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Provisions for outdoor play and learning in Slovene preschools

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This study examined play and learning in the natural environment and on the playgrounds of Slovene preschools. It included 140 preschool teachers and 264 parents of children who attended preschools in 21 Slovene towns. Data were collected through questionnaires with questions referring to time spent outdoors, children's outdoor activities, barriers to outdoor play and learning, opinions regarding safety as well as parents' perspectives of outdoor play and learning. The results show that, on average, Slovene children spend 23% of their time at preschool outdoors during the warm months and 13% during the cold months, of which they generally spend three hours per week in the natural environment during the warm months and 1.5 hours during the cold. Answers to the question about children's activities in nature and on the playground indicate that the potentials offered by the outdoor environment are not effectively used. Parents' opinions show a positive attitude towards outdoor play and learning. The majority of both parents and preschool teachers thus share the opinion that Slovene preschools should dedicate more attention and time to play and learning in the natural environment.

Keywords: *Outdoor play and learning; Preschool children; Play settings; Nature*

Introduction

Children's development is strongly influenced by their environment. The outdoor environment is important because it offers children fresh air and space in which they can move freely (Rivkin, 1995). Being in the natural environment is essential for children and has numerous advantages. Many studies indicate that regularly spending time in nature enhances the development of motor abilities (Fjørtoft, 2001), enhances physical health (Fjørtoft, 2001, 2004), reduces aggressiveness and confrontations (Ouvry, 2003; Wilson, 1995) and improves concentration (Mårtensson et al., 2009). The natural environment offers children an incredible wealth of sensory

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experiences and open materials and objects. The natural environment encourages children's holistic development and enables progression in all developmental domains (Wilson, 2008). Nature's variety and unpredictability offer children self-initiated research that facilitates knowledge, skill and concept acquisition (Fjørtoft, 2004). In the natural environment, children's free play develops into more creative forms. Children attribute a symbolic value to natural materials and objects and create rich symbolic, imaginative play (Ouvry, 2003; Wilson, 2008). The natural environment also offers children many opportunities for risky play in which they learn to effectively confront risks (Sandseter, 2009; Stephenson, 2003). Because only frequent positive experiences with the natural world can help children develop a caring attitude toward the environment, playing in the natural environment serves as the basis for effective environmental education during early childhood (Wilson, 2008).

Generally, children enjoy playing outdoors. Children perceive the outdoors to be a place in which they can act independently with or without only slight assistance from adults (Cullen, 1993). The natural environment is particularly attractive and interesting to children (Titman, 1994). Children experience the natural world differently from adults and enter it more actively. Children want to touch, hold, dig, smell, taste, explore and experiment (White, 2008; Wilson, 2008). Adults perceive the environment as forms, whereas children interpret it as functions (Gibson, 1979). Children often perceive details that adults miss or filter out and find meanings in things that adults find insignificant (Wilson, 2008).

During the last century, a decrease in the opportunities for outdoor play of preschool children was observed in many western countries (Clements, 2004; Waller, Sandseter, Wyver, Årlemalm-Hagsér, & Maynard, 2010). Children's lives are marked by the institutionalisation of childhood, over-organisation and a culture of fear, all of which imply changes to the nature of child play (Burke, 2005; Tovey, 2007). The opportunities for play in the natural environment should be so much more valued and important (Waller, 2006). Early years practitioners should be aware of the great importance of outdoor play and learning for preschool children and should provide them with regular opportunities to experience natural environments (Waller, 2007).

The Slovene 'Curriculum for Preschools' (Bahovec et al., 1999) attributes no special importance or emphasis to outdoor play and learning. In the chapter 'Space as a Curriculum Element', the outdoors is not explicitly mentioned. Outdoor activities as an integral component of the curriculum are noted in the activities section under the title 'Nature' with the following text: 'Children should spend time in nature to experience it in its various settings, periods of the day and seasons, weather conditions; they should experience nature and discuss their perceptions' (Bahovec et al., 1999, p. 58). In the 'Movement' activity section, the outdoors is proposed as a space in which children should recognise and develop their motor abilities, and nature is mentioned as a setting for walks and hikes.

Remaining outdoors is routine in Slovene preschools; however, only scarce data are available on this topic. Kos (2010) notes that relatively little time is dedicated to play and learning in the natural environment in comparison with many European and particularly Scandinavian countries. Slovenia is a densely forested country; more than

one-half (58.4%) of its territory is covered with forests, which classifies it as third in the European Union, second only to Sweden and Finland in terms of forested area (Slovenia Forest Service, 2012). This phenomenon indicates that Slovenia has good natural conditions for Slovene preschoolers' outdoor play and learning.

The purpose of this paper is to research the scope and nature of outdoor play and learning in Slovene preschools and the preschool teachers' perspectives on this topic. We researched how much time preschool teachers dedicate to play and learning on preschool playgrounds and in wild natural environments, what children do in such environments, which factors teachers perceive as barriers to performing outdoor play and learning, and their attitudes towards the safety of outdoor play and learning. Our aim was to establish to what extent playing and learning in nature depend on the accessibility of natural settings, children's ages and the preschool teacher's attitude towards safety.

Natural environments differ significantly from regular standardised playgrounds in terms of what they offer children and possess qualities that suit children's needs for a stimulating and varied play environment (Fjørtoft & Sageie, 2000). Lee (1999) observed that playgrounds which contain wild, natural areas provide children with more incentives for play, and children play in such areas more enthusiastically than on traditional playgrounds. Children find traditional playgrounds to be more boring than the natural environment (Titman, 1994). Fjørtoft (2001) observed significant improvement of the coordination and balance skills of children who played in the forest daily in comparison with children who used traditional playgrounds and visited natural sites only occasionally. In contrast, the research by Storli and Hagen (2010) showed no difference in the level of physically active play between the traditional playground and the natural environment. Moreover, natural settings provide a greater degree of risk in children's play than traditional playgrounds (Sandseter, 2009). In our research of outdoor play and learning, we therefore treated activities on preschool playgrounds separately from activities in natural settings.

The purpose of our research was also to establish parents' perspectives on outdoor play and learning in preschools. Cooperation between parents and the preschool is an important aspect of preschool education quality. According to the Slovene preschool curriculum, although parents have the right to participate in planning preschool life and work, they must respect the preschool's professional autonomy. Because we assume that parents' favourable or unfavourable attitudes towards outdoor play and learning indirectly influence its provision in preschools, the relevant parental attitudes and expectations were studied.

Methods

Data collection and respondent groups

Altogether, 140 preschool teachers—53 teachers of one-year-old to three-year-old children (the first age group), and 87 teachers of three-year-old to six-year-old children (the second age group)—and 264 parents of preschool children (68 parents of

children from the first age group and 196 parents of children from the second age group) participated in the research. This study included preschools from 21 towns in Slovenia. The results were collected in 2012.

Information was collected through anonymous questionnaires. The questionnaires that were provided to the preschool teachers contained 10 questions, including three questions with closed response alternatives, five open-ended questions and two questions that offered the opportunity for additional comments. The questionnaires that were provided to the parents contained 10 questions, including six questions with closed response alternatives, three open-ended questions and one question that offered the opportunity for complementary comments.

Data analysis

After verifying that the data were free from errors, matrix analyses were conducted using the Statistical Package for the Social Sciences (IBM SPSS Statistics, Version 20) software. The data were controlled according to the assumptions of normal distribution, homogeneity of variance and expected counts. According to the research questions, mainly descriptive and correlative procedures and statistical tests have been applied. Where considered appropriate, the descriptive measures have been controlled for potentially relevant variables, such as the age group of the children and respondents.

Results

Time spent outdoors

The preschool teachers and parents were asked to express their opinions about the following statement: 'Preschool children should generally spend at least some time outdoors every day'. Ninety-seven per cent of preschool teachers and 99% of parents absolutely agreed, whereas 2% of preschool teachers and 1% of parents partially agreed with the statement. One per cent of preschool teachers absolutely disagreed with the statement, whereas none of the parents disagreed.

Time spent outdoors is one of the indicators of the actual provision for outdoor play and learning. The preschool teachers were asked to estimate the average number of hours spent outside with the children each week: they were asked to provide separate estimates for the time spent on the preschool playground and in the wild natural environment and for the time spent outside during warm months (between March and October) and cold months (between November and February). The data shown in Table 1 are provided separately for each age group (the first age group, one to three years old; the second age group, three to six years old). The percentage of daytime spent in preschool is provided for comparison with the data in the literature. The results show that, on average, Slovene preschool children spend 10 hours per week outdoors during the warm months and 5.5 hours per week during the cold months, of which they generally spend three hours per week in the natural environment during the warm months and 1.6 hours per week during the cold months. Younger children

Table 1. Reported time spent on outdoor play and learning

Age group		Hours spent on the playground/week		Hours spent in nature/week		% of the day consisting of outdoor activities	
		Warm	Cold	Warm	Cold	Warm	Cold
First age group	Mean	6.49	3.07	2.36	1.20	20.8403	9.9580
	<i>N</i>	57	57	56	56	56	56
	Standard deviation	3.660	1.821	2.276	1.341	10.09727	5.45836
Second age group	Mean	7.17	4.29	3.38	1.92	24.5920	14.5731
	<i>N</i>	96	96	93	93	93	93
	Standard deviation	3.063	2.021	2.532	1.752	9.22132	7.25439
Total	Mean	6.92	3.84	2.99	1.65	23.1820	12.8385
	<i>N</i>	153	153	149	149	149	149
	Standard deviation	3.303	2.031	2.481	1.644	9.69902	6.98683

Table 2. Differences in the time spent outdoors between the age groups

Variable	<i>F</i> statistic ^a	<i>p</i> value ^b
Hours spent on the playground/week, warm	1.501	0.222
Hours spent on the playground/week, cold	14.049	0.000
Hours spent in nature/week, warm	6.102	0.015
Hours spent in nature/week, cold	7.147	0.008
% of day consisting of outdoor activities, warm	5.385	0.022
% of day consisting of outdoor activities, cold	16.888	0.000

Notes: ^a*F* test – analysis of variance. ^bStatistical significance – alpha level.

spend less time outdoors than older children. The differences are statistically significant (except for the time spent on the playground during the warmer months) (Table 2).

The data obtained on the time spent outdoors were compared with the data from Moser and Martinsen (2010) for Norwegian preschools. This comparison revealed marked differences. Whereas Norwegian children spend on average up to 70% of their time outside during the warm months of the year, Slovene children spend only 23% of this time outside. During the cold months of the year, Norwegian children spend 31% of the time outdoors, whereas Slovene children spend only 13%. These differences are significant during both the warm ($t = 40.985$, degrees of freedom [df] = 394.674, $p = 0.000$) and cold ($t = 17.507$, df = 423.417, $p = 0.000$) months.

Preschool teachers and parents were asked to provide their opinions on whether preschool provides children with enough time for outdoor play and learning. The results in Table 3 indicate that the majority of both teachers and parents chose the

Table 3. Preschool teachers' and parents' opinions on the quantity of time that children spend in the natural environment

Respondents				Age group		Total
				First age group	Second age group	
Preschool teachers	Is the time sufficient? (Nature)	Yes	f	22	40	62
			% ^a	50.0	44.4	46.3
		No	f	22	50	72
			%	50.0	55.6	53.7
		Total	f	44	90	134
			%	100.0	100.0	100.0
Parents	Is the time sufficient? (Nature)	Yes	f	23	51	74
			%	33.8	26.2	28.1
		No	f	45	144	189
			%	66.2	73.8	71.9
		Total	f	68	195	263
			%	100.0	100.0	100.0
Total	Is the time sufficient? (Nature)	Yes	f	45	91	136
			%	40.2	31.9	34.3
		No	f	67	194	261
			%	59.8	68.1	65.7
		Total	f	112	285	397
			%	100.0	100.0	100.0

Note: ^aThe percentage within an age group.

answer 'I think it would be better for children to spend more time in natural settings'. The opinions were mixed in reference to the time spent on the preschool playground. Most preschool teachers thought that the time spent with children on the playground was sufficient, whereas nearly one-half of parents wanted children to spend more time on the playground (Table 4).

Because we assumed that the provision for outdoor learning is influenced by the accessibility of natural settings, preschool teachers were asked to indicate the time it takes for their groups of children to reach the nearest forest or a similar wild natural environment that is suitable for outdoor play and learning. The teachers' answers show good conditions for outdoor play and learning because more than one-half of teachers (56%) stated that 20 minutes or less was required to reach the natural environment, 34% stated that between 20 and 40 minutes was required and only 10% stated that more than 40 minutes was required to reach the suitable natural environment. We investigated the correlation between the distance to the forest and time spent in the natural environment. The correlations for both the warm (η correlation coefficient = 0.381, $p = 0.000$) and cold months ($\eta = 0.426$, $p = 0.000$) were significant. The variables are negative and moderately correlated. The more accessible the natural settings were to the children, the more time they spent there and *vice versa* (Table 5).

Table 4. Preschool teachers' and parents' opinions on the amount of time that children spend on the preschool playground

Respondents				Age group		Total
				First age group	Second age group	
Preschool teachers	Is the time sufficient? (Playground)	Yes	f	50	90	140
			% ^a	90.9	95.7	94.0
		No	f	5	4	9
			%	9.1	4.3	6.0
		Total	f	55	94	149
			%	100.0	100.0	100.0
Parents	Is the time sufficient? (Playground)	Yes	f	36	100	136
			%	53.7	51.8	52.3
		No	f	31	93	124
			%	46.3	48.2	47.7
		Total	f	67	193	260
			%	100.0	100.0	100.0
Total	Is the time sufficient? (Playground)	Yes	f	86	190	276
			%	70.5	66.2	67.5
		No	f	36	97	133
			%	29.5	33.8	32.5
		Total	f	122	287	409
			%	100.0	100.0	100.0

Note: ^aThe percentage within an age group.

Outdoor activities

Although time spent outdoors is important, how well such time is used also matters. Because we were interested in how preschool teachers use the advantages and special features of outdoor settings, we asked them what children usually do on the preschool playground and in the natural environment. This question was open-ended, and the teachers could provide more than one answer. The answers were classified into categories. The frequencies of particular answers are presented in Tables 6 and 7.

Barriers to outdoor learning

We asked preschool teachers whether they noticed any barriers that prevented them from dedicating more time to outdoor play and learning or from interacting with nature more often. If the teachers provided a positive answer, then we asked them to list these obstacles. Each teacher could list several answers. Thirty per cent of the teachers noted no obstacles to increased outdoor play and learning; the answers of the other teachers are presented in Table 8.

Table 5. Time spent in nature and distance of the preschool from the nearest forest or similar wild natural environment suitable for outdoor play and learning

Age group	Time required to reach the natural environment		Hours spent in nature/week, warm	Hours spent in nature/week, cold
First age group	Less than 20 minutes	Mean	3.92	1.92
		N	24	24
		Standard deviation	2.263	1.412
	20–40 minutes	Mean	1.40	0.70
		N	20	20
		Standard deviation	1.536	1.031
	More than 40 minutes	Mean	0.83	0.58
		N	12	12
		Standard deviation	1.267	0.996
	Total	Mean	2.36	1.20
		N	56	56
		Standard deviation	2.276	1.341
Second age group	Less than 20 minutes	Mean	3.77	2.44
		N	57	57
		Standard deviation	2.368	1.803
	20–40 minutes	Mean	2.78	1.16
		N	32	32
		Standard deviation	2.612	1.370
	More than 40 minutes	Mean	2.50	0.75
		N	4	4
		Standard deviation	3.697	0.957
	Total	Mean	3.38	1.92
		N	93	93
		Standard deviation	2.532	1.752

Table 6. Most frequent activities of the children on the preschool playground

Answer	Preschool teachers' answers (%)
Playing on recreational equipment (swings, climbing frames, toboggan slide, etc.)	75.0
Playing in the sandpit	62.8
Structured movement activities (including ball games, relay races, and activity parks)	42.9
Riding with scooters, tricycles, push bikes, etc.	39.1
Playing catch and running	29.5
Playing with accessories (wheelbarrows, cars, trucks, tractors, etc.)	26.9
Circle games (activities involving movements and singing)	23.1
Free play with natural objects and materials	21.2
Structured natural science activities	14.1
Artistic activities (including chalk drawing)	14.1
Hide-and-seek	4.5

Table 7. Most frequent activities of the children in the natural environment

Answer	Preschool teachers' answers (%)
Structured natural science activities	54.7
Free play, child-initiated exploration	29.5
Collecting fruits and other natural materials	22.3
Walking	20.9
Running and catching	20.9
Structured movement activities	20.9
Hide-and-seek	4.3

Table 8. Obstacles according to the teachers that prevent increased provision for play and learning in the natural environment

Answer	Preschool teachers' answers (%)
Distance of the preschool from the natural environment	32.7
Additional person required to accompany the group	12.2
Limiting daily routine (e.g. meal timetable)	7.1
The preschool teacher believes that he/she will not be able to fulfil all curricular tasks if the children are in nature more often	5.8
Unsuitable natural environment in the vicinity of the urban area (dangerous waste, dog excrement, dogs off of leashes, etc.)	4.5
The preschool teacher believes that he/she cannot ensure traffic safety	3.8
Cold and bad weather	3.8
The absence of parental attention, and the children come to preschool without proper shoes or clothing	2.6
Adverse parental attitudes	2.6
The risk of ticks	2.6
The preschool teacher believes that he/she cannot ensure sufficient safety in nature and feels that he/she does not have enough control in the natural environment	1.9

Based on Table 8, 10.2% of the answers refer to safety concerns. Teachers and parents were asked about their attitudes towards safety or risks related to preschool children in natural settings. A closed-ended question included the option of non-determination, and the respondents could choose between three answers reflecting various degrees of safety concerns. The results are presented in Table 9. Most teachers and parents shared the opinion that playing in nature brings more risks than remaining indoors, but they were willing to take that risk because they believed it serves the children's development. The results show that more teachers than parents place the most emphasis on outdoor safety. The results also indicate that safety is a more important factor for teachers and parents of younger children than for teachers and parents of older children, and this difference is statistically significant ($\chi^2 = 13.873$; $df = 2$; $p = 0.001$).

Table 9. Preschool teachers' and parents' attitudes towards safety concerns regarding play and learning in the natural environment

Respondent			Age group		Total	
			First age group	Second age group		
Preschool teachers	Safety	Safety is the most important factor, and all activities should be subordinate to safety.	f	22	23	45
		Activities in the natural environment result in additional risks, but children must learn how to cope with them.	% ^a	38.6	24.2	29.6
		I believe that indoor activities in a preschool institution bring as many risks as outdoor activities; therefore, I do not perceive risks in the natural environment as a problem.	f	25	45	70
	Total		%	43.9	47.4	46.1
			f	10	27	37
			%	17.5	28.4	24.3
Parents	Safety	Safety is the most important factor . . .	f	57	95	152
		Activities in the natural environment . . . additional risks, but children . . . I do not perceive dangers in the natural environment as a problem.	%	100.0	100.0	100.0
			f	16	22	38
	Total		%	24.6	11.3	14.6
			f	29	98	127
			%	44.6	50.3	48.8
		f	20	75	95	
		%	30.8	38.5	36.5	
		f	65	195	260	
		%	100.0	100.0	100.0	

(Continued)

Table 9. (Continued)

Respondent	Age group				Total	
	First age group		Second age group			
Total	Safety	Safety is the most important factor . . .	f	38	45	83
			%	31.1	15.5	20.1
		Activities in the natural environment	f	54	143	197
		. . . additional risks, but children . . .	%	44.3	49.3	47.8
		. . . I do not perceive dangers in the	f	30	102	132
		natural environment as a problem.	%	24.6	35.2	32.0
	Total		f	122	290	412
			%	100.0	100.0	100.0

Note: ^aThe percentage within an age group.

The parents were asked two further questions that were, in our opinion, best suited to reveal the importance they attributed to outdoor play and learning in the lives of their children. Our first question was:

If you were completely free to choose between two preschool institutions that do not differ in any other characteristics, which one would you prefer—a preschool in the middle of an urban area, or a preschool on the outskirts of town, not in close proximity of an urban area, but with access to a forest that children can reach on foot in a short time and which provides numerous possibilities to play and learn in natural settings?

The vast majority of parents (95%) chose the second option, whereas 5% of parents would favour an urban area preschool.

Some preschool teachers cited the problem of children's unsuitable clothes and shoes as an obstacle to outdoor play and learning. Because this problem largely depends on parents, we asked the parents:

If your child regularly visits natural settings, are you prepared to invest some funds in proper equipment (shoes and waterproof trousers that are always available to the child at the preschool so that the time spent in nature is without fear of soiling the child's clothes)?

The vast majority of parents (94%) provided a positive answer, whereas only 6% answered negatively.

Discussion and conclusions

The large majority of Slovene preschool teachers and parents accept outdoor activities as a component of the everyday life of preschool children. However, to what extent are outdoor activities actually implemented? Do Slovene preschools provide children with sufficient opportunities for outdoor play and learning?

Our results show that, during their preschool years, Slovene children spend less than one-quarter of the time during warm months and less than one-seventh of the time during cold months of the year outdoors. Is this time enough? Data that could assist in answering this question are scarce. The preschools in many European countries emphasise spending time outdoors, particularly in the natural environment. In the Scandinavian 'Nature and Outdoor preschools', children spend most of their time outdoors (Lysklett, 2006). 'Forest Schools', deriving from Scandinavian tradition, are also growing across Britain (O'Brien, 2009). In the 'Forest School' concept, children are outside for a minimum of half a day per week for at least 10 weeks (Knight, 2009). If the time that Slovene preschool children spend outdoors is compared with the time spent outdoors by Norwegian preschool children, who spend three-quarters of the day outdoors in the summer and one-third of the day outdoors in winter (Moser & Martinsen, 2010), and if the advantageous natural conditions are accounted for (more than one-half of preschool teachers stated that a forest suitable for play is a 20-minute walk away or less), we conclude that more time could be dedicated to outdoor play and learning in Slovene preschools.

Most preschool teachers (more than one-half) and parents (nearly two-thirds) believed that children should spend more time in natural settings (whereas the vast majority of preschool teachers and more than one-half of parents were satisfied with the length of time spent on the preschool playground). Easy access to stimulating, rich, wild natural environments that provide children with plenty of opportunities for creative play is particularly important because playgrounds in Slovene preschools are standardised and usually do not include any naturalised areas. Stiff rules governing playground safety considerations significantly limit the choice of play equipment, installations and other objects. Preschool outdoor areas include neither forests nor trees for climbing, whereas according to Moser and Martinsen (2010) more than one-half of the Norwegian kindergartens contain woodlands in their outdoor space and 70% offer climbing trees. Natural settings better fulfil children's requirements than standardised playgrounds (Fjørtoft & Sageie, 2000; Lee, 1999; Titman, 1994). Standardised playgrounds offer children insufficient opportunities for creative, child-initiated, symbolic play and manipulation with natural objects and materials. This is evident from the preschool teachers' answers referring to the most frequent activities of their children on preschool playgrounds. Guided activities and playing with objects that have a pre-defined use prevail; that is, playing on standardised installations and play equipment, guided movement activities and rides, and playing with accessories.

Approximately one-third of preschool teachers noted no barriers to increasing the time spent playing and learning in nature. Although many preschools are close to the natural environment, one-third of the preschool teachers mentioned the excessive distance of the preschool from natural settings as being an obstacle. A significant negative correlation was established between the distance of the preschool from the natural environment and the time spent in such settings, which indicated the great importance of this factor in terms of providing outdoor play and learning to preschool children. This limiting factor is even more pronounced with younger children. For younger children, even a 20-minute walk is a long distance. The results indicate that preschool playgrounds should include naturalised areas, which would bring the natural environment closer to the younger children. The second most quoted obstacle was the absence of staff given the legal obligation to provide an additional person to accompany children away from preschool grounds. By law, when children between three and six years old go outside the preschool premises, at least one adult must accompany each group of eight children (whereas the standard for indoor preschool activities is two adults per 19–24 children depending on their age). Unfortunately, the inclusion of parents or volunteers as assistants in such activities is not a regular practice in Slovene preschools. Preschool teachers often mentioned the preschool's limiting daily routine as an obstacle. The daily routine of Slovene preschool children is determined by mealtime (breakfast at 8.30 a.m. and lunch at noon), and it is common to rest after lunch. Therefore, little time exists for longer uninterrupted periods when children can play undisturbed in the natural environment. If we were to attribute this activity the significance it deserves, then we believe that this obstacle could be overcome by ensuring greater flexibility of mealtimes prepared in preschool kitchens. Fourth on the list of obstacles mentioned by preschool teachers is their

concern that when more frequently visiting natural settings, teachers would run out of time to fulfil all of the goals prescribed by the curriculum. Because children spend relatively little time in natural settings, these answers are surprising. The answers indicate that many Slovene preschool teachers do not consider play and learning in nature to be an integral component of the curriculum in all areas of learning. Cold and bad weather was also on the list of answers most often quoted by preschool teachers as a reason for avoiding going outside. We do not know whether this factor refers more to the teachers' requirement to protect children from discomforts or that bad weather inconveniences the teachers. Nevertheless, cold or bad weather results in children spending on average only half as much time outdoors during the winter months in comparison with the warmer months. This result indicates that teachers act more towards 'protecting' than 'strengthening' young children.

Teachers also quoted their concerns of being unable to ensure sufficient safety. When accessing natural settings, teachers mentioned traffic risks and increased risks during activities in nature, whereas many teachers observed that they had less control over children in such settings. Many teachers quoted the unsuitable natural environment in the vicinity of urban areas as a safety problem (e.g. because of dangerous waste, dog excrement and dogs off of their leashes). Stephenson (2003) noted that children's encounters with dangers linked to the outdoor environment are connected with the development of their self-confidence and their ability to effectively face danger. In our research, nearly one-half of preschool teachers agreed that remaining in nature actually results in more risk, but they were aware that children have to face such risks. Less than one-third of teachers felt that safety is a priority and that all activities should be subordinate to this factor. Safety concerns could thus influence both the time and quality of play and learning in nature. Our research did not show any significant correlation between the teachers' attitudes toward safety and time spent with children in nature. Research by Waite (2010) showed that similar obstacles that prevent potential outdoor learning occur in other countries. Apart from funding, the most frequent obstacles quoted by English teachers include an unsuitability of available natural settings, weather, safety concerns and concerns regarding unfulfilled curricular goals.

However, simply being outdoors is not enough. The time that children spend outside should have sufficient pedagogical value and should enable development and learning in compliance with the curriculum. The specifics of the outdoor setting should also be considered. Natural environments provide rich sensory experiences and many opportunities for manipulating natural, open-ended materials and child-initiated exploration and play (Ouvry, 2003; Wilson, 2008). Slovene preschool teachers' answers to the question of what their children do in the natural environment do not indicate an effective use of the natural setting's potential. The answers imply that most of the teachers prioritise guided, structured activities (activities related to natural sciences and movement) in the natural environment. Free play and self-guided exploration are not at the forefront of outdoor activities. Similar to findings concerning preschool teachers in Wales by Maynard and Waters (2007), Slovene preschool teachers often miss the opportunities that the outdoor environment affords

to enhance children's learning. The results may also indicate that preschool teachers fail to attribute the identical pedagogic values to free, child-initiated play that they attribute to structured, result-oriented activities. In comparison with guided activities, children's free play results in less involvement of and control by the preschool teacher. In the natural environment, these factors could be additional to increased safety concerns.

The answers to the question regarding obstacles also reflected some adverse parental attitudes towards their children playing in natural settings. Some teachers mentioned that parents sometimes exaggerate their care for preschool safety, as some parents bring children to preschool without proper clothes and shoes or children who are on the verge of illness and then ask the staff not to let their child go outdoors. Our research indicates that these parents represent a minority. Nearly all parents in our study answered that they want their children to have more contact with natural environments. Among other comments, parents often mentioned that, particularly during winter, when the days are short, they run out of time to provide their children with contact with nature. Parents favour the idea that preschools should also encompass naturalised areas. A large majority of parents would prefer a preschool on the outskirts of town with easy access to the forest. Such a large majority of parents (95%) may have decided on this option because it emphasises that children in such a preschool would have plenty of opportunities to play and learn in the natural environment. The vast majority of parents were also ready to invest additional funds to purchase outdoor clothes and shoes that would always be available at the preschool. Because parental beliefs about risk and safety are likely to influence the extent to which children's healthy positive risk-taking is encouraged (Little, 2010), we asked parents about their attitudes towards safety related to play in the natural environment. Our results do not show any pronounced parental safety concerns. Similarly to preschool teachers, nearly one-half of parents declared that they accepted danger as a component of play and learning in nature. In fact, considerably fewer parents than preschool teachers felt that all activities must be subordinate to safety. We conclude that the opinions of Slovene parents can be accepted more as an encouragement than an obstacle to the implementation of outdoor play and learning.

Sandseter, Little, and Wyver (2012) establish the possible impact of theory and pedagogy on the provision of outdoor learning. Similar to the majority of western countries, the Slovene practice also shows the prevalent influence of Piagetian and Vygotskian theory (Batistič Zorec, 2003). In this theory, according to which 'higher-order cognitive and linguistic structures guide exploration and processing of information' (Sandseter et al., 2012, p. 173), the direct connection with the physical environment is not obviously emphasised. Some other theories (such as Gibsonian or Dynamic Systems theories) place more emphasis on a direct connection with the environment, and, accordingly, exploration is guided by perception and 'is not mediated by higher cognitive processes in the development of knowledge' (Sandseter et al., 2012, p. 173). The authors of the mentioned article suggested that approaches based on Gibsonian and Dynamic Systems theories should be included in the training of preschool teachers. The results of our study indicate the necessity

of educating Slovene preschool teachers not only about other theories but also about the advantages that play and learning outside provide to preschool children in general. We believe that both an improved awareness of how important outdoor play and learning are for preschool children and the positive experiences of other European countries would additionally motivate Slovene preschool teachers to prioritise outdoor play and learning, to overcome imminent barriers and provide more outdoor play and learning, and to take full advantage of the natural environment in preschool children's learning processes.

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