

# Chapter 4

## Children's Explorative Activities in Kindergarten Playgrounds: A Case Study in China and Norway



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### 4.1 Introduction

Through the more than 100 years of history, Early Childhood Education guidelines and practices in China as well as in Norway have weighted activities such as play, knowledge learning, skills and everyday work differently. During the first period of Chinese ECE, kindergartens were influenced by the thinking of Chen Heqin (Huo, Neumann, & Nanakida, 2015). He emphasized everyday activities as the basic curriculum, whereas the period influenced by Soviet ECE was emphasizing subject learning and skills. In China, recent educational reforms (Ministry of Education (MOE), 2012) have reformulated the importance of play in ECE (Huo, Neuman, & Nanakida, 2015; Pan, 2018) and exploration (Central Committee, 2018 in Hu, [this volume](#)). In Norway, there has been parallel institutions such as asylums (childcare centres), kindergarten and day care centres, which weighted activities differently. The asylums (childcare centres) focused mostly on everyday activities and developing working skills whereas the kindergartens weighted play. In Norway, various stakeholders are now questioning the dominant role of play within contemporary ECE and kindergartens face pressure to have more structured learning situations and focus more on the content (Einarsdottir & Wagner, 2006; Sommer, 2015; Øksnes & Hangaard Rasmussen, 2017). The situation in kindergartens in both countries is at a turning point that sees teachers, owners and managers challenged to reflect on how to change common practices to meet society's new demands and expectations (Chaiklin, 2014).

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Activities in the outdoor playground have different historical and cultural traditions in China and Norway. In ECE in China, outdoor activities have primarily been deemed a time for physical activity and training, whereas ECE in Norway has focused on outdoor activities as a valuable time for play. With new curriculum reforms, both countries focus on a wider range of purposes for outdoor playtime, such as physical training, learning activities and play. However, the practices of being outdoors are different in the two countries due to different conditions.

Traditionally, Chinese philosophy, such as Daoism, emphasizes human beings' harmony with nature (Cooper, 2014; Maki, 2016). With increasing urbanization and expanding cities, public parks have become even more important for Chinese citizens. People gather in the parks to do morning exercises individually and collectively. Activities such as martial arts (Gong Fu and Tai Chi) are quite common. The Norwegians traditionally have a strong and close relationship with nature. Activities in nature are highly valued in children's upbringing and cultural formation. Children are encouraged to be active in nature from a very early age by walking in the mountains, playing in the snow, skiing or swimming, as a way to let children learn that humans need to accept the power of nature, and learn to like the experiences that nature offer (Næss, 1973 in Karlsen, 2015).

In most kindergarten contexts, young children are perceived as active agents who learn about themselves and the social world through their participation in social situations in different institutional contexts (Hedegaard, Flear, Bang, & Hviid, 2008). Participation itself does not promote agentic children. Social situations and activity settings that urge children to explore the situations must be provided (Ødegaard, [this volume](#)) and thereby create possibilities for children to become agentic. In order to encourage and promote children's development of agency and cultural formation as agentic members of modern society, ECE institutions must provide conditions for children's cognitive, physical and social exploration (Hedegaard, [this volume](#)).

Prevailing assumptions in the Nordic countries seem to indicate that children's free play facilitates exploration, while teacher-structured activities limit children's exploration (Sommer, 2015). Another assumption is that children have an agentic position in play, and they do not have it in teacher-initiated activities. These dichotomies need to be challenged theoretically and through empirical work. We suggest that the concepts of *exploration*, *explorative activities* and *children as explorers* can be useful in crossing the border and disturbing these dichotomies. Exploration is a concept, akin to curiosity, that involves investigation and examination, testing opportunities, challenging rules and giving resistance (Ødegaard, [this volume](#)). The concept illustrates the importance of dialogical engagement from the kindergarten teachers. Although the teachers may have a plan for their activities, they are still attentive to and open for a focus shift when children are distracted of experiences in the situation (Ødegaard, [this volume](#)).

Through a cross-cultural case study of outdoor playtime in the playground in two kindergartens, one in China and one in Norway, we investigate how diverse societal, institutional and personal conditions (Hedegaard, 2012) in the activity setting – *outdoor playtime* – encourage children's exploration. By using examples from Chinese

and Norwegian kindergartens, cultural-historical varieties of conditions can be identified.

The concepts of environment and conditions are crucial in the analysis. We are inspired by Leontiev's theory of the role of the environment (Leontiev, 2005) and the cultural-historical perspectives on societal, institutional and personal conditions (Hedegaard, 2009). Following these theoretical perspectives, we will present examples of outdoor playtime from two kindergartens and discuss the examples with the question: What characterizes the personal, institutional and societal conditions for children's exploration in outdoor playtime in Chinese and Norwegian kindergartens?

## 4.2 Conditions for Children's Exploration

We base our study on a cultural-historical approach, understanding children's development in a *wholeness perspective* as a dynamic and dialectic process between the person's activities, intentions and motives, and the institutional traditions and practices, societal demands and material conditions (Hedegaard, 2009, 2012). Based on cultural-historical theory, we view children as active agents interacting with their surroundings (Hedegaard, 2012; Leontiev, 2005; Vygotsky, 1998). These perspectives will be our point of departure when we conceptualize children's explorative activities in the playground. Understanding development requires considering activities and interactions and the cultural setting as developed over historical time, which gives meaning to those activities and interactions.

According to Leontiev, the true unity that needs to be investigated is "the unity of subject and object, the personality of a person and his human reality" (2005, p.11). Children are individuals with different motives and competences that change over time as children learn and develop through experiences in different situations. The same activity can have different meanings in different practices for different children depending on their motives, interests and self-understanding. In addition, teacher-child interactions depend on the participants, time, place, situation and the interpretation of the situation. Kindergarten teachers have different personalities, personal values, thoughts and experiences that influence their pedagogical practice and decision making about the right action in a given moment. Kindergarten teachers are individuals that are educated and socialized to have specific pedagogical values and traditions. They need to follow curriculum plans and meet societal demands and expectations, but they also have to act independently in day-to-day realities of various interactions with children and communities.

In line with these ideas, we investigate different conditions for and styles of children's activities in outdoor playtime in Chinese and Norwegian kindergartens. We take the dialectic relation between children, the material environment and national factors (culture, traditions, values, political systems and the societal view of children) into consideration when we investigate the conditions for outdoor playtime.

Our analysis of conditions for children's explorative activities in kindergarten playgrounds in China and Norway builds on Hedegaard's (2009) model of personal, institutional and societal perspectives and the *activity settings*, which are planned and organized situations or routines in the everyday life in kindergarten, in which children are expected to participate. Conditions for social situations are shaped at different levels (Hedegaard, Fler, Bang, & Hviid, 2008; Hedegaard, 2014) including the society, the institution and the personal level, and the dialectic relations between these levels.

*The societal perspective* in Hedegaard's model contains the historically developed context of the society, where traditions and values are developed through generations and implemented in laws and policy documents. In Hedegaard's model of children's activity settings in different institutions (2012), the societal perspective is depicted as cultural traditions in the different institutions of society, reflecting different value positions. Societal conditions for early childhood institutional practice include location and housing, the kindergarten's physical and economic conditions, structures and routines of the day based on the societal demands, as interpreted by the kindergarten teachers and managers in cooperation with parents. These conditions influence the social practices and activity settings in which the children may take part. Societal conditions and political decisions also influence the education of the professionals responsible for the pedagogical practice at the institutional level of kindergartens.

*Institutional practices* in kindergarten create conditions for children's activities and the activity settings in which they participate. Parents' demands and expectations, and different children's personal developmental needs and problems, are also included in the conditions for kindergarten practice. The institutional level is the everyday practice in a kindergarten and in families. This practice has to be seen as working towards connecting and fulfilling societal traditions, values and anticipations with personal motives, education, values and ideas for the benefit of children.

*The persons' perspective* includes adults and children as participants in different institutional settings. The teachers in kindergarten and school are part of society, socialized through their own upbringing and education and their understanding of the demands and expectations put on them by society, the local municipality and parents. The children have their first social experiences in the family, where they are socialized into traditions and norms in their own family, before they meet and make meaning of demands and expectations from kindergarten teachers and other children.

*Activity settings* are shared activities, such as outdoor playtime (Hedegaard, 2012). Analysing and conceptualising what is going on in an activity setting, means investigating the societal and institutional conditions for the activity setting together with the demands on children and kindergarten teachers in the social situation. This means that it is the unit of children and their conditions that need to be focused.

### 4.3 Studying Children's Exploration in Kindergarten

The examples in this article are examples from a qualitative field study by Sørensen and Birkeland (2017). Children's activities in the outdoor playground in one kindergarten in China and one in Norway have been studied.

The kindergartens are typical in terms of the quality standards in each country. Both kindergartens emphasize outdoor activities. The Chinese kindergarten is working hard to implement the new demands in the curriculum guidelines about more outdoor time for children with a variety of activities such as gardening, animal care, physical exercise, play, games and projects. The kindergarten in Norway is an outdoor kindergarten, which means that the children and the kindergarten teachers spend most of the day outside. They often go on trips to other play spaces, parks, sport areas or natural settings to play, ski, ice skate or mountain walk. They also spend relatively more time in the kindergarten playground than the typical Norwegian kindergarten. Their lunch and afternoon snack are usually served outside, unless it is very cold or raining heavily. The kindergarten has a small bus, so they also can reach places that are not within walking distance of the kindergarten.

The fieldwork was carried out during March 2017 by obtaining photo and video-material from the playground in each kindergarten. The photo and video material from the kindergartens consists of 3 h of video and more than 100 photos taken during 7 days of observation in the Chinese kindergarten and the same amount of material from 5 days of observation in the Norwegian kindergarten. The data material also includes framework plans, descriptions of the playground and interviews with the principals and teachers. Birkeland carried out the empirical work in China and Sørensen did so in Norway. Both authors conducted a joint analysis of the material with Hedegaard's perspectives as a point of departure.

The two examples chosen for this chapter are observations of teacher-initiated activities in the playground. We have chosen the teacher-initiated activities because they illuminate more clearly the relations and interactions between the teachers and children in outdoor playtime. The example from China is a teacher-initiated game that was well prepared but that includes spontaneous interruptions by the children. The example from the Norwegian kindergarten occurred more spontaneously and was initiated by the teacher in response to the rain and cold.

As researchers, we are situated in the Nordic context, Denmark and Norway. Additionally, Birkeland has more than 15 years of experience with ECE in China (Birkeland, 2012, 2013a, 2013b, 2016, 2019), and Sørensen has several years of experience with outdoor activities in kindergartens in Denmark and Norway (Sørensen, 2013, 2016, 2017). Therefore, the researchers have both insider and outsider perspectives on the ECE practices in both countries.

The Norwegian Centre for Research Data, NSD, has approved the study ethically. As researchers, we have a thorough knowledge of young children's learning and development in ECE. We have insight into the legislation and purpose of the researched institutions, and we were ready to leave the role of researcher and take on the role of responsible adult in every situation during our research (Sørensen,

2014). We respect children's integrity, safety and well-being as well as the children's and kindergarten teachers' right to be anonymous in our research.

#### 4.4 Children's Explorative Activities in Teacher-Organized Activities in *Outdoor Playtime*

For the analysis of children's explorative activities, we have chosen one clip of video observation from each kindergarten, where a teacher-organized activity related to physical activity and development and to health and well-being is taking place in the playground.

##### 4.4.1 Case 1. The Jumping Relay – *Chinese Kindergarten*

*A warm and sunny day in a playground in China*

Children and kindergarten teachers are busy playing a game with Frisbees... when suddenly the sight of a kindergarten teacher on the roof catches the attention of some of the children: What is he doing? Why is he on the roof? Is he allowed to be on the roof? Does he know that it can be dangerous?

The weather is warm and sunny, and the air quality is acceptable for outdoor activities.<sup>1</sup> The children in the middle class have been doing their daily collective physical training, including Gong Fu,<sup>2</sup> in the morning outdoor time with all the 4-year-old children in the kindergarten, approximately 90 children in total.

The 30 children in this class and their kindergarten teachers have moved to another spot in the playground to do a jumping relay. The relay lasts for about 20 min. After the relay, it is time for children-initiated activities. The example illustrates how the kindergarten teachers act and interact with children in the teacher-organized relay.

The main teacher introduces the game where children are lined into three rows. Three children in front will start and jump as fast as possible to a turning point and then back to the line. Then the next three children will jump. The point is to be the first line to finish the relay. The children are divided into three groups and the teacher demonstrates how they are supposed to jump on both legs with the Frisbee between their thighs. The second task is to keep the Frisbee between the thigh and the lower leg and jump on one foot. The children start to jump. They are all focused and concentrated. There is a playful atmosphere and lots of laughter. When some of the children drop the Frisbee, the teacher helps and demonstrates how to try again.

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<sup>1</sup>The local authorities in China decide when children need to stay indoors due to weather conditions or the levels of air pollution.

<sup>2</sup>Gong Fu is a traditional Chinese martial arts-activity.

Until now, the children have been occupied with the relay. Suddenly, something unexpected happens, and there is a break in the activity.

Some of the children notice one of the male kindergarten teachers on the roof of the kindergarten. He is fixing a broken part of the roof. The children stop the relay and start shouting to him: "Be careful!" "Do not fall down from the roof!" "Make sure to have something to hold on to!"

Some of the children are laughing excitedly and some of the children are shouting and looking afraid. The teacher in the relay activity accepts the interruption and explains to the children why the teacher is on the roof. She joins in with their excitement and eagerness.

When observing the children, it is difficult to observe whether the children are exploring the use of the Frisbee, or whether they are obeying the teacher. Some of the children are much focused and ask questions about how to do it. The teacher explains the rules of the game. She demonstrates how to use the Frisbee and helps the children do it correctly. She is observant and listens to the children's questions. She is relaxed and the children laugh when she participates in the game and fails to keep the Frisbee between her thigh and leg.

There is a shift in the activity when the children observe the male teacher on the roof. The teacher is open to the children's reactions and questions when observing the other teacher. They explore the rules for walking on the roof and the possible dangers. Although the societal and institutional expectations and demands are to emphasize the importance of concentration in the game, this teacher seems to be flexible and allows for the children's distraction, which leads to curiosity, engagement and questions. She seems to understand why the children are upset and join in their anxiety.

The jumping relay was a structured activity, organized to meet the demands of children's physical activities. The game was fulfilled in a positive atmosphere and the kindergarten teacher allowed for distractions and joy.

#### **4.4.1.1 Summary of the Jumping- Relay, Chinese Kindergarten**

##### **Kindergarten Teacher's Activities**

The kindergarten teacher, Jingwei, had planned the activity. She organized the relay immediately after the collective physical exercise activities by dividing the children into three groups and explaining the rules of the relay. She was demonstrating use of the Frisbee, observing the children, answering their questions and correcting them in their use of the Frisbee. In addition, she took part in the relay laughing and joking with the children. When the children were distracted by the incident on the roof, she took part by answering their questions and asking them questions.

##### **Children's Activities**

The children were participating in the relay, they were modelling the teacher, competing, talking and discussing, laughing and having fun. Some children were occupied with the competition. Other children were more eager to find out how to use the Frisbee and modelling the teacher. Sometimes the children were engaged in playful

communication with other children while taking part in the game. All children were distracted and seemed to forget the game when they observed the teacher on the roof.

#### 4.4.2 Case 2. The Chicken Game – Norwegian Kindergarten

##### *A cold and rainy day in a playground in Norway*

Some children are cold, maybe bored, waiting for permission to go inside... when suddenly the kindergarten teacher initiates and invites the children to play the chicken-game: What kind of a game is this? What are the rules? What is it like to be a chicken, hunted by the wolf? What is it like to be a chicken mother? What is the wolf's best strategy to catch all the chickens?

The weather is cold, it is a rainy<sup>3</sup> Friday afternoon and the children have been outside since around ten o'clock in the morning and now some of them want to go inside the house. Observing that some children are freezing and inactive, one of the kindergarten teachers initiates *the chicken game* to engage the children in some collective play-activity and motivate them to be physically active. She invites the children to participate, by gathering 12–15 children to explain the rules. The main content of the game is the dialogue between the “chicken-mother” and her “chickens”, shouting to each other from either side of the play area and the hungry wolf running after the chickens. The leading role is the chicken-mother who controls the process of the game, while the role of the hungry wolf can be a bit scary, since the wolf is a dangerous creature, wanting to catch (and eat) the chickens. The role of a chicken provides the possibility of hiding in the large group, and feeling safe, but being a chicken is also risky because the wolf will catch them and eat them. Chickens who are caught become wolves and thereby their role in the game changes.

The oldest children choose to be the chicken-mother or the wolf in the beginning. The youngest want to be the chickens. The kindergarten teacher's facial expressions and body language show that she is listening to the children, and she tells them what to do in the role they have chosen. Two children are the chicken-mother and stand approximately 15 m away from the chickens. Their role is to call for all their chickens to come home. The chickens are the largest group in this game and anyone can be a chicken, the more the better. Two children are wolves, standing on the side of the area, ready to catch the chickens as they run over to the chicken-mother.

Before the game begins, the teacher builds up a collective imagination of a scenario with the chickens, the chicken-mother and the hungry wolf. By building up a play-scenario; the collective imagination of chickens and wolves, the teacher invites the children to play with her and thereby she motivates the children to be physically active on a cold and wet afternoon. She creates an imaginary dangerous situation, share it with the children and at the same time, she ensure the children with her

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<sup>3</sup>In the west coast of Norway, it rains a lot, because the Golf stream provides warm winds and wet climate. On average, it rains 20 days every month.



facial expressions, hugs and verbal props, that it is play and fun (Fleer, 2013), and by doing this, she prevents boredom and unhappiness for the youngest children on the playground.

Chicken-mother shouts aloud: *Come home, all my children.*

Chickens answer, they are shouting too: *NO! We will not come!*

Chicken-mother: *Why not?*

Chickens: *We are afraid of the wolf!*

Chicken-mother: *What will the wolf do to you?*

Chickens: *He will eat our meat and drink our blood!*

Chicken-mother: *Come home anyway.*

Then there is a lot of running, screaming and laughing. The teacher participates in the game while being the instructor and a role model. When she plays the role of the wolf, she runs after the children shouting: "*I will come and get you,*" and when she catches someone, she gives the child a hug and a "*hello you*", with a smile and laughter. The oldest children seem very familiar with the game and its rules, some of the younger children look surprised and excited. The air is filled with shouts and laughter, and cries of triumph and frightened delight. The game lasts about 30 min as a teacher-organized activity, and then some of the children continue to play the game on their own.

The chicken-game highlights how being part of an outdoor kindergarten and interacting dialectically with the weather conditions motivates the teacher to initiate group play to prevent the children being cold or possibly bored, which would be a hindrance to the goal of letting the children experience the joy of being outdoors for many hours in all types of weather. The collective imaginary play allow children to go in and out of the play-frame and thereby, as Fleer argues (2013), play can become the vehicle of abstract thinking.

#### 4.4.2.1 Summary of the Chicken-Game, Norwegian Kindergarten

##### **Kindergarten Teacher's Activities**

The kindergarten teacher, Sara, initiated the game spontaneously, and she invited children to participate. Sara explained the rules of the game; she demonstrated what was expected in the different roles, helped children to choose a role and corrected children in their roles. Sara listened to children's questions and answered them. While she was laughing and joking with the children, taking part in the game, she was also observing children's activities and engagement, caring and comforting when needed. After a while, when the children were playing by themselves, she left the game.

##### **Children's Activities**

The children participated in the chicken-game, they modelled the teacher, competed, discussed, laughed and had fun. Some children (the oldest) were very eager to participate in the game and to play their chosen role. Some children (the young-

est) were more dependent on support from the kindergarten teacher. Sometimes the children were very engaged in playful communication with other children while taking part in the game.

#### **4.4.3 Summary of Our Findings**

The examples illustrate how kindergarten teachers act and interact with children during outdoor playtime, giving space for children's initiatives and exploration in a playful way that can be characterized as dialogical engagement.

### **4.5 Discussion of Conditions for Children's Explorations**

In the following section, we will analyse and discuss our examples in terms of societal, institutional and personal levels/perspectives.

#### **4.5.1 Societal Needs, Expectations and Demands**

ECE is a historically-grounded social practice influenced by changes in societal conditions, such as changes in the ideas of what is important in children's everyday life and how kindergarten can offer the best possibilities for learning and development (Chaiklin, 2014). Historically, Chinese kindergartens value indoor activities as the best conditions for children's learning and development. Outdoor activities have been deemed a time for exercise and physical activity. In Norway, there is a strong tradition of believing that outdoor activities in nature offer the best conditions for children's cultural formation and learning and development.

Activities in Chinese kindergartens are structured by the new government guidelines (MOE, 2012) with detailed instructions about the goals of activities and children's achievements. According to these guidelines, children should achieve specific goals at certain ages. Another example of societal expectations are the expectations from the schools. The National Entrance Examination of all Chinese students fosters competition to attend the best schools and universities. This emphasizes academic knowledge learning and skills at an early stage. Parents and grandparents put equivalent pressure on children. After school classes for preschool children is quite common. Although the one child policy has ceased, most parents still have one child; this results in high pressure to be socially mobile. These conditions put high expectations on kindergartens to teach the children sufficiently so they can reach the goals described in MOE and later continue to the top schools and universities (Lyså, 2018).

The activities planned and fulfilled by the kindergarten teachers in Norwegian kindergartens are regulated by core values with roots in Christian values and in the Child Convention that states that children shall have their own voice and be brought up to become members of a democratic society. These values should be “promulgated, practised and manifest in every aspect of a kindergarten’s practices” (FP, 2017:7).

Despite the different traditions and expectations, the atmosphere in both kindergartens was warm, light and positive, without signs of stress or pressure to reach some specific goals, but with plenty of time and possibilities for exploration within the frame of the curriculum activities.

### ***4.5.2 Institutional Organization and Demands***

The institutional practice is to structure and organize outdoor playtime with regular physical activity and play in the activity setting: *Outdoor playtime in a kindergarten playground* in Chinese and Norwegian kindergartens. At this level, time, space, equipment, children-teacher ratio, human conditions and relations are relevant.

The Chinese kindergarten is a public kindergarten with 300 children aged 2–6 years in 10 different groups. The child-teacher ratio is approximately 12:1. The kindergarten is situated in a suburb and focuses on outdoor activities. At the institutional level, the traditions of structuring tasks and activities limited to 20–30 min is prevalent in Chinese kindergartens (Birkeland, 2019). This is a tradition from the Soviet-inspired era where the daily schedule was divided into subjects. Although educational reforms put more emphasis on individualized and child-centred activities, the time schedule in Chinese kindergartens has prevailed with few changes. This is also due to the institutional order. The indoor and outdoor space is limited and needs to be shared by different classes.

In the outdoor activity, the main teacher leads the activity and the assistant teacher supports the children and the teacher. The activity itself is mandatory as part of the outdoors activities. Firstly, there is 20 min with collective physical training, secondly there are collective games for approximately 20 min and finally there is free play for 40 min when the children can choose different activities by themselves.

The Norwegian kindergarten belongs to a private kindergarten-chain with 28 kindergartens. There are 90 children, from 0 to 6 years old, in six groups. The child-teacher ratio is 6:1. It is an outdoor-kindergarten, which means that the oldest children (four to six) spend most of the day outdoors in any kind of weather conditions. In Norwegian kindergartens, children spend between 1 and 2 h outside every day, and fulfil pedagogical learning activities, like art, language and science activities, indoors. In the outdoor kindergarten, the majority of activities are fulfilled outdoors in keeping with the philosophy of an outdoor kindergarten that all kinds of activities can take place outdoors. The kindergarten has a large playground and access to other outdoor areas, like public nature playgrounds, forests, parks and sports arenas. The activity setting *outdoor playtime* lasts from lunch to late afternoon, and the

game lasts for as long as the children are engaged. In the beginning, one teacher is engaged in the game, and later there are two kindergarten teachers and 12–15 children. The first teacher initiates the activity and interacts with the children, and the second teacher participates after a while. Children's participation in the activity is voluntary and only half of the children and kindergarten teachers present in the playground participate. Usually, the outdoor playtime is an activity setting where children can play what they want to, use the terrain, equipment and artefacts for running, biking, climbing, playing in the water or the mud, swinging etc. The kindergarten teachers supervise and participate based on what they think is needed for the children to have a good time in the playground. They also sometimes cook warm meals on a bonfire.

Despite different structural conditions for the kindergartens related to outdoor playtime, both kindergartens allowed children explore and experience the outdoor play possibilities. With several groups sharing the Chinese playground, the transition from inside to outside is quick. In contrast, the large space and the need for the children to dress appropriately for the weather make the transition from inside to outside in the Norwegian kindergarten more time consuming.

### ***4.5.3 Kindergarten Teachers' Motivation and Engagement in the Activity Setting***

Kindergarten teachers are trained professionals, but they are also individuals influenced by their background, traditions and experiences when they organize, lead and supervise pedagogical activities, and accept or reject children's disturbances and ideas.

The kindergarten teachers in the Chinese and Norwegian kindergartens follow the guidelines for the pedagogical practice related to physical activity and development. The Chinese MOE gives quite detailed instructions for the pedagogical practice and the activities related to physical activity, while the Norwegian FP offers a more open frame for the pedagogical practice. In the Chinese kindergarten, the teacher follows a plan, interacts with the children in a fun way and takes part in the Frisbee activity. She allows disruptions to the activity, especially when the children notice another teacher walking on the roof.

In the Norwegian kindergarten, the teachers allow the children to play in the playground as they want to, undisturbed but supervised. The kindergarten teachers support the children during the free play, and only intervene by initiating a game with some of the youngest children when they think it is necessary for the children's well-being and to avoid discomfort and cold. The teacher's intention by introducing the chicken-game was to encourage children to be physically active and prevent them feeling too cold and not wanting to be outside. The teachers observed, analysed, supported, participated in and enriched the game, based on the children's ideas. The chicken-game was a spontaneously organized activity. Although it was

not planned in advance, the game is part of the pedagogical activities used spontaneously and as necessary in the kindergarten.

#### ***4.5.4 Children's Motivation and Engagement***

In the Chinese kindergarten, all the children in the class participated in the game. This was expected and none of the children seemed to question their participation. When the game started the children showed different levels of engagement. Some of the children seemed to be engaged in the competition, some in exploring the task with the Frisbee and some children were mostly engaged in playful communication with other children.

In the Norwegian kindergarten, the youngest children's intention was to participate because the teacher asked them to and because they were curious to see what would happen. Some of the children might have participated because their friends did. They seemed to like the teacher, and they have probably had some earlier experiences with her as a nice and funny person to be with, and as a warm, caring and playful teacher. The oldest children could participate if they wanted to.

The exploration in choosing different roles was evident when the children first chose a familiar and not overly demanding role as one of the chickens. Then some children tried out the more demanding role of chicken-mother, which involved initiating the task and engaging in dialogue. Observing this game allowed us to see if the children chose a role they were familiar with and if they during the repetition of the game chose to change roles from a chicken to either the chicken-mother or wolf. While the children seemed to be motivated and engaged in the game and having fun in their roles, some of the children were particularly courageous, especially the youngest chicken-children who teased the "wolves" by imitating and modelling the attitudes of the teacher and the older children. The children's laughing, jumping and running in the game highlighted exploration of a role in a game, challenging authorities and trying out one's strength and courage.

The following Table 4.1, sums up the conditions and expectations on the societal, institutional and personal levels.

#### ***4.5.5 Climate and Air Quality***

We have argued that a wholeness approach is required, meaning that societal conditions and societal needs, institutional conditions and personal conditions must be considered. When discussing conditions for children's explorative activities in the outdoor playground, it is also necessary to take the climate (level of clean versus polluted air, quantity of rain and hours of sunshine) into consideration. This is illustrated in Table 4.2 as an elaboration of Hedegaard's model (2012).

**Table 4.1** Conditions and expectations on societal, institutional and personal levels

|   |   |   |
|---|---|---|
| Levels, conditions and expectations             | China – jumping relay   | Norway – chicken game   |
| <b>Societal level</b>                           | <b>Societal level</b>   | <b>Societal level</b>   |
| National guidelines                             | Detailed instructions about goals and assessment  | Recommends physical activity and outdoor experiences  |
| Expectations from school system                 | National entrance examination with tough competition for social mobility  | Schools expect children to be able to listen and focus on school activities   |
| Parental expectations                           | One child policy expecting learning   | Expecting social competencies and outdoor experiences   |
| <b>Institutional level</b>                      | <b>Institutional level</b>  | <b>Institutional level</b>  |
| Time and space                                  | Activity setting limited to 20 min  | Activity setting lasts from lunch to late afternoon, and the game lasts for as long as the children are engaged                                       |
| Human conditions                                | Two kindergarten teachers and 30 children   | One (or two) kindergarten teachers and 12–15 children   |
| Division of labour                              | The main teacher leads the activity. The assistant teacher supports the children and the teacher  | Teacher 1 initiates the activity and interacts with the children.   |
| Rules   | Mandatory   | Teacher 2 participates after a while  |
| Artefacts and equipment                         | Frisbee, music  | Voluntary, informal<br>Playground equipment   |
| <b>Personal level</b>                           | <b>Personal level</b>   | <b>Personal level</b>   |
| Kindergarten teachers' expectations and demands | Kindergarten teachers' expectations and demands   | Kindergarten teachers' expectations and demands   |
|   | Participation   | Participation   |
|   | Engagement  | Engagement  |
|   | Dialogical engagement   | Dialogical engagement   |
| <b>Personal level</b>                           | <b>Personal level</b>   | <b>Personal level</b>   |
| Children's exploration                          | From following rules and instructions in a teacher-directed game to forgetting the game and fully concentrating on the incident on the roof | From a peripheral participation in the easiest role to a more demanding role, showing courage and daring to tease the other participants (the wolves) |

Climate conditions influence outdoor activities in different ways. On the societal level, the Chinese guidelines and the institutional practices have rules for being indoors depending on air pollution and weather conditions. Children's clothing exemplified in this kindergarten makes it easier for them to go outside and inside repeatedly. In the kindergarten in Norway, clothing takes some time, and children need help from adults, to be ready to go outside. The children are trained and expected to learn from an early age to dress themselves for outdoor playtime. In addition, the understanding of children's health and well-being, physical activity and sun-exposure differs in the two settings.

External conditions such as the climate and weather influence pedagogical practice. The two cases revealed the relevance of considering climate in researching conditions for children's outdoor playtime activities. In the big cities in China, the risk

**Table 4.2** Climate and air quality in relation to personal, institutional and societal perspectives

|                                  | Structure        | Process   | Dynamic                                   |
|----------------------------------|------------------|---|---|
| Climate, Weather and air quality | Society          | Societal traditions and value demands                 | Societal conditions                       |
|                                  | Institution      | Practice demands for type of participation            | Value-laden goals/objectives/motives      |
|                                  | Activity setting | Social situation demands on both children and others  | Situated motivation/engagements/interests |
|                                  | Person           | Reciprocal demands for concrete ways of participation | Motive orientation/intention              |

of pollution is offering other conditions for outdoor activities. Many days per year, the children cannot be outside. The cold climate and rain in Norway encourage the kindergarten teachers to initiate some physical activities to secure the children's well-being and to keep their motivation for being outdoors for a longer time than if they were playing on their own. The rain also provides the Norwegian children access to water puddles and dirt/mud that are attractive possibilities for play activities.

## 4.6 Conclusion

The analysis of the two empirical examples from the activity settings illustrates how different conditions frame children's explorative activities. Interactions between kindergarten teachers and children were warm and respectful, despite of the different conditions in the Chinese and the Norwegian kindergarten settings. Simultaneously, they follow the legislations; they act in line with the values and the plan for the day in kindergarten. However, the kindergarten teachers in both settings met the children's ideas and initiatives with dialogical engagement that encouraged curiosity, play and exploration. The level, focus and method of exploration were different for different children. Some children explore their bodily abilities with a Frisbee, and some children explore their capacities in competition with others in the relay. Some children explore the feeling of being the leader of a game (chicken mother), a dangerous hungry wolf or a small chicken, hunted by the wolf. These findings can contribute towards conceptualising children's participation-as-exploration in teacher-organized activities in the playground. The examples challenge the dichotomy between understanding children's activities as exploration both in free play activities and in teacher-organized activities. Our findings indicate that there is room for children's exploration in teacher organized curriculum activities. We also found that an activity could easily shift from play to learning and back again in both kindergartens. Although we expected that the kindergarten teachers in China would be more focused on adhering to a plan, the teacher there gave space to children's exploration through her dialogical engagement. We expected that the children in the Norwegian kindergarten would play more on their own, but the teachers organized a game to support children's positive experiences of being outdoors and adopted the traditions and values connected to nature independent of the weather.

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