

Language Learning in Outdoor Environments: Perspectives of preschool staff

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Abstract: Language environment is highlighted as an important area in the early childhood education sector. The term language environment refers to language-promoting aspects of education, such as preschool staff's use of verbal language in interacting with the children. There is a lack of research about language learning in outdoor environments; thus children's language learning is mostly based on the indoor physical environment. The aim of this study is therefore to explore, analyse, and describe how preschool staff perceive language learning in outdoor environments. The data consists of focus-group interviews with 165 preschool staff members, conducted in three cities in Sweden. The study is meaningful, thus results contribute knowledge regarding preschool staffs' understandings of language learning in outdoor environments and develop insights to help preschool staff stimulate children's language learning in outdoor environments.

Keywords: language learning, outdoor environment, preschool

Introduction

This article seeks to identify key issues which need to be addressed in order to use the outdoors as a stimulating language learning environment for children in preschool. It also discusses real and meaningful experiences described by preschool staff in early childhood education and care settings. In focus-group interviews, Swedish preschool staff members were asked to describe their work with language learning with respect to the outdoor environment. The aim of this study is to explore, analyse and describe how preschool staff perceive language learning in outdoor environments. In this study, language learning is explored in terms of Whitehurst and Lonigan's (1998) model, Components of Emergent Literacy (outside-in and inside-out processes), in which

oral language plays a key role for children's future reading and writing process, and how preschool staff in (teacher-child) verbal interactions can contribute to these skills.

The article has four starting-points. First, previous research shows that there is a lack of research in this area. Secondly, the scarcity of literature on this subject makes it important to examine language learning in outdoor environments. Thirdly, a portion of the everyday activities in most Swedish preschools occur outdoors, and we therefore draw attention to how staff members describe the outdoor environment as a language-stimulating environment. Lastly, preschool staff's use of techniques to promote language development, like employing language that encourages children to engage in reflective thinking (Harle & Trudeau, 2006) and asking open-ended questions in free-play activities (Rivera, Girolametto, Greenberg & Weizman 2005) may hasten children's language acquisition.

The Swedish preschool context

The Swedish history of early childhood education has been influenced by Friedrich Fröbel, (1887) who states that children should grow and develop in harmony with nature. The Swedish approach to pedagogy in preschool is above all influenced by Vygotsky's theories. The Swedish curriculum (Ministry of Education and Science 2010) is based on a broad definition of learning. Learning is seen as being integrated with caretaking activities. A common viewpoint is that learning occurs via social interaction and when the preschool teacher assists the child through 'guided participation' (Rogoff 1990; 1993). The curriculum further stipulates that preschool staff should provide opportunities that enrich the child's creativity and learning; this includes time spent outdoors, which also should provide such opportunities through both planned and spontaneous activities related to the environment. In Sweden it has become increasingly evident in the past decade that there is a pressing need to improve the support for preschools to provide adequate language learning for children. In our revised curriculum (Ministry of Education and Science 2010), language has received greater prominence. Among the most hotly debated questions is how and to what extent language learning should be guided (National Agency for Education 2005; 2008). Because children in Swedish preschools spend part of the day outdoors, it is interesting to study their opportunities for language learning in outdoor environments.

Preschool in Sweden is mostly publicly organized, and provides an educational group activity for enrolled children between the ages of one and five while their parents are working, studying, on parental leave, or unemployed, or if the children have special needs. More than 84 per cent of all children between the ages of one and five attend preschool, which is free of charge for children from three years of age. Children start preschool class at six years of age, and compulsory school at seven. There are two staff categories in Swedish preschools: preschool teachers and day-care attendants. Two thirds of all preschool employees have university degrees in early childhood education. The day-care attendants have a vocational qualification at the post-secondary level. Only six per cent of the preschool teachers in Sweden are male (National Agency for Education 2013).

A bioecological and sociocultural framework

We have combined bioecological theories with sociocultural theories and empirical studies focusing on language learning and outdoor environments. The study presented here is based on Bronfenbrenner's (1999) bioecological theory in which individuals and the environment influence and are influenced by one another in time- and context-bound processes. This includes how various conditions in different language-learning environments affect children's everyday life in preschool. This study is conducted at the micro level, where various preschool settings comprise an arena for children's language learning in interaction with the immediate environment (Bronfenbrenner, 1999; Smagorinsky, 2011).

The study also employs a sociocultural perspective (Säljö 2000; Wertsch 1998); which highlights how individuals construct their knowledge by participating and interacting in different social environments. Vygotsky's sociocultural theory (1978) has an important contribution to make for studying the environment's significance for language development. Vygotsky's approach is a historical theory, and requires, changes and modifications in diverse contexts (John-Steiner & Meehan, 2011). The outdoor environment provides children with opportunities to experience phenomena that contribute to their meaning making. The child's experiences in the outdoor environment give rise to verbal expressions describing things that cannot be experienced indoors, such as 'the wind is blowing' or 'stone is cold and hard' (Änggård, 2012). In play activities in preschool, children use their experiences to perform meaning making in social interactions with peers and adults and the immediate environment. Language mediates children's experiences and their external and internal thinking (Vygotsky, 1986; 1995). The constantly changing outdoor environment, with its shifting seasons and weather, expands children's range of experiences and stimulates their language use. Änggård's (2012) study shows that, unlike manufactured toys, natural environments and materials have an undefined character, which means that during outdoor play children constantly need to negotiate about the identity and significance of play objects.

Previous research

To investigate earlier research about language learning in outdoor environments, a literature search was conducted of existing empirical articles relating specifically to the outdoor environment and the language environment for preschool children. Three computer databases were used: Eric, psycINFO, and Web of Science. Of the 720 articles identified, 55 were selected as useful for further review, and the 17 most relevant ones are included here.

Winter and Kelley (2008) emphasize that forty years of research have provided evidence that high-quality school-readiness programmes give positive outcomes for children's language learning. However, when discussing the importance of preschool teachers' ability to create a stimulating language-learning environment, the focus is almost always on the indoor environment. This finding indicates a need for research investigating the outdoor environment's importance for children's future language learning and acquisition of reading skills. The literature identified above provides examples of classroom environments that are filled with language opportunities. Examples include planned group- and/or individual activities, informal activities that support children's language learning, space to play, opportunities to move freely, and a selection of materials that stimulate exploration and experimentation. Children's learning is facilitated through a well-planned indoor environment that involves a variety of activities and materials (see for example Figueroa-Sanchez 2008; Lake & Pappamihel 2003; Montie et al. 2007; Montie et al. 2006; Rike et al. 2008). Language learning is also dependent on social relationships (Bobys 2000) and teachers' conversational style and beliefs (Weigel et al. 2007). Some teachers use routine activities to create language opportunities, i.e. 'teachable moments', such as breakfast, lunch, changing diapers, and washing dishes and hands (Keith et al. 2002). Wayne and colleagues (2007) state that manipulating indoor environments can encourage literacy-related play. In an article about preschools inspired by the Reggio Emilia approach, the author did not describe language learning in outdoor environments, but instead described Reggio Emilia's principles as 'creating a learning community in the classroom' and 'developing knowledge and skills in the presentation of materials in the classroom'. One principle is also the importance of 'an environment that acts as a third teacher' (Fraser 2007, p.20). In Fraser's study this refers to a variety of materials being available in the classroom. She points out that preschool teachers inspired by Reggio Emilia (described as pedagogy of listening) modify their programmes and the indoor environments in accordance with the idea of the competent child.

Only a few studies have examined the relationship between outdoor environments and language learning. Fjortoft and Sageie (2000) and the World Forum Foundation (2011) describe play in outdoor environments as fostering language learning and collaborative skills and containing many imaginative and creative components. Miller and colleagues (2009) emphasize that when children engage in authentic play in outdoor environments, they develop skills in a variety of domains at the same time. The natural learning environment offers children something that stands in complete contrast to many of today's learning environments that value and employ 'skill and drill' and testing to validate learning. Jarman (2008) reported that outdoor environments are preferred learning environments for children because they provide many opportunities to encourage communication. According to Szczepanski (2007), outdoor activities combine feelings, sensory perceptions, activities, and thoughts. While the outdoor environment can be an environment for learning, he argues, it can also be the object of learning, and thus be a part of the learning process. This means that the outdoor environment constantly offers new impressions and phenomena, and children's knowledge and language are therefore constantly challenged.

As Waller (2007) asserts, it is likely that time spent outdoors affords more opportunities for sustained shared thinking than time spent indoors. This shows the importance of highlighting the opportunities that outdoor environments afford. Gibson (1979) defines an affordance as a latent possibility for significant and important action in an object or environment as seen by the individual. As maintained by Niklasson & Sandberg (2010) the challenge for preschool staff is to create an outdoor environment that is both a private and public space with interesting affordances. Even Waters and Maynard's (2010) study about affordance points to the importance of understanding children's perceptions and, if necessary, making certain functions prominent for children to encourage their understanding of the environment.

The Nordic preschool tradition emphasizes the value of outdoor environments for young children (Sandberg, 2003, Waters & Maynard, 2010). Since, the outdoor environments demonstrate the value of natural outdoor space for children's activity. Swedish preschools are known for taking children outdoors no matter what the weather conditions are. This is probably because of the shared assumption that children are healthier the more time they spend outdoors. Martin (2004) points out the risk that the changing outdoor activity, content and context of outdoor education have been replaced by desk teaching "deskilling" (p. 27). The study show, there is an inherent risk of de-stabilizing the longstanding attractiveness of outdoor education processes and may even work against improved relationships with the natural world. Additionally studies (see for example Sandberg 2008; Sandberg & Pramling Samuelsson 2003, 2005; Sandberg & Vuorinen, 2006), show that children's play outdoors has changed. The preschool teachers view of outdoor play is that outdoor play has declined as, due to children's lack of time for free play, interruptions and organized activities, and media's influence. Today childhood is organized around formal activities and media to a greater extent; for example tablet computers and cell phones have influenced childhood. Furthermore, the twentieth century saw the transition from an agricultural to an industrial and finally an information society. The resulting increase in prosperity has been visible in children's access to larger spaces indoors. In the past, outdoor play was common. One explanation of the changes may be that the media has great appeal to today's children, causing the time they devote to outdoor play to decline. Today's children grow up with many activities that are conducive to sitting still indoors such as watching TV and video, and playing computer games, as well as organized activities that sometimes are considered more important than playing outdoors (Sandberg, 2003). However children enjoy exploring what is going on in their surroundings – climbing slopes, encountering animals, shouting, running, and jumping (Niklasson & Sandberg, 2010). Media and outdoor activities do not need to be mutually exclusive, however. On the contrary, the outdoor environment and digital tools can jointly contribute to the learning environment;

for instance, the tablet can be brought outdoors to document outdoor phenomena, and this documentation can be used in language-developing activities (Norling, 2013).

The physical environment plays a fundamental role in the development of young children. Rivkin (2000) states that young children need physical opportunities and stimulation. For example, they need objects that are interesting from a horizontal as well as a vertical posture, such as places to crawl and things to pull themselves up on as they develop their skills. Young children need places and spaces for acting out experiences, because their physical development is dominant and fuels their cognitive development. Furthermore, Barrett (2007) points out that a significant gap may exist between teachers' training in environmental education and their pedagogical practices. Teachers who are well versed in environmental education techniques and motivated to apply them seem to have difficulty teaching in a student-centred way, even when they have ideal opportunities to do so. To conclude, until now, the early childhood sector has seldom appreciated or focused on thinking about how outdoor environments are valuable for language learning. This brings us to the following research question: How can the outdoor environment serve as a stimulating language learning environment?

Method

Participants

The sample consists of 165 preschool staff members, whose experience of working in preschools varied from less than one year (4%) to 20 years or more (50%). Apart from two men, all participating staff were women, with 30% in the age range of 18–40 years, 29% in the age range of 41–50 years, and 36% in the age range of 51–70 years. Their level of education and formal qualifications varied: preschool teachers (58.2%), early years education teachers (9.9%), day care attendants (28.0%), and no or other education (3.8%).

Procedure

Initially, contact was established with managers of child and youth committees in three cities in three different counties. Information was given by phone and letter about the aim of the study. The preschool district managers were asked to contact the directors of individual preschools and request their participation. The directors of the preschools were then asked to select units and staff members to participate based on their level of interest. Letters of consent were then distributed to the principals, directors, and preschool staff members. The project has been approved by the Regional Ethical Review Board in Linköping, Sweden. The preschool staff were personally informed about the project and relevant ethical considerations: the information requirement, consent requirement, confidentiality requirement, and use requirement (ethical principles in social sciences research, Codex 2002). Consent from parents was not required since the data was only gathered at the preschool level and not at an individual level. This study is, however, part of a larger research project that is investigating the overall physical and social language environment in Swedish preschools.

The project employed a questionnaire (n=165). First, a questionnaire was sent or personally delivered to each preschool staff member. The participants completed the questionnaire before the focus-group interviews were conducted. Because the focus of this study is to explore, analyse and describe how preschool staff perceive language learning in outdoor environments, only the questions regarding staff background were used, while the analysis is based on the focus-group interviews. The advantage of focus-group interviews is that the information that emerges can be richer than in separate interviews, since the participants both stimulate each other's thinking and encourage each other to elaborate on their statements (Kreuger 1994; Morgan 1996, 1998).

The number of participants in the focus groups varied from two to six in each unit. All participants agreed to participate in the focus groups, but unfortunately a few participants cancelled at

the last minute. Therefore some of the focus-group interviews had to take the form of a small group discussion. Wibeck (2000) argues that there is a risk of one participant taking over and dominating the focus-group interview if there are too few participants. However, Fontana and Frey (1994) claim that it is possible to successfully conduct small focus-groups if the moderator is observant of everyone's varying perceptions. The preschool teams from each unit were interviewed separately, because interaction within the group was facilitated by the participants having a similar frame of reference (Kreuger 1994; Morgan 1998). In the opening session, participants were informed of the procedure used in focus-group interviews. Participants' personalities can influence the effectiveness of conversation; for example, dominant participants can cause the more reserved participants to be less vocal (Wibeck, 2000). The moderator was aware of these tendencies and therefore actively made sure that everyone got a chance to speak. The observer was responsible for the technical equipment (two tape recorders and two table microphones), took notes, and presented an oral summary at the end to ensure that no misunderstandings had occurred and that all participants had been given an opportunity to develop their thoughts and clarify their views.

The questions asked were open-ended in character and the research question was as follows: How can the outdoor environment serve as a stimulating language-learning environment? The moderator sometimes asked follow-up questions or prompted participants to expand on their thoughts. The focus-group interviews were taped and transcribed in their entirety. Two focus-group interviews were held with each unit, apart from a few drop-outs. The first occasion involved 55 units (n=165), but on the second occasion, six months later, some units were unfortunately not able to participate because of illness or changes in the workplace. On the second occasion 47 units (n=138) participated. This time the participants were given some brief feedback from the first interview as well as an opportunity to discuss the results before the second interview began.

The approach in the second round of interviews was the same as the first time, beginning with the same open-ended research question. However the interviews were augmented with three specific follow-up questions in order to elicit richer descriptions from the staff, because on the previous occasion they had expressed that it had not occurred to them to view the outdoor environment as a language learning environment. The specific follow-up research questions were as follows:

In the previous focus-group interviews, it emerged that preschool staff sometimes do not offer children manufactured toys outdoors. What do you think about that? What happens with children's language use when they do not have toys available?

In the previous focus group-interviews it was said that "dialogue is completely different outdoors". What are your thoughts on this? In what ways are these dialogues different, and what do these dialogues contain?

In the previous focus-group interviews it emerged that children are given opportunities to move freely and can play loud games outdoors, which may influence their language use. What are your thoughts on this? How could it affect language learning?

On the second occasion, the focus group interviews lasted 60–90 minutes and were recorded and transcribed. The transcribed material comprises approximately 500 pages for the first round, and 450 pages for the second round of interviews.

In conducting focus-group interviews, the concept of ecological validity is useful. This refers to a variety of data being collected through communication with various participants in a group of people who interact with each other. Participants' reflections are changed and modified, which results in the emerging data being more ecologically valid than in interviews with individuals who form their reflections alone (Albrecht et al. 1993; Wibeck 2000).

After the data collection and analysis were completed, the participants were invited to a conference organized solely for participants in the research project. The participants were informed about the results of the focus-groups interviews and were given an opportunity to comment.

Analysis

The qualitative analysis was based on a latent content analysis approach (Graneheim & Lundman 2004). The analysis focused on the phenomenon of language learning in various outdoor environments and content areas. Based on bioecological theory and socio-cultural theory, the analysis examined how preschool staffs perceive language learning in outdoor environments. This means that the emphasis was on the preschool staff's statements and reflections about their experiences of language learning in outdoor environments. During the initial phase of analysis, the answers were read repeatedly in order to gain an overall impression and to find patterns. After this general analysis, the main analysis was undertaken with the initial aim of identifying and describing generic characteristics of language learning in outdoor environments – that is, things that were common to all participants. The material was read through and statements that indicated the significance of language learning in outdoor environments were marked. Secondly, categorizations were defined based on similarities and differences between these generic characteristics. The intention was to highlight the variations in the staff members' perspectives on language learning in outdoor environments and, at the same time, to ensure validity and reliability through clarity and transparency.

According to Bronfenbrenner's (1999) bioecological theory, development and learning take place through interaction between the person and the context. In this study the learning environments are described in terms of a threefold process, with development and learning taking place through interaction between the person and the context, both physical, i.e. outdoors, and social, i.e. preschool staff supporting language strategies and peer interactions. In their statements, preschool staff describe the opportunities for learning and development that are provided to the children. Further, Vygotsky's sociocultural theory and Bronfenbrenner's bioecological theory are both based on people's experiences and historical perspectives. Language development processes occur in interaction with the social and physical context. This means that children's language learning outdoors changes over time (in the so-called proximal processes) and depends on the preschool staff's strategies and interactions with the children in the immediate environment. Thus, by analysing the transcriptions of the preschool staff statements in terms of Whitehurst and Lonigan's (1998) model, this study has been able to provide some insight into what opportunities for language learning and development in the outdoor environment that preschool staff provide children in preschool.

The intention was to highlight preschool staffs' perspectives on language learning in outdoor environments and at the same time to ensure trustworthiness through credibility, transferability and dependability. To this end, several steps were taken. The demand for credibility pertains to the 'transparency' of the research process, all phases of which should be accounted for as thoroughly as possible, as well as to the decisions made during the research process. The possibility to verify and confirm requires that the conclusions made by the researcher be well grounded in the research sample. They must not be twisted to fit the researcher's personal values or theoretical preference. In this article, a broad theoretical frame of reference is initially given, in which different perspectives concerning language learning are presented. The authors were careful to follow the interview guide so that the interview situations were as similar as possible for all of the participating preschool staff. During the interviews, follow-up questions were asked if the answers were unclear. Both authors have been involved in coding the interviews. Furthermore, the participants were given an opportunity to discuss the results of the study with the authors. The results are also supported by quotations from the interviews. Thus the quotations are used not only to enrich the results and make them more concrete, but also to show that the results are supported by the participants' statements. Credibility has also been improved through peer debriefing, where colleagues have been invited to comment on our text.

A study's transferability concerns the extent to which the results are applicable to other contexts and systems (Graneheim & Lundman 2004). The categorization was discussed among the

researchers. The findings were presented at a national conference in order to receive critical feedback, which also contributed to ensuring the relevance of the research. Dependability is almost impossible to guarantee in a qualitative study, we have presenting thick descriptions of methods that we have used.

Results

The outdoor environment comprises the preschool yard as well as the woods and playgrounds near the preschool. The data analysis highlighted five themes related to language learning in outdoor environments: play, other activities, pedagogical dialogue, interaction (between children) and freedom. The five themes are further explained below.

Play

Various organized outdoor games are seen as useful language learning environments. This is exemplified in the following quotation:

You can always play games with children, such as chasing. They can get a lot of language from that. When you talk about what you're doing and how you felt scared now, what it felt like when that happened, and so on. [112001]

In the above example, 'language' appears to refer to the dialogue that accompanies events and emotions when children play games. Staff describe how a lack of manufactured toys creates an environment that stimulates language learning. There are no manufactured toys available in the woods, and this causes children to play with each other in a different way; they have to interact and talk with each other more.

When we leave the preschool yard we do not have any toys. It's a different kind of play, one that encourages conversation and interaction. Otherwise they always play the same way all the time. For example Charlie and I drive the same car the same route. If we go to the woods and there is no car; you have to do something else. We must talk more in order to play.[136001]

The preschool staff point out that they also sometimes actively choose not to use toys when they are in the outdoor environment. They believe that it is beneficial for children not to always have access to toys. Children can play freely without toys and discover other play materials such as sand and water, or snow, as in the example below.

R: so we tend to think, today, we won't use any toys. Like when there's a lot of snow, they can do something else instead.

I: What about language?

B: With some children, there's no noticeable difference. Of course, some say they won't play. But, it's good to practise playing without things. They can play with each other and talk with each other. [1710901]

Here one can infer that the staff have difficulty explaining the effects on language use of children not having outdoor toys. It seems that preschool staff do not reflect on their own role of providing children with reciprocal interaction, motivating them, and engaging them in language stimulating activities.

To conclude, in an outdoor environment children play in different groups and with other peers than otherwise, and do not always have access to manufactured toys. The preschool staff point out that playing in the outdoor environment promotes children's language through organized games. However, the data can be interpreted as suggesting that preschool staff lack knowledge, or are unaccustomed to reflecting about their own efforts to initiate play, especially when the preschool children do not have access to toys.

Other activities

The language learning in outdoor environments encompasses many activities. In this study, this is exemplified by mathematics in the woods, 'colour, shape and counting nuts and pine cones'. One focus-group discussion also described how the preschool staff worked on a children story in the woods:

One year when I was working with five-year-olds, the woods became their base. We had a spruce hut where we sat and wrote a story. It was so inspiring to sit there; it was great. Each time we went there, the children got to build on their story. It was amazingly interesting. The story would probably have been quite different if we created it at home. It is the environment that inspires language. [1710101]

Physical activities such as jumping and walking in the woods were also language-promoting activities. Movement and music are also examples of activities that promote children's language skills in the outdoor environment.

Of course, we do a lot. We do almost everything out there that we do inside. Now, if we use the tape recorder or CD player and dance, we take it outdoors as well; kids love music and singing, and it creates camaraderie and they sing and talk about it. [101001]

Here we can also see that the preschool staff do not differentiate between indoor and outdoor environments for promoting language skills in preschool. However, many activities that occur indoors are also available outdoors. Furthermore, in these quotations the preschool staff indicate that they participate in outdoor activities and engage in reciprocal interaction just as with indoor activities.

Pedagogical dialogues

The preschool teachers pointed out that they talk with the children about what they see in their surroundings. This could be such things as plants and animals in the woods, or water, rocks and leaves in the preschool yard. They have dialogues about weather when they are outdoors with the children, which also promotes children's language learning.

B: Yes, there will be conversation about everything. This creates chances for other dialogues as well ...

I: What might you talk about?

B: The weather; for example, look at the clouds, and what does it mean to have clouds. [136001]

The preschool staff often said this leads to other dialogues, but they had difficulty explaining how these dialogues occur, and how they differed from indoor dialogues. Regarding the outdoor environment as a language learning environment was perceived as a new way of thinking.

Interaction between children

Language learning in the outdoor environment also promotes interaction. Some children may receive more attention and opportunities to contribute in the peer group in an outdoor environment. Some children may have a less prominent role among the children in the indoor environment, but play a more prominent role outdoors because they have knowledge about nature. The outdoor environment provides conditions for meeting other children and talking and interacting with them. Outdoors they form various groups with children from other units in the preschool more often.

But in the woods, different environments can also affect children. If you're always in the preschool yard, perhaps children will always ride their tricycles. If we go to the woods, we may be able to play with a lot of other children. For example, playing around a rock, and the rock becomes a boat. You might be able to play with friends of different ages in any way, which stimulates language at the same time. [1910401]

In the above quote, the staff member points out that meeting different children and children of varying ages promotes language learning. Other topics raised in the interviews were that there is more space to move around in the outdoor environment, which facilitates interaction and speech, and that there are not as many conflicts as in the indoor environment. Still, the preschool staff seem to forget the significant role they can play in outdoor activities, as they only describe how children stimulate each other in outdoor language-learning environments.

Freedom

The preschool staff describe the outdoor language learning environment as a free environment and perceive it as more peaceful than indoors. They also point out that it provides opportunities to move around and play loud games, which also influences language learning.

Some staff felt that the outdoor environment gave children greater freedom from adult supervision. However, the staff were not as close to the children in the outdoor environment, which also affected language learning. Therefore it may have influenced language learning in both a positive and a negative way, with peers learning from each others' language, but preschool staff having fewer opportunities to develop children's language because of the greater distance between them and the children.

I find that we are not as close to the children. At the same time there are more children and they talk to each other. In any case, I believe that we have greater distance from the children when we are outdoors; we're closer at the table or sofa. When we go outside, there are few preschool staff outdoors, and so we must be more mobile. Indoors we can sit still, and outdoors the children talk more with each other. [147001]

In the quotation above preschool staff describe not being as close to the children in the outdoor environment as in the indoor environment. Children have more dialogues with each other in the outdoor environment, but lack an adult who can challenge their language use.

To sum up, in the interview quotes presented in this entire section of the results, participants gave examples of a variety of ways outdoor environments stimulate language learning, e.g. through play, pedagogical dialogues, interaction between children, greater freedom outdoors, and intellectual, physical, and aesthetic activities.

Some participants had difficulties reflecting on their role in stimulating children's language, and they could not explain what was happening in certain outdoor environments regarding language learning in preschool.

Discussion

How can the outdoor environment serve as a stimulating language-learning environment? In this article we have chosen to concentrate on the role outdoor environments play in shaping language-learning environments for preschool children. In so doing, we have found that outdoor environments can offer very powerful tools for creating language environments, but that this depends on how aware preschool staff are of language learning in outdoor environments. Some preschool staff were not used to describing the outdoor environment as a learning environment, indicating that they may not have reflected on this possibility. However, in the second round of focus group interviews, they provided more specific information about strategies, for example giving children opportunities to move freely and play loud games outdoors. Early nature experiences in outdoor environments have a tendency to support language learning. The outdoor environment is a special context for children's language learning because it provides readily available stimulation; as a staff member mentioned: *'there will be dialogue about everything. This creates chances for other dialogues as well.'*

Early preschool theories about children's learning originate from Friedrich Fröbel's idea that children grow and develop in harmony with nature. However, this study challenges this theory, and shows that preschool staff have a different view of learning environments with respect to language learning in outdoor environments. In fact, some preschool staff said that viewing the outdoor environment as a stimulating language-learning environment was a new way of thinking. The locus of children's language learning has shifted from the actual outdoor environment, where children's minds can develop through many forms of free exploratory learning, to the indoor environment, where organized exploratory learning is prioritized. Of course, preschool staff do their best to ensure that children receive opportunities to explore and use their minds in different language activities, but it seems that preschool staff do not reflect to any greater extent on the language-learning environment that is offered outdoors. In addition, some preschool staff seem to take a more passive role, as playground monitors, instead of promoting language-learning activities outdoors. Earlier research by Barrett (2007) shows that there is a gap between the teachers' competence in environmental education and pedagogical approaches. The results of this study seem to be consistent with those of Barrett's study, even if this study focuses on language learning outdoors and not on environmental education. The adoption of a passive role by some of the preschool staff in this study seems to derive from their lack of reflection about the outdoor environment as a language-learning environment. They only describe interaction between children, not between children and staff. Because of this failure to reflect, they miss the opportunities that are available to challenge children's thinking about the phenomena that exist outdoors. According to Barret (2007), student-centred and emotion-based approaches could be a way to stimulate children's curiosity and challenge their thinking.

However, the results of this study also show that some preschool staff members do challenge children's language learning in the outdoor environment. They describe encouraging children to play outdoors and without toys. Furthermore, the preschool children play with each other in a different way; as one staff member says: *'they have to interact and talk with each other more.'* Some staff members stated that they encourage the children to make up their own stories in outdoor environments. The preschool staff thought that the contents of the stories would have been different if they had been made up indoors, but no one reflected over or described the reasons for this.

According to Szczepanski (2007), children's motivation and understanding increase when the learning environment is moved outdoors. Outdoor activities and events provide opportunities to explore, investigate and reflect, which are crucial for children's ability to acquire a rich and varied language.

This study shows that the capacity of the outdoor environment to serve as a language-learning environment is commonly underestimated and left unreflected upon. However, some preschool staff describe how dialogues with the preschool children are different in an outdoor environment than indoors. The contents of the dialogues mostly concerned phenomena in the surroundings, like plants, animals, water and rocks. Furthermore, some preschool staff explained that they challenge preschool children with open-ended questions like, "look at the clouds...why are they so dark?" According to Säljö (2000) and Wertsch (1998) children need different environments to create meaning, individually and together with adults and peers. Outdoor environments provide both physical and social learning in interaction with the immediate environment and the individual (Bronfenbrenner 1999; Szczepanski 2007; Vygotsky 1995). Vygotsky (1995) argues that children, in interaction with peers and adults, need environments for exploration and experimentation, places where they have the opportunity to talk about their past experiences and extend their knowledge and experiences, in order to create meaning and sense. This is only possible in physical and social environments (Whitehurst & Lonigan, 1998) that encourage exploration and reflective conversations. If children are not given access to varied learning environments, there is a risk of a gap emerging between children's experiences and their new knowledge. The outdoor environment provides endless opportunities for metacognitive conversations in which language is constantly challenged. An exploratory approach can be based on natural phenomena. For instance, in a natural setting questions of how, what and why can be used to stimulate children's learning and understanding (Jarman 2008; Miller et al. 2009).

As shown in this study, a children's language learning can be as successful in the outdoor environment as it is indoors when preschool staff engage them in verbal interactions. However, motivating preschool staff to use a variety of language-developing techniques in outdoor environments is a complex task. Barrett (2007) emphasizes that even a highly motivated teacher who is passionate about environmental education can have difficulties adopting an outdoor pedagogical approach. Davies (1996) stresses the need to understand teachers' awareness of advantages associated with outdoor learning, as staff have a tendency to relate outdoor learning with physical and social development, rather than with educational opportunities. This can limit the opportunities that teachers provide for children in the outdoors. It is a challenge for the early childhood education sector to help preschool staff to develop the competence, knowledge and attitudes needed to use these environments and to conquer the barriers they associate with these environments. In-service education may be one way to address the attitude component (Sandberg, Anstett & Wahlgren, 2007). Also, Barrett (2007) emphasizes that a more student-centred and emotional approach could be a way of reducing the gap. This indicates that preschool staff might need in-service training in children's learning opportunities in the outdoor environment as well as opportunities to discuss their approach to the subject.

Consequently, it appears that what is needed is a balance, with future early childhood educators using both indoor and outdoor learning experiences for children's language learning. There is also an opportunity for preschool staff to promote possibilities for language learning in outdoor environments. Play in outdoor environments enhances the learning environment, increasing children's creativity and improving their problem solving and decision making skills. Outdoor environments provide possibilities for more varied and less structured activities than indoor environments. Children can use more physical movement and have a feeling of freedom (Sandberg, 2003).

Implications

It seems that language learning in outdoor environments is a largely unexplored subject in previous research, in which children's language learning is mostly understood in terms of the indoor physical environment (see for example Figueroa-Sanchez 2008; Lake & Pappamihiel 2003; Montie et al. 2007; Montie et al. 2006; Rike et al. 2008; Winter & Kelley 2008) and the social environment (Bobys 2000). Previous studies also highlight teachers' perceptions and attitudes (Weigel et al. 2007) and the importance of linguistic environments in routine situations (Keith et al. 2002). The results of this study show that not much light has been shed on language learning in outdoor environments, either in earlier research or in the preschool practice. This means that more research is needed on this subject to highlight the outdoor environment's importance for developing children's language skills. Research is also needed to contribute more knowledge about early childhood education and find didactic implications. This is particularly important because the language environment is highlighted as an important area of content in the Swedish curriculum (Ministry of Education and Science 2010).

Concerning pedagogies, there are many reasons to look at the conditions children face today with regard to language learning in outdoor environments, as well as at the significance of preschool staff's ideas when it comes to children's opportunities to process their impressions of everyday life. Staff in preschool can use the findings of this study to discuss children's language learning in outdoor environments. Furthermore, it is essential for preschool staff to discuss their approaches to children's language learning in outdoor activities, as well as their intention to challenge children's language learning in outdoor contexts. They can also discuss their own experiences and the existing values and attitudes regarding language learning in outdoor environments. The findings of this study may stimulate new discussions on preschool children's language acquisition, which in turn may influence preschool teachers' understanding of how to organize the outdoor learning environment.

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