The environment as prerequisites and constraints for children’s learning

Abstract
This paper discusses the prerequisites and constraints pre-school encounter when they plan and arrange the physical environment in pre-schools. The main focus is on pre-school teachers’ views on children’s possibilities to interact with the physical environment. The main questions in this paper are: What factors are emphasised by the pre-school teachers in their planning of the physical environment in pre-schools? How do pre-school teachers apprehend children’s possibilities to affect the physical environment in the pre-school? Pedagogues in five work-teams in five different preschools have been interviewed; all in all 13 pedagogues. An attempt to use framefactor theory is made in order to see what effects the pre-school teachers attitude to and planning of the physical environment have on children’s learning processes. The results show that rooms are created on one hand through physical frame factors and on the other hand through more organizational frames. However, the children themselves also create the rooms. The specific affordances the environment offers, attract children and an interaction between children and the physical environment is then possible. Furthermore, the study shows that some work teams express a more flexible and positive attitude in meeting the children’s eagerness to change the environment. They also have clear rules and limits. Other work teams where teachers see the necessity of continuously following the children with requests and restrictions, seem to never reach a balanced relation between children and pedagogues and between prerequisites and constraints.

Extended summary

Introduction
As early as the beginning of last century Vygotskij pointed at the importance of the physical environment in educational processes. He developed the fundamental idea about mediating tools in the learning process. The mediating tools, which can consist both of verbal tools and physical artefacts, result in a possibility to understand the world around and how to face it in different ways (Vygotskij, 1978).

This paper reports about the pre-school teachers’ views on the physical environment in Swedish preschool. It is about the prerequisites and constraints that pre-school teachers in five different pre-school settings experience in planning and arrange the physical environment. The main focus is on pre-school teachers’ views on how children during one day in preschool have a possibility to collaborate with the affordances of the physical environment.

The room in didactical circumstances is often disregarded according to Selander (2004). Concerning the didactical questions about teaching and learning they have by tradition consisted of contents in teaching, what? how? and in certain cases of reflections about why? However, it is never asked where this will take place. The Swedish curriculum for pre-school, Lpfô 98, informs that the pedagogy is to stimulate pleasurable learning and should be the basis for pedagogical work. Where this will take place is then a relevant didactical question. Taking a sociocultural perspective as a starting-point, the physical environment will be
interesting to study, since it can be seen as a mediating tool in children’s acting and perception of the surrounding (Säljö, 2005).

The main questions in this paper are: Which are the underlaying causes when the pre-school teachers arrange the rooms of the pre-school? What factors are emphasised by the pre-school teachers in their planning of the physical environment in pre-schools? How do the pre-school teachers apprehend the children’s possibilities to affect the physical environment in the pre-school?

**Theoretical framework**
To investigate what effects pre-school teachers’ attitude to and planning of the physical environment have on children’s learning processes frame factor theory is used. In frame factor theory there is a distinction between constitutional, organizational and physical frames. According to Lundgren (1979; 1999), frames can give or not give opportunities for certain learning processes. They can not by themselves cause a certain outcome, but if there is a purpose for the process, the frames can be adjusted to make the process possible. My intention is to explore what kind of frames affect the planning of the physical environment in pre-school according to the pedagogues. By applying frame-factor theory it will be possible to clarify the prerequisites and constraints for children’s learning processes in the physical environment in pre-school.

**Method**
Pedagogues in five work-teams in five different preschools have been interviewed; all in all 13 pedagogues. This work was carried out in each preschool during spring 2006. The interviews were semi-structured and formed the starting point for further discussions. The interview notes were typed out after each interview and were then analyzed and categorized.

**Results**
From categorizing the interview responses, two main categories emerged that capture factors viewed as important by the pedagogues when they plan the physical environment. One category represents opinions that are based on the fact that physical things themselves create the room. The other category represents opinions that are rooted in a belief that rooms are created through interaction between the individual and the physical factors.

According to the interviewed pedagogues, frame-factors like sets of shelves, walls and organisational frames like routines and time shape the rooms. To sum up, rooms are created on one hand through physical frame factors and on the other hand through more organisational frames. However, children themselves also create the rooms. The specific affordances the environment offers attract children and an interaction between children and the physical environment is then possible.

Two categories emerged regarding the way pedagogues express prerequisites and constraints for the children’s interactions with the environment: The first one is built on opinions about possibilities and limitations according to children as individuals. It can be seen as an equivalent relation between pedagogues and children. The other one consists of opinions about possibilities and constraints according to children as a marginalized group and is more built on presumptions that children, because of their small experience, need evident limits and will not be given too much acting space.
A recurrent affecting factor of children’s possibilities to change and interact with the physical environment is time. Time is mostly seen as a limiting factor and is also seen as a recurrent seasonal factor. The opinions of the pedagogues in the first category are signifying a more flexible attitude to children’s opportunities to affect the physical environment.

Conclusion
Some work teams express a more flexible and positive attitude to meet the children’s eagerness to change the environment. They also have clear rules and limits. But one thing does not have to exclude another. Their attitude seems to be grounded on a desire to take into consideration both prerequisites and constraints as matters of action which becomes evident through the limits they set for the children. Other work teams where teachers see the necessity of continuously following the children with requests and restrictions, seem to never reach a balanced relation between children and pedagogues, and between prerequisites and constraints.

References