



Studying Teachers' Work Through Mind-Maps¹

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INTRODUCTION

There have been great changes in the organisation of school and pre-school in Sweden during recent decades. Several reforms aimed at a better integration between pre-school, school and leisure-time centres for schoolchildren were implemented during the 1990s (Lundgren, 2002). In 1996, the responsibility for pre-school was moved from the Department for Social Services to the Department of Education, which was a historical change, as preschool for the first time became an integrated part of the Swedish school system. A new National Curriculum was introduced in the compulsory schooling sector in 1994 and the pre-school sector got its first National Curriculum in 1998. Changes in organisation and models of steering have implications for teachers working in those institutions. A discourse of lifelong learning emphasising learning for the youngest children also put new and different demands on pre-school teachers (Johansson, 1999; Lindahl, 1996). For primary school teachers, integration with preschool and leisure-time centres has meant new and different demands on collaboration and adjustment to new groups of team members.

In this paper we want to describe the everyday work of those teacher groups. To do that, we have developed an approach using group interviews as a basis for graphic presentations inspired by so-called 'mind-maps'. Our aim was to present as detailed as possible a picture of teachers' work in different contexts. Below, we present this method and discuss its value in studying teachers' work.

CONSTRUCTING A MIND-MAP

This study focused on teachers' work, not only the work connected with teaching but all the other tasks that have to be attended to during the school-day. Case study was chosen to capture the complexity and wholeness (totality) of the teacher's work, which is implied in the purpose of the study (Merriam, 1988; Stake, 1995; Yin, 2002). A case study demarcates an area for study, and as a researcher one has to be open-minded and sensitive to what appears within the case. A case study offers freedom in choice of techniques and also in combining different techniques with the purpose of generating new knowledge (Merriam, 1988).

We wanted to capture aspects of teachers' work that, perhaps, according to theory, are often overlooked because they are connected to femininity or to

¹ This paper is a summary of a full paper presented at the EERA Conference, Dublin, September 7-10, 2005.

women. The issue of which tasks are considered as 'work' in a certain context is related to the gender order in school and society (Fletcher, 1998; Tancred, 1995). We also wanted to focus on aspects of teachers' work that take place outside the classroom but are essential for the work there and take up a lot of work time. We wanted to use a method that could be greatly influenced by the teachers themselves, which is very important in both feminist research and action research, as both traditions strive for participation in communication (Hansson, 2003; Weiner, 2003). We wanted to combine different techniques of data-gathering and to meet the teachers in their working teams. Based on these starting-points we chose to combine group interviews with the writing of mind-maps during the interviews. In this paper, two such interviews with mind-maps are presented; one from pre-school, where the working team consisted of three teachers² and one child assistant; and one from a primary school where the working team consisted of two teachers.

We used mind-maps differently from the customary way (Buzan, 1994) and from how it has been used in some research studies (Khatti & Miles, 1993; Scherp, 2005). First, we did not interview individuals but the whole working team. Second, we have not looked for understandings of a particular phenomenon but of the wholeness of teachers' work. Third, we have not attempted to compare the mind maps, but rather to use them as a way to get a picture of what is included in teachers' work in a specific site of practice.

The interviews were very open, and initially we just asked the question, 'Tell us about your work in this place!' The conversation was focused on teachers' work, its content, how it is carried through etc. When the teachers started to talk about the children we probed with questions like, 'What does that mean for you in your work?'. While the teachers were speaking we wrote key words on Post-It stickers and put them on a big sheet of paper in front of us all. All Post-Its connected to a certain theme were grouped together on the sheet and when words connected to another theme turned up they were put in another place on the sheet. After about 15-20 minutes we stopped the discussion and we all looked at the stickers and emerging themes on the sheet. Circles were drawn around concepts that hung together and arrows were drawn between Post-Its that were connected. New questions were asked about whether the words were organised into the right themes or should be moved. This was a time for reflection when the teachers were able to observe the pattern and move stickers to another theme.

After the interview was finished we rolled up the big sheet together with all its Post-Its and as soon as possible we studied the sheet and rewrote it as a mind-map. Two over-arching themes emerged. One was about *organisation and planning the work* and the other was connected to *goal and content in the work together with the children*. The name of the site was written in the middle of the sheet and all themes concerning organisation and planning the teachers' work were put on the left-hand side. Themes connected to goal and content in the work together with the children were put on the right-hand side. The mind-map was then sent back to the teachers. At a second interview we discussed it with the teacher teams and they discovered some missing areas. In both sites the teachers pointed out that tasks related to the initial training period for the children as they move from pre-school to school or from lower to higher classes

² We use the term teachers for both pre-school and primary school teachers except when we need to point out a difference. Teachers in pre-school work with children 3-5 years of age. In primary school the children are 7-9 years old. In Sweden six-year old children go to pre-school class. Data from this is not included in this paper.

in primary school was missing. Another area was the teachers' in-service training. The mind-maps were then completed. After several iterations each mind-map was recorded in its final form (see Appendices).

During this process several stages of interpretation took place. First, the two main areas were created during the transfer of all the concepts from Post-Its to the written mind-maps. It was important to visualise both these areas because often, when teachers' work is talked about, one part, the work connected to the children, is foregrounded. Constructing the map in two parts clarifies how many teachers' work tasks are connected to planning and contacts with other people. Thereafter, in this process themes were found within each area, labelled and presented with several examples.

SOME CONCLUDING REMARKS

The two mind-maps show a very complex picture of teachers' work, and a cluster of different tasks with different characteristics. Meetings and tasks related to organisation and planning take up more space in the maps than those related to children and pupils, but it is important to emphasise that the maps show different types of work tasks, and not a distribution of work hours. At first sight, the similarities between the two teacher teams seems to be obvious, but at a more detailed level of analysis one can also find a lot of differences.

For example, both pre-school teachers and primary school teachers have to attend a lot of meetings, with their teacher teams and with other personnel inside and outside their own institution. But, it seems that the meetings in pre-school to a greater extent are connected to their own group of children and to specific children, while the primary school teachers are representatives for their teacher workgroups in certain meetings concerning the whole school unit. Both teacher teams emphasise socio-emotional aspects of work, using expressions such as 'security', 'social interaction' and 'self-confidence'. They also point to the importance of the 'subject' content, even if that content differs: the pre-school teachers discuss issues of play in a very similar manner to the way the primary school teachers talk about the subjects Swedish and mathematics. However, we will not further discuss here our preliminary results but return to the methodological aspects of the paper.

As a key starting-point we strived to find a method that allowed teachers to be interactive in the data collection. We wanted the teachers to have considerable impact both on steering the interview and on the outline of the mind-map. We let them talk freely, but sometimes asked them to clarify or to elaborate on a particular issue. In this way, we could construct a mind-map that we think covers the greater part of teachers' everyday work. Indeed, the teachers were surprised (but pleased) when they looked at the maps, as they gave them an image of the complexity of their work.

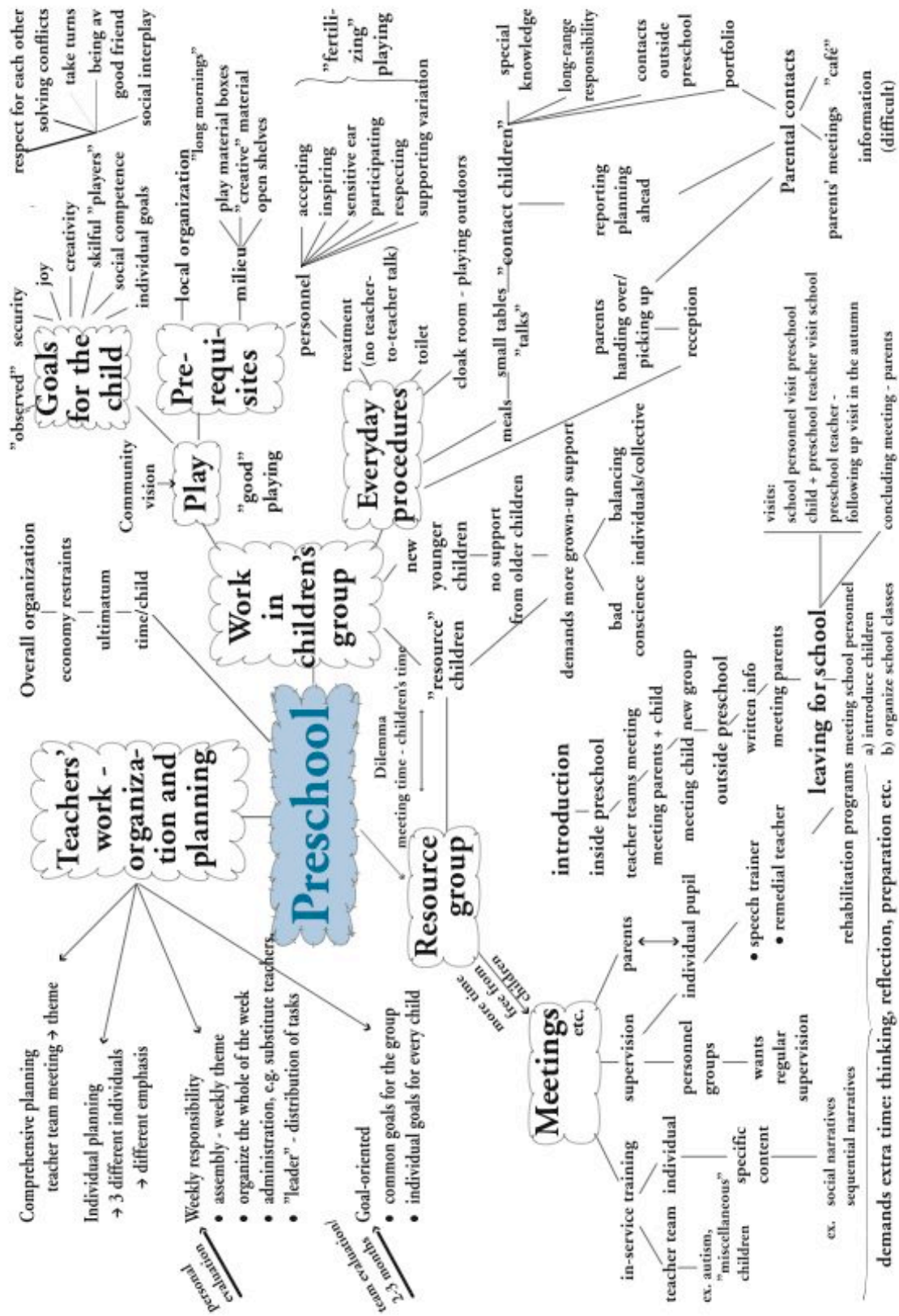
By combining interviews and sketching mind-maps, we obtained a lot of information about nuances in teachers' work and the possibilities of visualising it. The combination of techniques gave a picture of the whole work situation of the teachers, not just the time spent with the children. Their work situation became visible to the teachers, and as they saw the picture grow, they could interact and change it. The several steps of interpretation when the 'mind-maps' were organised helped us to label the different themes. Does this visualisation contribute to our understanding of teachers' work?

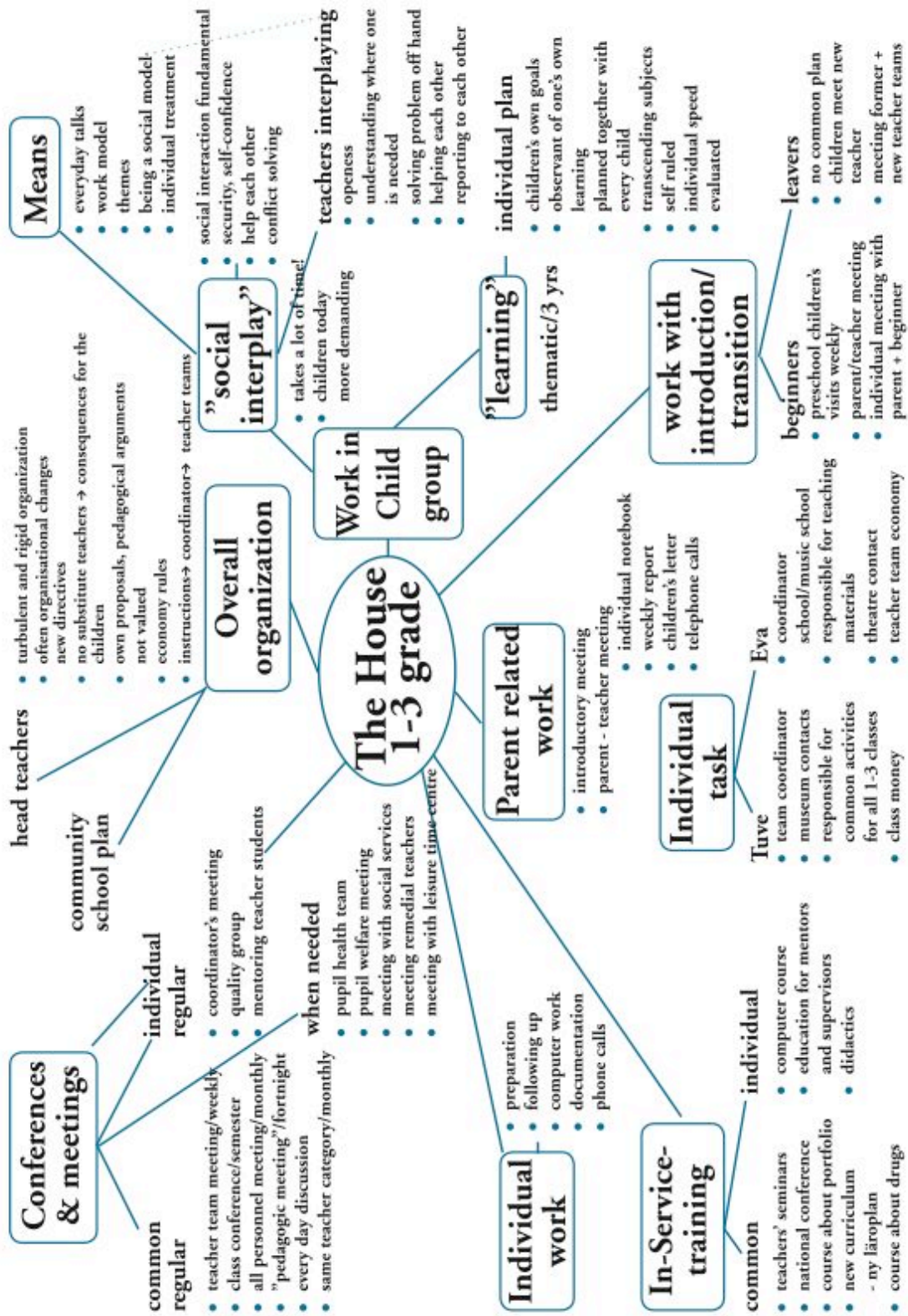
The teachers were interviewed in teams. They heard each other talk while describing their work, and thus also inspired each other. During the interviews,

we emphasised that we wanted to get all their individual views on their work in their particular work place. We were not interested in a consensus perspective but wanted to get as many nuances as possible. Would we have got another story about the same work place if we had interviewed the teachers individually?

The design we used can be considered as a kind of participatory research. Our intentions were to go from praxis (considered practice) and then, in the analysis, to use the theory framing this study. The interview situation was very much teacher- and practice-driven. The teacher teams had considerable influence over the way in which different aspects of their work came to be put 'on the table'. We think that the techniques used have been productive in relation to our aim, especially concerning tasks related to planning, organisation and administration. Those aspects are often underestimated in common sense images of teachers' work. Has our design contributed to this outcome?

In sum, using a mind-map technique in combination with group interviews seemed to be appropriate for our purpose. It was effective as it provided a lot of detailed information in relation to the time used for data collection. It builds on a connection to praxis, it creates a good interaction between researchers and teachers, and it allows teachers' own talk about their everyday work to become visualised in an effective and clear way. We can also see parts that are less explicit in the maps. Even if both teacher teams emphasised the importance of socio-emotional aspects, it seems that they did not elaborate much on those aspects during the interview. This could be related to gendered images of 'work', to lack of appropriate words and concepts, or that the teachers knew that we, the researchers, shared common experiences as former pre-school and school teachers and thus 'knew' about this already.





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