I feel free". The tactile sense makes the child feel the wind against her skin. This is experienced as a good feeling that children seek to experience repeatedly. Therefore, children search for places where they can experience speed, whether it is in swings, slides or on bikes: One child said: "Scooter with friends, next to each other, fun, high speed, cool". Several children said that they feel trembling and tickling in the stomach when they swing or slide with high speed. The vestibular system contributes to the release of the hormone dopamine, which gives a feeling of well-being and provides motivation to continue or repeat the activity.

Due to former experiences, other children need less excitement to experience a good feeling. How children choose to use the equipment in play, may be related to their abilities, motivation, and experiences, as well as to the cultural context (Waters, 2017). It is when materiality is included into everyday activities that a place makes sense for children (Ingold, 2011, Nordtømme, 2015). The children in our study respond to the materiality (in play equipment) in different ways. Several children say that they like to swing together with other children because this gives the highest speed, whereas others do not want high speed and do not seek the same challenges. For the last-mentioned children, one can say that the materiality of the memories becomes too challenging and thus less appealing, so the child chooses to be on the swing alone. The children show a clear intentionality (awareness) through their movement towards the objects (materiality) (Nordtømme, 2015).

The feeling of heights also plays a part in many of the children's explanations for playing in the fixed play equipment. That climbing as an activity has a great attraction for children, corresponds with other researchers' findings (Hagen, 2015; Niklasson & Sandberg, 2010; Sandseter, 2010). To climb "high" up in a climbing frame or a tree children must use their

coordinating skills, and it will therefore be motorically demanding for many children. Being high above the ground is one of the categories in the definition of risky play (Sandseter, 2010) and is often associated with excitement and risk. One child said: "Climbing high, I can climb higher, but then I get a little scared". Our interpretation of this is that the motor challenges and the excitement of heights constitutes an entity to the child.

The mastery motivation in the children's play is to challenge themselves motorically (Breivik, 2001; Bjørgen, 2012; Dichter-Blancher, et al, 1997). Our understand is that the child's motivation to master a motor challenge is one of the motives for seeking out the climbing frame. When children master a motor challenge, the child's body language often reveals how proud and happy the child is, and the child often expresses joy when succeeding. One of the children in our study illustrates this when saying: "I can do this. Can you? I like to climb here. Do you want me to show you? Look what I can do"!

# The social dimension - to play together with friends

The play equipment was frequently used as a backdrop for pretend play and catch-and-release-games together with other children. The children's long-term experience with how the play equipment can be used creates a dynamic interaction between the child and the environment (Nordtømme, 2015). The children's ability to see and utilize the affordance in the environment in connection with the social dimension, is central to how children actualize the affordances of the environment (Kyttä 2004; Waters, 2017). Many of the children highlighted that playing with friends impacted their eagerness for type of play and play spaces. This is illustrated by one boy's explanation to why he liked to play in the climbing frame: "Play Ninjago with the other boys in the kindergarten". Thus, the attraction of the play equipment is affected not only by the fact that its physical design offers motorically challenge, but also by who is present (Waters, 2017). Another child said: "It is fun to be on the swing with other children because then we can talk and joke while we swing". Hence, the latter example shows that the social dimension seems to be most important for how some children use the environment's potential affordances (Kyttä 2004; Waters, 2017).

Furthermore, the result illustrates that the children were allowed to climb up the slide and hang upside-down in the climbing frame. One girl said: "I like to climb because then I

get to exercise, and sometimes when I hang upside-down, I see the "playground" in a different way". Our interpretation of this statement is that the child's interaction with play equipment is many-sided, and that it allows the child to explore the world and challenge herself motorically. In this way, the equipment was given a new dimension that requires additional physical skills and provides new experiences with the surroundings (see the surroundings upside-down) (Ingold 2011, Rasmussen 2004).

This also indicates that the kindergartens have a culture that allows children to explore and choose how they want to use the play equipment. Waters, 2017; Hagen, 2015). In our study we assume that the kindergarten's pedagogical practices and culture support the children's exploration of the affordances the playground offers (Waters, 2017; Hagen 2015). In the context of Norwegian kindergartens, especially when the children are outdoors, physical activity play is encouraged (Norwegian Directorate for Education and Training, 2017). In this study we do not have any data on which pedagogical practices that are applied in the kindergartens, but we assume that our selection of kindergartens does not differ significantly from the dominant cultural context in Norwegian kindergartens.

## Limitations

The data in this study were collected from 64 kindergartens in Oslo and its neighboring districts and includes 128 children aged 5-6 years old. The kindergartens were not randomly chosen, and the design of the study is not provided for generalization. In addition, the walking along (interviews) was conducted by the co-researchers (students), and the logs were written by them. We reflected on the findings together with the students, so we their teachers, might have influenced what they wrote in the logs. In addition, our interpretations of the logs may have affected the results.

Nonetheless, the aim of this study was to bring forward children's voices about where and what they prefer to play in the outdoor playground, and we claim that the study has given new and useful knowledge on children's interaction with the outdoor environment. An important aspect to consider in the design of the outdoor playground kindergarten, is that it should provide enough space and variety to meet the children's desire for physical activity play and that it should allow them to play together with their friends.

Finally, the findings have given us an inspiration for further research where children's voices are highlighted. New and broader insight into children's perspectives on the design of the outdoor playground will also be important knowledge to playground developers such as landscape architects and kindergarten owners.

# Summary

The aim of our study was to ask the children in order to gain more knowledge about where 5 - to 6-year-old children prefer to play in the outdoor playground in the kindergarten and what they prefer to play.

In contrast to other studies, our data demonstrates that most children prefer to play in, around or by the play equipment ( Hagen 2015, Hagen, Skaug & Synnes 2019), where they can be physically active and experience speed, height, and excitement, often with their friends. This study did not find differences between girls' and boys' play preferences. The data also show that the children expand the room for manoeuvre as they often use the play equipment in role-playing and catching and relief -games together with other children.

We claim that children seek out places where they encounter motor challenges and feel the senses in their body. This gives them a good feeling and good experiences. Another important drive for the children's choices of place and play was to play together with other children.

How children choose to use the equipment in play is related to who is present, to their ability, motivation, and experiences, and to the kindergartens culture and practice (Waters, 2017). We also assume that the kindergarten's pedagogical practice supports the children's exploration and have an impact on their choice of play and play places. The data indicate that the children's experiences of accepted play in outdoor areas are in accordance with the dominant practice in Norwegian kindergartens in general (Hagen, 2015; Hagen, et. al., 2019).

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# Appendix 1.

The walking along: The students were instructed to write log from *walking along* and it should contain:

- 1. Gender and age of the children
- 2. About the first child you ask did not want to take part in a walking along.
- 3. Where the children like most to play. Describe the location. Take a picture of the place. Remember that it should not be with children that can be recognized. If the children show you that they want to play with toys, equipment, or utensils, write this down.
- 4. What the child like most to play at their favorite play space?
- 5. Why is this children's favorite play space?
- 6. Who (adults and/or other children) they prefer to play with at their favorite play place or if they say they like to play alone.

If the child mention something they don't like to play and equipment they don't like to play with etc.

If the children say something about the adults getting involved in one way or another, write it down as well.

Write down shorter practice stories that the children tell you about their favorite places to play and play.