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453

Anna Rytivaara

Towards Inclusion

Teacher Learning in Co-Teaching

JYVÄSKYLÄN YLIOPISTO

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"There are moments in life where the question of knowing
whether one might think otherwise than one thinks
and perceive otherwise than one sees is indispensable
if one is to continue to observe or reflect."

– Michel Foucault

ABSTRACT

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The framework of this study is built around the concepts of inclusive education and teacher learning, and embedded in the practice of ethnographic fieldwork. In many classes, in Finland and elsewhere, teachers face diverse groups of pupils. Many pupils with special educational needs are educated by a general education teacher with little knowledge on special education. Two primary school classroom teachers who had combined their classes and created a pedagogical system that was based on co-teaching provided the data for this study. One-third of their pupils were labelled as with special needs.

The study had two aims. The first aim was to understand how teachers experience co-teaching and how co-teaching is implemented in the classroom. The second aim was to study teacher learning within co-teaching. These aims reflect different levels of teachers' work. The first aim concerns the level narrated by the teachers and observed by the researcher in the classroom whereas the second level is more conceptual and hidden behind the everyday work of teachers. The data were collected through ethnographic fieldwork, and comprise fieldnotes and interviews. Ethnographic content analysis and narrative analysis were used to analyse the data.

The findings form a story that illustrates different aspects of the teachers' learning process regarding their co-teaching. They found each other and commenced co-teaching in a supportive working environment. This resulted in several analytically separate outcomes: a shared professional identity, knowledge-sharing and constructing new knowledge, new practice in the form of a grouping system, and disciplinary practices. Moreover, co-teaching was also a content of their joint learning as they became involved in it together. In practice, the various factors were intertwined in the shared learning process of the two teachers. The teachers' professional development was oriented towards inclusive education.

It is concluded that teachers' professional learning is a complex and multi-dimensional process that can have far-reaching consequences in both teacher thinking and classroom practice. When both teachers share certain values and beliefs, co-teaching may also provide teachers' with sufficient support to teach an inclusive classroom so that it results in positive experiences.

Keywords: Teacher learning, co-teaching, inclusive education, classroom management

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In Jyväskylä, in the midst of orange October

Author

LIST OF EMPIRICAL STUDIES

Sub-study 1
Rytivaara, A. (2012) 'We don't question whether we can do this': teacher identity in two co-teachers' narratives. European Educational Research Journal 11(2), 302-313. doi: 10.2304/eerj.2012.11.2.302

Sub-study 2
Rytivaara, A. & Kershner, R. (2012) Co-teaching as a context for teachers' professional learning and joint knowledge construction. Teaching and Teacher Education 28(7), 999-1008. doi: 10.1016/j.tate.2012.05.006

Sub-study 3
Rytivaara, A. (2011) Flexible grouping as a means for classroom management in a heterogeneous classroom. European Educational Research Journal 10(1), 118-128. doi: 10.2304/eerj.2011.10.1.118

Sub-study 4
Rytivaara, A. (2012) Collaborative classroom management in a co-taught primary school classroom. International Journal of Educational Research 53(1), 182-191. doi: 10.1016/j.ijer.2012.03.008

FIGURES

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1 INTRODUCTION

1.1 Starting points

The research process is always a story with several turns and phases. This process involves a number of people whose personal and professional lives it is intertwined with. Thus, to be true to the traditions of ethnography and narrative research that I have used in this study, this report will unfold in the form of narratives about my research process, and they as such, will constitute a metanarrative (Atkinson 1992; Hammersley & Atkinson 2007). The story begins with the choice of research topic.

My first starting point was inclusive education in the Finnish school system. In many classes, in Finland and elsewhere, teachers face diverse groups of pupils. Namely, the class to be taught can be a general education class or a "small" or a special education class, although, truly homogeneous groups hardly exist. Accordingly, teachers are tagged according to their specific teacher education. Nevertheless, regardless of the teacher education a teacher has received, he or she ought to be able to teach the class. Many pupils with special educational needs are educated by a general education teacher with no, or hardly any, instruction in special education. Some call this approach "inclusive", which has led to misunderstanding of the meaning of the term. Teachers' perceptions of this situation differ as do their stance, one reason for this being that teachers are individuals with personal professional identities. I wished to find a positive case – a teacher who enjoyed teaching his or her class that would include some pupils labelled as having special educational needs. I ended up in doing ethnography with a co-teaching dyad in a classroom that seemed rather inclusive.

My second starting point, doing fieldwork, involves collecting and creating stories: my stories about my research and other people, and other people's stories as they tell them and as I hear and understand them. At school, I became interested in studying teacher learning and teacher professional development in the co-teaching context. I first approached teacher learning with the purpose of understanding the teachers with whom I would be spending my time during

my fieldwork in their school and from whom I would be collecting my data. For them, self-initiated change was something that drove them forwards; as they put it, they wanted to be teachers "as long as we keep inventing something new". As such, learning was, besides being essential, a shared process. Their collaboration and shared learning had yielded several observable changes: first, co-teaching, and then along with this, a number of pedagogical changes in their classroom. On this foundation, I started to build the framework of teacher learning for this study. However, it was clear that such formal learning, as discussed, for example, by Borko (2004) would not suit my purposes. She presents a model containing a teacher, a professional development program, a facilitator and a context; but I had two teachers, no program, and the teachers' ordinary working environment as a context. The studied teachers' learning process seemed to be a mixture of informal and formal learning. Nevertheless, all teacher learning, whether formal or informal, shares some common features; these formed my third starting point together with stage-models which provide a temporal perspective on teachers' professional development in general.

The teacher learning process has been studied as separate components, such as the learning activities teachers are involved in (e.g. Kwakman 2003), or factors that constitute effective teacher learning (e.g. Garet et al. 2001). Similarly, co-teaching has been studied through various models (e.g. Thousand, Villa & Nevin 2006). It is widely held that collaboration is an important factor in teacher learning; however the rather structural perspectives on teacher learning and co-teaching call for more detailed research to understand them as teachers experience them. In this study, my purpose was to combine some of the different perspectives and to study how they are linked to each other in the learning process, and thus to form a more holistic perspective on teacher learning in the context of co-teaching.

1.2 Aims of the study

This research had two main aims. The first aim was to understand how teachers experience co-teaching and how co-teaching was implemented in the classroom. The second aim was to study teacher learning within co-teaching. These aims reflect different levels of the work of teachers. The first aim concerns the level that is narrated by teachers and observed by the researcher in the classroom whereas the second level is more conceptual and hidden behind the everyday work of teachers.

The research comprises four empirical sub-studies which all reflect both the learning process per se and the outcomes of that process. The studies are based on qualitative case study data on two primary school teachers who co-teach together, and thus the sub-studies are simultaneously independent and closely related to each other. The decision to embark on several sub-studies instead of a monograph results some overlapping in the findings, but it also allows for a rich and multi-perspective examination of co-teaching. Together

these sub-studies present a holistic picture of the possibilities and limitations of co-teaching with respect to teacher learning. The relation of the sub-studies to the main aims of this research is presented in Figure 1. The figure further illustrates the hierarchy of the aims.

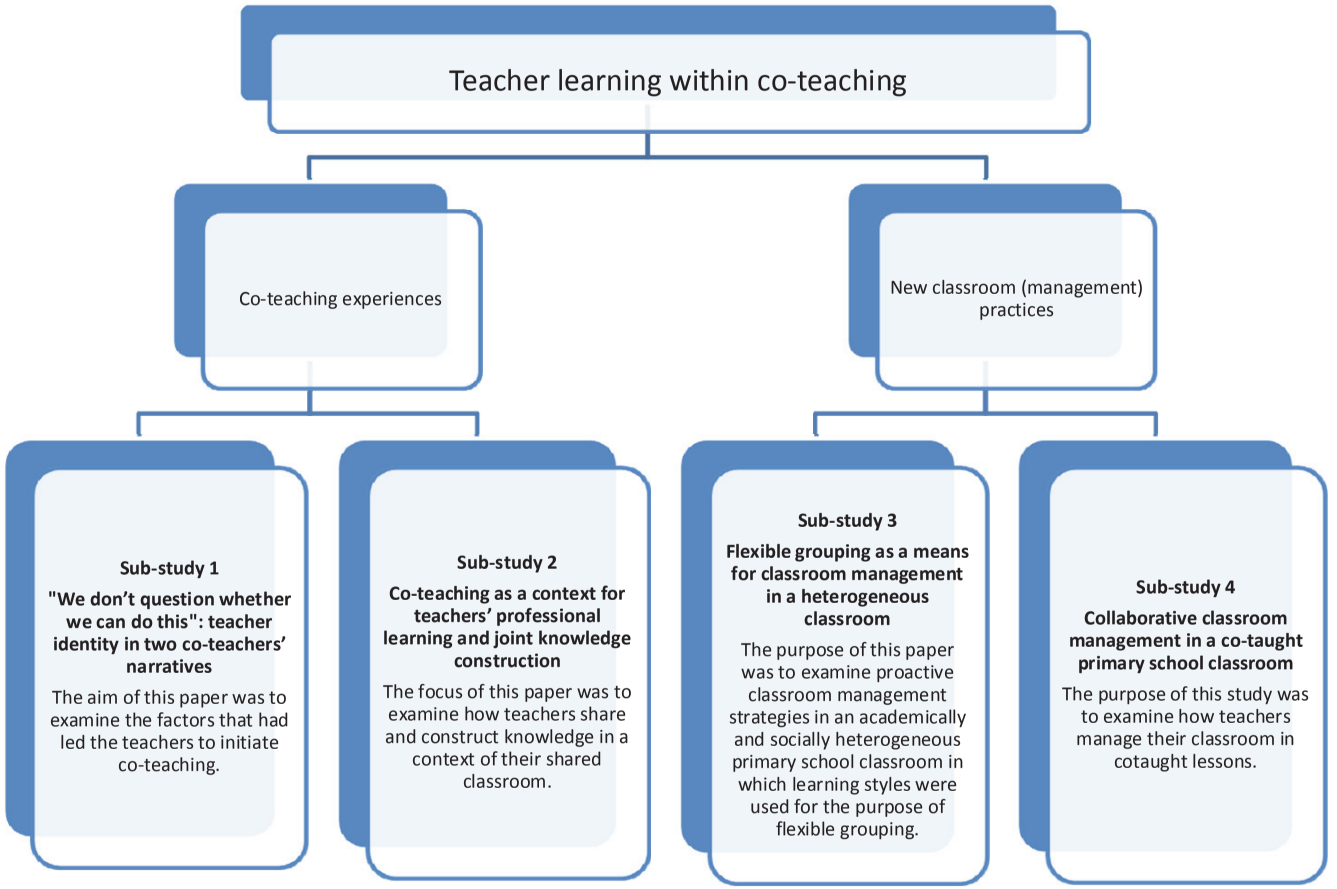

FIGURE 1 The relation of the sub-studies to the whole

Based on the two main aims of this study, I developed three research questions. These are examined across the four sub-studies, as described in table 1. The first aim of this research, to understand how teachers experienced co-teaching and how co-teaching was implemented in the classroom, was studied through the first and the second research questions, whereas the second aim, to study teacher learning within co-teaching, was studied through all three research questions. The third research question aims at elaborating in more detail the relationship between co-teaching and teacher learning.

TABLE 1 The research questions across the sub-studies.

Research question	**Sub-studies**
1. What kind of outcomes did the teacher collaboration and co-teaching have regarding teacher thinking?	I-IV
2. What kind of outcomes did the teacher collaboration and co-teaching have regarding classroom practices?	I-IV
3. What is the relation between co-teaching and teacher learning?	I-IV

2 THEORETICAL PERSPECTIVES AND KEY CONCEPTS

Frameworks and concepts are lenses through which we examine the world. In the following section I will discuss in detail five main concepts that form the theoretical framework for this study. Two of these, inclusive education and teacher learning, were presented shortly in the introduction as starting points of this study; two other concepts presented in this section, teacher knowledge and teacher identity, came along later as the fieldwork proceeded. These four appear, as phenomena, in all four sub-studies and thus, link them together, as does the fifth concept and the context of this study, co-teaching.

2.1 Inclusive education: ideology and practice

Mainstreaming, integration, inclusion – the idea of educating children with disabilities along with their non-disabled peers has been given various names over the decades. It was an article by Dunn (1968) in which he questioned the then prevailing special education system that started current debate. The issue has expanded along with the Education for All (EFA) movement from a concern with the education of children with disabilities to the education of all children globally and how inclusive societies are with regard to people with disabilities (e.g. Peters 2007). However, the focus of the present research is a Western, more particularly Nordic, school system, and I thus limit this chapter to inclusion in such a school system. Dyson (1999) has analysed the debate about inclusive education and identified four discourses. First, the rights and ethics discourse, which emphasises inclusion as every child's right to education, and particularly to education where each and every child is respected as an individual with individual needs. In this discourse, inclusion is simply supported because it is considered the right thing to do. Second, the efficacy discourse, in which the debate is about the most efficient way to organise the education of disabled children. Third, the political discourse, which involves power struggles be-

tween different interest groups whose interest is to support or to resist the prevailing system. The fourth discourse is pragmatic, and concerns how inclusive education is in practice. These discourses well reflect the different aspects of inclusion, and thus they are often intermingled in practice. I do not intend to open this debate here. However, I assign this research within the pragmatic discourse owing to my original interest, mentioned earlier in the introduction, regarding how teachers could be helped to cope with the challenges that the demands of inclusive education may bring.

In Finland, engagement with international agreements (UNESCO 1994, UNESCO 2009) on inclusion have slowly been transferred to the education legislation (for a short review, see Jahnukainen 2011). The Finnish Basic Education Act of 1998 reflected the idea of integration for the first time with the statement that special education should primarily be arranged within general education and, if that was not possible, then in a more traditional special education setting. The most recent step in Finland is the Special Education Strategy (Finnish Ministry of Education 2007) and the ensuring legislative change that announced introduction of the new three-tier intervention system. The system aims at flexible and easy access to early intervention through the provision of three levels of services. The first of these, general support, means that ordinary everyday education should be of high quality with small modifications (e.g. different groupings within a class) when needed. The second, intensified support, is used when a pupil needs continuous support for his or her learning, the means of general support are not sufficient and several forms of general support are needed at the same time. It is given on the basis of a pedagogical assessment that a teacher makes alone or together with other teachers. Part-time special education (for a description, see Takala, Pirttimaa & Törmänen 2009) is an example of intensified support in Finland. The third form of support, special support, means that a pupil will receive full-time special education, although this does not, however, define the educational setting.

Most ideologies, reforms, regulations and laws have left untouched some basic assumptions about schools. When we imagine a school, we probably construct a picture of a teacher with a group of pupils. In most cases, the pupils are studying in a classroom, and the teacher is the one in the last analysis who has the power to rule the pupils. The present research setting is an exception, however, because the classroom studied was taught by two classroom teachers who equally shared responsibility for their one group of pupils. Additionally, one-third of the pupils had been transferred to special education. Thus, the classroom fits in rather well with how Slee (2007) sees inclusion, that is, as a reform of allocation of the resources to benefit all children, not only those with disabilities.

In addition to re-allocating the available resources, inclusion requires the support of teachers. The problem is that, as de Boer et al. (2011) found in their review, general education teachers, in particular, have rather negative attitudes towards the inclusion of children with special needs. When the attitudes of different teacher groups are compared, special education teachers' perceptions of

inclusion are more positive (Damore & Murray 2009). Teachers' attitudes appear to be, at least partially, linked to their specific teacher education and the issue of resources. For example, the study by Rose (2001) on primary teachers and principals revealed five factors that the participants felt were needed to be able to include children with special needs in regular classrooms. These were classroom support, training, issue of time, physical access and parental concerns. Co-teaching – two teachers teaching together in a classroom – might be one answer to these problems.

The term "co-teaching" is most often used to describe collaboration between a special educator and a general educator (Damore & Murray 2009, Friend et al. 2010, Scruggs, Mastropieri & McDuffie 2007, Thousand, Villa & Nevin 2006) and rarely to describe, for example, collaboration between a student-teacher and an experienced teacher (Goodnough et al. 2009). Friend et al. (2010) define co-teaching as a setting where a general education teacher and a special education teacher work together with one group of pupils, whereas they refer to a situation where two teachers each have their own pupil groups as team teaching. The two teachers in this study combined their classes permanently and decided that each pupil would be theirs, not his or hers; therefore I use the term co-teaching when referring to them. Furthermore, the literature on classroom collaboration between two equal teachers is scarce. In Finland as elsewhere, co-teaching is used most commonly among resource room and special class teachers, although 34% of classroom teachers also used it weekly and preferred to co-teach with another classroom teacher (Saloviita & Takala 2010). This study is therefore an exception in examining close collaboration between two classroom teachers and how they learned to share their teacher responsibilities and their teacher knowledge, and how their collaboration was built on their shared professional identity.

2.2 Teacher knowledge and teacher identity

In his two classic articles, Shulman (1986, 1987) described the categories of what a teacher needs to know. A teacher needs to know what is to be taught, that is, subject matter or content knowledge, and to teach this, the teacher needs what Shulman named pedagogical content knowledge (PCK). By this, he was referring to a specific kind of content knowledge which involves "the ways of representing and formulating the subject that make it comprehensible to others"(Shulman 1986, 9). Since, pedagogical content knowledge has been studied further, especially in the field of science education (e.g. Van Driel, Verloop & De Vos 1998). Twenty years after the introduction of the concept, Abell (2008) concluded that researchers agree on the four features of pedagogical content knowledge: first, it is based on specific content knowledge. Second, it includes discrete categories of knowledge, and third, it involves the transformation of other types of knowledge. Last, pedagogical content knowledge is dynamic rather than static. According to Shulman (1987), a teacher also needs general ped-

agogical knowledge (knowledge about e.g. classroom management) and curricular knowledge. In addition to these, knowledge of learners and their characteristics is essential, as is knowledge of educational contexts, ends, purposes and values. Among others, Van Driel, Beijaard & Verloop (2001) have developed the notion further. They explain how a teacher's practical knowledge is formed in a process where a mixture of formal knowledge, learned through formal courses and programs, and experiential knowledge, gained through practice, is interpreted in practice through one's beliefs and values. In this study, this whole process is labelled as teacher thinking.

More than a decade ago, teacher knowledge was used to conceptualise teacher identity by Beijaard et al. (2000). They classified teacher knowledge into three categories of expertise: subject matter expertise (content knowledge), didactical expertise (knowledge about how to teach) and pedagogical expertise (moral and ethical part of teaching). According to the study, the participant teachers were asked to rate the emphasis of each expertise category on their professional identity. The results revealed five groups of teachers: subject-matter experts; didactical experts; pedagogical experts; balanced group with equal emphasis on all three categories; and a group where the teachers scored high on two categories. In the last group, subject-matter expertise was combined with either didactical or pedagogical expertise. On one hand, this is a rather limited view of teacher identity but on the other hand it is noteworthy that in the following conceptualisations of teacher identity teacher knowledge has no role.

Later, Beijaard et al. (2004) presented a more comprehensive view of teacher identity. In their review, they listed four elements as essential to teacher identity: it is an on-going process of interpretation and re-interpretation of experiences, and thus teacher identity is dynamic and develops over time; it has a social aspect as it implies both person and context; and it comprises sub-identities that are more or less harmonious. Conflicts can appear, for example, during a reform or other change at work. Finally, a teacher needs agency to engage actively in professional development. Likewise, Akkerman and Meijer (2011), while acknowledging the lack of a consensus on what teacher identity actually is, see teacher identity as characterised through three themes: the discontinuity of identity, the social nature of identity and the multiplicity of identity. However, they challenge the dichotomous nature of these features and instead conceptualise teacher identity from a dialogical perspective as being both continuous and discontinuous; both individual and social; and both unitary and multiple. After detailed discussion of these characteristics and their dialogic mechanisms, they define teacher identity and being someone who teaches as "an ongoing process of negotiating and interrelating multiple I-positions in such a way that a more or less coherent and consistent sense of self is maintained throughout various participations and self-investments in one's (working) life" (p.315).

The complexity of the concept initiated a major project in the UK. Based on extensive mixed-method data on approximately 300 teachers, the VITAE

project has added to our knowledge and yielded several publications on teacher identity. For example, the findings of Day and Gu (2010) show that multiple factors intertwine in teachers' lives. Furthermore, Sammons et al. (2007) identified three dimensions of teacher identity: the personal, the situated or socially located and the professional. According to the relative dominance of the dimensions in each teacher, the authors constructed four identity scenarios: 35% of the teachers showed a balance between the dimensions; 44% had one dominant dimension; 15% two dominant dimensions; and 6% had three dominant dimensions. Furthermore, the study revealed that the personal, the situated and the professional factors interact, and this interaction is related to a teacher's agency (defined as ability/ resolve to pursue one's own goals), well-being and vulnerability (defined as the inability of an individual to withstand or recover quickly from difficult conditions related to self-efficacy). The project also revealed that teachers' professional identities influence their motivation, commitment and job satisfaction (Day et al. 2006) and hence probably, their learning experiences as well.

Despite the holistic perspective, large projects such as VITAE rarely aim at closely examining individual teachers' trajectories. Another approach in teacher research is to study individual teachers in order to understand their decisions in different phases of their career. The study of a student teacher by Meijer (2011) shows how a crisis can have a significant role in a student teacher's development of professional identity. She draws on Mezirow's theory of transformative learning and argues that such a process is necessary for a professional identity to develop. Transformation has two forms (Mezirow 2009). In Meijer's study, a crisis led the student teacher to experience a sudden, epochal transformation. The second type, cumulative transformation, develops over time. What is common in all transformative learning is that it involves critical reflection or self-reflection on assumptions, and full and free participation in dialectical discourse to validate the best reflective judgement (Mezirow 2009, 94).

2.3 Professional development and teacher learning

2.3.1 The phases and modes of professional development

The terms "professional development" and "teacher learning" are in want of clarification because the former, in particular, has two meanings. Especially in the United States, the term "professional development" is frequently used to refer both to organised programs in which teachers participate in formal learning activities, and to any kind of teacher learning in general. In this study, however, I use the term when discussing teacher learning over a wider time perspective. I understand teacher learning, which comprises informal and formal learning activities, as forming the basis for teachers' professional development (Figure 2). However, informal and formal learning activities are not separate categories: instead as Eraut (2004) agrees, they form a continuum. Teachers can

participate in various learning activities, formal and informal, but in the learning process the new ideas intertwine with each other and with work in the classrooms. Therefore, a teacher's professional development is based on teacher learning that comprises both informal and formal learning experiences and evolves over time.

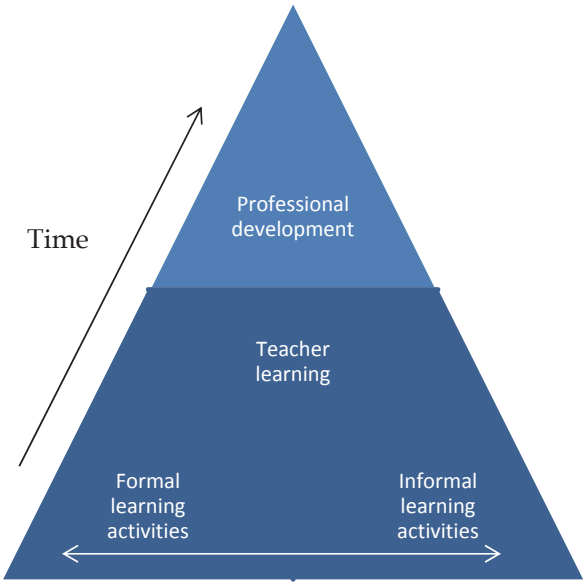

FIGURE 2 The relation between teacher learning and professional development

Teacher career research has yielded various more or less detailed models of the stages of professional development (Sammons et al. 2007, e.g. Burke, Christensen & Fessler 1984, Huberman 1989). Stages vary between researchers but they also have shared features. At first glance (see Table 2 below), the models appear rather similar and yet they reflect different understandings of teachers' professional development. The first model (Huberman 1989) is what one might call a traditional version where the stages are fixed and follow each other in the presented order. In the second model (Sammons et al. 2007) the terminology has been changed from career stages to "professional life phases". The authors emphasise that "[continuous professional development] needs to take place within professional, situated and personal context which support rather than erode teachers' sense of positive identity and which contribute, in each professional life phase, to their capacities to maintain upward trajectories of commitment" (p. 686). Thus, it is reminiscent of Huberman's model but goes further by bringing up the relationship between one's professional development and teacher identity. The third model, the Career Cycle Model by Burke et al. (1984), provides a more complex view of a teacher's career. The stages, as presented in the table 2, are not fixed and a teacher may not experience all of them. Furthermore, as "cy-

cle" indicates, a teacher can experience some stages more than once. For example, Induction can follow any change of post. Finally, in addition to the Career Cycle, viz. the model has two other cycles, Personal Environment and Organisational Environment, and all three influence each other. The personal and Organisational cycles each have six sub-categories with 5-8 items each.

These three models illustrate the shared features and the differences between the stage models. They all agree that teachers' careers have different phases, but they also represent two distinct types of models (Maskit 2011). The models of Huberman and Sammons et al. represent linear models where the phases follow one another in a specific order. The model of Burke is an example of a cyclic model where a teacher may experience each phase more than once and does not necessarily experience all the phases. The classification of the stages into three categories with reference to beginning, experienced or retiring teachers is only suggestive and allows for the interpretation that, for example, a new post is understood as a new "career".

TABLE 2 Comparative example of stage models.

	Professional life cycle of teachers (Huberman 1989)	Professional life phase (Sammons et al. 2007)	Teacher Career Cycle Model (Burke et al. 1984)
Beginning teachers (0-3 years of teaching)	Survival and discovery (0-3 yrs)	Commitment: support and challenge (0-3 yrs): 2 options	Induction (0-3 yrs; stage related to any change)
Experienced teachers (4-30 years of teaching)	Stabilisation (4-6 yrs)	Identity and efficacy in classroom (4-7 yrs): 3 options	Competency building
	Experimentation/ activism and stock-taking: a)experimentation and activism b)reassessment and self-doubts (7-18 yrs)	Managing changes in role and identity: Growing tensions and transitions (8-15 yrs): 2 options	Enthusiastic and Growing
		Work-life tensions: Challenges to motivation and commitment (16-23 yrs): 3 options	Career frustration
	Serenity or Conservatism (19-30 yrs)	Challenges to sustaining motivation (24-30 yrs): 2 options	Stable but Stagnant
Retiring teachers (30+ years of teaching)	Withdrawal with the profession (30+ yrs)	Sustaining/ declining motivation, ability to cope with change, looking to retire (31+ yrs): 2 options	Career Wind-down
			Career exit

In addition to stage models, some researchers have proposed models to characterize teachers' effective professional development; however, these are prescriptive models and they focus on factors that are expected to enhance or support teacher learning as opposed to actual activities. Several researchers (e.g. Lohman 2000, Mawhinney 2010) have taken this discrepancy as a starting point for their studies and thus examined teacher learning in authentic situations in schools and in classrooms. However, as professional development and teacher learning are not completely separable, it is useful to take a look at the features of effective professional development programs – formal teacher learning. In her review, Desimone (2009) concludes that there is agreement about the features of what she calls effective professional development (actually, she is talking about teacher learning as I conceptualise it). She names five main features: focus on the teaching content, active learning, coherence, duration and collective participation. Garet et al (2001) have used a similar model in their research and divided the elements into structural features and core features. The structural features include the duration of the activity and the degree of collective participation of teachers from the same school. Duration refers to both the length in hours and the span of the activity. The structural features influence teacher learning through the core features which are active learning, coherence and focus on the teaching content. Active learning means that teachers are encouraged to be active learners able to think reflectively. Coherence describes how particular professional development is linked to the wider context of teachers' work, such as teacher knowledge, practices and learning. The last feature refers to the content of professional development.

The problem in these models and in the professional development literature in general is that they are only rarely based on follow-up studies of the careers of individual teachers. For example, the model of Sammons et al. (2007) was based on a three-year-project, yet no teachers were actually followed throughout the project. Moreover, in a review of 34 studies on professional development interventions published during 2000—2010 (Van Veen et al. 2010) in only three studies the data were collected on the same teachers over at least a two year period (Butler et al. 2004, Franke et al. 2001, Stark 2006). Long-term studies on teachers' informal learning are even fewer. Also, many studies have focused on teachers' content knowledge instead of, for example, knowledge and skills in the context of a diversity of learners. Teachers' professional development can be supported, and studied, in many ways. The focus of the research on formal learning (professional development programs) is slowly shifting from structural features to the actual learning process of teachers; a similar shift from formal towards informal learning opportunities seems to be underway.

2.3.2 Teacher learning

I define teacher learning as change in cognition and/ or behaviour. Researchers disagree on the order in which change occurs but many agree that the process involves teacher beliefs, knowledge and practice. According to Darling-Hammond & Richardson (2009), for instance, effective teacher learning is a cir-

cle of active learning, practice and collaborative reflection with colleagues. To understand the learning process, it is helpful to take a look at the learning conceptions of learners. Marton and Booth (1997) noted that open university students had different approaches to learning and that these approaches were related to their learning outcomes. They identified six conceptions of learning on a continuum from surface level to deep level learning. The three first conceptions, which illustrate learning as primarily knowledge reproduction, are learning as increasing one's knowledge, learning as memorising and reproducing, and learning as applying knowledge. Another main approach is learning as primarily seeking meaning, and that, too, comprises three conceptions: learning as understanding, learning as seeing something in a different way and learning as changing as a person.

Moreover, from a socio-cultural perspective, Putnam and Borko (2000) view teacher learning as situated in particular contexts, social in nature and distributed across persons and tools. As such, learning involves both the individual level and community level. The multi-facet model of Shulman and Shulman (2004) demonstrates this in more detail. Their model reconciles the individual level of learning and teacher interaction on the community level. They argue that on the individual level a teacher needs to have a vision, knowledge, motivation, and skills in order to implement new practices into the classroom. In addition, a teacher needs reflective thinking and a supportive community in the learning process. The community level of the model illustrates that teachers can also be simultaneously engaged with one or more communities with shared visions, knowledge and commitment. These communities, thus, have an influence on a teacher's professional development.

Tynjälä (2008), in her review of workplace learning, describes learning as "informal, incidental, experiential, social, situated and practice-bound" (p.150). She lists seven ways of learning at workplace: by doing the job itself; through co-operating and interacting with colleagues; through working with clients; by tackling challenging and new tasks; by reflecting on and evaluating one's work experiences, through formal education, and through extra-work contexts. The list resembles other lists of the teacher learning activities (e.g. Bakkenes 2010, Kwakman 2003). In addition, according to Hoekstra et al. (2009) five conditions are directly linked to a teacher's everyday work and thus to his or her learning activities at school: teacher autonomy, teacher collaboration, reflective dialogue, receiving feedback, experience of shared norms and responsibility within one's school. Their study on two teachers from two different schools showed that the teachers perceived these workplace conditions very differently. Similarly, in a study on teacher professionalism, Talbert and McLaughlin (1994) found that teachers' experiences about their professionalism varied even within a school.

Eraut (2004) understands learning as a continuum between formal and informal. He characterises informal learning as "implicit, unintended, opportunistic and unstructured learning and the absence of a teacher". Informal learning is not intentional learning; instead, the possible learning experiences are the side-effects of working activities. His typology of informal learning has three catego-

ries: implicit learning, reactive learning and deliberative learning. Hoekstra et al. (2007) has applied this typology to empirical data in studying teachers' informal learning during teaching. They complemented each type of informal learning by adding specific types of learning activities. The activities the teachers employed in deliberative learning were orienting, practising and seeking explicit pupil feedback. Practising included three sub-categories: deploying what works, experimenting with something new and practising new behaviour. Reactive learning activities referred to becoming consciously aware as such, becoming consciously aware and adjusting one's course of action, and becoming aware and reframing. Only two of the four teachers engaged in the implicit learning activities. One was involved in implicit acquisition and strengthening of a belief, whilst the other inhibited the role of tacit beliefs, feelings and behavioural tendencies.

In her study of teacher informal learning in schools, Lohman (2000) and her colleague interviewed altogether 22 teachers from elementary (6), junior-high (11) and senior high schools (5). Additionally they made several visits to each school. She divided the informal learning opportunities mentioned in the interviews into three categories: knowledge exchanging, experimenting and environmental scanning. She found that four factors hindered teachers' informal learning: lack of time, lack of proximity to learning resources, lack of meaningful rewards for learning and limited decision-making power. The first and the last of these, lack of time and limited decision-making power, were related to teachers' increased workload and their possibilities to influence it. The second hindering factor was the physical allocation of classrooms, department offices, computer technology and the library, so that it was difficult for some teachers, for example, to meet their colleagues during the school day and get involved in learning opportunities. The findings about the lack of time and the lack of proximity to colleagues' work areas were later confirmed in a larger study of 166 respondents (Lohman 2006).

Opfer and Pedder (2011) examined teacher learning from a systems theory perspective and developed the Dynamic model of Teacher Learning and Change. Their model contains three overlapping systems all of which need to be acknowledged when teacher learning is discussed. The individual teacher system comprises teachers' orientation, and is constituted by the interaction and intersection of teachers' prior knowledge, beliefs, practices and prior experiences. The school-level system refers to how the school context supports, or hinders, teaching and learning, and the collective level of action, viz. orientations and beliefs, norms, practices and the collective capacity to accomplish the shared learning goals. The last system is that of the learning activities, tasks and practices in which teachers participate. The idea of the model is that all the components, which in turn are results of sub-systems, influence the whole. This means, in short, that there are several paths to the same learning outcome. It also means that a teacher may learn in different ways in different times and in different contexts. With respect to the other part of the model, change, Opfer and Pedder (2011) argue that the order of the three parts through which change

is usually described – beliefs, practice and pupil learning – does not actually matter. As they put it, "for learning to occur, change may occur in all three areas, and, as a result, change in only one area may not constitute teacher learning." (p.396).

The complexity of the issue of teacher learning was also examined in a Dutch study. In their study of 28 secondary school teachers in the Netherlands, Van Eekelen et al. (2006) categorised the teachers into three groups according to their will to learn. The teachers in the first group did not see any reason to learn; the second group were interested in learning but were not always aware of the means how to learn. The third teacher group was eager to learn. Later, when studying teacher learning in different phases of the teaching career, Vermunt & Endedijk (2011) found three different teacher learning patters. They define a pattern as "A coherent whole of learning activities that learners usually employ, their beliefs about own learning and their learning motivation." (p.295). A teacher with an "immediate performance directed" learning pattern aimed at improving his or her performance in the classroom, whereas one with a "meaning directed pattern" was interested in the principles underlying, for example, a pupil's behaviour. The last pattern was "an undirected pattern" where the teacher was uncertain about how to change his or her teaching or how to learn to change his or her teaching.

However, it may not only be personal characteristics per se that affect teacher learning. Lohman (2006) showed that personal characteristics such as initiative, self-efficacy, love of learning, and interest in their profession enhanced teachers' participation in learning activities that involved interaction with others. Additionally, a commitment to continuous professional development (such as the desire to learn from one's experiences, become a better problem solver, and continually improve one's performance), nurturing (being supportive of others and wanting to be a team player) and having an outgoing personality were positively related to collaborative learning activities. Moreover, the study by Bakkenes et al. (2010) showed that it seemed to be easier for teachers in a collaborative learning context (peer coaching or a collaborative project group) to experiment new things in their classroom, and the teachers also reported less of a struggle not to revert to old ways than other teachers. Together, these two studies form a picture where teacher learning might be influenced through teachers' engagement in collaborative activities. However, lack of time especially makes it difficult for teachers to engage in time-demanding activities like observing. This may explain why talking with a colleague is quite commonly mentioned as a learning activity, but observing a colleague is rare (Lohman 2006, Kwakman 2003).

Exploratory studies on teachers' informal learning activities are few. In one such study, teachers were asked to write a digital log once in every six weeks for a school year (Bakkenes, Vermunt & Wubbels 2010). Teachers' learning activities included experimenting, considering their own practice, getting ideas from others, experiencing friction, struggling not to revert to old ways and avoiding learning. The category "getting ideas from others" included all

the "activities in which a teacher consciously takes notice of the views or practices of others and evaluates them" (p.540). Thus, the activities coded in this category did not necessarily involve any actual collaboration with another teacher. Furthermore, observing another teacher was coded in this category as an individual activity. Richter et al. (2011) measured how much teachers collaborated in choosing instructional strategies, planning lessons and developing materials. Unfortunately, they did not report any detailed findings on collaboration types and frequencies. However, they found that teacher collaboration generally decreases with one's career. In her survey on teacher learning, Kwakman (2003) asked teachers how often they engage in reading, experimenting, reflecting on practice (collegial observation, pupils' feedback, individual reflection, and feedback springing from classroom interaction) and collaboration. She defined collaboration as including help, sharing and joint work.

2.3.3 Co-teaching and collaborative teacher learning

As presented earlier, most studies on teacher learning refer to collaboration of some sort but the variety in perspectives is large. Researchers seem to agree on the significance of collaboration but the variation in how it is taken into consideration in studies is high. A means for professional learning that has received very little attention is knowledge-sharing in informal spaces, such as lunch breaks in teacher lounges. Studying such informal, situated and context-bound learning is rather time-consuming because it requires specific research methods. Mawhinney (2010) conducted an ethnographic study with over 300 hours of observations during lunch breaks at a school. She found out that teachers learned from very spontaneous moments and events in these congregational spaces, and that teachers acknowledged the importance of these spaces for themselves. The study indicates how teachers' professional learning can appear in very ordinary situations and equally between teachers in different professional phases. Learning experiences varied from very tiny moments of receiving a comment from an experienced colleague to larger project ideas to be accomplished in one's classroom.

The interconnected model of teacher professional growth (Clarke & Hollingsworth 2002) comprises four interacting domains that form a change environment. The personal domain includes the teacher's knowledge, beliefs and attitude; the external domain refers to an external source of information of stimulus for learning; the domain of practice involves professional experimentation; and the last domain is the domain of consequence. This model has been a basis for several studies, for example by Zwart et al. (2008). Change can begin in any of the four domains (Zwart et al. 2007). Furthermore, the same study shows that a pupil outcome can be the stimulus that initiates the change process, instead of being the outcome of a teacher's learning process, as considered in some professional development models.

Van Driel, Beijaard & Verloop (2001) suggest peer coaching as a powerful tool to change a teacher's practical knowledge. In their study on peer coaching, Nilsson and van Driel (2010), the learning experiences of teacher pupils and

their mentors concerned instructional matters (teaching methods), pedagogical matters (eg. classroom management issues) and subject matter. It has to be noted, however, that most studies on teacher learning activities offer no information about whether a teacher actually learns something and if so, what he or she learns. The study on peer coaching by Zwart et al. (2008) is an exception. They studied how the teachers' reported learning activities were connected to the self-reported learning outcomes. The four most frequently reported outcomes were a new idea, a confirmed idea, and a new or confirmed idea with an accompanying intention to change behavioural practice. What was particularly interesting was that teachers tended to change their behaviour when observed so that during those lessons they were more tempted to experiment with something new. In another study, Zwart et al. (2007) reported how being observed not only made a teacher more aware of her own behaviour but how she changed her behaviour according to how she imagined the observer might suggest she behave in the classroom. However, such behaviour indicated the feeling of trust in not being judged. They (Zwart et al. 2009) thus concluded that experiments and observations play a focal role in reciprocal peer coaching.

Zwart et al. (2007, 2008) found out that mere observation may not be enough for teacher learning to occur. According to the researchers this finding has implications for the observer, who needs strong explicit support to become aware of the learning opportunities that the observation situation offers, and time to adjust to the new role as an observer-learner. However, they (Zwart et al. 2008) suggest that co-teaching makes the thinking activities of the teachers more explicit. Furthermore, learning activities, such as observing another teacher, are integral in the work of teachers who co-teach. Moreover, co-teaching is in many ways similar to reciprocal peer coaching (see Zwart et al. 2007) although in co-teaching the teachers' roles are assumed to be equal in that one teacher is not teaching the other. Furthermore, unlike in peer coaching, in co-teaching the teachers are in the same classroom and thus, observation is a natural part of their work.

Looking at the larger context of teacher learning, the focus is shifting towards learning at the community level. As collaboration has become a more acknowledged factor in teacher learning, more attention has been paid to larger communities of learners. Stoll et al. (2006), in their review on professional learning communities, describe five features that characterise the phenomenon: it is based on shared values and vision, and the responsibility for pupil learning is shared. The members in such communities are engaged in reflective professional inquiry about their practice, and they also engage in have collaborative activities that profit several people. In a professional learning community, learning is promoted both on the individual and on the community level.

In summary, collaboration with one's colleagues is a factor in teacher learning. However, collaboration only rarely reaches the classroom, where the actual teaching takes place. Observation of one's fellow teachers appears to be a promising approach but it demands preparation and guidance. Furthermore, each teacher has individual practical knowledge, and thus even two experi-

enced teachers can learn from each other. However, this happens rarely as different programs and studies often seem to involve two teachers one of whom is clearly more experienced than the other. Moreover, studies on teacher learning in primary education are rare and tend to focus on the learning of student teachers (Lohman 2000, Nilsson & van Driel 2010). This is surprising as collaboration may be more common in primary schools. Lohman (2006) reported that elementary school teachers collaborated more than their secondary school colleagues. The same trend regarding school levels was found in a Finnish study on the frequency of co-teaching (Saloviita & Takala 2010).

3 THE CONTEXT OF THE STUDY

3.1 The Finnish school system and teacher education

Finnish basic education comprises nine grades that are divided into primary education (grades 1–6) and secondary education (grades 7–9). Education is obligatory: school attendance is not. Generally, primary education is based on a classroom teacher system where a teacher teaches all the subjects on the curriculum to one group of pupils. In the class studied here, the teachers took the same group of pupils from the first until the sixth grade. Sometimes teachers specialise in teaching grades 1–2 and consequently, some teachers teach the same group of pupils from the third until the sixth grade. The average group size is 19 pupils in primary schools and 17 pupils in secondary schools (Finnish Ministry of Education 2008), although the numbers vary greatly in different municipalities. In secondary school each subject has a different teacher. Special education is organised according to a so-called mixed model with a continuum of services from full-time special schools to fully integrated alternatives. In numbers (Official Statistics of Finland 2011), this means that in autumn 2010, 8.5 % of all pupils were transferred to special education whilst 23.3 % received part-time special education. The numbers cannot be totalled because some pupils belong to both groups. Of those transferred to special education, 30 % studied full-time in a general education setting, and 24 % part-time; 32 % studied in a special class in a general education school and 14 % studied in special groups located in special schools.

Teacher qualifications are regulated by law. Teacher education is given at universities. All teachers have a Master's degree (300 ECTS) usually in education (primary education) or in a subject area (secondary education). Pre-primary school teachers have a Bachelor's degree (180 ECTS). To qualify as a special education teacher requires either a Master's in special education or, in addition to an existing Master's degree, participating in a definite one-year professional development program in special education (60 ECTS). All teacher education studies include at least one practical teaching period. For a more detailed over-

view on Finnish teacher education, see Jakku-Sihvonen and Niemi (2006). The qualification in special education is general so that all the teachers are certified to teach in any kind of setting from general education to special schools. This allows a certain degree of flexibility in organising special education within the school system.

3.2 The school

The school studied here is a rather ordinary primary school (grades 1 – 6) with 19 classroom teachers and a special education teacher. It is attractively decorated: red rubber floors, a small fountain in the middle of the two-storey school, and a cafeteria also in the middle with no ceiling between the floors. The staff lounge is upstairs and has cosy sofas and armchairs, high bar-like tables for eating, and some computers in the back corner of the room. Here I first met the two teachers and discussed their work and my research. The door to the principal's office connects with the room and when he's in, the door is usually open. Anyone can pop in, and he can pop into the room anytime.

The two teachers with whom I collected my data were a female and a male teacher. They were both experienced teachers with several years of experience in primary schools. They had a Master's degree in teacher education, and thus were qualified primary school teachers. They had started co-teaching three years prior to my research and therefore were also experienced in co-teaching.

4 METHODOLOGICAL STARTING POINTS

In the following sections, I will provide the reader with my methodological starting points through small written stories in which I describe, first, the school where I collected my data and the two teachers, and second, the principles of ethnographic research and the narrative approach and how I applied these principles in this study. I will also evaluate the pros and coins of my methodological choices.

4.1 Methodological narratives

4.1.1 Story 1: Ethnographic case study (getting started)

At the beginning of this research project the topic of interest and the methodology of interest, ethnography, were intermingled in my mind. I was irritated by the negative atmosphere around inclusive education, and at the same time I was fascinated by the lively yet analytic descriptions of school communities and community members in the ethnographic literature (e.g. Geertz 1973, Hammersley 1990, Lahelma 2002, Laine 1997, Laine 2000, Lappalainen 2004, Salo 1999, Syrjäläinen 1993, Syrjäläinen 1994, Wolcott 1984, Woods 1986). I was interested in the question "What happens in an inclusive classroom?". Furthermore, an ethnographic case study of one classroom would be well suited to my purpose of combining teacher thinking with observations of the practical solutions in the classroom. Thus, my own participation and a naturalistic approach were guiding my research. The next step was to find a site for fieldwork.

I started looking for a suitable classroom through purposeful sampling (Patton 1990) or, more accurately, through criterion-based selection (LeCompte & Goetz 1982). The criteria were the following: (a) a primary school, where the teacher would be teaching as many lessons as possible to the same class, (b) a general education classroom, (c) the presence of SEN pupils in the class, to ensure inclusion, (d) a teacher with a positive attitude towards the class, on the

assumption that this might be more likely to lead to successful practices, (e) willingness to allow me to observe the class and thus facilitate the fieldwork. With the help of a local special education coordinator, I found a class that fulfilled all the criteria I had set. The classroom had two teachers who co-taught the class. When I first searched for a site in the spring 2003, co-teaching was rather rare, and in many places, in Finland and elsewhere, it continues to be an uncommon way of working. Therefore at first, I did not really know what to expect or even what to ask. Hence conducting an exploratory case study with fieldwork was a good choice as it obliged me to first consider what options to study in detail.

The label ethnographic research is used in multiple ways (Hammersley & Atkinson 2007). In this study, it refers more to the process than the product (see Merriam 2009, 27). My "general ethnographic framework" (Woods 1986, 119) culminates in the notion that ethnographic research is holistic and cannot be separated from its context. Since my purpose -- to document and interpret the two teachers' work in a broad social context – was a rather ethnographic one (Geertz 1973, Hammersley & Atkinson 2007, Merriam 2009, Spradley 1979, Wolcott 1984, 180) I considered that this would best be fulfilled by using ethnographic data collection methods, participant observation and ethnographic interviews. Together they are appropriate means to examine all three cultural aspects, as described by Spradley (1980, 5): cultural behaviour (what people do), cultural knowledge (what people know) and the cultural artefacts (what people make and use). Cultural behaviour and artefacts can be observed, whereas cultural knowledge can be revealed through examining cultural behaviour and cultural artefacts with observation and interviews. In my case, interviews were needed to explore, in particular, the subjective meanings the two teachers attributed to specific events and processes (Geertz 1973, 5, Spradley 1980, 7). I collected therefore both formal interviews, which were recorded, and informal interview data as part of our everyday conversations. These interviews were my key to the teachers' cultural knowledge and thus, to deeper understanding of co-teaching.

Because ethnography is an interpretative method (Hammersley & Atkinson 2007, 1), familiarity with the context supports the interpretation process. Woods (1986, 62) therefore recommends that interviews should not be used alone in the absence of any other data collecting methods. However, Merriam (2009, 41) emphasises that the case is the unit of analysis and not the topic of the research. Similarly, Geertz (1973, 22-23) argues that the object cannot be examined separately from the context, and yet the context is not the object of the study. Thus, studying culture in authentic situations is a distinctive characteristic of all ethnographic research (Hammersley & Atkinson 2007, 4), and is also familiar in case studies. Moreover, for Geertz (1973, 14) culture is the context within which we ought to examine one's actions.

Case studies offer "means of investigating complex social units consisting of multiple variables of potential importance in understanding the phenomenon" (Merriam 2009, 50). Furthermore, as Spradley (1980, 101) notes, ethnographic

research can be conducted on different levels, from surface level investigations to in-depth studies. He (1979, 1980) illustrates this by describing various "steps" with increasing levels of depth. I chose to study a mixture of perspectives, rather broad in scope; yet the context, only one pair of teachers, was very narrow. The mixture of perspectives allowed me to see the teachers' learning process as a whole, from the origins of their learning to various processes that could be described as outcomes of their professional learning.

Alongside ethnographic content analysis (Spradley 1979, Spradley 1980) used in sub-studies 3 and 4, I decided also to use narrative analysis methods (sub-studies 1 and 2) as it provided me with additional tools to examine the teachers' stories about their work. Two essential issues concerning narrative inquiry need to be noted here. First, Riessman (2008, 7) raises the issue about whether "narrative" and "story" can be used as synonyms, and answers this question positively. Another issue is defining what constitutes a narrative. This is a more challenging question as a narrative can also be a collection of discrete stories (Riessman 2008, 41).

In narrative research, the world is viewed as a collection of stories that people tell and through which they construct their life stories. This important role of narratives in people's lives is acknowledged in the ethnographic literature (e.g. Hammersley & Atkinson 2007, Cortazzi 1993). People narrate their lives through stories and so narratives are very common in ethnographic studies as well. In stories, people reflect on events and construct their versions of what happened; narratives are also a means of identity construction. Narrative inquiry is a loose framework for a wide arrange of analytic approaches (e.g. Clandinin 2007, Riessman 2008). It is widely held that it is permissible for researchers to rather freely adapt the already existing analytic approaches and tools or to create a unique analytic perspective on the data. As in ethnography, contextuality is important in narrative inquiry but the meaning of the concept is slightly different. For example Mishler (1986, 96) refers to the interview situation as "context"; and Clandinin et al. (Clandinin, Pushor & Orr 2007, Clandinin & Rosiek 2007) emphasise the location of both the inquiry and the narrated events. In addition to context, Clandinin et al. (Clandinin, Pushor & Orr 2007) consider temporality (the role of time) and social factors as issues requiring careful consideration in the analysis process.

4.1.2 Story 2: The reality of the fieldwork

The fieldwork was done in two main phases. The first phase took place during the sixth grade and lasted for two months in succession. This gave me a good general picture of the teachers' thinking and their classroom practices. During this phase, my colleague and co-author of the study interviewed the teachers twice. I continued the research the following autumn alone, in a class of first graders with the same teachers. The fieldwork period was shorter because I was better able to focus the observations and had no need to spend lengthy periods in the school. During this phase, I conducted two interviews with the teachers. I made a school visit during the second grade with the purpose of updating what

was going on in the classroom and to check my analysis in case I had left something important unnoticed. My last visit to the school was during the third grade class when I interviewed the teachers for the last time. The data collection process is described in detail in table 3 below. The fieldnotes from the second and third grade classroom observations were not in the end systematically analysed; however, they provided me some insights and ideas, for example, about how co-operative learning was implemented in the class.

TABLE 3 The data collection process.

	Time	Days	Fieldnotes (pages)	Interviews (minutes)
Phase 1, Grade 6	August 2003	5	30	
	August 2003	5	32	
	August 2003	5	27	
	September 2003	5	28	
	September 2003	4	23	
	September 2003	4	19	
	September 2003	1	8	
	October 2003	4	19	
	October 2003	2	10	100minutes 30 minutes
Phase 2, Grade 1	August 2004	3	15	
	August – September 2004	4	22	
	November 2004	5	54	30 minutes
	December 2004	3	21	
	February 2004	2	15	
	March 2004	5	28	
	May 2005	3	23	60 minutes
Grade 2	August 2006	5	17	
Grade 2	May 2006	1	3	
Grade 3	March 2007	5	35	100 minutes
		71	429 pages	320 minutes

Even if school ethnography differs from traditional ethnography in many ways as described by Erickson (1984), doing fieldwork is nevertheless more a way of life at the moment than merely work. It is also full of stories as it becomes part of the researcher's private life in very concrete ways. My story as a researcher began when I was a graduate student. I had clear deadline for the thesis and this limited the length of the fieldwork to maximum of two months. This was tiresome yet interesting time. No books I had read described how tiring it was first to spend a day at a school and be active yet sometimes stay invisible; and then, when you got back home in the afternoon or in the evening, start transcribing your fieldnotes, adding notes, writing a diary and planning for the next day. I started to keep a notebook next to my bed in case, half-sleep, I would get an idea or remembered something important that I had not written down. In this way I would not need to get up at all but I could easily scribble the thought in the notebook and get back to sleep.

Participant observation is favoured in ethnographic research for several reasons. The importance of contextuality is one reason; another reason is to learn what is yet unknown. My role at school is best described what Spradley (1980, 60) calls moderate participation. During the classes, I was a passive observer sitting in the front or in the back of the classroom; sometimes at one of the desks for pupils. I tried not to be a disturbance but could not always avoid this. Sometimes one of the teachers directed the pupils' attention to me, for example, by asking me something or making a note that they could check some fact from my fieldnotes.

> When the talk gets louder, the teacher tells the pupils that I'm having hard time writing down all their comments. A pupil asks me: "Will we be in anonymous in that book?" (Fieldnotes 18.8.2003)

Sometimes I was simply sitting in the wrong place, at a pupil's desk that I thought would not be occupied during that lesson. I often spent the time between and after the lessons with the two teachers, walking to and from the teachers' lounge where I became one of the staff, especially in the main school lounge. I decided to observe the teachers outside the classroom as well because I wanted to study their work as a whole. This proved to be a successful solution because, as I found out, being with the pupils is only one part of co-teaching.

I did not focus on the sixth grade pupils at any point. Some of them, however, were very curious about me and two boys in particular frequently asked me about my notes: how many pages I had written and what I had written. With the first-graders, I sometimes went out during the breaks to get to know them better. I also sometimes queued with them to get inside when the bell rang; the doors were locked prior to the first morning lesson. These were really nice moments with the pupils and although my purpose was not to study pupils or their views, they were part of my life when I was in the school, just as I was "one of the adults" in the classroom for them.

Over time, I became familiar with the "unknown": the school, the people and "how to be". I learned what teachers meant when talking about colours (see sub-study 3) and I learned my place in the school. I bought a new pair of shoes for indoor use, and I learned that a "whole-class lesson" definitely does not mean "everybody sitting in the classroom". I learned to be present yet as invisible as possible. But most of all, I learned to ask questions. This process is reflected in my fieldnotes during the years.

> "The teachers talk with each other about things that I wouldn't think to ask. Through their talk both the teachers and I end up reflecting on a lot of things that to me alone would not come to mind." (Fieldnotes 13.8.2004).

> "I pack my bag, dress up, go downstairs and meet Lisa at the door. In the car we talk. […] I tell her this was a good week, it was good to try out my assumptions live and she asks about the focus. I tell her the focus is on the rules and habits at the moment and she asks if I have noticed any contradiction between what the teachers say and what they do. […] My assumptions don't collide with the teachers any longer, I know how to be and I know what and why something happens." (Fieldnotes 16.3.2007)

Of course, I learned an enormous amount that was not relevant to my study. I learned about whom to ask for help with computers; I learned the new style of writing numbers and a lot about Finnish history. I learned to ask for a lift after school and I learned about the school heating system. But as the fieldnotes above indicate, I also reached the saturation point in my study when I felt I had enough data to provide adequate answers to my research questions.

4.1.3 Story 3: Analysis process

Analysis in ethnographic research is a dialogue between the data and the researcher's ideas (Hammersley & Atkinson 2007). It is a continuous process which starts when one enters the field. The data analysis is often intertwined with the fieldwork (Fetterman 1998, 2) and, in practice, is a process of constant interaction between the researcher's ideas and the data (Hammersley & Atkinson 2007, 159). Originally, I had only "preconceived notions" (Fetterman 1998, 1) about the main features of co-teaching and therefore I wanted to study co-teaching from multiple perspectives. To cite Malinowski, I had two "foreshadowed problems" (Hammersley & Atkinson 2007, 21) in my research: what the two teachers were thinking about their work and what was going on in the classroom. Although these did not particularly direct my observations (Spradley 1980), they affected the structure of the study at some level. Therefore, the study has two parallel main lines. One was guided with the initial question "What do teachers think about their work in the context of co-teaching?" and the other one with "What happens in the classroom?" (See figure 1). In addition, I used the three types of ethnographic questions (Spradley 1980, 31-32): descriptive (Sub-study 1: "What happened when the teachers started co-teaching?"), structural (Sub-study 3: "What kinds of groups do the teachers use?") and contrast questions (Sub-study 4: "How do the different modes of teacher behaviour in a misbehaviour incident differ from other modes of teacher behaviour?"). Furthermore, in general, my concept formation process was a mixture of reading the data with reading the literature on different topics that could be assumed to be related to the topic of interest (Woods 1986, 130-131). Here, I must note that also language played a significant role in deciding the final themes of my research (see section 4.3 for more detailed discussion).

The ethnographic literature acknowledges the existence of narratives and their role in people's lives and in ethnographic research (Hammersley & Atkinson 2007). The general idea discussed by Mishler (1986, 52--) on how meanings are constructed between interviewer and interviewee was even more complex in my case as I had two interviewees who also negotiated meaning with each other. I chose narrative methods in addition to ethnographic content analysis because they provided me with more tools to analyse the different levels of the narratives from multiple perspectives and thus to examine in detail the way the two teachers constructed meanings about their work. Ethnographic research is interested in the meanings; I was also interested in studying specifically how the teachers constructed their mutual world of meanings in and through their narratives.

The first main theme was "opettajuus" [being a teacher, a very general level concept], a concept with no widely-used English equivalent. In the early stage of analysis, when I was reading the data set and thinking it over in Finnish and looking at it through Finnish concepts, I ended up in a situation where I had excess of data for a sub-study. I thus split the data in two sub-sets (sub-studies 1 and 2). In one sub-study, I examined the concept of teacher identity; and in the other I focused on the two teachers' joint knowledge construction process. This first line of inquiry, teacher thinking, was studied mainly by interviewing the teachers, although the fieldwork, with all the informal interviews and discussions, was very important in defining the topics of the sub-studies. Here, I found narrative methods of analysis to be a suitable tool in describing and interpreting the mental process that co-teaching had induced. Polkinghorne (1995) distinguishes analysis of narratives from narrative analysis. In the analysis of narratives, the aim is to find elements common to the narratives, whereas in narrative analysis the purpose is to construct an emplotted story or stories from the data. In narrative analysis, the units of analysis are the stories because only thus can the unique features of narratives – sequences and structure – become part of the analysis. Another analytical approach is to make the two major decisions about the unit of analysis and about the focus of analysis (Lieblich, Tuval-Mashiach & Zilber 1998, 12). The unit of analysis can be a story as a whole, or a section of it; the focus can be on the content or the form of the story.

The focus of the second main theme was "työrauha" ["working peace"; specifically in this case, how do the teachers keep the class in order]. The topic of this more practical line of inquiry was examined through classroom observations, and thus the main data were the fieldnotes. Again, the concept has no simple translation in English but in the process, I got into analysing the pupil groupings. Most of the activities in the class were organised around colour groups, and I focused my observations on how the teachers used groups: what kinds of groups and for what purposes. While writing up the preliminary findings about the use of groups, I read the literature on the topic and found the concept of classroom management and the related concept of discipline. I focused my observations on incidents of misbehaviour in the classroom. Similarly to the analysis of the first theme, the topic of classroom management was far too large a category, and consequently I divided it into two sub-studies (sub-studies 3 and 4). A summary of the analysis process is presented in table 4.

TABLE 4 Summary of the data analysis and research questions of the sub-studies

	Research questions	Data sources	Analysis methods	Unit of analysis
Sub-study 1	1. Why did the teachers decide to amalgamate their classes? 2. What were the factors that made it possible for them to realise their plan?	Interviews	Narrative methods	A narrative about the beginning of co-teaching
Sub-study 2	1. How do the teachers narrate their learning experiences and knowledge construction? 2. How do they narrate their collaboration? 3. How do the teachers see the relationship between their collaboration, their knowledge construction and the development of their pedagogical practice in an inclusive setting?	Interviews	Narrative methods	Narrative excerpts
Sub-study 3	1. What kinds of groups did the teachers use for the purposes of classroom management? 2. How did they use the groups?	Fieldnotes and interviews	Ethnographic content analysis	Pupil groups
Sub-study 4	1. What were the premises of collaborative classroom management in the studied classroom? 2. How did the teachers collaborate on classroom management during co-taught lessons?	Fieldnotes and interviews	Ethnographic content analysis	Incidents of misbehaviour

4.2 Credibility and limitations

Qualitative research can be evaluated with a number of criteria. For example, Yin (2009) mentions four general arguments against case study research. In order to avoid the first, lack of rigour, I have described how the data was collected, how categories were derived and how decisions were made throughout the inquiry. Merriam (2009, 223) calls this the audit trail. The issue of generalization in qualitative studies becomes one of transferability. This, too, requires a detailed audit trail and a description of the context of the study; these conditions I have tried to meet in the methods sections. The third cited argument by Yin is related to the idea that case studies are too time consuming and result in large amounts of data. The data collection of this study lasted for three and half years, and so it definitely was time consuming; however, I only spent 71 days in the field. After the first intensive two-month period of fieldwork, the data collection became much lighter as I only visited the school for a few days at a time. As described in the methods section, the data started to become saturated and I only visited the school to check odd details and to test my preliminary interpretations. My long acquaintance with the teachers and the long temporal dimension of this study provided me with the perspective needed in the second substudy in particular. This is also related to the last argument on Yin's list: as a non-experimental method, causalities cannot be studied in qualitative case study research. This argument might seem irrelevant here but it is not. It raises the issue of the relationship between the events that follow each other over given time period, even if this is not causal in the strict statistical sense.

Merriam (2009, 229) lists eight criteria for promoting credibility in qualitative research. The first is triangulation, of which there are various forms (see also Hammersley & Atkinson 2007, 183-185). I used four types of triangulation (Patton 2002, 556-563): methods triangulation, triangulation of sources within one method, analyst triangulation and perspective triangulation. Methods triangulation means using more than one data source. Each of the sub-studies was based on one main data source (table 4); however I used both fieldnotes and interview transcripts in each sub-study. I also used different means of analysis, ethnographic content analysis and various types of analysis with the narratives. Patton describes three means to do analyst triangulation. The first type, review by the inquiry participants, also known as a member check, was used by giving my interpretations to the teachers for comments. The second type, audience review, can be applied to situations where all the preliminary findings of this research were presented in international educational conferences. The third type, expert audit review, was accomplished during the peer review process of the publication of each sub-study, and by peer review of the research as a whole. Furthermore, I used perspective triangulation by examining the teachers' learning process from multiple conceptual perspectives.

Merriam's (2009) second criterion is member checks. I sent all the findings for the teachers for comments, and they agreed with my interpretations. The

third criterion is adequate engagement in the data collection, also known as prolonged engagement. As already stated, I collected the data over a period of three and half years, and spent 71 days at school with the teachers. The fourth criterion is about my reflexivity as researcher. Writing a journal regularly helped me to remain critical and acknowledge my own possible bias and pre-assumptions. Sometimes I discussed these assumptions with the teachers, for example about the nature and content of their work. The fifth strategy, peer review was described earlier. The sixth strategy is the audit trail, a detailed description of the research process. Each sub-study has such a description; additionally I have provided an audit trail for the whole research here (section 4.1). The seventh strategy is to provide the reader with sufficient information and a description of the context. This serves the aim of transferability, that is, whether it would be possible to apply the findings in another context. The last criterion is maximum variation, which cannot really be applied in a case study like this with only two teachers.

4.3 Language issues

While the role of language is well acknowledged in ethnographic and narrative research, the issue of a multi-lingual context is rarely explicitly raised. Riessman (2008, 42-50), discussing narrative methods, writes about her experiences of working on interviews with people who have an unfamiliar language and the challenges of using a native interviewer and translating the interviews. This ethnographic and narrative study is constructed through language and between two languages. As already noted earlier, the analysis was strongly influenced by my decision to publish the sub-studies in "international" journals, in practice, in English. The data were produced in Finnish, the mother tongue of both the researcher and the participants. Language played a particularly significant role in the second sub-study that was analysed and co-authored with a native speaker of English, Ruth. Even there, we first discussed the data and the preliminary findings, and took no translations as self-evident but acknowledged and discussed the language and differences in meanings in both languages throughout the analysis. In practice, I translated selected sections of the data for Ruth and then she read the English version while I was reading the original transcripts in Finnish.

I initially analysed the data first in Finnish, but when the literature became involved in the process, I had to start thinking in two languages as the concepts were, "naturally", in English. This process raised several questions, such as, was I being true to the data or does the use of English concepts do justice to the data? Of course, on the one hand, it was my decision to write and publish in English. On the other hand, the regulations of our Faculty on dissertations based on articles dictate that "A minimum of three of the [3-5] articles must be published in international, peer-refereed scientific journals". The alternative was to write a monograph. However, none of the 13 reviewers or 9 editors who

read the four sub-study manuscripts raised any concerns about the translation issue, although it was only discussed in one manuscript (sub-study 2). Finally, when writing the summary, I decided to write it in English because I felt I could not have expressed every detail accurately in Finnish. Moreover, writing in Finnish would have required yet another translation process.

Working in two languages also raises very practical questions, for example, whether one should use English or native pseudonyms for the participants. Both options are used: for example Estola, Erkkilä and Syrjälä (2003) used Finnish names while Vähäsantanen, Saarinen and Eteläpelto (2009) used English names. Commonly the decision is not discussed, as it did not matter. I decided to use English names as pseudonyms to make it easier for the [non-Finnish speaking] reader to identify the sex of a participant. However, names carry certain associations and meanings. Thus, for example, in her study of ethnicity Lappalainen (2004) named the participants according to their ethnic background. Another significant question concerned the use of third person because in Finnish the pronoun ("hän") does not indicate gender. Furthermore, translation was occasionally rather challenging as it required the interpretation of meanings. This issue demanded extra attention in the narrative study (sub-study 2) because the teachers often used a passive-like verb form "kyllä ei oo aina ollut semmonen olo" [has/ have not always had that kind of feeling] which does not clearly indicate who they are talking about, him/herself or for both of them.

4.4 Ethical issues

Hammersley and Atkinson (2007, 209) discuss the ethics of ethnographic research by reference to five concepts: informed consent, privacy, harm, exploitation, and consequences for future research (see also Murphy & Dingwall 2007, for a similar list). The two teachers and the parents of all the pupils of both classes gave me their written informed consent. The principal of the school also gave his written approval to conduct the study in the school. The second issue, privacy, is more complex. Doing fieldwork requires finding a balance between being discreet and getting the information needed for the study. School, in general, is a public space and as such a rather easy environment in which to do fieldwork. However, the issue of privacy then becomes an issue of sensibility. By this I mean that although I had permission to observe the teachers whenever and wherever, I felt it odd following about them everywhere like a duckling. This was particularly the case when walking between the classroom and the teachers' lounge because the teachers usually walked abreast, which did not allow me room to walk beside them. This made me feel like I was shadowing them, which, of course, is in a sense true. Another issue related to privacy was the disturbance I caused merely by my presence but also with my talk. It was difficult to decide in some situations whether I could speak freely or whether to

do so would interrupt the teachers. Luckily, they often guided me by asking me to join or, in rare occasions, told me to stop talking.

The third issue is one of harm. I tried to avoid causing any harm by being as open as possible about, for example, the focus of my observations, by answering questions about my research, by behaving like an responsible adult with the pupils, and by protecting the anonymity, in particular of the pupils. The matter of not always hiding the identities of the teachers was our shared decision on which I have their signed consent. However, this was a risky decision that I was very cautious about. On the one hand, it could have caused me problems while on the other hand, the pedagogical system of colour groups and learning styles is such a distinctive characteristic in small country like Finland that I am not sure if I could have protected the identities of the teachers without choosing not to present all the findings. However, fortunately, I have not ended up in a situation where to protect the teachers I have left something important unsaid. It has made me very sensitive about my decisions, however. For example, I was planning to study the teachers' pedagogical thinking at some point, but I let go the idea, partly because of one teacher felt it was a very personal topic.

The fourth issue, exploitation, refers to the balance between being studied and getting nothing or little in return. The teachers were enthusiastic about the research because they felt that it would benefit their own work and professional development. I have provided them with all the findings I have produced. The fifth issue concerns how the research affects the field of ethnography in general. I assume that my actions have not harmed the field or prevented any future researchers from entering the same school.

5 MAIN FINDINGS

The findings form a metanarrative (Atkinson 1992; Hammersley & Atkinson 2007) that illustrates different aspects of the learning process of Matt and Lisa regarding their co-teaching. They had already found each other and started co-teaching in a supportive working environment (sub-study 1). This resulted in several analytically separate outcomes: a shared professional identity (sub-study 1), knowledge-sharing and constructing new knowledge (sub-study 2), new practices in the grouping system (sub-study 3) and collaborative classroom management (sub-study 4). Moreover, co-teaching was also a domain of their joint learning as they had got involved in it together. In practice, the various factors were intertwined in the two teachers' shared learning process. The direction of the teachers' professional development was towards inclusive education.

5.1 Sub-study 1: Shared teacher identity

In the first sub-study I examined the process which led the teachers to change from being traditional teachers into co-teaching professionals. This sub-study operates on two levels: the outline story is about the different factors that influenced the process, and as the teachers narrate this story, they also narrate their professional identity and how it too changes. The main finding was that in the process from solo-teaching to co-teaching the teachers created a shared teacher identity with agency, a we-identity. The process involved five factors: attitude, conflicts in the classroom, a taste of collaboration, the idea, and the solution. Attitude referred to their inner motivation to work as teachers. This combination, with certain contextual factors, such as conflicts between the ideal and the actual situation in the classroom, and their positive experiences of grade-level collaboration, led to the idea of starting to teach together. This idea was born in a supportive school culture, and with the support of the principal, the teachers started co-teaching. These factors, however, are also the same factors that seem significant in the two teachers' accounts of their learning process.

The findings show that a teacher's professional identity is something so crucial that it cannot remain untouched in the event of such a big turning point as combining one's class and sharing one's pupils with another teacher. Here, the change co-teaching brought not only influenced the teachers' professional identities as individuals but also led to the development of a shared identity, as shown in their narratives. Moreover, the idea of co-teaching can be seen both as the origin of the two teachers' joint learning process and clearly as a turning point in their career and thus, part of their wider professional development.

5.2 Sub-study 2: Professional learning and joint knowledge construction

In the second sub-study, we examined several small stories in and though which the teachers narrated and reflected on their professional development over time. We focused on examining in detail four stories. In three, the teachers narrated the origins of a pedagogical change in their careers: first the beginning of co-teaching, second the use of learning styles as the basis for flexible pupil grouping and third the shift to a cooperative learning pedagogy. In the fourth story, the teachers reflected retrospectively on their shared professional development process.

All the narratives are storied through the teachers' we-identity, and they show both structurally and in their content that the teachers are involved in a joint knowledge construction process. In the middle of this process is their willingness to share ideas through talk, and hence how ideas receive shared examination and can be developed further together.

5.3 Sub-study 3: Flexible grouping

The teachers had created a new pedagogical system based on pupils' learning styles when they started co-teaching. In this third sub-study I examined the grouping system used in the classroom and its different variants and meanings. The pupils were divided into four groups each named after a colour. The homogeneous colour groups (lessons for one colour or for two similar colour groups combined) were used both to individualise instruction, and the heterogeneous groups (lessons for two opposite colour groups combined and for the whole class) to teach the pupils social skills. In short, each pupil studied in four different groups every week, and had at least two lessons in each group. The study revealed that, first, learning styles seem to work as a grouping method, and second, that flexible grouping can diminish problematic situations traditionally related to heterogeneous classrooms.

5.4 Sub-study 4: Collaborative classroom management

In the fourth sub-study I focused on classroom management as a shared practice by the two teachers. The analysis was based on incidents of misbehaviour in the sixth- and the first-grade classroom whole-class lessons. The teachers used three collaborative models of classroom management. In the first model, one teacher was responsible for teaching and one for classroom management. In the second model, the teachers shared both responsibilities, and in the third model, the teachers switched roles flexibly when needed. Additionally, I identified three premises of collaborative classroom management: careful planning, open communication and a common line in disciplinary issues.

5.5 Metathemes through the sub-studies

The findings are always a construction of the data. The present four sub-studies are created around certain theoretical concepts, except for the one on flexible grouping, which was based on a teacher-initiated domain of colour grouping. The reality is, however, more complex and therefore I will present an alternative, more narrative, construction of the data presented in the four sub-studies. Hence, the discussion is built around three metathemes (Ely 2007) that illustrate different dimensions of teacher learning.

The first metatheme is about the initial process where the teachers came together and made their decision to start co-teaching, which in turn is the beginning of their joint learning process. This theme describes the reasons for self-initiated change and the contextual factors that made it possible to implement the idea. It illustrates how various individual, collaborative and contextual factors influenced on the teachers' decision to start co-teaching and to their implementation of this idea in practice. Furthermore, the theme is not only about initiating co-teaching but also a description of how the teachers got involved in their own, first individual, and then collaborative process of professional development.

The second metatheme comprises the beliefs and values behind the teachers' professional development and their actions as teachers. The teachers emphasised equality and diversity in the classroom, which are first performed through learning styles, and later through a cooperative learning pedagogy. What is clear from the start is that the teachers are driven by rather inclusive thoughts about valuing individuality and social inclusion within their class. With respect to teacher learning, this theme forms the basis of and orientates the two teachers' professional development. Although the teachers narrated the origins of the learning experiences as serendipitous, they nevertheless seem to form a consistent continuum towards more inclusive classroom pedagogy.

The third metatheme is the actor, "we", in the two teachers' professional development. This is a description of we-identity and how the teachers built a

shared classroom together, based on shared views of, for example, classroom management strategies. As "we", they are involved in a joint journey of learning, with a clear direction, and with, at the centre of the process, their shared teacher identity, which is also manifested in practice in classroom situations. That is, the teachers not only think and talk as "we", but also they share the responsibilities and roles that usually fall to one teacher alone in the classroom.

6 DISCUSSION

Co-teaching is a mixture of learning activities, and thus may lead to a process where change in beliefs, change in knowledge and skills and change in practice alternate (see Opfer & Pedder 2011). The four sub-studies form a metanarrative of the co-teaching context where the teachers construct and have shared professional identity, and where they not only learn from each other but construct new knowledge together; and where they work very concretely together in the classroom which they have arranged according to the new pedagogical system that they have created. This general discussion of the findings is structured around three themes. First, the beginning of the two teachers' co-teaching is interesting for many reasons. In addition to being illustrative about how two teachers initiated a notable change in their work, and how this was the beginning of a joint learning process towards a more inclusive pedagogy, it reflects the various factors which the teachers interact daily in their work. These same factors define their professional learning environment. The second and third themes are about the content and forms of teacher learning. The second theme concerns the issues of how co-teaching was both a context and the focus of learning, and how this collaboration involved the teachers in a transformative learning process where they created a shared teacher identity. The third theme to be discussed will be the direction of the teachers' learning process. This illustrates, retrospectively, how Matt and Lisa have, perhaps unconsciously, aimed at more inclusive pedagogy in their classroom from the very beginning of their co-teaching.

6.1 Co-teaching – the beginning

While co-teaching was an important context for the teachers' learning, it was originally created in interaction between the two teachers, the other teachers in the school and the school principal. Thus, co-teaching was a learning context created by the teachers within another learning context, school culture. Based

on the teachers' narratives, school might well be conceptualised as a professional learning community (Stoll et al. 2006), and was thus a fruitful context for innovation. The collegiality of Matt and Lisa in this school cultural context resulted in the establishment of another learning community, the co-teaching. This illustrates both how unique and multidimensional teacher learning can be, and furthermore, how various affordances and obstacles play a role in regulating teachers' professional learning. However, in this study, the teachers did not face notable obstacles to their learning but felt well supported by their surroundings. Notwithstanding the importance of a supportive context for creating and implementing new ideas, such as co-teaching, ultimately these all depend on individual teachers. The attitude shared by Lisa and Matt was a significant factor in their initial co-teaching process, and the same attitude was closely linked to their will to learn in the first place.

In their model, Shulman and Shulman (2004) drew attention to how the individual and community levels of learning intertwine. Whether the present case of co-teaching, and all that followed it, were an outcome of teacher learning, or constituted its starting point, remains unclear, and is, perhaps, even an irrelevant question. Nevertheless, co-teaching was a starting point for the shared learning process engaged in by Matt and Lisa and definitely a significant factor in their careers. The professional crisis they both shared and faced not only resulted in co-teaching but it also started something bigger that goes beyond their co-teaching and beyond them as individuals. However, although the dynamics of this kind of change and the meanings of Matt and Lisa's co-teaching on the level of the teacher community in general were not the focus here, it is noteworthy that during the first phase of this research, co-teaching was also practised by another pair of teachers, using a similar system. This supports the interpretation of the importance of the role of the school culture in teacher learning while it is also a good example of the interaction between teachers' individual and joint informal learning and the role of school culture. Furthermore, the example of co-teaching and enthusiasm set by Matt and Lisa has had a greater influence on other teachers around Finland who have started co-teaching and used their pedagogical model. Thus, most interestingly, successful collaboration seems to be a source of inspiration to teachers: Matt and Lisa possibly got the idea of close collaboration from their colleagues and now they are promoting the idea of co-teaching. This is a powerful example of how other colleagues' experiences can act as a source of both practical knowledge and motivation that teachers value.

The story of co-teaching begins with the two teachers' professional crisis, as it was this that led them to co-teach. This apparently small change is conceptualized in this study as the origin of their shared journey towards professional learning. It was a step which affected not only their practice inside the classroom but also had a rather profound influence on them as teachers. In this crisis they saw co-teaching as a possibility to try something new – a choice that not everybody would make. This shows how a teacher's professional development can be formed in a process where their will to learn intertwines in a certain con-

text with several other factors (see also Fernet, Guay, Senécal & Austin, 2012). Perhaps the most significant of these is trust. The shared professional identity between two teachers was based on confidence, a sense of trust one will not harm the other. On the basis of this trust teachers can build a shared professional identity which has further consequences regarding the other dimensions of a teacher's work: teacher knowledge, classroom practice, and the whole notion of teacher professionalism. Nevertheless, when considering the source of the teachers' mutual trust, it is important to take into account the school culture as they interpreted it, especially the sense of autonomy which they owed to their principal. Furthermore, trust seemed apparent also in their interaction with their pupils. I assume this trust was related to their shared understanding of the goals and means of education, which thus became transmitted through trust from the principal down to the classroom.

In Finland, teachers teach the same group of pupils for several years. This lack of "a sort of annual lottery" (Huberman 1989, 48) has both advantages and disadvantages. Both are related to the relationships with the pupils that will develop over time. On the negative side are the possible problems in teacher-pupil interaction that can lead to significant teacher stress and decrease in self-efficacy. Here, a situation where both teachers were teaching heterogeneous pupil groups was a major factor that drove the teachers towards co-teaching because they felt they could no longer continue working in the existing situation. The teachers had very few options, and hence they chose co-teaching. It is here that the positive side of the Finnish system can be seen as it allows teachers to develop professionally by adjusting their instructional and classroom management practices to fit the needs of the group during a lengthy period of time. Working with the same group for years on end builds a valuable knowledge about their pupils which helps teachers to plan the implementation of new ideas in the classroom. This also allows them to concentrate on other things instead of acquiring new knowledge about new pupils every year.

The findings of this study add to our understanding of the essential difference between general collegial support, which the teachers felt was not sufficient, and co-teaching, which the teachers found suited them well. We can assume that the support that school culture, including both colleagues and principal, can provide teachers often remains at descriptive level. By this I mean that when one's colleagues and the principal do not know one's pupils or the classroom practices along with all the interaction that go on in the classrooms, their possibilities for involvement are limited. In the co-teaching context, where the teachers share their knowledge about the pupils and where they see each other working in authentic classroom situations, their practical knowledge not only becomes visible but can also be discussed and reflected on. This kind of sharing and collective knowing enhances teachers' sense of mutual responsibility, and thus may further support their well-being.

6.2 Collaborative and transformative learning

The teachers experienced learning as acquiring and constructing practical knowledge about co-teaching, and as transformative learning through their identity work. Although these two are closely intertwined in practice, I will first discuss them separately here.

In previous studies, teachers' learning activities, such as collaboration, getting ideas from others and experimenting, have often been examined as separate activities, whereas this study showed that teachers connect these activities into a continuum where informal and formal learning are both present (Eraut 2004) and which further intermingles with practice. Originally, the collaboration of the two teachers was the context in which they came up with the idea of co-teaching. Later, this collaboration was the primary context for sharing ideas. However, co-teaching created another learning context where the teachers were able to experiment their ideas together in the classroom. The case of Matt and Lisa differs from several other studies where the teachers lack a tradition in which try out the new ideas collaboratively in the classroom and to discuss the shared practical knowledge created thereby with a colleague. Furthermore, even their collaboration can be assumed to be different from that of teachers who only collaborate outside their classroom, as the two teachers who co-teach can build and reflect on their shared practical knowledge and, for example, on their knowledge about their pupils whom they both know equally well. It should be noted, however, that teacher collaboration and co-teaching is always based on interaction between two or more professionals and is thus a unique combination of personalities. This is sometimes overlooked in studies, resulting in an oversimplified view of teacher collaboration (e.g. Goddard, Goddard & Tschannen-Moran 2007).

The present teachers' learning was based on a process of joint knowledge construction. In this study, the focus was on the process and the origins of Matt and Lisa's major career turns. Although these origins were external, and in one case individual, the actual learning process was mutual. The teachers' new pedagogical ideas were further developed together in the classroom and thus became part of their co-teaching practices. Moreover, learning within co-teaching was more than learning from external information sources or acquiring practical knowledge from the other teacher. Co-teaching itself was a learning process in and through which the teachers gained practical knowledge about co-teaching by doing it. This included, for example, learning to share and negotiate the different teacher roles required in the classroom. Co-teaching requires the acquisition of, for example, new roles both in relation to the other teacher and in relation to the pupils. Moreover, it can require getting to know new pupils if two classes are combined, as in the case studied here. Thus, co-teaching requires the acquisition of new skills for it to be flexible and successful. When two teachers start co-teaching and both are new to this practice, they are involved in a process where they learn not only about co-teaching but also about teaching

in general. Furthermore, they construct new shared practical knowledge about co-teaching in the context of their own classroom, although this may prove challenging (Conderman & Hedin 2012).

A teacher's professional development is a complex process, and a much wider issue than merely acquiring new content knowledge or instructional practices. Practical knowledge about co-teaching is not only knowledge about roles and other practices, but about how to be in a mutual collegial relationship with another teacher and to share. This study showed that co-teaching can result in transformational learning along with other major changes such as creating a shared teacher identity with another colleague. In light of the dialogic view of teacher identity (Akkerman & Meijer 2011), this shared identity is one of their professional identities. Therefore, although their shared identity seemed dominant in the teachers' narratives, the teachers hold it in addition to their individual teacher identity. This allows them to shift flexibly between solo and co-teaching settings, as well as between any two settings. This is important as very few teachers use co-teaching in all their lessons. It is also probably the case that the nature of the possible shared professional identity will vary for one teacher according to who the other teacher is. A teacher identity is situated in a particular context (Beijaard, Meijer & Verloop 2004) and a change in that context or setting requires a change in that teacher identity.

The teachers' decision to embark on co-teaching was a sign of creativity and the courage to wipe the slate clean and re-design the classroom, and this creativity was later transferred to their classroom (Sawyer 2011). It was also a successful attempt to shift from a negative career stage to a more positive stage. Moreover, this joint decision to build everything over again together was the basis for their co-teaching and their shared teacher identity. The decision may even have strengthened their sense of we-ness and shared responsibility for work that was demonstrated, for example, in their common line on classroom management. The question whether they agreed on their disciplinary strategies from the beginning or whether the "common line" was a result of their collaboration may seem irrelevant to them, but it is important for teachers who may have different views of classroom management and different disciplinary styles. It should be noted, however, that while to create a sense of we-ness may not require co-teaching, co-teaching probably strengthens we-ness through shared practice. What distinguishes co-teaching from peer coaching is that in co-teaching the teachers share an essential part of a teacher's job, viz. responsibility for their pupils.

The two teachers' thinking was similar from the beginning; however, it has most likely become even more similar during the years in which they have created their we-identity as teachers. This shared actor of their narratives, the we-teacher, not only appears in their narratives but also has an externally observable form. It can be seen, besides in their narratives, in their classroom, where they fluently and without any preparatory discussion share the tasks that one teacher usually handles alone. This does not mean that the teachers were consciously aware of the way they shared their teacher roles in practice, but it

does indicate that even shared practical knowledge that is learned through shared practice can be tacit, such as sharing teacher roles. I also occasionally encountered this "we"-person in the school corridors. Once, I asked if the teachers had read a book, and one teacher answered "Yes, we have". The other teacher corrected this, surprised and laughing: "Actually, I haven't!" We-ness was also apparent in the way they shared ideas and the importance they attached to this sharing. This openness and their willingness to share was not restricted to their mutual collegiality but was also reflected in how they treated me, friendly and fair and always willing to have me join in all the activities, and ready to arrange a time for an interview when I requested one. I felt that at some point I had become a source for possible new ideas for developing their work. It was, perhaps, related to their we-ness that they felt a desire to share new ideas with each other. In that way they increased their mutual store of knowledge from where they could take ideas to be implemented and further developed in the classroom. Giving lectures to colleagues and the book they wrote can be seen as part of this sharing process.

In the studies that have looked in detail at the complex peer learning process in teachers the context has usually been peer coaching or mentoring. What was different here was that the learning community created by the two classroom teachers was based on a truly equal professional relationship between two expert teachers with a similar education. Another particularity of this study compared to previous research was that teacher collaboration takes usually place outside the classrooms whereas co-teaching happens inside the classroom. Such collaboration is not only a matter of talking about problems or ideas, or talking about pupils or feelings raised by classroom situations, or about professional development or enhancing pupil learning. Co-teaching is about sharing and doing together all the tasks related to being a teacher, and this study showed that professional learning is something that is embedded in this mutual process. Workplace learning is rooted in practice, and co-teaching combines this with a possibility for continuous reflection based on shared teacher knowledge. This kind of learning, which originates suddenly, in an unpredictable time and place, and is developed in the moment, is challenging to study. The teacher narratives examined here are one means to this end; however, video recordings, for example, would offer very interesting and rich data for studying the actual discussions that take place between teachers. However, most teacher discussions for research use are recorded in pre-arranged situations, and it could be assumed, based on the narratives analysed here, that recording and analysing authentic ex tempore discussions might provide other possible perspectives on teacher learning. An interesting example is the study on agency by Lipponen and Kumpulainen (2011), in which they recorded and observed student teachers. Similar detailed data on co-teachers might also reveal whether teachers' educational background is present in their discussions and if so, how so.

6.3 Beliefs and values – inclusive education

This study revealed that teacher learning takes various forms and occurs on several levels. In the data studied here, one of these levels, or stories, was the teachers' vision of demolishing the barrier between "general" and "special". This vision was a driving force in the process from physical integration of a group of pupils with special needs into what one might call an inclusive classroom, at least on the criterion of heterogeneous groups distinguished only by learning styles. Moreover, the we-identity of Matt and Lisa that implies "our" pupils is interesting as it is strongly reminiscent of the inclusive idea of collaboration, both of pupils and of the adults in schools.

The Finnish school system is based on a mixed model in which general and special education are more or less separate systems and teachers are labelled according to their initial teacher education into "general" and "special" education teachers. However, the classroom context of this case study was a rather inclusive one considering the general trend. It had such inclusive features as a mixed group of "special" and "general education" pupils who studied together permanently with the aim of social inclusion. The system was based on co-teaching that is often considered to be related to inclusive education; however, in this case both teachers were classroom teachers. Co-teaching is also mentioned in the new three-tiered model of pupil support (Finnish Ministry of Education 2007) without any explicit mention of who the co-teachers should be. This is interesting as it tacitly acknowledges that the questions of teacher professionalism and teacher education are rather sensitive issues in Finland. These issues divide educators and teacher educators according to their opinion of what is "special" and how to deal with the answer. This study supports the idea that ordinary classroom teachers can create and develop inclusive classrooms, even if the present two teachers probably had some inclusive beliefs in the background, conscious or unconscious. Their voluntary example also supports the idea that in some cases co-teaching may be the only resource needed for inclusive classrooms to be successful, and for teachers to have positive experiences. However, this does not justify decisions where teachers with positive attitudes towards inclusion are burdened with more challenging pupil groups than their colleagues. Either does this support the idea that all classroom teachers are able to teach all kinds of pupils successfully. The question of who is to decide who is the best teacher for a given pupil is demanding. At the school level, principals are responsible for finding a balance between listening to their teachers on one hand and encouraging them to try their knowledge and skills with pupils labelled as having special needs on the other. As in this case, the two teachers found they were able to teach the exactly same pupils more effectively together than alone. This phenomenon of mental support might be called the added value of co-teaching.

The two teachers in this study started co-teaching long before the establishment of the three-tiered model in Finland. In line with the new Strategy, the

two teachers saw co-teaching as an answer to a situation, in which their work was becoming such that they no longer experienced it positive. Self-initiated change is often assumed to result in more sustainable change as opposed to up-down orders, but this does not mean that those suggestions in government papers, such as the new strategy, are necessarily less functional than ones that teachers come up with by themselves. However, although the teachers here were working their way towards a more inclusive classroom, it can be assumed that with two teachers with pro-segregation beliefs about pupils will end up in developing their practices in the opposite, segregative, direction. Thus, co-teaching is not necessarily pro-inclusion; much depends on the values and beliefs of the teachers. If the teachers have contradictory values or if they both value more segregative solutions, co-teaching probably strengthens these values as well. In case where the teachers have contradictory values or beliefs, we need more studies on how they negotiate the values implemented in their classroom.

It is unclear in which ways a teacher's professional development affects their cognition and classroom practice. Furthermore, based on this study, it remains unclear whether the two teachers' beliefs about inclusion subsequently changed. Similar findings were reported from a case study (Wittenholt et al. 2012) where the studied teacher changed her practice but retained her beliefs intact. Nevertheless, based on the pedagogical changes the present teachers made, some tentative conclusions can be advanced. This case study demonstrated how inclusion can emerge in a local setting without any special "programs" or external guidance. The teachers were capable of orienting their setting in a more inclusive direction but it happened over time and on their own conditions. This suggests that co-teaching might be a means to allow teachers to find their own way to teach heterogeneous pupil groups. In this way, teachers would be provided with time and a supportive environment to adapt to what may be more challenging instructional demands. This would in turn support their professional workplace learning. Inclusion is often discussed through pupil learning, but success in this endeavour is also about teacher learning. In a trusting co-teaching context, the risk of experimenting is shared, and thus, holds less risk for an individual teacher.

Before co-teaching, Matt and Lisa mainly taught their pupils separately; however, that setting did not satisfy them as teachers. Instead, they decided to do things differently and divided their pupils according to their learning styles instead of the previous "general" and "special" categorisation. Their thinking is close to Slee's (2007) notion that inclusive education is not only about SEN pupils but about good education for all pupils. In the cooperative learning that the teachers used this is applied by emphasising how all pupils can learn together, learn from each other and build something new together. The idea behind the learning styles grouping was that all are different and everybody has their own ways of learning. This idea was taken further to learning together from each other, thus, underlining how different learners can contribute to each other's learning. In general, co-teaching and the collaborative learning that it entailed

strengthened the teachers' originally individual values and beliefs about pupils and learning. The experiences the teachers had separately about teaching and interacting with their pupils were the impulse for teacher-initiated change. However, without discussing their experiences together they perhaps would not have had doubts about the current special education system. It is also interesting how their pupil-related self-efficacy improved as they started co-teaching, although the pupils were the same.

The question about how to guide teachers and their informal learning in a certain direction, however, remains. Here, each teacher chose the path towards the inclusive classroom, but other pairs of teachers might choose differently. It is challenging task to find a balance between teacher autonomy and the goals of inclusive education – all teachers surely have their pupils' best interest in mind, but even researchers disagree about the means to that goal. Finland has agreed to aim towards inclusion, yet, for example, the methodological challenges (Nind et al. 2004) facing how inclusion is to be defined are yet to be overcome. Moreover, for some reason, the proportion of pupils transferred or taken into special education varies enormously across the country. This probably reflects the strong autonomy Finnish schools have in deciding how to organise what they consider good education for all. Principals play key roles in creating school cultures that support inclusive solutions and strengthen inclusive values. In this study, the teachers felt they could do whatever they wanted, but this feeling was perhaps due to the fact that they were developing their work in a the direction that their principal valued. The situation and their sense of autonomy might have been different if their principal had been keener on segregative solutions, or if they had asked for permission to do something that would strengthen the segregation of SEN pupils. Nevertheless, this study showed that co-teaching provides teachers not only with support in teaching a heterogeneous classroom but also with the opportunity that create pedagogical solutions to support all the pupils in the class. Co-teaching thus enhances classroom teachers' possibilities to prepare for inclusive education, at least with pupils with mild disabilities.

The change in teacher thinking from learning styles grouping into cooperative grouping has been slow. Experimentation yields experiences that need time to be transformed into professional development. Furthermore, although the teachers narrated their learning origins as somewhat arbitrary, they were not in a sense that they all seem to have been based on the same values that characterise inclusion, such as equality, and valuing diversity. It is noteworthy that from the beginning, the teachers had similar values and beliefs. Furthermore, for example, the principles of equality and learning from each other were applied both in the classroom and in the collaboration between Matt and Lisa. An important change in the two teachers' pedagogical thinking was that Matt and Lisa decided to categorise their pupils according to the learning styles, which brings to the fore the fact that teachers can categorise their pupils in several ways, and furthermore, the categorizations can be utilised in several ways. In this case, teacher learning resulted in a change in the teachers' thinking re-

garding the best practice on categorising pupils. They changed the principles of what information to collect about pupils and how to organise that information, and the resulting new categorisation yielded a different kind of knowledge about the pupils. The teachers started talking about their pupils through their "colours" instead of their possible difficulties. This is only one example of the numerous discursive shifts in labelling pupils. It is rarely the fact of labels that causes any harm, but the meaning that people tend to attach to those labels. Here, colours were namely rather neutral way of categorising pupils, but for some reason some pupils and at least one parent valued some "colours" over others. Whether a truly neutral grouping system can exist is another question.

This study reflects how teachers' beliefs and values are implemented in practice and how they are developed in practice. Thus, learning can be seen as increasing the implementation of certain beliefs and values in classroom practice (e.g. Meirink, Meijer & Verloop 2007) and also, as inducing change in the beliefs on which these practices are based on. In such a highly integrated process it is not easy to elaborate where change happens first (Desimone 2009). Perhaps, it is impossible to determine, as teachers' practical knowledge is in constant interaction with their practice, and as teachers' practice contains interaction with their beliefs and values (Van Driel, Beijaard & Verloop 2001). Also here, the teachers were developing their practice through certain beliefs about pupils and certain principles, but simultaneously their thinking seemed to change, strengthening some beliefs and changing some others. This process requires further research to understand better how a teacher's values and beliefs are constructed and re-constructed.

6.4 Concluding remarks

Teacher learning was conceptualised as change in cognition and/ or practice. However, this case study showed that teacher learning is a process in which teacher identity, teacher thinking and classroom practice are intertwined. Moreover, the teacher learning process and its outcomes cannot be separated from each other but are in continuous interaction. For example, shared teacher identity was both a starting point in the two teachers' further development, and yet, at the same time, it was already an outcome of their professional development. Teachers need time and space for their informal learning, but also a balance between trust and guidance regarding its content. In the co-teaching context studied, learning and professional development appeared as an ordinary part of teachers' everyday work, as opposed to external programs. Their collaborative learning was based on their own activities and interest in learning and developing new practices. Experiencing teacher learning in this way might explain why teachers' experiences of teaching pupils with disabilities tend to have positive effect on their attitudes towards inclusive education (Malinen, Savolainen & Xu 2012).

The finding that classroom teachers, at least when supported by co-teaching, may be able to widen the range of the pupil types they are able to teach well, can, however, be used in different ways. Therefore one has to be very cautious in drawing conclusions about the role and requirements of special educational teachers in schools. More research remains to be done on the unique combinations of teachers, contexts and pupils which teachers find or do not find preferable. The question is not whether inclusion can be successful or not, but under what conditions in what context. Action research might be a fruitful means to study teachers' work, support teacher learning and to add to the general knowledge base on individual pedagogical practices (e.g. Hagevik, Aydeniz & Rowell 2012, Junor Clarke & Fournillier 2012).

A retrospective approach has its limitations regarding, for example, the memory of the participants and availability of accurate data, but it also has strengths. I would suggest that teacher learning is a cognitive and collaborative process that is challenging to observe with traditional ethnographic methods. In teachers, professional development is outcome of a process of cumulative learning that takes form in observable classroom changes, and this process involves experimentation. Teacher learning, although it can in some cases be traced back to separate, observable moments or events, requires long-term research on the individual teachers in question. Teacher learning is based on a wide variety of everyday working practises and because it can be deeply embedded in those everyday practices of a teacher's work it is difficult to study. Furthermore, in the case of co-teaching, a significant proposition of collegial discussions takes place in the corridors between staffroom and classroom. In Finland, walking between the two can be repeated even eight times a day.

The main strength of my research is long acquaintance with the teachers and hence, a long-term view of their professional development. This naturalistic study reveals that the development span of the teachers had its own logic. Teachers' careers and professional development are a mixture of serendipitous events combined with personal characteristics. In co-teaching, this combination is supplemented by the mutual interaction of two teachers with their individual beliefs and values and knowledge. Acknowledging the role these unique working and learning environments can have in schools could enhance the goal of inclusive education by providing teachers with additional support and by offering pupils a non-stigmatising yet good basic education. Furthermore, when teacher collaboration supports such activities as experimentation with the aim of improving learning, co-teaching may have the effect of enhance a teacher's professional development in general. However, to confirm this possibility requires more research.

This case study presented a rather positive example of co-teaching. To learn more about the topic, studies of less successful and failed co-teaching is needed. Furthermore, this study focused on teachers' perspectives on co-teaching. The literature on pupils' perspectives on and experiences of co-teaching is scarce and requires supplementation. Such studies would allow, for example, comparison between pupils' experiences in small classes (Jokinen 2012)

and larger classes with co-teaching. Another specific topic concerns whether co-teaching provides pupils with more individual support than solo teaching, as is assumed in the Special Education Strategy.

6.5 Implications for teacher education and professional development

Teachers' informal learning could rather easily be supported in schools by encouraging teachers to use such instructional models as peer coaching and co-teaching. A whole-day school model might be an option in creating opportunities for increasing collaboration (Pfeifer & Holtappels 2008). This study showed that intrinsic motivation can take teachers a long way but this does not mean that they do not need any resources for their learning. Also it has to be noted that this was a case study and that some teachers may have a lower motivation for informal learning. Some teachers need more support than others.

Co-teaching is about learning and creating new practices and new thinking. Through the changes in teacher thinking and classroom practices that co-teaching appears to bring, if it becomes more popular, it may generate new ways of thinking about teaching. Such a new kind of "teacherhood" (opettajuus) where sharing goes as deep as a teacher's professional identity clearly has implications for teacher education. The question is whether we, as teacher educators, wish to prepare future teachers for co-teaching as a practice that is much more than taking various roles in the classroom, or whether we continue to prepare them exclusively for the solo teaching as the basis for a teacher's work. If these questions are taken up already during initial teacher training, new teachers will have better skills and preparedness for working collaboratively inside as well as outside the classrooms. Co-teaching is based on the assumption that teachers need not be responsible on their own for pupils and their learning. As shown in this study, a sense of security and trust may encourage teachers to develop themselves professionally further by sharing knowledge and thus learning from each other and learning together.

Inclusion does not mean that everything "special" is erased or ignored. Every teacher, like every pupil, is different, with different knowledge, needs, values and beliefs. Instead of discussing whether all classroom teachers are well-educated enough to teach all kinds of pupils, we should try to overcome some very practical obstacles to teacher collaboration. Student teachers need to learn, besides the formal knowledge of their particular field, something about the formal knowledge those in the other fields have. Acknowledging one's unique strengths and weaknesses and knowing what the other teachers know, is a fruitful beginning for collaboration. In addition, student teachers need to be taught a culture of shared responsibility – nobody needs to be left to survive alone; one's colleagues are there to help. More mentoring and peer coaching

programs might help not only newly qualified teachers but also all teachers in different stages of their career.

Building a truly inclusive school system also requires discussion and negotiation about the purpose of basic education and the responsibilities of teachers (Florian & Rouse 2010). This is the foundation of the work of teacher educators and school teachers. As long as scholars disagree about the goals and means of education, we will not achieve a consensus about what kind of teachers we need and what to teach our pupils. Moreover, this conflict is reflected in the everyday practice of schools, and affects the education given there.

YHTEENVETO

Inkluusiota kohti – luokanopettajien ammatillinen oppiminen yhteisopetuksessa

Tutkimuksella oli kaksi tavoitetta, jotka kuvaavat eri tasoja opettajien työssä. Tutkimuksen tavoitteena oli ymmärtää, miten opettajat kokevat yhdessä opettamisen ja millaista yhteisopetus on käytännön luokkatilanteissa. Toisaalta tavoitteena oli myös tutkia yhteisopetusta toteuttavien opettajien oppimista. Tutkimuksen taustalla on aiempien opettajien oppimista käsittelevien tutkimusten pirstaleisuus: opettajien oppimista tutkitaan harvoin kokonaisuutena ja pitkällä aikavälillä. Samoin yhteisopetuksen tutkimus on vielä varsin vähäistä, mutta opettajien yhteistyö näyttäisi olevan olennainen tekijä opettajien oppimisessa. Tässä tutkimuksessa yhdistettiin nämä kaksi tutkimusaluetta, opettajien oppiminen ja yhteisopetus työtapana ja oppimisen kontekstina. Kolmas tutkimusta ohjannut teoreettinen lähtökohta oli inklusiivisen kasvatuksen ideologia ja käytäntö. Tutkimusluokkani oppilaista kolmasosa oli erityisoppilaita, joten oli luontevaa tarkastella kokonaisuutta myös inklusiivisten silmälasien läpi -- yhdistetäänhän yhteisopetus usein juuri inkluusioon, ja erityisopettajien ja yleisopetuksen opettajien yhteistyöhön.

Tutkimuksen pääkäsitteet muodostuivat tutkijan, aineistojen ja kirjallisuuden välisessä vuoropuhelussa, johon tutkimuksen tekeminen kahden kielen (englanti ja suomi) välissä vaikutti varsin huomattavalla tavalla. Varsinaisen pääkäsitteen, opettajien opettamisen, ohella tarkastelin ilmiötä opettajien ammatti-identiteetin, tiedon rakentamisen ja luokanhallinnan käsitteiden avulla. Tutkimus koostuu neljästä osatutkimuksessa, joissa olen keskittynyt kussakin yhteen palaan aineistoa yhden käsitteen kautta, ja tästä yhteenvedosta.

Tutkimuksen pääkysymykset olivat:

1. Miten opettajien yhteistyö ja yhteisopetus näkyivät opettajien ajattelussa?
2. Miten opettajien yhteistyö ja yhteisopetus näkyivät luokassa?
3. Mikä on yhteisopetuksen ja opettajien oppimisen välinen suhde?

Menetelmällisesti tutkimuksessa sovelletaan etnografisen kenttätutkimuksen työtapoja ja narratiivista lähestymistapaa. Etnografialla viittaan melko perinteiseen kenttätyöhön ja opettajien työn havainnoimiseen autenttisissa tilanteissa koululla. Havainnoin opettajia 71 päivänä, jotka jakautuivat kolmelle eri lukuvuodelle. Kenttätyössä kirjoittamieni muistiinpanojen lisäksi aineistoon kuuluu viisi opettajien parihaastattelua. Käytännön luokkatilanteita käsittelevät osatutkimukset perustuvat pääasiallisesti havainnointiaineistoon, joka analysoitiin etnografisella sisällönanalyysillä. Opettajien kokemuksiin ja näkemyksiin keskittyvät osatutkimukset perustuvat puolestaan haastatteluaineistoon, jota analysoitiin useilla narratiivisen tutkimuksen menetelmillä, mm. kokoamalla haastattelukatkelmista yhtenäinen tarina. Erilaisia aineistoja ja analyysimenetelmiä

käyttämällä halusin korostaa opettajien oppimisprosessin kokonaisvaltaisuutta ja moniulotteisuutta, mutta myös syventää ymmärrystä yhteisopetuksen roolista opettajien oppimisessa.

Tutkimus osoitti, että opettajien oppiminen koostuu hyvin monenlaisista tarinoista. Aineistossa toistui esimerkiksi tarina, jossa opettajat kertoivat luokkien yhdistämiseen johtaneesta prosessista ja siihen liittyneistä tekijöistä. Tarinassa olennaisessa osassa olivat opettajien oma asenne, myönteiset kokemukset aiemmasta yhteistyöstä, jossa he olivat tutustuneet toisiinsa; molempien tyytymättömyys silloiseen työnkuvaansa, rehtorin kannustava tuki ja koko koulun yleinen hyväksyvä kulttuuri. Näiden tekijöiden vuorovaikutuksessa syntynyt opettajien päätös yhdistää luokkansa ja aloittaa yhdessä opettaminen oli yhdenlainen oppimisprosessi ja alku heidän yhteiselle oppimiselleen. Yhteisyys ja jakaminen olivatkin heidän oppimisensa tunnusomaisimpia piirteitä. Opettajat puhuivat työstään jatkuvasti me-muodossa, joka ulottui jopa tunteisiin. Tätä yhteisyyttä käsittelin jaettuna ammatti-identiteenä.

Luokassa yhteisopetus näkyi monella tavalla. Opettajat halusivat luopua perinteisestä jaottelusta yleis- ja erityisopetukseen, ja he päättivät jakaa oppilaat ryhmiin oppimistyylien perusteella. Opettajat yhdistelivät näitä ryhmiä kaikilla mahdollisilla tavoilla, minkä lisäksi he korostivat, että luokka on yhtenäinen eikä koostu neljästä pienluokasta. Luokan yhtenäisyyttä korostettiin muun muassa pitämällä iso osa tunneista koko luokan tunteita. Opettajien me-identiteetti näkyi luokassa myös roolien hyvin huomaamattomana jakamisen yhteisopetuksena pidettävillä tunneilla. Roolien ja työvastuun tasapuolinen jakaminen oli heille hyvin myönteinen kokemus, joka todennäköisesti edisti myös luokan hyvää ilmapiiriä ja vähensi yksittäisiin ongelmatilanteisiin kohdistuvaa huomiota ja stressiä. Työn jakaminen oli yksi yhteisopetukseen liittyvä asia, jonka opettajat olivat oppineet. Toisaalta on huomionarvoista, etteivät opettajat kertaakaan maininneet eksplisiittisesti omaa oppimistaan.

Tutkin myös opettajien varsinaista tiedon tuottamisen prosessia, joka perustui ideoiden jakamiselle kannustavassa ilmapiirissä ja hyvien ideoita jatkokehittelylle. Tämä luova vaihe oli osa oppimisprosessia, johon kuului myös opetuskokeilut luokassa. Ideoilla oli erilaisia alkuperiä eikä näillä alkuperillä näyttänyt olevan merkitystä oppimisen kannalta. Olennaista oli halukkuus ja innokkus jakaa kaikki ideat, joita opettajat alkoivat sitten työstää yhdessä. Avoimuus ja luottamus olivat jakamisen ja siitä veroavan luovuuden peruspilareita; tunne siitä, että toinen ei koskaan tyrmäisi mitään ideaa.

Opettajien oppimisprosessi voidaan nähdä kolmena metanarratiivina, jotka lävistävät koko tutkimuksen: ensinnäkin on kertomus opettajien ja heidän työympäristönsä vuorovaikutuksesta, ja miten opettajat pystyvät itse tiettyjen tekijöiden risteyksessä vaikuttamaan omaan työhönsä ja tekemään isojakin muutoksia parantaakseen omaan työhyvinvointiaan. Tarina on myös yksi esimerkki prosessista, joka saa opettajat rikkomaan perinteisen työnkuvan rajoja. Toinen metakertomus liittyy siihen, mitä ja miten opettajat oppivat. Erilaisten pedagogisten ratkaisujen lisäksi he oppivat myös yhteisopetusta ja työn jakamista. Tämä jakaminen oli myös oppimisen väline. Erityistä opettajien oppimi-

sessa olikin juuri tämä yhdistelmä: oppija olivat he yhdessä, ”me”, ja *heidän* keskenään jakamansa ideat, ja toisaalta oppimista oli se, kuinka he muun muassa osasivat olla luontevasti luokassa yhdessä, kuin yhtenä ja silti erillisinä henkilöinä.

Tutkimuksen pitkähkö aikaperspektiivi sekä opettajien retrospektiiviset narratiivit mahdollisivat myös opettajien laajemman ammatillisen kehittymisen tarkastelun, joka muodostaa kolmannen metatarinan. Tämä osoitti, että opettajien inkluusioajattelu oli kehittynyt vuosien saatossa, ja kehitys näkyi muutoksina luokkatyöskentelyssä. Jo alkuperäinen päätös yhdistää yleisopetuksen luokka ja pienluokka yhdeksi luokaksi, jossa oppilaat jaettiin ryhmiin oppimistyylien mukaan erityisoppilaan statuksen sijaan, oli merkittävä. Tämä käynnisti yhteisen oppimisprosessin, joka kannusti opettajia luovuuteen työssä. Toisaalta oppimisprosessilla oli jälkikäteen tarkasteltuna koko ajan selkeä suunta inklusiivisemman luokan suuntaan: ensin pienluokan ja toisen luokan yhdistäminen ja oppilaiden erityis-statuksen häivyttäminen, sekä yksilöllisyyden ja yhteisyyden tasapainottelu alkaen oppimistyylien käytöstä ja edelleen yhteistoiminnallisuuden vahvempaan korostamiseen luokassa.

Tutkimuksen johtopäätöksenä esitän, että tiettyjen ehtojen vallitessa luokanopettajat voivat luoda ja opettaa inklusiivista luokkaa. Tämä vaatii sitoutumista työhön, halukkuutta työssäoppimiseen ja tukea. Yhteisopetus voi osaltaan tukea opettajia tässä prosessissa ja tarjota hedelmällisen ympäristön opettajien ammatilliselle kehittymiselle.

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ORIGINAL PAPERS

I

"WE DON'T QUESTION WHETHER WE CAN DO THIS": TEACHER IDENTITY IN TWO CO-TEACHERS' NARRATIVES

by

Anna Rytivaara, 2012

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Abstract

Through the concept of teacher identity, this paper examines in detail the factors in the process through which the two teachers under study changed from traditional teachers into co-teaching professionals. The interview data was analysed by thematic narrative analysis. The results showed that the teachers' own attitudes, conflicts in their classrooms, and their experience of collaboration had created idea of co-teaching. This idea combined with a supportive school culture resulted in the final solution, a shared classroom. It can be concluded that when a certain kind of teacher identity is combined with supportive collegiality, it can lead teachers to find positive solutions to a stressful situation within their profession.

Keywords: teacher identity, co-teaching, teacher narrative

Introduction

Teaching is a contradictory job. On the one hand, it is called the "art of teaching" (Highet, 1954) while on the other hand the essential elements of art, creativity and independency, are often absent in the everyday life of teachers. The teachers' possibilities to decide about things inside and outside the classroom vary across countries (Helgøy & Homme, 2007; Locke, Vulliamy, Webb, & Hill, 2005; Webb et al., 2004). Teachers do not, however, merely adjust themselves to the prevailing working conditions but they also actively modify those conditions. To answer questions like why and how they do it requires teachers' own perspectives on their work (Goodson & Numan, 2002). The concept of teacher identity provides the framework for this paper, which focuses on the process through which the teachers under study changed from being traditional teachers into co-teaching professionals.

Teacher identity

Teachers face various demands and pressures at work, and they make sense of themselves as teachers with their individual professional identities (Beijaard, Meijer, & Verloop, 2004). Teachers' professional identities have succinctly been described as "the person within the professional" (Day & Gu, 2010, 26). Kelchtermans (1993) identified five features of the professional identity: self-image, self-esteem, job motivation, task perception and future perspective. In short, a teacher identity is a social identity or identities (Woods & Jeffrey, 2002) built on one's self-identity. Beijaard et al. (2004) completed the picture by suggesting that teacher identity is an on-going process of interpretation and re-interpretation of experiences, and it implies both person and context, and that teacher identity is not only a single uniform identity but instead it consists of several sub-identities (See also Beijaard, Verloop, & Vermunt, 2000). Moreover, active participation in one's professional development is part of teacher identity.

Thus, teachers do identity work in positioning themselves in relation to different contexts and other people and by negotiating different identities. Two

things are noteworthy here. The first isthat one's identities - multiple professional identities and self-identity or identities -are in constant interaction as the various identities affect one another. For example, teachers' self-identities are crucial in teachers' responses to change (Vulliamy, Kimonen, Nevalainen, & Webb, 1997). Zembylas (2003) drew also attention to the way that teachers' emotions play a significant role in the construction of teachers' professional identities, and described identity from a poststructuralist approach as "a dynamic process of intersubjective discourses, experiences, and emotions" (p. 221). The second thing is that a teacher's agency is closely related to the way in which one negotiates his or her professional identity (Vähäsantanen, Hökkä, Eteläpelto, Rasku-Puttonen, & Littleton, 2008).

Perhaps because of the complexity of the phenomenon as described above, teacher identity has been studied, among other methodologies, within the tradition of narrative research in various countries and working context. Watson (2006) conducted a case study of an experienced English language teacher in UK; Farnsworth (2010) interviewed four pre-service teachers, also in UK; Burns and Bell (2011) interviewed eight teachers working in vocational education and training colleges in Finland. Søreide (2006), in Norway, studied how five Norwegian teachers constructed their narrative identities during the interviews through their use of subject positions as narrative resources. Three the most prominent subject positions were teachers as concerned with their students' well-being, as oriented towards cooperation with pupils, colleagues and parents, and as oriented and concerned with the social climate in class. Other often narrated positions included, for example, teaching as a demanding job and teachers as ones with dedication to the job.

Despite the amount and variety of research, we know little about the professional identities of teachers who regularly co-teach together. I first got interested in the subject during my fieldwork at a primary school with four such teachers. I was collecting data on two of them, Matt and Lisa (pseudonyms), and, in different occasions, heard them repeating a story about how they had come to co-teach. Four years earlier, they had combined their "special" and "general" education classes and been co-teaching ever since. The story was their version of how teacher identity is not stable but influenced by several factors in both teachers' work and in their personal lives (Day, Kington, Stobart, & Sammons, 2006). Because of the essence of co-teaching – sharing everything that one teacher usually does alone – it may be assumed that such change would have influence on one's professional identities, teacher narratives seem a suitable tool to examine the various features of their professional identity and the identity construction process. Moreover, having both teachers interviewed together adds a dimension to this study by providing the opportunity to identity negotiations to appear, not only within a teacher but between the two teachers.

This paper builds on teacher narratives, but it also draws on a larger ethnographic project, and thus provides a good contextual perspective on the studied teachers working lives, as suggested by Beijaard and colleagues (2004). This paper approaches the two teachers' narratives as identity negotiations between the teachers themselves and the context in which they work. The aim of this paper was to examine the factors that had led the teachers to initiate co-teaching. In particular,

I wanted to answer the following two questions: Why did the teachers decide to amalgamate their classes, and what were the factors that made it possible for them to realise their plan? Through the data excerpts I will illustrate how the teachers construct and negotiate their professional identities in different contexts.

Finnish school system

The Finnish school system is based on public schools. The state regulates schools mostly through national core curriculum and teacher qualifications: a Master's degree in education is mandatory for primary school teachers. Most of the administrative power has been devolved to local authorities and schools. The latter are funded by local authorities and run by principals, and, therefore, the reality in a school depends on the local authority and the principal of the school. All in all, Finnish schools have remained a rather independent workplace for teachers. Thus, Finnish teachers have received higher scores in job control in job satisfaction than their European colleagues (Rasku & Kinnunen, 2003). No external accountability systems exist for elementary schools: there are no regular, national tests for pupils or evaluation of teachers, nor do teachers need to report to any authority. Yet, Finnish school system has been rated among the best (OECD, 2010a; OECD, 2010b). Teachers usually teach a class for the first two years of elementary school (ages 7 and 8), or from the third until the sixth grade (ages 9-12), but sometimes teachers take their class all the way from the first to the sixth grade.

Methods

Context and participants

The teachers were a male teacher around thirty years of age and a female teacher who was a few years older. Prior to co-teaching, the other teacher had had a general education class of 20 pupils. The other teacher had had a small special education class of 10 pupils. These pupils had special educational needs (SEN), such as behavioural and with learning problems. The teachers were teaching their pupils all the way through the elementary school, from the first until the sixth grade. Both had been working as teachers since they had graduated from teacher education approximately at the age of 24. They worked in a middle-sized primary school which was located in a growing suburban area of an average-sized city of population of approximately 90,000 inhabitants in Finland. The school employed 19 classroom teachers and one special education teacher.

Interviews and narratives

This study is part of a larger ethnographic study on co-teaching (Rytivaara, 2011). I originally began studying classroom practices in the context of co-teaching in August 2003. The two teachers under study had decided, years earlier, by themselves, to start co-teaching together. Later, I became particularly interested in their accounts of the beginning of co-teaching. Ethnographic interviews suit well narrative analysis because of the many similarities. The narrative ideal of conducting several interviews with same persons (Riessman, 2008) was fulfilled in

the present instance as my ethnographic research lasted for three and half years altogether, during which I spent 71 days at the school, and thus I became fairly well acquainted with the teachers. The last interview was made in March 2007. Furthermore, the call for detailed, expanded accounts of the topic in both ethnographic and narrative interviews is optimal for narratives occur (Riessman, 2008). I and another researcher undertook five formal interviews with the teachers, which resulted in 137 pages of transcripts. Heikkinen (2002) calls narrative research "amoeba-like". By that, he means that it has no clear boundaries or straightforward rules but, rather, narrative research is a loose concept for any research related to narratives. The concept of teachers' narratives refers to "teachers' stories of their own experiences" (Cortazzi, 1993, 15). My approach is a mixture of narrative analysis, which aims at a complete, chronologically proceeding story with a clear plot (Heikkinen, 2002), and thematic and structural analysis (Riessman, 2008). During the interviews, the teachers were asked ethnographic questions, such as "How did all this [co-teaching] begin?" Some of the questions were seasoned with "cultural ignorance" (Spradley, 1979). On those occasions, the teachers were asked to clarify certain details, for example, about the role of the principal in the process: "Was the principal involved, or how did it [happen]?" The ethnographic interviews differed from the narrative interviews in that the questions were semi-structured rather than open-ended. In practice, the teachers took my questions or comments as a hint, as an opening for a new narrative they created together. Riessman (2008) calls such process "collaborative conversational interaction".

Analysis

Narrative approach raises questions like, is the story a narrative or is it composed of several narratives, and what are the boundaries of each narrative (Mishler, 1986). Determining the boundaries is very important because it is part of creating the narrative (Mishler, 1986; Riessman, 2008). According to Polkinghorne (1995), the plot is the nucleus of a narrative, which also helps us to define the narrative as whole. The story I was interested in occurred in two interviews, in the first and the last, of the total of five interviews with the teachers. The original story, as the teachers narrated it in the first interview, was rather easy to track because it formed a whole and was in chronological order. The story started two years prior to the co-teaching experiment and ended with a description of the teachers' feelings after the decision to amalgamate their classes. However, this main story included smaller narratives, and, in addition, I complemented it with several separate accounts from the same and a later interview. I then arranged all the accounts in chronological order. Some accounts were "parallel", that is, they were told many times.

The narrative was analysed thematically (Riessman, 2008) but respecting its nature as a story. Actual structural analysis, such as the classical model by Labov & Waletzky (1967, cited in Riessman, 2008), was not applied. There are, however, hints of structural analysis, as in the analysis of how the teachers talked about an issue or how the teachers co-constructed the narrative together. I first categorised the accounts as internal or external in relation to the teachers (Cortazzi, 1993; Plunkett, 2001), that is, whether the teachers were expressing feelings and suchlike, or whether they were talking about things independent of themselves. I also

marked the parts where these internal and external accounts were in conflict. The internal category included the themes ´lack of motivation` and ‘search for a solution´, and the external category the themes `heterogeneous group of students`, `principal` and `grade-level collaboration`. Themes were formed inductively. The teachers had written a book about their work and the story was much shorter there but the same story nevertheless. In this written story, the teachers mentioned exactly the same five factors as relevant in the process which resulted in a shared class. To maintain the anonymity of the teachers, their book is not cited in this paper. In the results section, the teachers' narrative is presented, more or less chronologically, and along with an attempt to respect the process nature of their story rather than turning it into a list of separate elements. However, at this stage, the themes and the various components within them were further analysed in relation to the conceptual framework provided in the introduction of this paper in order to move the empirical evidence up to a more abstract level (see Miles & Huberman 1984).

Findings

The process which led the teachers into co-teaching has five main themes. The first theme, *attitude*, portrays the teachers' personalities and their attitude towards their work. The next two themes, *conflicts in the classroom* and *taste of collaboration*, illuminate the background to the teachers' working conditions at the time. The last two themes, *idea* and *solution*, describe the actual moment of the innovation and the factors related to it.

Attitude

Teachers' professional identity is built upon their personalities (Day & Gu, 2010). Therefore, despite the preparation given in teacher education, teachers face different situations individually. Lisa described, based on her earlier job experience that she really liked "to decide about things". Matt, in turn, talked about the need for renewal as a source for inspiring his teaching. Such accounts illuminate how both teachers had interpreted their experiences and translated them into a part of the professional identities. Together, they agreed on that people ought to tackle problems instead of continually complaining about the state of things.

Matt I think it depends a lot on how you think about the job. If you think this is the way it is and why can't it be done differently, but it's always just talking. If you don't seize the day, say hey, I'm going to make changes in this job because it's not enough to only complain. I think the real problem in changing things is that people keep complaining but they don't do anything about it.

Lisa That [what you said] depends so much on the person because there are people whose attitude towards life in general is like "this sucks" but they are not ready to do anything about it.

Matt Exactly. This same issue comes up with inclusive education and whether it can work; but the question to be asked is really how we can make it work. I think this applies in every issue that we shouldn't think if only something can be done. Everything can be done if you only think of how.

In this excerpt, the teachers construct an image of one's personal characteristics, such as complaining but doing nothing about things, as part of one's professional identity. At the same time, they distance themselves from such characteristics and describe their own view as an alternative option where means, solutions for difficult situations, are emphasised. This excerpt reflects a strong feeling of the two teachers as people who, when necessary, will "seize the day" and change things. The teachers construct a shared ideal of a good teacher, and they also construct a shared view of themselves as such persons with active and reflective hold of their work. This agreement made a difference in their collaboration.

Lisa But I also feel lucky that I happened to meet such a partner, it is not self-evident, I feel really grateful. It is a great factor in job satisfaction and motivation that I can just present an idea and the other person is never against it right away and never tells you "Well nooo I don't do it" [laughing]. A lot depends on that.
Matt actually when you say that, neither of us never says 'no', no matter how silly the idea but none of us ever says no. That's true; the other one says 'yees'
Lisa or 'could it be done this way'
Matt it is 'yees' and there it goes again, developing

Lisa acknowledges that the harmonious collegiality they have is serendipity. She narrates this through a creating an image where not all other teachers would be suitable for her co-teaching pair, and existence of other teachers who would reject any new ideas. This prompts Matt to reflect on the moments of mutual idea-sharing and the respect with which they work together. This is a noteworthy excerpt in several ways. On one hand, the two teachers construct an encouraging atmosphere for expressing and sharing ideas which they can then develop further. This excerpt, on the other hand, is a very concrete example of their mutual negotiation. Through such negotiations – the content and the structure of them – they construct the atmosphere of their collaboration. Together, these two excerpts construct a setting where the two are alike but different from some other teachers.

Conflicts in the classroom

Teachers experience their interaction with pupils as one of the four primary environments that cause them burdening at work (Pyhältö, Pietarinen, & Salmela-Aro, 2011). In this excerpt the contradictory feelings and positions the teachers have regarding their students come to the fore.

Lisa Also to give some background, I happened to have a pretty heterogeneous group in that ordinary class, incredibly talented persons and then also clearly special education students. Those two years with this class were quite tough. I kind of had a feeling that I'm spreading myself too thin.
Matt Yes, and my experiences about the small class were that they were a very heterogeneous group with many different diagnoses. The job in that class was very frustrating from time to time. It felt like, as a teacher, I wasn't able to get to grips with it and fully enjoy it. There was also a feeling that the students don't get everything if you are not fully enthusiastic about your work.
Matt because I kind of liked those students, and I still do, I mean, they are terribly nice these SEN students. It was a good group and I heard other teachers say it is a good group. But I wasn't interested in the job description.

Lisa wants to "give some background" to their decision to combine the classes by describing her students and how it felt working with that class, and Matt echoes her

by agreeing. It is interesting how she moves the focus from "group" to "persons" and "students" and back to "class"; Matt goes from "class" and "group" to "students", until in the latter section he gets from "students" back to the "group". Moreover, the teachers narrate their negative feelings only towards a "class" instead of more individual "students". In this excerpt the teachers share – with each other and with the interviewer – their previous situation in their classes. Both teachers construct a picture of themselves as teachers who care for their students but who, nevertheless, dare to express that as a teacher one has a right to enjoy one's work and that, in the end, it is all for the good for the students.

In this excerpt the teachers narrate how the students are the centre of their work and thus, present how their relationship with the students is an important factor when they construct the image of themselves as teachers. An underlying assumption in a primary teacher's work is that each teacher has a group of students, and that the group one gets is the group one handles. Also here, the teachers narrate one's class as something that a teacher cannot affect on. The group one gets is something one "happened to have".

Taste of Collaboration

The teachers described their grade-level team, four teachers, as their first meeting place. During the first two years, on their own initiative, the four teachers had tried flexible grouping with the students and divided them into four new groups for math lessons. In addition to this, and the other projects the team had had during those years, the two teachers had held their physical education lessons at the same time, and they had used this opportunity to work together. They also taught other subjects separately to each others' students. The teachers talked positively about the team but particularly the teacher with the small class felt that the support given him by the team had been important for his self-efficacy. However, the math project was not to be continued the following year because of scheduling problems.

Matt how I had said during my education that I don't want or will not teach first graders and definitely not SEN students (laughter). I found myself in a first grade SEN class this is how the destiny took a hand. But it was, at first, kind of a shock but then we had a good gang here. Our team of first grade teachers was working so well that, let's say, I had been teaching for a week and I was like no worries, I can manage this. They were experienced first grade teachers who had been teaching first graders earlier. I got support from them. It didn't feel that bad.

[ ]

Lisa that arrangement couldn't go on because of scheduling issues problems and that, at that point, we began wondering, both had the kind of feeling that something had to be done. That this work isn't meaningful if it goes on like this.

Like Lisa in the excerpt in the previous section, Matt here presents himself as one who was been given a class of a type he particularly, as a teacher student, had considered as the most unwanted. His wording "I found myself in" and "how the destiny took a hand" could be interpreted as if he felt he should have known it coming. The unwillingness to teach in such a class was, perhaps, because he had not considered himself, as a teacher, as suitable for such a group. However, he had no choice and yet, he seemed to take it with open mind. Finally, supported by the other "experienced first grade teachers" he found that he was doing alright. It can

be assumed that this was due to his interpretations of the situation – maybe even re-interpretation of experiences of teaching first-grade SEN students. The support from his colleagues played a significant role in this process.

Later Lisa emphasises the same issue – the role of the grade-level team. The necessity of re-organising the team was such a significant occasion for them both that their need for change became explicitly announced. This excerpt repeats their idea that they, as teachers, require that their work is "meaningful". Somehow, this meaningfulness was related to the team. Maybe they would have changed something in any case, but the scheduling issues definitely were a turn in the process.

Idea

The teachers did not know where they had got the idea of putting their classes permanently together. Neither could they remember which of them had first spoken the idea aloud. Close collaboration, although not co-teaching, had earlier been practised by a pair of teachers at another grade level in the same school, and the teachers assumed this model could have been the source of their idea. They had already been talking about moving some students between their own classes, because the teachers had reached a point where they were convinced something had to be done. Exhausted by demanding groups of students, the teachers had decided to start co-teaching, "to do everything together". The teachers entertained no doubts that they might be making a mistake. Matt described the expectations they had had for co-teaching that "it can't get anything else but the same level and very probably much better".

Lisa But the idea, it just came and I remember the feeling very well when we discussed it. I had probably half a day a feeling that terrible, I won't have my own class anymore, at all. A teacher feeling that this is my group, I'm their teacher, and then I won't have it, horrible. But it lasted for half a day and after that I haven't had it anymore. And it is not, not at all, now one has the same that this is our class. It was exciting.
[Both teachers tell about how they got used to working with another adult in the classroom when having an assistant.]

Matt I don't know, I think I didn't even experience such an agony of letting go. I was probably really relieved in that situation.

Lisa Yes

In general, the idea of being a teacher is based on the assumption that one has a class of students. This, experienced by Lisa as "teacher feeling", is particularly the case in primary school level. Co-teaching, on the contrary, is based on sharing the students and sharing the role as the leader in the class. Therefore, decision to start co-teaching, to share one's students, would assumingly require re-negotiation of one's professional identity, and this was what Lisa was doing for, as narrated here, half a day. Nevertheless, even such a big change was rather easy to overcome for Lisa. Matt, for one, did not have any "agony of letting go". This reflects how individual one's teacher identity is, and thus how differently teachers react in factually similar situations. The memory of the moment when the teachers decided to combine their classes emphasises the difference of their experiences: Lisa remembers "very well", and she especially remembers "the feeling" instead of the moment. Matt's recall is more hesitant and he is unsure about what he felt then but

he thinks it was more relief than "agony of letting go". In short, the decision raised several identified and unidentified feelings from both teachers.

Solution

Skaalviik and Skaalviik (2009) have shown that teachers' perceptions of the school context have an effect on teachers' well-being. The excerpts have reflected the teachers' self-confidence about their possibilities to implement new ideas into their work. However, they did not have limitless control over their job in whole. The school principal held the decision-making power in bigger issues, such as putting two classes permanently together. This revealed some boundaries of their work and thus, their professional identities. The principal was the gatekeeper at the school who set the limits for the teachers but fortunately, he was a very "supportive" and "collective person", who encouraged teachers to express ideas and try new things.

Int Well, when you had made the decision then what kind of support did you get from the others, the decision? Or did it require like approval from the principal first, or how was it received?
Matt We did, we had to take it to the principal
Lisa mmm
Matt take that decision, we don't have the power to just by ourselves
Lisa mmm that's right. But we're lucky that we have a principal who encourages these kinds of things. So that in that phase any pha- [we] have had no problem ever. On the contrary, the support has been very strong by the principal

After being asked about it, the teachers explain that their power as teachers is limited. However, they describe their principal as one who trusts their judgement and thus his permission usually is, like in this case, rather apparent. Lisa, talking for them both, feels they are "lucky" that their principal "encourages" and supports the teachers. Such trust was probably a factor that strengthened their professional identity in a way that the teachers may not have thought about earlier.

Lisa But it's exciting that now when we've written the book one wonders about the fact that we just started doing it. Once the idea was there it just started snowballing, everything related to it was resolved just like that. Astoundingly, it hasn't even been a question of can we do this, can we, is it possible
Matt our activities are often characterised by if we get an idea we implement it
Lisa everything is possible
Matt so we don't question whether we can do this but are sure we can if we feel like it
Lisa yes
Matt maybe that describes the situation
[ ]
Int Do you know where you get the feeling that you clearly have that we can do whatever we like [teachers laugh]. What makes it possible?
Lisa That we both have it
Matt A teacher can do things; there are not many things that stop you. Of course, it is much a question of the school culture we have a permissive culture here so that each flower can bloom as it is. Maybe it is, we don't have to think or have any doubts that if we go to the principal to ask if we could, he would say that you can't. Surely he'll tell you 'sure you can just as you wish', so you don't run up against a brick wall.

Lisa begins the excerpt by narrating how their idea of co-teaching "just started snowballing". Then she seems to realise what she just said and she continues by pondering the idea of their attitude. Matt joins her pondering and together, by

adding to each other and by using "we"-form, they create a picture of themselves as a strong team who has no doubts about their possibilities to implement any idea they like. Lisa explains this explicitly by noting that sharing this sense of agency is critical to their possibilities as teachers.

Although my purpose is not to make linguistic analysis here, it has to be noted that the teachers use "we" for the first time when they talk about the idea of co-teaching. However, their use of "we" in this excerpt requires attention. In the first section, quite clearly, both teachers mean themselves, the two. However, in the last section, Matt either talks for the two of them, or "we" may refer to all the teachers at the school. Furthermore, whether all the teachers have the same feeling of the supportive principal or only the two of them, remains unclear. The trust, in any case, is not only the principal's trust towards the teachers but also, at least as Matt sees it, a condition that creates safety among the teachers to be a creative professional. In short, the principal was the key person but only together with the staff, the school culture had become what it was.

The principal was clearly more of an educational or instructional than a bureaucratic leader (Engels, Hotton, Devos, Bouckenooghe, & Aelterman, 2008). He had held his position since the establishment of the school and thus, he had strongly influenced the atmosphere in the school. The principal seemed to have had some sort of professional learning community in mind in developing his school. In practice, by giving the teachers freedom the principal was trying to promote creativity and professional development of the staff. He was called "the spirit of the school" because, together with the staff, he had managed in creating a supportive working and learning environment for the teachers. This is reflected in the excerpt, where, while Matt notes the meaning of "the school culture" he thinks it does not set any restrictions to the teachers. The flower-metaphor can be interpreted as referring to their school as a place where individual teacher identities are approved and respected.

Discussion

This study explored teacher identity through the narratives of two classroom teachers who had started co-teaching together and thus, the co-teaching context was different from previous studies on teacher identity. I was interested in the process which had led the two teachers to change a very fundamental practice in their profession, teaching alone. The focus in the interviews shifted between talking about the students and talking about their collaboration and school culture including the role of the principal. In their accounts of this transition process, the teachers brought up several factors relating to their professional identity that was manifested as an ongoing negotiation between internal and external factors and also between the two teachers. Through these negotiations, the teachers formed a picture of their work with contradictory demands and challenges. These pictures support the previous studies (For example, Day et al., 2006), and add to earlier literature by describing how the individualistic characteristics and goals become

part of a collaborative effort. The results offer several interesting themes for discussion; however, because of the limited space, only a few are highlighted here.

The teachers' experiences of their working context were that social control over their actions was low. In their study on teachers' working environments, Vähäsantanen et al (2008) describe such organisation as one with weak social suggestion. The teachers in this study, however, had initiated their reform, if it can be called such, by themselves. The difference was that in Vähäsantanen's study the teachers linked their strong autonomy with their possibilities to teach as they wished, rather than, as here, as a possibility for change. Nevertheless, teachers' work is not only a matter of possibilities. Teachers' individual agency, as part of teacher identity, becomes apparent in this process when some teachers take advantage of the professional autonomy they are provided with, whilst other teachers prefer leaving things as they are. This has, perhaps, to do with the teachers' professional identity. The teachers constructed their professional identity in and through the narratives but additionally, at the same time they seemed to negotiate and construct a shared professional identity. This shared identity appeared to have a critical role in their professional lives as it had supported, and maybe encouraged, them to change one of the basic assumptions of teachers' work by sharing the pupils and all the related everyday work. Moreover, the change had been apparently easy for them both.

The teachers' professional identities were rather alike and their narratives were characterised with agreement. Such consensus can have various consequences. If one starts to feel that critical opinions are not allowed, a truly open discussion, on which their successful collaboration is based on, may become impossible and result in a crisis not only in their mutual relationship but also at least in one teacher's professional identity. To avoid such conflict, teachers need their individual teacher identities to be strong yet flexible. Otherwise, collaboration with colleagues can be more a burden for teachers (Webb et al., 2004) than a source of support and enjoy.

School is a social system in which various factors, such as traditions and resources, mediate and moderate teachers' working conditions, job satisfaction and their relative autonomy (Giles & Hargreaves, 2006; Skaalvik & Skaalvik, 2009; Vedder & O'dowd, 1999). In this case, as a counterweight for challenging student groups, the teachers had found collaboration as a crucial factor for their well-being. When that support seemed about to be abandoned in its current form, the two teachers began to consider other options. Now, after two years of collaboration, the teachers knew each other's' way of working, knew each other's' students well and felt that they were a good match. Both of them had been working with other adults in the classroom and thus, perhaps, co-teaching was not an unfamiliar situation. However, their reasons for co-teaching were more related to their personal than professional selves, as far as these two can be separated. All these factors and the teachers' interpretations of their experiences had a significant contribution in their future plans, and thus, altogether, in their professional identities. Moreover, there were hints of collective identity among the teaching staff at the school.

In countries like Finland, where teacher education is very popular and highly selective (only 10% of applicants are accepted), teacher education serves as a

societal mechanism which maintains the features traditionally linked to professionalism in this field (Helgøy & Homme, 2007). In this new environment, the role of principals and local school cultures becomes even more important in defining the limits of teachers' professional autonomy, and thus their professionalism, especially in the case of minimal or the total lack of external accountability mechanisms. Leithwood, Harris and Hopkins (2008) have named four categories of effective leadership practices in their review: building a shared vision and setting directions, developing and understanding people, redesigning the organisation, and managing the teaching and learning programme. They note, however, that these core elements alone do not make anyone an effective leader but it is also essential how sensitive one is about the context where these practices are applied. Additionally, a good leader needs certain personal traits. Leadership is not only about actions, but teachers need trust in their capability to do their work well (Woods & Jeffrey, 2002).

As in all research, this study has its limitations. First, because the data were based on a case study of two teachers only, the results cannot be generalised across various contexts. However, with the detailed description of the participants and the data I have tried to fulfil the criterion of transferability, but further research is needed to verify the findings with a larger amount of data. Second, the personal lives of these two teachers were not present in their narratives for some reason, but in further research, this should be taken into consideration because of the effect of this domain on teachers' professional identities. Third, the prolonged time I spent with the teachers could have influenced on my interpretations on the data. In effort of preventing this, I visited the school in periods, and analysed the data mostly off-site. This gave necessary distance between the field and the data. Furthermore, a member check was done by giving this paper to the two teachers for comments. They both agreed with my interpretations.

Nevertheless, with these limitations in mind, it can be concluded that when a certain kind of teacher identity is combined with supportive collegiality, it can lead teachers in a stressful situation within their profession to find new solutions at work instead of retention. A probable reason for this is that teachers consider such self-initiated change positive, even when the origins of the change are in fact elsewhere, and this in turn is likely to improve their job satisfaction (Hargreaves, 2004). This is important because teachers' well-being is related to student learning. Professional autonomy provides teachers with trust, which is likely to encourage teachers to use their skills for the benefit of both themselves and their students.

The results of this study suggest that in a co-teaching context the teachers may start constructing a shared professional identity. Furthermore, the shared identity can strengthen the teachers' sense of professional autonomy, which in turn can enhance their job satisfaction and strengthen their professional identity in general. However, co-teaching is a demanding way to work. If we want to enhance collaboration and co-teaching at schools, these issues should be taken into account in teacher education, and school leaders need to be prepared for both encouraging and supporting collaboration.

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CO-TEACHING AS A CONTEXT FOR TEACHERS' PROFESSIONAL LEARNING AND JOINT KNOWLEDGE CONSTRUCTION

by

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Co-teaching as a context for teachers' professional learning and joint knowledge construction

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HIGHLIGHTS

- Co-teaching as a context for teachers' learning and joint knowledge construction.
- Learning a collaborative process with serendipitous origins.
- Shared knowledge construction crucial in the learning process.
- Co-teaching may support teachers in meeting their professional responsibilities.

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ABSTRACT

The study examined two primary teachers' professional learning and joint knowledge construction in the context of co-teaching. The teachers narrated their learning as a collaborative process with serendipitous origins. Shared knowledge construction was crucial in the learning process, as was implementing the resulting new ideas in practice. It is concluded that experiences of co-teaching may support teachers in meeting their professional responsibilities effectively. Professional development programmes need to be sensitive to teachers' individual and collaborative learning experiences to be able better to support them in the natural context of those experiences in particular local and national contexts.

1. Introduction

In discussing the knowledge base of expert teaching in the mid-1980s, Shulman (1987, 12) remarked that, unlike other professions, teaching is "devoid of a history of practice… Practitioners simply know a great deal that they have never even tried to articulate". Shulman concluded that further research efforts were needed to gather and interpret teachers' practical knowledge within a codified case literature. Since then considerable attention has been given to the ways in which teachers' beliefs, values and practice relate to their practical knowledge – which is commonly seen to combine experiential knowledge embedded in particular settings with formal, explicit knowledge of school subjects and educational processes in various national contexts (Lunenberg & Korthagen, 2009; Van Driel, Beijaard, & Verloop, 2001).

Teachers' narratives of their practice and professional learning emerge within the sociocultural interplay of wider educational structures, cultures and politics. Pedagogical cultures and practices can differ significantly between countries as well as more locally. Alexander (2000) found in his comparative study of primary education in five nations, that educational policy and practice can be considerably influenced by the particular balance and dynamics of centralisation, social control, national identity, wealth, and historical change in each location, although individual national systems are not entirely sealed off from each other or immune to other ideas. Just as national systems may influence each other over time allowing particular practices to migrate in translated forms across borders, local levels of school and classroom practice may also carry the power to innovate even within highly controlled national systems. Alexander refers to the 'regulatory power of classroom discourse' (p.562–3) through which meanings are created by the participants, even within external top-down regulatory powers of government. This macro-micro perspective helps to establish the network of influences on teachers' professional learning in more and less centralised educational systems.

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Teachers' thinking need not be over-determined in any national context, but the more decentralised systems which support collaborative dialogue, innovation, and peer challenge may be better placed to allow teachers to engage in deep forms of knowledge construction within their practice. This view informs the case study that follows and the discussion of its potential international applications.

The educational culture and conditions of the Finnish system are particularly relevant to understanding the teachers' experiences in the case study presented below, since Finnish teachers have relatively high levels of professional autonomy in comparison with many other Western school systems. The Finnish national context allowed the primary school teachers in this case to work collaboratively and innovatively at their own pace, unlike the opportunities that are generally available to most teachers in England for instance (Webb et al., 2004). The dialogue between the co-teachers in this study was found to be central to their professional learning, and this is the focus of the detailed narrative analysis that follows. The teachers' collaboration was in turn echoed by the dialogue between the two authors of this paper, who were involved in interpreting what the teachers said from their own contrasting perspectives on the Finnish and English educational systems. Small-scale case studies that acknowledge the contextuality of teachers' work and their knowledge-construction process are needed to gain more information about the local applications of, for example, world-wide aims relating to inclusive education (UNESCO 1994; UNESCO 2009).

Of particular interest in this paper are the narrative and collaborative aspects of teachers' professional knowledge-building. Since Kelchtermans' (1993) classic study, teacher narratives have become an acknowledged means to explore teachers' contextualised practical knowledge (e.g. Clandinin & Connelly, 1996; Watson, 2006). In this case study we focus on two experienced teachers' individual and joint accounts of co-teaching an inclusive class of young children, after having innovatively combined their separate "general" and "special" classes. The research questions are: How do the teachers narrate their learning experiences and knowledge construction? How do they narrate their collaboration? How do the teachers see the relationship between their collaboration, their knowledge construction and the development of their pedagogical practice in an inclusive setting? The focus of analysis emerged from an ethnographic and narrative inquiry that was carried in Finland out over a period of three and half years. The teachers are seen to be engaged in a distinctively cooperative learning process, which they remember and elaborate in a series of joint interviews. The teachers' practice of inclusive education is found to be closely integrated with their own professional development, including the knowledge base that they share and develop together.

2. Theoretical framework

2.1. Professional knowledge and inclusive education

At the heart of inclusive educational practice are classrooms in which heterogeneous groups of students learn together and achieve valued success. In teaching such groups, it may be assumed that certain types of specialist knowledge are important for supporting children who would otherwise be identified with special educational needs, even if it is accepted that basic teaching principles and strategies are similar for all (Davis & Florian, 2004; Kershner, 2007). Yet this is not just a matter of understanding individual children's capabilities and educational needs in order to integrate them with more "typical" others of the same age. In their contribution to a review of primary education in England, Ainscow, Conteh, Dyson, and Gallanaugh (2010) discussed the ways in which educational difference itself is constructed in different contexts at different points of time. As Slee (2011) argues, "inclusive school cultures require fundamental changes in educational thinking about children, curriculum, pedagogy and school organization" (p.110).

For most teachers the immediate responsibilities for making inclusion work are classroom-based. The sheer complexity of classroom life calls for an integrated understanding of the relationship between teachers' changing awareness of classroom activity, the increasingly conscious concepts and principles that are formed in practice and the theoretical understandings that are produced from a range of different sources (Korthagen, 2010). Professional learning is not simply the superficial acquisition of further ideas, information and skills neither it is a mere cognitive process. Deep professional learning involves more fundamental and comprehensive transformations. Marton and Booth (1997), for instance, outline six conceptions of learning that move from seeing learning as primarily increasing, memorising and applying one's knowledge, to seeing learning as primarily seeking meaning through understanding, seeing something in a different way and, ultimately, changing as a person. As seen in the co-teaching example discussed below, teachers are uniquely placed in the education system to combine the formal, generic knowledge of education with the practical and personal knowledge emerging in day-to-day classroom experience.

In discussing inclusive pedagogy, Florian and Rouse (2010) apply Shulman's (2009, 192–193) conceptualisation of habit of mind, habit of practice and habit of heart, pointing out the reciprocal relations between teachers' "knowing", "doing" and "believing". They argue that all three elements are essential professional attributes, and having at least two out of three is necessary for the third to develop. Hence, for example, having a commitment to social justice is insufficient if the necessary pedagogical skills are lacking; and assessing children's apparent learning differences is insufficient without positive attitudes to children's active participation in inclusive classrooms. Having a commitment to social justice and relevant knowledge, however, may help to support the development of inclusive pedagogical skills and positive attitudes. In this paper our concern lies particularly with the collaborative aspects of these reciprocal learning processes.

2.2. Socio-cultural perspectives on teachers' professional learning and development

Teachers' professional learning is known to be based on active learning, reflective thinking, and collective participation (Darling-Hammond & Richardson, 2009; Desimone, 2009). This professional engagement is central to the processes of education which can be understood and mapped as a dynamic socio-cultural system (Bronfenbrenner, 2005). Within this system, activities range from the many "micro" level interactions that take place between children and adults to the 'macro' elements of social structures, research, culture, politics and economics that support and constrain educational thinking and practice over time. These have direct and indirect influence on teacher learning and moreover, on the experiences that define whether learning accumulates over time into significant personal and professional transformation. Conceptually, these transformational consequences of particular learning experiences are considered here as professional development, arising from the informal learning and knowledge-building that is embedded in daily practice as well as from participation in formal professional development (PD) programmes. The co-teaching case example discussed in this paper exemplifies the interconnections between these different learning experiences.

When teachers decide to work closely together, as in the co-teaching discussed later, outcomes commonly include the

creation of a new classroom set-up for the children's learning, such as particular forms of grouping and team teaching (Rytivaara, 2011). Yet there is also a significant new micro-system formed by the collaborating teachers themselves, comprising their continuing conversations, relationship and pedagogical practice within and beyond the classroom. This draws attention to the dialogic aspects of the professional learning process that incorporates the whole teaching partnership as well as the team-teaching activity that is visible in class.

The social and collaborative aspects of teachers' professional learning through reflection on practice are well recognised (Harrison, Lawson, & Wortley, 2005; Park, Oliver, Johnson, Graham, & Oppong, 2007). Individual and community levels of teacher learning intertwine, so that teachers' reflective thinking and engagement in a supportive community with shared visions, knowledge and commitment can be seen as central to the learning process (Shulman & Shulman, 2004). Leat, Lofthouse, and Taverner (2006, 668) found that supportive collaboration helps teachers to build confidence that further enhances positive risk-taking at work. They conclude that a "climate for change" in teachers' working contexts can have deep effects on many levels, including teachers' beliefs and professional interactions. Richter, Kunter, Klusmann, Lüdtke, and Baumert (2011) consider teacher collaboration and the use of professional literature as informal learning opportunities. Other professional learning activities include experimenting, considering one's own practice, getting ideas from others, experiencing friction, and struggling not to revert to old ways (Bakkenes, Vermunt, & Wubbels, 2010).

Yet, from a socio-cultural perspective on learning, many formal PD programmes have two problems. The first is that they fail to recognise that teacher learning is situated in particular contexts and social in nature (Putnam & Borko, 2000), but not solely limited to particular classroom experiences. Indeed, as Korthagen (2010, 102) points out, learning from practice depends on "desituating" knowledge gained from particular situations and developing the capacity to generalise learning and act in new situations in a principled and informed way. For teachers, this can include the further dissemination of knowledge to others in different contexts, although, as discussed above, any permanent change in classroom practices calls for teachers' personal engagement in deep learning with new ideas and materials (Marton & Booth, 1997).

The second problem relates to teachers themselves. Some show reluctance to capitalise on a cooperative learning context to support their efforts to experiment with new things in their classroom, despite the fact that teachers working in such environments have reported greater ease than other teachers in maintaining new ways (Bakkenes et al., 2010). Kwakman (2003), in her study of Dutch secondary school teachers, found that teachers preferred individual learning activities over activities with their colleagues. She concludes that teachers' weak tendency to participate in cooperative learning activities in schools seemed to be related to their personal characteristics rather than other workplace-related factors. Another personal factor can be teachers' own will to learn (Van Eekelen, Vermunt, & Boshuizen, 2006). We may ask, therefore, whether it is possible to overcome such problems with the help of collaborative structures like co-teaching.

2.3. Co-teaching as a context for teacher learning

Co-teaching is, at least potentially, a genuinely peer-learning relationship in which communication shifts between different contexts within and beyond the classroom. All the features of effective professional development, such as active learning and links with the wider context of teacher's work (Garet, Porter, Desimone, Birman, & Yoon, 2001), are everyday matters in successful co-teaching, and therefore it holds particular promise for teacher learning (McDuffie, Mastropieri, & Scruggs, 2009; Trent et al., 2003). Successful co-teaching calls for the active involvement of both teachers in the task of instruction, and true sharing of the work is seen to be essential. Sharing practical responsibility for the classroom and the students brings together each teacher's, mostly tacit, practical knowledge. Tacit knowledge is difficult to communicate to another teacher, but Cook and Friend (1995) highly recommend co-teachers to discuss their beliefs about teaching, classroom routines and discipline. This, ideally, makes it possible to compromise and prevent difficult situations in and out of the classroom. It is assumed that sharing such knowledge releases teachers' energy from explaining every detail in order to focus on larger issues, and thus it offers unique cooperative learning opportunities based on mutual understanding of the context.

In practice, however, many examples of co-teaching have been found not to have these collaborative or productively creative characteristics, perhaps because some models have a "top-down" and imposed character. Problems may arise, for instance, regarding the occasional inequality of experiences of the general and special education teachers involved in co-teaching, conflict between teaching styles, and structural and practical problems in setting up useful planning and reflection meetings (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010; Gurgur & Uzuner, 2011). Lack of balance in participant roles has emerged as a general problem in the recent studies on collaborative teacher learning in various Western countries such as USA, Canada, Australia and the Netherlands (Butler, Lauscher, Jarvis-Selinger, & Beckingham, 2004; Erickson, Minnes Brandes, Mitchell, & Mitchell, 2005; Nilsson & van Driel, 2010). Yet, there is evidence (Park et al., 2007) to suggest that making one's practical knowledge explicit might be easier with peers, which further supports one's learning and reflective thinking (Putnam & Borko, 2000).

Nevertheless, co-teaching holds the possibility of "collaborative emergence", in Sawyer & DeZutter's (2009, 82) terms, leading to creative outcomes if those involved are aligned with the following characteristics: unpredictable endpoints; contingency between moment-to-moment contributions; the possibility that further action will change previous interactional effects; and equal participation in the collaborative encounter. From the perspective of complexity theory, Johnsson and Boud (2010) also describe an emergent process of learning constructed collectively through the interactions of those involved in a workplace organisation. This is particularly the case in groups with a supportive emotional atmosphere and shared history on which to build (Eteläpelto & Lahti, 2008).

A particular tool that teachers use for professional learning is talk. Fairbanks and LaGrone (2006) studied teacher talk in a teacher research group with a focus on knowledge construction. Doecke, Brown, and Loughran (2000, 343) used teacher narratives more explicitly in their research, and they recognised that "[teacher] talk is one of a range of reflective activities that constitute their 'knowledge' as teachers", and that the teachers used talk to explore various matters. Yet, again, the common ground for these teachers is rather thin compared to teachers who constantly work together both inside and outside the classroom. The focus on dialogue and jointly constructed narrative in co-teaching is a distinctive aspect of this study.

This case study examines how the two classroom teachers working in a co-teaching context are involved in a process that we look at as a learning process. This process is illustrated in the narratives in and through which the teachers share their practical knowledge and construct new knowledge together. Furthermore, we are particularly interested in the inclusive aspects of the pedagogical practices the teachers developed in this process.

3. Methods

3.1. Participants and data collection

The framework for this study is the career path of two teachers, Matt and Lisa (pseudonyms) who both had approximately ten years of teaching experience. They work in a middle-sized primary school located in a growing suburban area of an average-sized Finnish city with a population of approximately 90,000 inhabitants. The school employed 19 classroom teachers and one special education teacher at the time of the data collection. Normally each teacher works with their class of students all the way through the elementary phase, i.e. from the first until the sixth grade. Unlike many other Western countries, all Finnish elementary school teachers have a Master's Degree in education and teacher education is highly competitive as only 10% of the applicants are accepted. Teachers' degree of autonomy is also rather high in the absence of any external accountability mechanisms. There are therefore significant differences between this context and the educational system in England, for example, where schools and teachers are subject to extensive government guidance, regular inspection and comparison in school 'league tables'. Another particularity of the Finnish school system is that it is based on public schools.

In spring 2000, Matt and Lisa decided to combine their classes. This idea was realised the following autumn, and they have been co-teaching ever since. Prior to co-teaching, Lisa taught a general education class of 20 students, and Matt taught a small special education class of 10 students. The students in the smaller class had been identified with special educational needs, that is, with behavioural and learning problems. Such integrated small classes are a common way to organise special education in Finland. After the data was collected, new legislation was established to make special education more inclusive. However, the practical transition is still in progress.

This study is a part of a larger ethnographic project (Hammersley & Atkinson, 2007; Spradley, 1980) carried out by the first author. As research always does, the project is full of stories. For example, the whole project was started as a collaboration of two researchers of which one left after the first year to work as a teacher. The first author then continued alone with the co-researchers' permission to use all the data. The project findings comprise several independent sub-studies (Rytivaara, 2011, in press, 2012) of which this is the last one, written with a third researcher who did not participate in the fieldwork. Thus, also this research has been a collaborative learning process for the researchers involved, with various phases and turns. This paper in particular has been a result of the first and the third researchers' joint knowledge construction process, drawing on their contrasting locations in Finland and England.

The fieldwork was done in two academic years, 2003–2004 (grade 6) and 2004–2005 (grade 1), during which the first author spent 71 days at the school observing Matt and Lisa working inside and outside their classroom. The teachers were formally interviewed (Spradley, 1979) for five times: two interviews were conducted with the teachers in both academic years, and one interview outside the fieldwork. The second researcher, Ilona, made the two first interviews and preliminary analysis on them in 2003–2004. These interviews were conducted to get a more detailed picture of the co-teaching system and to understand it from the teachers' perspectives. In the following year, 2004–2005, the first author made two more interviews (November 2004 and May 2005). The last interview was conducted outside the fieldwork periods, in March 2007 (grade 3). These three last interviews conducted by the first author had two focuses: to provide an update and to clarify issues that were raised in the data analysis between the fieldwork periods. In general, the aim of the interviews was to understand the teachers' work and their developing thinking over a period of time. The ethnographic fieldwork, involving an extended period of time spent with the teachers, provided a firm basis for interpreting the data from narrative and socio-cultural perspectives. Furthermore, the first author became rather well acquainted with the teachers and consequently the narrative ideal of conducting several interviews with same persons (Riessman, 2008) was fulfilled. The interviews were transcribed verbatim and resulted in 137 pages of transcripts.

3.2. Data analysis

The analysis presented below can be conceptualised as a mixture of analysis of narratives and narrative analysis (Polkinghorne, 1995), and it included several phases. In narrative inquiry, defining what constitutes a narrative is often challenging as a narrative per se may in fact be a collection of discrete stories (Riessman, 2008). In this paper, the teachers' stories are independent of each other but they also form a larger chronological narrative. The starting point for the narrative analysis was taken from the final interview (March 2007) where the teachers reflected on their professional development and cooperative learning from the beginning of their co-teaching up until the moment of the interview (see excerpt Section 4.4). This main story set the timeline for further analysis. Through thematic analysis (Riessman, 2008) we identified a number of turns, or "waves", as the teachers called them, in this story. These became the outline (Polkinghorne, 1995) for creating a larger narrative.

Having identified the outline, we went back to the transcriptions of all five interviews and selected accounts which added to the main narrative. The evolving idea was to collect stories where the teachers narrated events related to inventing new ideas and changing their practice. We found one parallel narrative and four additional sections in two interviews, the first (conducted in October 2003) and the last one (conducted in March 2007). The main topics of the narratives presented below relate to specific turns or "waves" as follows: starting co-teaching and creating new ideas (see Section 4.1), introducing "learning styles" in classroom management (see Section 4.2), knowledge-sharing about cooperative learning pedagogy (see Section 4.3), and pondering collaboration as a source of job satisfaction (see Section 4.4). The denouement was the latest innovation the teachers had done in their classroom and their related deliberation over whether it would be their last: "I have also had some doubts that this would not be the last the last wave in our work" (Matt; see Section 4.4).

The origin of the career turns, as well as the original main story, were subjected to a more detailed analysis as they seemed to provide fruitful data for our emerging focus on the processes of the teachers' knowledge construction. We applied analysis of narratives (Polkinghorne, 1995), where the origins were treated as parallel stories. These origin stories were multi-layered and thus we analysed them from various perspectives in order to detach ourselves from the text and to search for a broader perspective, as Riessman (2008) suggests. When analysing narratives, both what is said and how it is said are important. Thus, after examining the content through thematic analysis, we also applied structural analysis (Riessman, 2008) and elements of socio-cultural discourse analysis (Mercer, 2004) to investigate how the teachers told their stories. Here, we looked for how the teachers produced the content of their narratives; such as how they used metaphor(s) and who was the agent of actions (e.g. use of "I" and "we"). Metaphors have been a focus of interest in several studies of teacher learning (Connelly, Clandinin, & He, 1997; Leavy, McSorley, & Boté, 2007) because, for one, they can reveal tacit information in narratives (Steger, 2007). They also provide for several interpretations about the meaning of the metaphor, and even more so when, like in this study, researchers are from two different cultural contexts. We also looked at the temporality of the narratives (Clandinin, Pushor, & Orr, 2007).

3.3. Transcription and translation issues

The interviews, conducted in Finnish, were transcribed verbatim by the interviewer. Each word, whole or partial, was written down, as well as audible emotional expressions such as laughter. Exclamations and overheated sentences were marked with 'I'. Non-verbal gestures were not included. Stressed words was shown in italics.

Translations require careful attention in narrative inquiry (Riessman, 2008). For example, the Finnish metaphor of "throwing an idea into the air" has slightly different form in English. If a related meaning such as "brainstorming" is translated then essential information would be lost. This is particularly the case when, as in this paper, the metaphor is central to the analysis and interpretation. The different options for interpretation and translation were discussed between the two authors as a part of the analytical discussions. Below, an example is given of a final extract from the original Finnish data and the corresponding translation into English. The extract is taken from the narrative "origin of combining the classes" presented in the first findings Section (4.1).

Lisa mutta ne teki jonkun verran
Matt jotain juttuja nimenomaan kahen välistä yhteistyötä. Ett oisko se lähtenyt niinku siitä elämään se ajatus että tehään jotain yhessä ja sitten siitä toinen heittänyt ett tehään joo ett tehään tää sitten ehkä jossain vaiheessa toinen on tajunnut heittää ett no miks me tehään jotain yksittäisiä juttuja ett tehään kaikki yhessä (nauravat)

Lisa but they did some amount
Matt some things specifically collaboration between the two. That could it have departed/ left into life from there the idea to do something together and then the other one [of us] has thrown that let's do yes let's do this then at some point the other one has come to realise to throw that well why are we doing some separate/ single things but let's do everything together [both laugh]

4. Findings

The following section is structured around extracts from four narratives. These specific excerpts were chosen because, together, they illustrate well the different characteristics of the teachers' learning process as well as key points in their learning experience. Three of these narratives are about the origins of the teachers' career turns, where the first turn was the decision to combine the two classes, the second was to use learning styles in classroom management, and the third was the shift from learning styles towards cooperative learning. The fourth excerpt is from the original main story where the teachers look back across "the span" of their professional development. The original interview questions are presented to provide some context for the responses (Mishler, 1986).

4.1. Excerpt 1: origin of combining the classes (March 2007)

Anna Then comes a question that I've been pondering long and hard without any answer: Where did you come up with the idea of combining the classes? You invented it but where did you get the idea of the possibility of combining two classes?
Lisa We don't know
Matt This is
Lisa for us
Matt we have tried to [do] the same, to the book to find it but no, we have written there that we really can't find the we can't get the situation to (our) mind (recall), where the concrete situation where it happened and who exactly did
Lisa or I remember where it happened. It happened right there in that corridor when the idea was thrown into the air. That I remember
Matt A-wing corridor?
Lisa right
Matt there between the toilets and your classroom
Lisa yes
Matt yes it did, now you say it there it happened
Lisa yes it did
Matt yes
Lisa but that I don't that where it came from
Matt yes, yes
Lisa and that where, which one said it, that I can't recall
Matt neither can I, from the conversation the feeling of enthusiasm is the first thing I can recall after the idea had flown into the air from somewhere
Lisa yes but it is that
Matt but I had no previous experience from elsewhere or knowledge/ information from somewhere else [that somebody] had been doing like this [combining classes]
Lisa neither had I ever thought about, afterwards has been such (information) that even big classes have been able to do together
Matt yes

(12 lines about the teachers' agency deleted)

Matt [ ] And now I'm thinking that what could have been there in the background, what have been, where has the idea departed from and then do you remember Tom and Mary were one grade higher and they had separate classes yes but they had common (they shared)
Lisa they did some amount
Matt some things specifically collaboration between the two. That could it have come into life (derived from) there the idea to do something together and then the other one of us has thrown that let's do yes let's do this then at some point the other one has come to realise to throw that well why would do some separate/ single things but let's do everything together [laughter]
Lisa something like that happened there

In this section the teachers are talking about the origin of their idea to combine the two classes. The extract shows how the teachers are jointly constructing their memory in response to the interviewer's initial question. At the beginning of the narrative, the teachers agree that they do not remember the origin of the idea of combining their classes. As is very typical of their narratives, and of other everyday conversations, they use the pronoun "we" (lines 6–11). Matt introduces the book they have been writing as a stimulus for this recall (lines 9–13). There is a turn in the narrative when Lisa suddenly corrects what seems to be a collective memory and says she actually remembers the place where they invented the idea which was "thrown into the air" (line 15) – a phrase which is later echoed by Matt (lines 29 and 58–62). With this narrative turn, Lisa takes the narrative forward, with a reference backwards in time to an early stage in their collaborative activity. This initiates shared recall of a shared experience during

which they confirm each other's increasingly explicit memory of the event in question.

In the end of the first section of this excerpt, both teachers refer to their lack of previous knowledge regarding co-teaching (lines 31–35) and thus to their common starting point. Lisa also refers to the new awareness (lines 35–37) that they have achieved after they started co-teaching, implying that collaboration itself has made them to see things that may previously have gone unnoticed. They do not initially attempt to pin down the specific origins of their idea to combine their classes. They leave it open at first, with Matt referring to the possible influences of "the conversation", "the feeling of enthusiasm", the "previous experience" or "knowledge/information from somewhere else" (lines 27–28, 31–32). The continuing interview conversation prompts Matt to return to pondering the origin of the idea, after Lisa's short reflection (not included in the above excerpt) on the possibility of accomplishing any ideas they might have. Matt finally locates the source in the collaboration they have seen at school between other two teachers, and he invites Lisa to join in remembering (line 53). She adds to his narrative and in the end she confirms his memory (lines 56 and 64).

The origin of the idea of combining the classes is narrated as a common construction in which both teachers had an equal role. They may genuinely not remember who invented the idea first or another possibility is that one, or both, remembers but for some reason does not say it aloud. Yet, they are able explicitly to re-construct the process of inventing the idea as an exploratory dialogue. The narrative illustrates in a very concrete way the situated nature of the memory shared and reconstructed by the teachers during the interview. Together they created something – an idea of co-teaching – that neither of them had ever thought about individually, and they are now re-creating this moment in their discussion seven years later. Furthermore, the book the teachers were writing is not only a reason to recall the memory but also a repository of their shared experiences and memories, and a tool for sharing their knowledge with a wider audience.

The narrative has three types of actors: an individual teacher, "we" and the idea. The idea has a life on its own: at first, it has been thrown into the air but as the narrative proceeds, the idea becomes independent of the teachers and active. It "comes", "flies" and "departs", and "comes into life". The metaphor of the throwing of the idea into the air is repeated in several narratives and in two research interviews. The air can be seen as a space between the teachers, and when an idea (which in fact is something one says aloud) flies through it, the other teacher can take it from there and start developing it. Thus the metaphor of the idea in the air illustrates the process of knowledge sharing through talk, which further enables shared knowledge construction.

4.2. Excerpt 2: origin of learning styles (October 2003)

1 Lisa At least I have had all the time kind of great enthusiasm
2 about it and I don't know, somehow excitingly it has
3 happened that the enthusiasm has not faded but on
4 the contrary it has increased. I don't know if you have
5 experienced
6 Matt I have
7 Lisa the same that excitingly they have clicked into place
8 we have these learning styles in grouping that I just
9 happened to attend in [a city] a course on learning
10 styles [short laughter] at some point in that spring
11 Int mmm
12 Lisa and then when we had talked already about this that
13 we would combine these [classes], then I don't
14 remember did it come in the spring or if it didn't come
15 until autumn that this would be an incredible thing
16 this that we will divide [the students] like this
17 Matt it may be that it was only in the autumn when we met
18 Lisa yes

(Next the teachers talk about the time frame of inventing the learning styles)

This narrative presents how the teachers came to the solution of using learning styles as the basis of their new shared class after the implementation of co-teaching. Lisa is clearly the main narrator here. She starts by describing her positive feelings about their collaboration and asks Matt to join her. However, after his brief utterance of agreement she continues her story. She narrates the story as if it started by accident: "I just happened to attend" (lines 8–9) but returns to the use of "we" right after that. Matt's two contributions in this narrative are supportive. First, he answers Lisa's "I don't know if" (line 4) and second, he gives his guess for Lisa's "I don't remember [ ] if" (lines 13–14). It is noteworthy that this happens only after Lisa returns to their shared discourse (lines 12–16), as if it is only now that Matt becomes a more active participant in the story.

This is a rare narrative because here Lisa identifies the concrete origin of an idea in herself rather than maintaining the shared discourse of "we-ness". Possibly, a course as a highly concrete source of ideas is easier to remember or express, when compared to the more abstract source in the previous narrative.

4.3. Excerpt 3: origin of cooperative learning pedagogy (March 2007)

1 Anna How has this (academic) year been, what do you
2 think?
3 []
4 Matt and then somehow funnily we were at the same time,
5 I was reading the book on pair work and she was
6 reading the inclusion book and it was a Monday when
7 (laughing) [on Mondays, the teachers have their
8 planning session after school]
9 Lisa You should have been here that Monday! (laughing)
10 Matt when we came here, nearly attacked each other
11 immediately when we met, that hey I've been
12 reading this book and now full of orange notes, both
13 a book in hand explaining *now* I've got this *this way*
14 we have to, both were speaking at the same time and
15 then we decided to switch the books and discuss
16 afterwards and then we read the books and they
17 included many things in common (teachers are
18 laughing all the time) and then we spent all January
19 fussing about this if you can say that
20 Lisa didn't [do] anything with the book [the teachers were
21 writing their own book at the time]
22 Matt not at all
23 Lisa we just read these things and everything
24 Matt and then we started to brainstorm the science period
25 that we just had, we spent several weeks on
26 developing systems. It was really fun
27 Lisa mm
28 Matt really
29 Lisa and very nice

30 Matt that's been the thing to remember about this year
31 about *teaching* which has increased our motivation
32 a lot

This third origin of the idea is books. Both teachers have read a book, each teacher a different one, and when they discover that they have two books to discuss, they decide to switch books (line 15). The teachers seem to want to have the same information which they can then discuss and explore, thus putting the individual knowledge of each on the same footing before brainstorming. In the dialogue, however, the teachers only talk explicitly about the enjoyment and motivation of this process (lines 26, 29 and 30–32), perhaps highlighting the benefits of the social relationship that supported their knowledge-sharing and cooperative learning. The main actor in this narrative is "we", from the start until the last mention of 'our motivation'. Both points where a singular personal pronoun (lines 5 and 11) is used refer to the teachers as equal actors; in the latter, "I've", the specific teacher cannot be named at all.

Time has several functions in this narrative. The story is addressed to Anna, who "should have been there that Monday" (line 9). This reference probably relates to Mondays that are set aside for teachers' weekly afternoon planning sessions, and Anna knows this. Also the source of an idea has several temporal dimensions. On the one hand, the teachers describe in detail the exact moment where the process started; on the other hand, the "fussing" (line 19) lasted the whole of January and outstripped their on-going book project. It is interesting that Matt explicitly emphasises how the teachers had been reading the books "at the same time", and how they spoke "at the same time" (lines 4 and 14) and how the books "included many things in common" (line 17). This is also different from the other narratives in that the actual event was temporally so close to the interview, only two months earlier.

This narrative is clearly stated as shared through several means. First, the idea apparently originated in the individual self-directed learning of each teacher, although we may question how entirely "self-directed" it actually is when two individuals are doing the same thing which, although unbeknownst to each other at the time, is closely related to their on-going collaborative practice. Second, the teachers show willingness to share the ideas that they have, individually and independently of each other, received from a book. Third, the narrative forms a picture of the two teachers as very close, thinking and acting almost as one person. Also, the positioning of Anna as an audience might be interpreted as showing that the teachers are on one side, together, with Anna as on the other side. Even the written form of this narrative is able to reflect some of the shared enthusiasm displayed by the original, tape-recorded, story with its different vocal effects and outbursts of laughter. The teachers complement each other and construct a narrative of their shared experience together, reflecting their close relationship and enjoyment in interaction.

4.4. Excerpt 4: retrospective reflection of the professional development process (March 2007)

1 Lisa Then on the other hand at some point (stage), at first
2 we divided them according to their learning styles but
3 we didn't fuss much about it either
4 Matt no
5 Lisa the learning styles didn't come, as a slightly bigger
6 topic, until later that this is a good thing!
7 Matt kind of got into the topic hey we could get more out
8 of this
9 Lisa then it went into *that* direction and then and then
10 clearly now going in this kind of inclusive and
11 collaborative direction, we separated the learning
12 styles there and they work here very functionally and
13 Matt they
14 Lisa and the value, it is not the major issue but now the
15 major issue is how we do things collaboratively in this
16 class. That it is exciting the whole span
17 Matt and then, what is the next thing, can't know if it ends
18 here. I don't think so
19 Lisa little
20 Matt I have also had some doubts that this is not the last the
21 last wave in our work, but let's say that this kind of
22 bigger breaker wave comes rarely and now it was this
23 collaboration the big wave of many years this January.
24 But it wouldn't have come either we would not have
25 drifted into the sources of it if we didn't write this
26 book. So we have to thank that
27 Lisa yes
28 Matt that we've been in it, surely we wouldn't have
29 Lisa at least not yet
30 Matt no
31 Lisa it could have come at some point
32 Matt yes
33 Lisa had I been thinking about buying the book anyway, no,
34 it came after writing the book

In this narrative the teachers assess the pedagogical turns in their career. Looking back, they see their professional development as something that has direction (lines 9–11). They see their newest turn, "inclusive education and cooperative direction" (lines 10–11), as a separate and different direction from the learning styles that they are continuing to use because they "work here very functionally" (line 12), but which are no longer 'the major issue' (line 14). The teachers describe their career and development with the metaphors of a "span" with "stages" and "waves" (lines 16, 1 and 21–23, respectively). However, Matt describes the book writing process as "drifting into the sources" (line 25) of the cooperative learning idea instead of an active seeking for a new innovation. Nevertheless, the teachers do not mention the first career turn, the beginning of their co-teaching, which is surely the most significant of all, if only because it was also the origin of all their later turns. It is also noteworthy how the teachers, literally, only talk about collaboration although in practice, they implement the principles of cooperative learning (Putnam, 1998) in the classroom.

The origin of the cooperative learning idea was found in books. On the one hand, the teachers were involved in a process of writing a book about their work, which certainly had made them think about and evaluate their career and collaboration. On the other hand, as a part of that process, they were interested in reading books, which then resulted in finding new content knowledge on which to build in the classroom. Books can be interpreted as external sources of information; however, the interactive process that involved the two teachers, books and collaboration, was a situated learning process. The question of the origin of the idea is, however, more complex. Matt narrates the story as if it were a coincidence, yet he also recognises the interaction between writing a book, reading books and finding new ideas.

The teachers describe how they have come up with new ideas, tried them out in the classroom and only later realised the meaning and value of each in the context of their professional development. In their content, these turns reflect a change in their beliefs about students. No matter how flexible the grouping is (Rytivaara, 2011), the principles of learning styles means labelling individual students in terms of their preferences or needs, whereas the discourse in

cooperative learning marks a shift towards the processes involved in students of all kinds learning together. Unlike learning styles, the principles of cooperative learning acknowledge students' individual differences as learners but these are not the focus of diagnosis and prescriptive teaching.

Time is an essential feature in this narrative extract, which includes different concepts of time. The temporality of this narrative lies in the way the teachers use metaphors. "Span" has a starting point and an ending point, and its highest point is in the middle. Lisa, after explaining how their development has gone in several directions, seems to indicate conclusion by talking about "the whole span" as if it was finished. Matt, however continues by starting to think about the future prospects of their professional development and Lisa joins in, stating how they expect to have new waves later. Time may proceed in stages, but it is nevertheless linear, whereas waves, if they accumulate enough smaller activities, may turn into another category, "bigger breaker waves" (line 22). Furthermore, waves refer to a flowing movement and include the possibility of floating on them and thus, represent a cyclic concept of time.

5. Discussion

Although teacher collaboration has been acknowledged as important in the teacher learning and professional development literature, co-teaching has rarely been studied with a focus on the processes of teacher learning and shared knowledge construction, as was done in this study. The present findings about co-teaching are interesting in several respects that we offer for discussion from the aspects of professional knowledge, inclusive education and teacher learning.

We found that the co-teaching and collaboration did not merely form the context for Matt and Lisa's individual learning. Their narratives about learning and professional development present a picture of how the two teachers act and work together more or less as one, as 'we'. At first they were two; after sharing their classes they became "we". Individual expression was given only to feelings and even these they eventually shared. The teachers even consider that they have a shared motivation. This "we-ness" has further implications when thinking about, for example, a teacher's unique practical knowledge and the distribution of such knowledge between teachers. Collaboration is a means for the co-construction of further knowledge as well as serving as a shared repository for current memories and shared knowledge. Thus, in a collaborative context, teachers would have more knowledge to apply in practice than when working alone. This emphasis on the strengths of each is also a principle of inclusive education for children and teachers: not everybody needs to know everything if learning is shared. Recalling the habits of mind, practice and heart discussed earlier (Shulman, 2009) initial teacher education would ideally provide teachers with more effective collaboration skills as well as encouraging an open attitude towards sharing knowledge. It would be interesting in the future to examine this process in more and less individualistic national cultures to understand the processes by which collaboration skills may be learnt and practised by teachers. Furthermore, such studies can illustrate the role teachers' cultural backgrounds play in collaboration. An example of this is the study where American and Japanese teachers collaborated on lesson studies in American context (Fernandez, Cannon, & Chokshi, 2003). Without wanting to underestimate the role of the individual factors in teacher learning, we suggest that the distinctive experiences of co-teaching are likely to support many teachers in meeting their professional responsibilities effectively.

Little (1993) has criticised the training model of teachers' professional development. By this she is referring, among other things, to a mechanical view of teaching and to learning activities outside the teacher's actual working context in the school and classroom. Such a model is particularly inadequate in preparing teachers for the challenges of inclusive education because it decontextualizes teacher thinking from the dialogues and activities that comprise inclusive practice over time. This case study suggests that co-teaching might provide a safe and fruitful environment for teachers to find their own solutions in working with heterogeneous student groups, but one has to keep in mind the highly autonomous working environment where the teachers collaborated. This study was conducted in Finland where, compared for example to USA and England, teachers have relatively strong professional autonomy, a low level of political interference and no accountability mechanisms (Itkonen & Jahnukainen, 2007; Webb et al., 2004). More highly controlled school systems provide teachers with different kind of contexts for developing the range of pedagogical and instructional practices available for professional choice. Matt and Lisa narrated all the origins of their current practice as unexpected. Whether they really were serendipitous (Plunkett, 2001) or not, is another question; it is enough that the teachers considered them such. Nevertheless, collaboration was an essential context for the ideas to become more than mere ideas – when one teacher has come up with an idea, the other teacher can 'catch' it and this originates a new practice. This process where two teachers create and share experiences which they can then later use forms a basis for their further knowledge construction. Through its implementation the original idea becomes a shared experience which can be examined, discussed and developed further.

Trainee and qualified teachers could be encouraged towards the practice of creativity in schools. This paper reflects not only the wide freedom and relative autonomy that teachers can draw on in their school context, but above all their willingness to seize on new ideas and develop them further. Teacher creativity is easily understood as something that is done inside the classroom (e.g. Sawyer, 2011), but it can and should extend beyond day-to-day classroom practice. The learning processes presented here reflect two levels of collaborative emergence (Sawyer & DeZutter, 2009): on the first level were Matt and Lisa's immediate pedagogical innovations. What was particularly interesting was the way the individual origins of ideas were obscured in the process of joint meaning making and knowledge construction. This, on the one hand, requires rather strong feeling of equality and trust so that both feel active participants in the collaborative process. On the other hand, it probably maintains and even strengthens the collaborative nature of the on-going dialogue and learning. Furthermore, whatever the origin, the ideas were never used exactly as received, but as starting points for developing the ideas further. Each final idea was tried out in the classroom. These experiments formed the second level, which was the long-term process of professional development that seemed to lead the teachers deeper into inclusive thinking. Even if teachers learn, it seems difficult to change one's classroom practice (Bakkenes et al., 2010). Unlike many PD programmes, the changes in Matt and Lisa's classroom practice were not only an outcome of their learning but also part of their learning process. It has to be noted, however, that the teachers not once talked explicitly about their learning or professional development. This, as well as the emotional dimension of learning that they narrated, is consistent with the findings of a previous study of teachers' informal learning in Scotland (McNally, Blake, & Reid, 2009).

The narratives analysed in this paper illustrate several temporal processes. In the first three (4.1–4.3), the teachers narrate how their major career turns have materialised, and in the fourth they reflect on their professional development in general. Altogether, this forms a circle of development starting from seeing the

collaboration of another pair of teachers. The development involved the contribution of their individual knowledge to their strong sense of collaboration with shared knowledge and, further, shared knowledge construction. The full "span" extends to writing a book that shares their knowledge and experiences with others. Time gives a wider perspective to the narratives: the interviews are located within a timeline of 3.5 years. By telling these small narratives, the teachers construct a larger story of their professional development since they began co-teaching.

This study adds to earlier work carried out in Europe (Bakkenes et al., 2010; Leat et al., 2006) by presenting in more detail a process in which two teachers felt confident about sharing ideas and experimenting in the classroom. The findings foreground the temporal dimension of teachers' changing knowledge and practice: seemingly small events and experimentation can be significant steps towards a bigger change in a teacher's thinking, beliefs and practice – steps in their professional development. PD programmes need to be sensitive to teachers' individual learning experiences and learning processes and their complex nature, to be able to support them better in the context of those experiences and processes. This study showed that if teachers are provided with adequate time for collaboration outside their classroom, it may have enormous effect on their professional development.

The findings support the evidence that teachers learn from each other through reflection, adding to previous research conducted in Europe and USA (Harrison et al., 2005; Park et al., 2007). However, reflection on particular incidents of practice was not the only means for Matt and Lisa's learning. Another means was the way their uptake of formal and informal learning opportunities was intermingled in practice and in their on-going dialogue. It is complex process that cannot be reduced to any single event. In this paper, we traced the origins of each pedagogical "wave", but these were mere starting points for a longer journey into sharing and creating knowledge through experimenting with new ideas in practice and reflection. The diverse origins of teacher learning do not seem to matter overall; more relevant is the will to learn and that this will emerges in a supportive environment, such as the co-teaching context in this study. Such professional development originates with teachers, but in a school context where they have professional autonomy, responsibility and opportunities to innovate. It is important to acknowledge that the contextual factors which in part define each teacher's working conditions vary greatly from one country to another, and even between teachers within schools (Talbert & McLaughlin, 1994). In acknowledging the unique context co-teaching always provides for learning, we can see that the learning experiences will also be unique for each teacher. However the dialogic processes of reading teachers' rich narrative accounts of their learning allow others to draw comparisons with their own experiences and contribute in this way to understanding teaching as a profession in all its variety of practice.

Some of the strengths of this study relate to its nature as a detailed case study of one pair of teachers in its societal context, but there are associated limitations to be tackled. To fulfil the criteria of transferability, we have described the research process and the research context in detail. Co-teaching pairs in any context involve individual teachers with certain personal preferences (e.g., will to learn, commitment to teaching and to collaboration, one's personal strengths and weaknesses). Also the work context of teachers varies across schools and across countries as discussed above. Several years have passed since the original data were collected. From the socio-cultural perspective, this means that the teachers' working environment has changed. They have, for example, a new group of students and a new principal. Yet, research is always bound in certain time and place; a snapshot of the people under study. Thus, the conditions that prevailed during the fieldwork, no longer exist but then the conditions for teacher learning are always unique. The time passing since the early interviews has allowed a longer perspective on interpreting the teachers' narratives of learning, including what now appear as significant turns and actions. The member check was done by giving the two teachers the manuscript to read in December 2011. They agreed on the findings and our interpretations by saying that they recognise themselves in the descriptions.

6. Final conclusions

The origins of the new ideas in the co-teaching case discussed in this paper are interesting in their variety, but the actual examples identified may not be that important for others; more significant is the process in which the teachers collaborated in developing their ideas and trying them out in the classroom. The national context in which this study was conducted matters, as for all studies, but the study also reveals some more general level findings that can be relevant to teachers, teacher educators and researchers in other contexts as well. Experimenting is seen to be an essential part of the learning process but not necessarily the final product, so teachers clearly need time for their learning. Further, whereas co-teaching can provide a supportive environment for this deep professional learning, teachers also need adequate level of autonomy and trust to take full advantage. We may conclude that when the circumstances are right, teachers' professional development can be effectively grounded in teachers' everyday actions in schools, supported by opportunities and encouragement for teachers to incorporate other sources of information and ideas into their dialogue and collaborative activity.

Teacher learning, professional development and inclusion are all long-term processes. Therefore short-term programmes and teacher studies are often not enough to transform practice. As this case study of one pair of teachers demonstrates, more long-term research is needed to understand the individual and collaborative processes of teachers' professional development in a holistic manner. Furthermore, more studies from different countries, including those from outside the Western world and those with different levels of policy centralisation and collaborative social cultures, are needed to understand how the various national and local contexts comprise part of teachers' learning environments. Compilation of similar case studies could provide a platform for planning interventions and bringing about significant educational change (Zeichner, 2007).

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III

FLEXIBLE GROUPING AS A MEANS FOR CLASSROOM MANAGEMENT IN A HETEROGENEOUS CLASSROOM

by

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ABSTRACT

This article concerns issues of classroom management in heterogeneous classrooms. Although the research on the field of learning styles has yielded mixed results, there is call for information about how they could be used to individualise instruction especially in primary schools. This article is part of an ethnographic study aiming to examine teacher collaboration in a primary school and it draws strongly on field notes and on interviews with teachers. The intention was to discover how the two teachers in the studied classroom categorised pupils according to the learning styles model that they had invented, and how the resulting groups were used for the purposes of classroom management. The study revealed that, first, learning styles seem to work as a grouping method, and second, that flexible grouping can diminish problematic situations traditionally related to heterogeneous classrooms.

INTRODUCTION

Classroom management is a cornerstone of classroom pedagogy. Classroom management focuses on all the actions teachers take in organising their classes. Quite a few definitions have been offered (Lemlech, 1988; Evertson & Weinstein, 2006), all of which assume that two aspects, a social aspect and an academic one, are always present in classroom life. This means that teachers should take into consideration both the academic and the social skills of learners when managing their classrooms.

Traditionally, the academic abilities of learners have been the basis of their categorisation: school systems have been selective with respect to who has been considered eligible for education. Education practices have long been based on special need, and labelling. In European educational context, however, cultural background of pupils has not been a significant issue unlike in the USA, where minority pupils have been highly overrepresented in special education programs over the decades (Artiles & Trent, 1994; Hops & Reschly, 2004). In the 1960s, however, serious doubts began to be raised about the rationale for separate special education (eg. Dunn, 1968) and this debate has continued ever since (e.g. Fuchs & Fuchs, 1995; Mastropieri & Scruggs, 1997; Espin, Deno & Albayrak-Kaymak, 1998; Powell, 2009; Zigmond, Kloo & Volonino, 2009). In their review on distinctive pedagogies based on discreet categories of educational needs, Norwich and Lewis (2001) came to the conclusion that such pedagogies may not even exist. Rather, they suggest that if special educational needs (SEN) are seen as a continuum of abilities instead of distinct categories, the different approaches to teaching should also form an equivalent continuum.

Learners differ in many ways, not only in their academic abilities. Individuality of learners has yielded a research field with various concepts such as learning styles, cognitive styles and learning preferences. Origins in the United States, the topic has raised interest also in Europe, mostly in the UK (Riding & Rayner, 1997; Sadler-Smith, 2001). Nevertheless, individual styles are most often used in higher education

and therefore, research in a primary classroom is in short supply. The few studies conducted in elementary schools have tended to concentrate on special groups such as pupils with learning disabilities or gifted pupils (Yong & McIntyre, 1992; Exley, 2003; Rayneri, Gerber & Wiley, 2006). Although research in the field of learning styles has yielded mixed results (see Romanelli, Bird & Ryan, 2009), it is not doubted that individual differences in learning exist (Riding & Sadler-Smith 1997; Smith, 2002). However, the issue of whether or not learning styles are an appropriate means to individualize classroom instruction has also been raised (Landrum & McDuffie 2010).

Much of the criticism towards learning styles is due to the conceptual incoherence. There is pile of literature which tries to clarify the content of each concept (Rayner, 2007; Rayner & Riding, 1997; Sadler-Smith, 2001). Shortly, cognitive style refers to dimensions of wholist-analytic and verbal-imager, while learning style includes also instructional preferences. Furthermore, by the concept of learning style, researchers often refer to a certain model of learning styles, such as Kolb's Learning Style Inventory, LSI-model (for example, Sadler-Smith, 2001). This naturally has caused methodological problems in concept validity because there are several models on learning styles (see, for example, Smith, 2002; Cassidy, 2004). The research has, however, been noticed among many interest groups. The most important effect of the research that has been conducted on the issue of learning styles has been the increased awareness of teachers of the individuality of learners. Eighty percent of the K-12 teachers in the US (Snider and Roehl, 2007) considered learning styles an important matter in classroom instruction. A second positive outcome has been heightened interest in matching learning styles with teaching styles (Doyle & Barry, 1984; Hyman & Rosoff, 1984; Vaughn & Baker, 2001).

However, conscious of the criticism about the conceptual and methodological issues, Rayner (2007) calls for research about how "learning styles" are used in classrooms and how they could be used for individualised instruction. In Finland, learning styles have been officially acknowledged in the core curriculum for elementary schools (Finnish National Board of Education, 2004, 18) which requires teachers to take into consideration the different learning styles of learners, among other individual differences such as gender and background. In Europe, the term "heterogeneous" has referred mostly to academic diversity in classrooms due to small, or in countries like Finland, nearly minimal cultural differences among pupils. The ideal of inclusive education is making classrooms even more heterogeneous academically and socially when more pupils with SEN are educated in ordinary classrooms, and this is the context of this paper. Yet, the situation is changing in other aspects of heterogeneity as well. In addition to pupils with SEN, teachers face a growing number of pupils with multicultural backgrounds in their classrooms. This increasing diversity among pupils means new challenges for classroom management, and hence a new context for research also in the field of learning styles. For teachers, classroom management is not only the implementation of plans made in advance. Rather, it often appears as sudden changes in plans as well as improvisation during the school days. Akin-Little, Little and Laniti (2007) divide teachers' classroom management into proactive and reactive strategies. Proactive strategies are

preventive in nature whereas reactive strategies aim at dealing with acute situations in the classroom.

The purpose of my paper was to examine proactive classroom management strategies in an academically and socially heterogeneous primary school classroom in which learning styles were used for the purpose of flexible grouping. The methodology of this study is an exception to most of the studies on classroom management, which have been conducted in traditional one-teacher settings with quantitative methods (eg. Beaman & Wheldall, 2000; Akin-Little, Little & Laniti, 2007; Clunies-Ross, Little & Kienhuis, 2008). This study required a holistic perspective, and therefore I chose an ethnographic approach (Spradley, 1980, 79; Hammersley & Atkinson, 2007, 3). It would have been nearly impossible map the "orchestration of classroom life", as Lemlech (1988) calls classroom management, in the studied class without any observation (see also Woods 1986, 62).

ETHNOGRAPHIC RESEARCH IN A HETEROGENEOUS CLASSROOM

The study was conducted in a middle-sized primary school which was located in a growing suburban area of an average-sized city of population of approximately 90,000 inhabitants in Finland. The school employed 19 classroom teachers and one special education teacher in the school. The context of my study was a combined classroom taught by two primary school classroom teachers who had amalgamated their classes three years prior to this study. The teachers were a female teacher around forty years of age and a male teacher a few years younger. The first class was a general education class of 20 pupils. The second class was a small special education class of 10 pupils. These pupils had special educational needs, such as behavioural and with learning problems. A positive effect of combining of the two classes was that the teachers also had two classrooms and, because of the special education class, they had a permanent assistant. The teachers, as usual in Finland, were taking their classes through primary school, that is, from the first until the sixth grade. The combined classroom model with shared resources, such as extra lessons for teaching smaller groups of both classes, provided an environment for investigating how the teachers used these resources for classroom management.

I collected the study data in authentic classroom situations for 71 days over three school years (grades 6, 1 and 3). The first fieldwork period was for two months and comprising 33 schooldays. At the time, the teachers had a sixth-grade class. During this period of general observation, it became obvious that learning styles were the basis of the system. Groups were utilised in almost all the action in the classroom. The fieldwork was continued the following year in August when the teachers acquired a new class of first-graders. The focus then was on how the pupils were assessed regarding their learning style. The data collection was completed with an additional interview two and half years later, in the spring of year three. The data was mainly collected by observing and interviewing the teachers. My role in the school can best be described by the term moderate participation (Spradley, 1980) although during the lessons I was a passive observer. The data consisted of 334

pages of observation notes and 137 pages of interview transcripts. The data mainly used for this paper were corridor conversations and observation of lessons as described in my field notes, interviews and documents such as timetables.

Primarily, this study was a pragmatic case study of a classroom conducted within a general ethnographic framework (Hargreaves, 1986; Woods, 1986). The data were analysed with ethnographic content analysis. According to Tesch (1990, 72-73), the aim of ethnographic content analysis is to identify the specific elements. Spradley (1980) calls these elements domains. His system of analysis which I also used comprises three stages: domain analysis, taxonomic analysis and componential analysis. After the domain analysis, I took the domain "pupil grouping" for taxonomic analysis. Taxonomic analysis yielded two classroom groups: permanent and temporary study groups. Furthermore, permanent study groups divided into ten different small groups of various sizes and the whole-class group (see Table I). Finally, componential analysis was done on the learning style groups. This identified the qualities and meanings of groups were identified as well as the discrepancies between the groups. The citations in this paper are from the data. They have been translated from the original Finnish. In the interview citations, teachers are referred to as T1 and T2 to protect their identities, and the author by the initials AR. The pupils in the field notes citations have been given pseudonyms. In the following results section, before describing the grouping system in detail, I will first introduce the pedagogic model used by the teachers.

THE RESULTS

The pedagogic model

The pedagogic model under study, given the name 'Pilot' by the teachers, had been developed some years prior to this study in response to a growing lack of interest felt by the teachers towards their work. At that time, they both worked in the traditional way, that is, one teacher in one classroom. '[The class] was a good gang', as the one of the teachers said, 'but I was not interested in the job as it is usually described'. So, the teachers still wanted to teach but they aspired to organize their work differently. Due to an idea in spring, the two teachers arranged to combine their classes, then in the third grade, the following August, after the summer break. The model they proposed to use for classroom management in their new combined classroom focused on collaborative teaching and flexible grouping. For grouping criterion, they had decided to use "learning styles". This was due to that one of the teachers had been on a course on learning styles and at the time of combining their classes, they felt that learning styles was a positive way to express the individuality of their pupils. Later, they were satisfied with their solution and saw no reason to question learning styles as a good and fair way to categorize pupils. The interviews were characterized by this kind of discourse of equality.

> T1 I don't know, it felt very good right from the beginning so we didn't start thinking other options. After all, it is a quite positive starting point for a SEN pupil to find his/ her way of learning well. So it just felt so good that I suppose there was no need to think of doing anything else. And still isn't. (Grade 6)

T1 the idea was that the SEN pupils needed to be divided among all the groups or in other words, so that they don't become a special group [ ] that this would still be the starting point
T2 yes I don't think it would ever be an option to have the general education and special education on their own
T1 no
T2 their own groups
T1 this was clear from the start and that's why these [groups] came to exist because by using learning styles we can divide them up from the same start line (Grade 3)

The learning style model the teachers used for classroom management in the classroom observed in my study was a mixture of Dunn and Dunn's Learning Style Inventory (Dunn, Griggs, Olson, Beasley & Gorman, 1995) and of Fleming's VARK model (2001). The idea of the Dunn model is that a learner deals with environmental, emotional, sociological, physical and psychological stimuli, and processes these in the classroom, either simultaneously or successively. Environmental factors refer to sound, light and temperature conditions of the learning environment, and to physical design of the classroom. For example, some pupil like working in a noisy environment, some demand complete silence. Emotional dimension is related to a pupil's motivation, persistence, responsibility and to how much structure she or he needs to learn best. Sociological factors tell if a pupil prefers to work alone or in pairs, whether she or he likes to work in a team and how adult-dependent a pupil is. Physical preferences determine how strongly a pupil's physical needs, such as need for snacks or need to move, affect on learning. Psychological dimension of the model concerns about pupil's cognitive style and information processing, whether a pupil is more holistic or analytic, impulsive or reflective.

The approach to the learning process of VARK-model, on the other hand, is rather different. This model is named after four channels through which we process information, each of which refers to a person's preference concerning his/ her way of gathering information. The model posits a visual, an aural, a read/write and a kinaesthetic channel. The both models, Dunn and VARK, have been combined by Prashnig (2004). Her book was also the basis for the Pilot model by the teachers. The diagnosis in both of the models, VARK and Dunn & Dunn, is based on self-questionnaires. Underlying both of these models is the assumption that learning styles are based on personal characteristics and therefore, an individual's learning style remains the same across the years. This assumption, combined with the fact that the criteria for grouping the pupils were permanent, meant that the colour groups were fixed.

The colour groups

The teachers had divided their pupils into four groups according to their *'learning styles'* and had given the groups the names of colours. The number of groups had been limited to four because of the weekly timetable; four was easy to handle with two teachers. All the pupils were identified by their group colour, not only the ones with an individual education plan. The class was organised around these *'colour groups'*; even when they were not expressly needed. The colours, however, were not only a way to structure the class but a way to see and understand the pupils and

other people in general. This meant that the teachers used colours not only to group pupils but to talk about people. Thus, referring to the colours became what a fellow teacher once called the '*secret language*' of the two teachers. The teachers frequently made references to pupils through colours when they described classroom actions to me or to visitors. Also my own colour was evaluated on several occasions. If the teachers had had doubts about my colour earlier, they were soon resolved during a preparation hour. I had been given the task of cutting a sticker sheet into pieces with five stickers each. One of the teachers asked me after some time what was taking me so long and I told him I was still planning how best to cut the stickers. He said, laughing: 'You are SO red!' I had asked about his colour earlier and knew he was red, too. The Pilot model as described by the teachers is presented in figure 1.

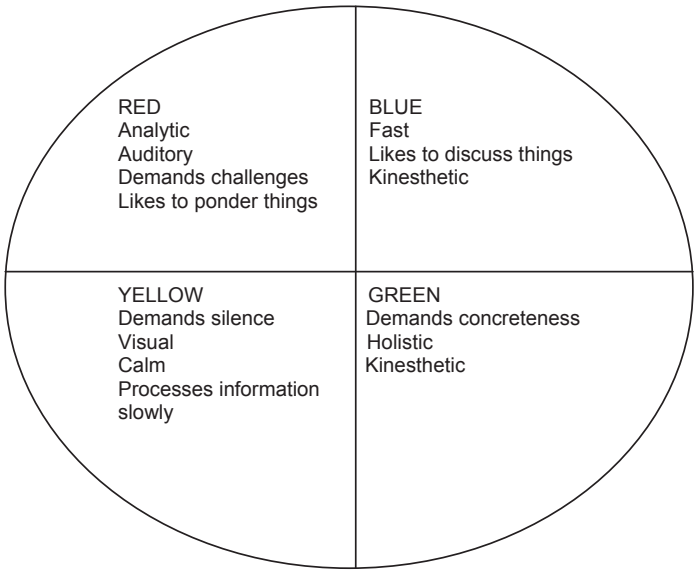

FIGURE 1 The learning style qualities of the colour groups.

'*Red pupils*' were described as competitive and auditory learners. They liked to know things well in advance. Red pupils were analytic and they liked to do things in order. '*Blue pupils*' were talkative and preferred to study in a relaxed style: a little here and there, not necessarily quietly at their desks. '*Green pupils*' were much the same, spatial learners, but unlike the blue pupils, the green ones did not get much work done while talking and moving around. Green pupils were very dependent on adults so the assistant often followed them. '*Yellow pupils*' loved peace and quiet. They preferred to take their time and, whenever possible, work in a separate space.

When in August their first-graders started school, the teachers immediately began to identify the learning styles of their new pupils. The two teachers did not use any particular inventories to test the pupils. The pupils were assigned to the four colour groups according to the teachers' '*knowledge about the pupils*'. This knowledge was to be acquired during the first few weeks of the academic year in which the

teachers carefully observed the pupils in order to find out their preferences in working and playing, for example, whether a pupil liked to work in silence or if s/he was more comfortable with a noisy learning environment or whether s/he had problems in sitting still. The teachers had planned special assignments for the pupils so they could observe the pupils for this purpose. They had also sent the parents questionnaires to obtain the parents' views as well. The assessment process had to be limited to a couple of weeks because that was the longest time the teachers could work without colour groups. Those groups were the basis of their teaching model. The categorisation, however, was not absolute but the dimensions were sometimes overlapping.

T2 and on the other hand the groups are not strict in the sense that they contain pupils who are not purely red or purely blue. Such pupils exist in the groups but then there are also pupils close to some other group so that the pupils who are not purely red but orange

T1 purple and orange (Grade 6)

Not all pupils were purely of one colour only. This meant that the classification system was not exclusive in that a person could have qualities belonging to more than one colour. The second teacher described herself as 'mostly blue but because I am a bit slow from time to time, I have a sprinkling of yellow, as well'. When it came to the pupils, on these and some other occasions, compromises had to be made. For example, a boy who was somewhere between the yellow and red was put into red group because he was '*a mathematician*' and was '*doing nicely there*'. Another example was a girl whose best friend was blue so she was also put into blue group because she was also '*doing nicely there and the blue group would otherwise have been too small*'.

The '*colour groups*' were used as a tool to individualise learning and a means for classroom management. Each pupil had three lessons every week with his/ her own colour group only. The subjects of these lessons were Finnish, maths and English, one lesson in each subject. Pupils had eight lessons with the most similar colour (blue with red; yellow with green) and three with the opposite colour group (blue with yellow; red with green). All the pupils were taught as a single group for six lessons a week. One of the adults was always present in a lesson and the assistant most often followed the green pupils. The use of groups and adults is presented in table I below.

Group composition	Number of adults in the class	Number of weekly lessons first/ sixth grade	Subjects
Single colour group	1-2	3/ 3	Finnish, maths, English
Two similar colours	1-2	8/ 6	Finnish, maths, religion
Two opposite colours	1-2	3/ 3	Music, art
Whole class or mixed-colour	3	6/ 13	Physical education, science, history, crafts

TABLE 1 The weekly lesson plan.

The nature of the single-colour lessons varied widely between the groups. In all the single-colour lessons, the traditional classroom rules did not apply. Because the pupils had been divided into homogeneous groups according to their learning style, during these lessons they were among persons similar to themselves. The aim of these lessons was to provide the pupils with the environment which would best support their learning. On the other hand, placement in colour groups helped the pupils to cope with the social demands of heterogeneous groups. This was particularly apparent with the most opposite colours, the yellow and the blue. On the occasion, I had been talking about the end of a lesson and how different it had been. Both the teachers laughed: 'Guess what colours they were? It was the yellows that stayed [afterwards], they are always the last to finish!' The yellow group lessons were very peaceful. The yellow pupils did what they were told to do but it took a longer time because they preferred to do their assignments very carefully. Yellow pupils were easily interrupted and when allowed, they chose to work with other yellow pupils. They would easily have spent their time exclusively with each other. On the other hand, without the whole-class lessons and two teachers, their group would not exist at all.

> Talked with the other teacher during a break about combined class. Referring to her comment that the yellow had said the day before they wished to be their own class, I asked her how did the yellows feel in a whole-class group. The teacher told me she knew how they felt, you could see it in the feedback, but that as a counterweigh there are the small groups. (field notes)

On the contrary, the lessons of the blue and red groups were often noisy. Pupils talked while they studied and commented a lot when the teacher taught. They were not forbidden the opportunity for discussion although the comments rarely considered the topic of the lesson. However, they were quick at their assignments and therefore rather demanding. Once they had got things done, they were easily bored so the teachers had hands full keeping them busy with school work. The colour groups could be compared to self-contained classrooms, in which case the blue group would be constituted of those pupils who are often seen as a disturbance in ordinary classrooms. As Kauffman, Bantz and McCullough (2002) comment, the key topic in the self-contained classrooms seems to be a culture which can either encourage or prevent problematic behaviour. The problem with studies of this kind is that classroom placement is usually seen as an either-or solution: either a pupil receives one kind of teaching or another kind. Although a pupil can move between settings during the school day, such settings have traditionally been permanent (Hegarty, 1987).

In this type of classroom, however, even if small groups can be seen as possible self-contained mini-classrooms, the pupils only spend a few hours a week in them. The pupils learn that when they are taught together with other-colour pupils, they need to behave properly. This entails that pupils study in several groups with different aims. Therefore, a strong culture of problematic pupils is not promoted. With the greens, the most important idea behind this grouping of the small groups was the possibility to use concrete materials, for example in math lessons. The greens were more learning-by-doing individuals and they needed to move around during

lessons in order to maintain their motivation to study. The assistant had the important role of helping them to concentrate on essential issues and tasks.

Whole-class lessons

In general, the teachers often highlighted the importance of social skills and good behaviour; they went so far as to consider the acquisition of social and working skills to be the main purpose of primary school. The half-class lessons with the opposite group and whole-class lessons had three aims. First, the teachers wanted the pupils to learn to work with people of all kinds, and not only with those like themselves. "You don't need to like everybody but you need to be able to work with everybody", they told the pupils.

T2 I mean, the mastery of information search is like the academic aim
T1 Yes and that you get along with others
R Mmm
T2 Precisely. If these two things are mastered then the other things don't really matter (Grade 6)
T1 our idea is based on the fact we teach working skills, I mean, does it matter anymore *what* we teach as long as we teach studying skills. That is, you have learned co-operative, like, isn't it a good thing […] Or if you have studied, for example, how to tell the others something about a concept does it matter what the concept is (Grade 3)
T2 [about forming a mixed-colour group for handicraft] really like randomly. So, specifically it had to be pupils from different colour groups and then specifically […] friends in different groups because those who are in the same colour groups and are friends with each other, they go about hand in hand all the time and so we wanted them as separate so that they sometimes need to work separately (Grade 3)

Second, the pupils were supposed to learn how to behave properly in a bigger, heterogeneous group. This was essential from the point of view of classroom management because it taught the pupils to adjust themselves to different situations during a school day. Cartledge and Johnson (1996) suggest that when considering inclusion, pupils should be taught social skills. The third aim of the whole-class lessons was that the teachers did not want to accentuate the small groups too much but to keep the class unified. Therefore, as opposed to the opportunity to study in more homogeneous colour groups, the whole-class lessons were based on cooperative learning (see Slavin, 1983; Putnam, 1998). This meant that there were two kinds of whole-class lessons. Besides traditional teacher-led lectures, the pupils studied in small mixed-colour groups. In the third-grade class, for example, in connection with a larger science project the pupils were asked whether they wanted to compete as small groups against other groups or gather points for benefit of all. The pupils chose to work together and to enjoy the results together as a class. Such events pleased the teachers as they showed a strong class spirit.

On the other hand, the teachers saw their pupils as individual personalities with different characteristics. This had led them to create a system where all the pupils regularly spent time in groups of five to thirty pupils. The characteristics of the different colours sometimes became very apparent in the mixed-colour lessons. The following episode is from an art lesson with the reds and the greens. The pupils have been instructed to draw a ship from a picture.

> Vesa asks if he can draw his picture using a multiplication. At first, the teacher doesn't hear or understand but then answers yes, saying that actually the picture demands division. Aku is worried about whether he really needs to draw all the ropes in the picture because he can't. Teacher says it's just a matter of attitude. Timo seeks help from the teacher for adjusting his picture. (Field notes)

Overall, a good class spirit and mutual respect were crucial for the class to be success. The pupils needed to feel that each colour group was equal. This demanded a high level of willingness to accept diversity and to understand that no one characteristic of their classmates is better per se than another. The teachers made great efforts to put this across to the pupils: everybody is good at something and being good at one subject is of no greater value than being good at another subject.

> T1 Mmm. And [we] have still been having that [discussion] continuously, kind of, I think they have slowly realised that you can't, that they are not unequal if you can do math or if you can do art or, that they are just as important (Grade 6)

The pupils did not seem to talk much about the colours. A couple of times the colours had been discussed in a lesson but unfortunately I was never present on those occasions. However, I heard a few clues that caught my ear. First, a pupil in an English lesson asked the teacher when '*the worse group*' would get their exams back, but then he immediately corrected himself saying that he meant '*the other group*'. The same pupil also wanted to know if the exams had been equally difficult. After a pause, the teacher answered '*yes, considering the book, the exams were equally challenging*'. By this the teacher were referring to two different exercise books because in the yellow and green groups, some pupils had an individualized curriculum and therefore a different book. Second, at the beginning of the first grade, a very quiet girl had been assigned to the blue group because her original colour, yellow, was no acceptable to her parents, who wanted her to be in the blue group. The teachers accepted this and, when it became obvious that the girl was better suited to the yellow group, she was transferred.

CONCLUSIONS

The focus of this study was to examine the practice of flexible grouping as a classroom management strategy. The results revealed that, at the classroom level, teachers used various grouping practices as a part of their classroom management strategies. Teachers organised their instruction both a whole-class setting and in small groups. Teachers used various permanent and temporary groupings to individualise teaching both academically and according to pupils' social behaviour. On the other hand, this gave the more active pupils a chance to move and talk while they worked, without the quiet ones being disturbed. On the other hand, for all the pupils, through the use of heterogeneous small groups and whole-class lessons, the social aims of schooling were accentuated. Thus, the way the teachers used groupings in their classroom reflected the two aspects of schooling, the social and

the academic. This practice differed from the traditional model of classroom management.

As categorization at the school system level, grouping practices in classrooms have traditionally been based on pupils' academic abilities and learning capabilities, and only rarely on pupil behaviour (Baines, Blatchford & Kutnick, 2003; Hallam, Ireson & Davies, 2004; Chorzempa & Graham, 2006). In contrast to this single-criterion-based grouping procedure, the pedagogic model of classroom management, as examined in my study, showed that it is possible to use various grouping methods within a class. This solution is especially noteworthy with respect to pedagogically challenging pupils since the placement of pupils with special education needs has long been an issue in research literature (Carlberg & Kavale, 1980; Rueda, Gallego & Moll, 2000; Kauffman, Bantz & McCullough, 2002). In particular, pupils with behavioural problems are demanding to place either way: in regular classrooms they easily interrupt the instruction, and in special education classrooms they are exposed to the bad influence of each other. A further problem concerns the negative effects of labelling people. Flexible grouping appears to be one way to diminish classroom management problems in a heterogeneous classroom and to teach pupils social skills in more heterogeneous groups. Thus, flexible grouping may increase the positive experiences of both teachers and pupils and decrease the need for segregated educational settings.

Despite the disagreement over whether learning styles are an appropriate means to individualize classroom instruction (Landrum & McDuffie, 2010), they seem to be suitable for classroom management in a heterogeneous classroom. It has to be noticed, however, that the studied group was culturally rather homogeneous; heterogeneous here refers only to a group with both general education and special education pupils. In addition, teachers need be aware of some critical factors when using learning styles or like as a grouping criterion. Possibly, due to the general inclination to categorize people, there is also the danger that learning style groups may become a new way of segregating pupils. Although the groups in the studied classroom were named seemingly neutrally after colours, even these can become a new labelling instrument. This risk can be diminished by changing the colours from time to time arbitrarily and by using other grouping criteria as well. Such a grouping system makes the benefits of flexible grouping permanent while it retains the possibility for true flexibility. Teachers should also be aware of the inconsistency regarding the content of the concept of learning styles. Nevertheless, more research need to be done on the implications of learning styles in elementary school classrooms with all kinds of pupils.

The classroom management system presented in this study is rather demanding, however, for it requires more than one adult to gain the maximum benefits from it. On the other hand, the intention to better meet the diverse needs of all pupils has brought educators together to collaborate (e.g. Kugelmass, 2006). This new situation where several adults are present in a classroom gives teachers new possibilities to organize their classrooms. If the model reduces classroom management problems, it could be a step towards successful inclusion for both pupils and teachers. However, although many problematic situations can be anticipated and prevented by creative solutions to meet the demands of

heterogeneous classrooms, schools need to have sufficient educational resources, such as classroom assistants. Only then will it be possible for teachers to use effective classroom management strategies of the kind observed in this study in heterogeneous classrooms.

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IV

COLLABORATIVE CLASSROOM MANAGEMENT IN A CO-TAUGHT PRIMARY SCHOOL CLASSROOM

by

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ABSTRACT

The purpose of this study was to examine how teachers manage their classroom in co-taught lessons. The data were collected by observing and interviewing a pair of primary school teachers. The most important influence of collaboration on classroom management seemed to be the emotional support of another adult, and the opportunity to use different roles flexibly in the classroom. The results of the empirical research are discussed through comparison with classroom management in solo teaching.

1. Introduction

In the name of inclusion, many countries are re-organizing the education for students with special needs. In practice this means that the general education teachers are facing increasingly diverse groups of pupils in their classrooms. This has led teachers to develop new approaches to teaching, such as co-teaching, in order to support them in their two main tasks: to teach, and to create an orderly learning environment. However, classroom management has mostly been studied in classrooms with only one teacher (e.g. Akin-Little, Little, & Laniti, 2007; Beaman & Wheldall, 2000; Clunies-Ross, Little, & Kienhuis, 2008) and rarely in classrooms with two teachers (Rytivaara, 2011). Thus, research findings on classroom management in co-teaching are few. Thus far the research in the field of co-teaching has tended to focus on teacher thinking rather than on practical classroom management issues. One might assume, nevertheless, that co-teaching could furnish teachers with more tools for coping with situations that one teacher alone may find difficult or problematic. On the other hand, co-teaching raises questions about the different views that teachers may hold on classroom management issues.

The focus of this paper is on classroom management as a shared practice by two teachers working together with a heterogeneous group of pupils, that is, a mixed group of pupils with and without special educational needs. This exploratory study addresses two research questions. First, what were the premises of collaborative classroom management in the studied classroom? Second, how did the teachers collaborate on classroom management during co-taught lessons? This paper reports on data obtained from classroom observations and interviews with the two teachers. The results of the empirical research are then discussed through comparison with classroom management in solo teaching.

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2. Classroom management and inclusive education

The concepts of classroom management, behaviour management and discipline are sometimes used unclearly in the literature. To be precise, only the concepts of behaviour management and discipline are synonymous (e.g. Hoy & Weinstein, 2006). Classroom management, in turn, refers to how a teacher achieves order in his or her classroom, and it has two dimensions: instructional management and behaviour management (Evertson & Weinstein, 2006; Martin & Sass, 2010). Classroom management can be divided into proactive and reactive strategies (Akin-Little et al., 2007). The aim of proactive strategies is to prevent problems in classrooms, and hence such strategies can be seen as a more positive approach to classroom management (Clunies-Ross et al., 2008). In acute classroom situations, teachers tend to use reactive (disciplinary) strategies. In this paper, I use the terms classroom management and discipline as defined above.

The concept of inclusion has become ambiguous for many because of its negligent use during the recent decades (see Howes, Fox, & Davies, 2009; Slee, 2001). This has further influenced practice and research done on the topic, as the term "inclusive education" has often been used simply to refer to a general education setting with children with special needs (e.g. Giangreco & Doyle, 2007; Scruggs, Mastopieri & McDuffie 2007). The two main aspects of pragmatic discourse (Dyson, 1999) provide the starting point for this paper. The first aspect concerns what inclusion means in practice. It is widely held that inclusive education differs notably from traditional education (see also Thomas & Vaughan, 2004). An example of this is inclusive thinking where the possible problems are considered to be caused by the learning environment and not by the pupil. Thus, inclusive thinking is reflection about whether the learning environment supports or hinders a pupil's learning and development. The second aspect concerns the means of inclusion: inclusive education is seen as a result of certain kinds of actions people take. In the context in which the data for this paper were collected, co-teaching a special education class combined with a general education class in order to secure better education for all the pupils, can be considered an example of such an action.

The starting point for most studies on pupil misbehaviour is however that the pupil is the source of the problems. These studies have shown, for example, that although in primary school classrooms the problems tend mainly to be minor, such as talking out of turn and hindering other children, pupil misbehaviour is, nevertheless, one of the main stress factors for teachers (Forlin, 2001; Friedman, 2006; Jacobsson, Pousette, & Thylefors, 2001). The inclusive education framework challenges the traditional way of seeing things also in the field of classroom management. For example, the concept of a "difficult pupil" becomes problematic (Graff, 2009). The wider debate on whether we should talk about individuality and diversity, instead of deviancy, raises the issue of the origin of the problem. Vehmas (2010) points out in his philosophical analysis how "special needs" is actually a negative characterisation of individual differences. In accordance with this, Danforth and Smith (2005) emphasise, furthermore, that teachers ought to see a misbehaving pupil as a whole individual with a variety of experiences, and that the teacher–pupil relationship, the "pedagogical alliance" (p. 5), can be an important source of well-being to the pupil.

Nevertheless, teachers find some pupils more challenging than others. Teachers also regard pupils with behavioural issues as the least welcome in their classrooms (see, for example, Avramidis & Norwich, 2002). A reason for this, perhaps, is that despite the ideals of inclusive education, pupils are often integrated into general education classrooms with no additional resources and with no special training for the teachers. It is understandable, then, that classroom control is an essential, if rather complex, responsibility for educators (Evertson & Weinstein, 2006; Hargreaves, 2000) and that it is even more so in today's heterogeneous classrooms.

3. Teacher collaboration and co-teaching

Three basic co-teaching models exist (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010; Villa, Thousand, & Nevin, 2004). The models differ according to the roles of the teachers. In the first model, one teacher is responsible for teaching and the other teacher assists by, for example, keeping discipline. In the second model, parallel teaching, each teacher has a separate group of pupils. The third model, team teaching, is based on shared responsibility for planning and classroom work. The literature on co-teaching tends to present co-teaching as collaboration between a special education teacher and a general education teacher (for example, Soodak & McCarthy, 2006) but the term can be applied to any pair of educators. However, literature on co-teaching between two teachers with similar education and position at school, in particular, is scarce.

Co-teaching is a demanding but, at best, a rewarding way to work. A metasynthesis of co-teaching (Scruggs et al., 2007) showed that teachers required administrative support (for example, commitment of the teachers and the school principal, and that co-teaching is voluntary), more time for joint planning, and training. The teachers also reported having experienced professional learning regarding co-teaching. A teacher in a study of Weiss and Lloyd (2003) thought that co-teaching can only be successful between colleagues who have same type of teaching philosophy. In general, open communication from the very beginning of the collaboration is essential for successful co-teaching experiences (Trent et al., 2003). This ensures that the responsibilities are shared equally and that both teachers, when necessary, can handle possible unexpected situations in the classroom. Yet, a teacher's work is highly individual and respect for this individuality, in addition to lack of problem-solving skills, can make it difficult for another teacher to express disagreement (Carter, Prater, Jackson & Marchant, 2009). If one can overcome this obstacle, peer teachers can provide each other with strong mental support (Kamens, 2007).

The popularity of co-teaching seems to vary widely. In an American study ($n = 119$) (Damore & Murray, 2009), 19% of the elementary school teachers did co-teaching, whereas in a Finnish study ($n = 117$) (Saloviita & Takala, 2010) 34% of the teachers reported doing co-teaching weekly.

4. Disciplinary strategies and disciplinary styles

There are several strategies for keeping discipline. Some of those mentioned in the literature adopt rather behaviouristic approaches where pupils are taught that their behaviour entails important consequences. It is presumed, then, that pupils learn to adapt their behaviour. This idea, along with some of its main concepts, has been borrowed from classical psychologists, such as Skinner and his model of operant conditioning. For example, in their review article, Landrum and Kauffman (2006) extracted five basic "behavioural operations", that is, disciplinary strategies. They apply the term positive and negative reinforcement to what are generally known as rewards, and they divide punishments into two categories: response-cost punishment and punishment involving the presentation of aversives. Positive reinforcement refers to a situation where a pupil is rewarded by adding a stimulus that the pupil finds pleasant, and negative reinforcement to removing a stimulus that the pupil finds unpleasant. Response-cost punishment refers to removing a positive reinforcement, such as a situation where a pupil has earned a reward and due to his or her misbehaviour, the reward is, wholly or partially, withdrawn. Punishment involving the presentation of aversives includes the kinds of disciplinary strategies that are usually associated with the term "punishment". Aversives vary from mild aversives, such as reprimands or scolding, to very serious and illegal physical aversives such as striking. The last strategy is extinction, which refers to deliberately ignoring pupils in a situation where any kind of response is expected to reinforce problematic behaviour. An example would be talking out of turn where a pupil is actually seeking the teacher's attention. In that situation, the teacher's attention would be a reward to the pupil and thus would maintain the unwanted behaviour.

Lewis and colleagues have classified disciplinary strategies into six categories (Lewis, 2001; Lewis, Romi, Katz, & Qui, 2008). Three of the categories are similar to the strategies presented above. A teacher can, for example, reward or praise individual pupils or the whole class for good behaviour. Punishment includes consequences of various degrees, such as moving a pupil's seat or giving a pupil detention. Aggression refers to shouting at pupils or other similar teacher behaviour. However, three of the categories reflect a different approach to classroom discipline. Discussion can be used both to explain the rules and to allow a pupil to explain and to think about his or her misbehaviour. Involvement, in turn, refers to what extent pupils are involved in making decisions about the rules to be observed in the classroom and suchlike. Non-directive hints form the last category, referring to situations where a teacher drops hints to a pupil that the pupil is not behaving properly.

Teachers have their individual ways of handling problematic situations (Adalsteinsdottir, 2004). Teachers' disciplinary styles have been variously labelled but the content of the three commonly used main categories is the same across researchers (Erden & Wolfgang, 2004; Hoy & Weinstein, 2006; Martin & Sass, 2010). The three categories of styles are based on different learning theories and form a continuum from "Relationship-Listening", also known as noninterventionist, at one end, to "Rules and Consequences" or Interventionist at the other. Between these two extremes is the "Confronting–Contracting", or Interactionist style. Lewis (2001) has renamed these models the Influence model, Control model and Group management model, respectively. The noninterventionist style is the least controlling and is consistent with the constructivist view of learning. Noninterventionists believe that individual pupils need to be listened to and encouraged to find their own way to express their feelings in a socially appropriate manner, whereas the interventionists believe the opposite. The interventionist style is based on the assumption that a pupil learns to behave through reward and punishment. Interactionists, in turn, believe that problem behaviour is due to a contradiction between a pupil's internal needs and the external demands. Teachers' beliefs can include features from several styles, but one style is often dominant.

5. Methods and data

5.1. Context and participants

The study was conducted in a middle-sized primary school located in a growing suburban neighbourhood of an average-sized city with a population 90,000 inhabitants in Finland. The school had slightly over 400 pupils and employed 19 classroom teachers and one special education teacher. The study context was a combined classroom taught by two primary school classroom teachers. The teachers were a female teacher around forty years of age and a male teacher a few years younger. Both had some experience of teaching pupils with special needs from their previous years. The teachers, as is quite usual in Finland, were taking the same group of pupils through primary school, that is, from the first until the sixth grade. Pupils generally start school at the age of seven.

The teachers had amalgamated their classes three years prior to this study. One class was a general education class of 20 pupils (11 boys and 9 girls). The other class was a "small class", that is, a special education class, of 10 pupils (7 boys and 3 girls) with, e.g. behavioural and learning problems. The children, as is usual in Finland, had rather similar, culturally homogeneous backgrounds. Officially, in the records, each class had a teacher, but in practice the class was an amalgamated class with two teachers who shared the responsibility for all 30 pupils. A positive effect of this official feature of the matter was that the teachers, although sharing the pupils, had two classrooms and, owing to the special education class, they had a

permanent assistant. Nevertheless, in this paper, the amalgamated class is referred to as a class. The teachers co-taught half of their weekly lessons; these were all whole-class lessons. In the remaining lessons the pupils studied in small groups which the teachers taught alone.

The research was conducted in two phases with the same two teachers and a very similar group of pupils, and hence the description of the class refers equally to the class taught in each phase. During the first phase, the teachers had a class of sixth-graders. The second phase took place the following year when the teachers had a new amalgamated class of first-graders. The only noteworthy difference between the two otherwise very similar classes was the age of the pupils.

The class under study was found through purposeful sampling, or more accurately, through criterion-based selection (LeCompte & Goetz, 1982; Patton, 1990). Three selection criteria were applied: first, the study had to take place in a mainstream primary school. Second, pupils with special educational needs had to be included in the class. Third, the teacher/s had to have a positive attitude towards working in a heterogeneous classroom.

5.2. Data collection

Primarily, this study was a pragmatic case study of a classroom conducted within a general ethnographic framework (Hammersley & Atkinson, 2007; Hargreaves, 1986; Woods, 1986). I collected the data for this study in authentic classroom situations for 58 days over two school years (grades 6 and 1). The first fieldwork period lasted two months and comprised 33 school days. At that time, the teachers had a sixth-grade class. During this period of general observation, I learned the pedagogical system used by the teachers and gained an overall picture of their classroom management. The fieldwork was continued the following year when the teachers acquired a new class of first graders. The focus on this occasion was on the disciplinary strategies used by the teachers. This second phase of the study comprised 25 school days. The data were mainly collected by observing and interviewing the teachers. My role in the school can best be described by the term moderate participation (Spradley, 1980), although during the lessons I was a passive observer.

In the first fieldwork period, the general information that I recorded in my handwritten notes included the topic of the lesson, possible phases of teaching and different pupil groupings (for example, during small group working), exceptions in the seating order and who was present. In particular, I focused on what the adults were doing, and especially on how the teachers collaborated with each other during the class. In the second fieldwork period, I used a laptop for taking notes in the classroom, and focused more specifically on the discipline in the classroom: I observed the pupils' misbehaviour and how the teachers' acted in those particular situations. Outside the classroom, while in the school, I carried a notebook with me whenever possible. The notebook was more like a diary, but when necessary, I also used it for taking notes. In both phases, I expanded my scribbling every day into proper field notes directly onto a computer. For this paper, the field notes from all the co-taught whole-class lessons, 102 pages altogether, were selected for more detailed analysis.

I conducted five thematic interviews with the teachers to better understand their views on their work. These interviews resulted in 137 pages of transcripts. All the interviews were set up beforehand and conducted after school in a classroom. The themes mostly concerned teaching, team work and classroom practices. In most cases, the questions were very general, such as, "When you're teaching together, how much do think about classroom practices and having a common line and suchlike?" and "How do you see the role of a teacher in your classroom?" The teachers liked to talk about their work and together they often produced very long and wide-ranging answers on varying topics. For this paper, I used the three interviews in which the teachers talked about classroom management. The first two interviews were conducted during the first phase and the third interview during the second phase of the study.

5.3. Data analysis

The data were analysed by ethnographic content analysis. According to Tesch (1990), the aim of ethnographic content analysis is to identify the main elements of the data, which Spradley (1980) calls domains. His system of inductive analysis, which I adopted, comprises three stages: domain analysis, taxonomic analysis and componential analysis. In the *domain analysis*, the both data sets, observation data and the interviews were analyzed. Next, I took the domain "classroom management" for *taxonomic analysis.* The analysis yielded one main category, organisation of team work that included two subcategories: the premises of collaborative classroom management (Section 6.1) and modes of collaborative classroom management (Sections 6.3–6.5). The *componential analysis* of the premises of collaborative classroom management yielded three categories: careful planning, open communication and the common line.

Finally, *componential analysis* was done to examine the teachers' roles in the classroom and thus, only the observation data was analysed further. In the componential analysis, the unit of analysis was an incident where a pupil was doing something she or he was not supposed to be doing, or when a teacher was clearly trying to prevent such misbehaviour. Componential analysis had two phases. The first phase concentrated on pupils' and teachers' actions during each incident whereas the second phase concentrated on teacher collaboration during the same incidents. The pupils' actions were grouped into six categories: not sitting properly, talking out of turn, resistance, school equipment, acting out and physiological needs. Furthermore, the teachers' individual actions were coded into six main categories: Extinction; Recognitions and rewards; Hinting; Discussion; Scolding and reprimands; and Punishments. All the identifications were made from the researcher's perspective. All the categories on a teacher's actions that emerged were identical to those used in previous research (Landrum & Kauffman, 2006; Lewis, 2001; Lewis et al., 2008).

In the second phase of the componential analysis, I analysed the two teacher's collaboration in those situations. In other words, I had already analysed one teacher's actions in each incident in the first phase of the componential analysis; now I looked at the interaction of the teachers during each incident as well as in the course of the lesson. Then, based on the teacher collaboration in each incident, I formed three categories: (1) one teacher is responsible for classroom management, (2) the teachers share responsibility for classroom management, and (3) the teachers share responsibility for both classroom management and teaching.

The quotations in this paper are drawn directly from the data. They have been translated from the original Finnish.

5.4. Ethical considerations

A written informed consent was obtained from all the participants. The teachers volunteered to participate in my research, and the children's parents signed a form which allowed me to collect interview and observation data on their offspring. The teachers and the pupils in the citations from the field notes have been given pseudonyms to protect their anonymity. During the lessons, I tried not to cause any disturbance and in spite of a few short comments from the pupils, I succeeded in this. During recess, I spent time with the pupils and answered their questions about my research when asked. I was especially careful with the first-graders, some of whom were very shy or otherwise sensitive to my presence.

6. The results

First, I will present the premises underlying collaborative classroom management in the studied classroom. Second, to supply the context for the teachers' classroom actions, I will briefly describe the pupil misbehaviour that occurred in the classroom. After that, I will focus on the three models of collaborative practices the teachers used for classroom management in their classroom.

6.1. Sharing the workload: the premises of collaborative classroom management

The first premise was careful planning. The classroom had three permanent adults: two teachers and a classroom assistant. They had been working together for several years, and thus they knew each other well, and they had a clear division of labour. The pedagogical system, created by the teachers, functioned as the basis for their classroom management. The teachers used learning styles as a permanent grouping criterion and these groups were then combined and mixed in various ways for different pedagogical purposes (see Rytivaara, 2011, for more details). When small groups were used, the assistant was often assigned one group. This was of great help in several situations with a class of 30 pupils. However, the teachers carried the main responsibility for instruction. The teachers made their basic teaching plans during their Monday planning sessions after school, but the details and possible re-planning were pondered together by the whole team as needed. Careful planning was essential in managing a heterogeneous class such as theirs.

> T1: We have always emphasised the functionality of the class and in every solution. This is possible because we have more adults. For example, how we go to the cafeteria or to a school party. We always have a system, we never run off headlong anywhere. (Interview 2, 6th grade)

Working in a team played an important role in the teachers' job satisfaction which, in turn, was reflected in the classroom atmosphere. This satisfaction was based on open communication and common line in discipline that the teachers thought helped them to cope with any possible classroom management issues in the classroom. Thus, the second premise for collaborative classroom management was open communication. It was important for them to know that whatever problems they might have they could always share them with each other. I saw this as a sign of trust between the team members.

> T2: We have an excellent system of supervision in everyday situations, so that when problems arise we thrash them out immediately in our team (Interview 1, 6th grade)

The open communication was a very concrete tool for the teachers to use during the lessons. Teachers and pupils work in close interaction with each other in classrooms, and consequently problems in their interaction can cause harm for both parties. In co-teaching, the teachers always had another adult who knew the pupils just as well and who might even have been present when something had happened. When they compared their experiences of teaching together with their experiences of solo teaching, they felt that their roles in keeping discipline were different. One teacher put it thus: "When you're alone, you're stricter." (Field notes 6th grade). One reason for this was that in the co-teaching context a teacher had more options with a misbehaving pupil. When problems occurred in a co-taught lesson, the teachers used the opportunity to allow one of them to withdraw from a situation while the other dealt with it. They had found this a workable solution which benefited both teachers and pupils.

> #01: When we work together, humour is used more and it has to do with this team work and [using humour] has increased. It is related to the fact that a good atmosphere is maintained in the classroom. One doesn't need to grit one's teeth. If one of us finds a pupil irritating then maybe the other doesn't and [the other teacher] can handle the situation more flexibly. (Interview 1, 6th grade)

The last premise was that the teachers agreed on how the class ought to be managed. During one interview, I wondered if the teachers had discussed their tolerance and understanding of pupil misbehaviour, as their attitudes towards it seemed rather similar. The teacher did not agree with my suggestion that their long collaboration had affected their disciplinary styles: "But no, yes, I would say that right from the start [we've taken] much the same line." (Interview 3, 1st grade)

6.2. Pupil misbehaviour

> The topic of the lesson is bullying, and refers to classroom rule number two. Lisa leads the discussion and says she has already heard some talk about bullying. The pupils in turns describe what they consider bullying. The assistant goes over to Juha and helps him to sit properly. Lisa is standing next to the chalkboard, another assistant next to her, and Matt is standing behind Peter. Walter raises his hand and says that Ewan is always taking his cap away from him. Lisa asks if Walter finds that irritating. Walter nods. Lisa notes that now Ewan knows that Walter finds his behaviour irritating and thus it is not allowed. Soon Larry tells the same story about Ewan. Lisa wonders aloud whether Ewan has taken the caps by accident – surely he knows how to behave... Tanja raises her hand: "But the family is the most important thing." Jari points at Walter: "A healthy mouth is the main thing." Larry goes to take a sip of water and gets a remark from Lisa. The assistant stops Jake who is on his way to the sink. Jesse and Walter are playing games with each other and Lisa scolds them. (Field notes, 1st grade)

In the first grade, one of the main challenges for the pupils was to learn the four classroom rules. One rule was "I play with everybody", and the other three rules concerned classroom management: "I put up my hand when I have something to say", "I don't bully others" and "All the adults in the school must be obeyed". In general, rules are a basic proactive strategy that teachers use. Six categories of misbehaviour by first-graders were identified: not sitting properly, talking out of turn, resistance, school equipment, acting out and physiological needs. Not sitting properly meant not sitting still but wandering around the classroom or, for example, sliding under the desk. Talking out of turn included not only talking, but other ways of making a noise, such as singing or drumming on the desk. Resistance was either active or passive: pupils played games with each other during class, or lay on their desks and refused to do assignments or deliberately caused delays. School equipment was also used in ways which suggested that the pupils were ignoring the teachers on purpose, such as when a pupil was seemingly so engrossed in sharpening his pencil that he ignored the teacher's instructions, or when a pupil was playing the piano during a Finnish lesson. Acting out included the kind of behaviour which is considered inappropriate outside as well as inside school. Fighting, bullying and tantrums were included in this category. As a part of learning the school rules, the pupils were expected to learn to adapt their physiological needs – hunger, thirst and suchlike – to the school timetable. This category referred to such problems as leaving one's seat in order to exit the class and use the bathroom, or wanting a drink of water during the class.

School rules can generally be divided into four categories: relational rules, protecting rules, structuring rules and etiquette rules (Thornberg, 2008). The sixth-grade pupils acted according to the relational rules rather well: They neither fought nor bullied each other, and their bodies seemed to be better adapted to the school timetable. However, as with the first-graders, the teachers had continually to remind pupils about the structural rules, such as putting up their hands if they wanted to speak. Sitting still was also very difficult for some pupils. In short, most of the sixth-graders' misbehaviour was in the subcategories "not sitting properly" and "talking out of turn". Alongside these ways of interrupting lessons, the pupils broke the rules of etiquette. They sometimes chewed gum in class, and they still played with pens. In general, it seemed as the first-graders were still adapting themselves, physically and mentally, to the official order of the school while the sixth-graders seemed to be more actively, as I saw it, playing with the rules.

6.3. One to lead the class, one to manage the class

> Matt explains the class that it is easier to do the science project in pairs but that it is ok if somebody wants to do the project alone. Larry is already on his way to get the materials. Lisa: "Not everybody is listening now, it is very important to listen [to the other teacher] now!" Matt is explaining how to draw and print a map. Larry is already leaving the classroom for recess with a football but Lisa tells him to come back, and tells everybody to clear their desks before going out. (Field notes, 6th grade)

This first model was very typically implemented by the teachers. It resembles the co-teaching model, where one teaches while one assists. In this class, the one teacher was responsible for teaching the pupils, while the assisting teacher supported his colleague by monitoring the pupils and, where necessary, issuing additional instructions or working with individual pupils. Despite the division of roles, both teachers retained equal permission to speak to the class. The way the assisting teacher obtained a speech turn was usually very discreet, and yet the teachers never spoke at the same time. They seemed to be listening to each other constantly, and took a turn when the other one was not speaking. Sometimes, however, the principal teacher was so wrapped up in teaching that she or he did not notice that something was wrong. Then, the other teacher might call the first teacher by name to attract his attention or, as in the previous field notes example, simply raised her voice. After she was finished, he continued teaching.

6.4. Doing classroom management together

> [During the previous lesson, some pupils were bagging sweets for the school bazaar.] Matt starts the lesson by informing the pupils that something silly has been done during recess. He talks about the smart sixth-grader. Lisa

> stands next to Peter, her hand on his desk. The pupils should own up to who has been eating or taking candies out of the trash bin. Matt goes on: any pupil who was only watching the incident will not be punished. Lisa talks strictly about how the pupils must believe what the adults say; whatever any of the adults tells them to do or not to do. Lisa continues to explain that they do not usually make a fuss for no reason and they don't tend to fuss in the following school trip either, but when the adults tell them to do something the children must obey. Lisa continues the discussion. The previous day somebody had complained about walking to the church. "But the thing is that we are going to walk." Andy asks if they could walk with a classmate instead of walking in single file, and Lisa says she fully understands the request. The teachers will allow it on the condition that the pupils wait for the teachers before entering the church. Neil: "Is this some kind of a test?" Lisa looks at Matt and asks aloud if they dare and Matt answers that they have to try. More discussion follows about walking properly and not running. (Field notes, 6th grade)

The second model the teachers used for classroom management was based on their shared role as teachers, and it was used most often in general reprimands,[1] like the one presented above. These moments illustrated very well the many means the teachers used, probably unconsciously, to demonstrate the unity of the adults to the pupils. One means for doing this was talking in succession. Sometimes, when facing a new issue to which they had no solution, the teachers negotiated it in front of the class, as happened in the lesson described above. The incident illustrates well the teachers' way of building a truly shared classroom where things can be discussed and where the teachers decide about things together.

Another means was the content of the teacher's speech. In the sixth grade, the pupils knew when they had not been acting like "a smart sixth-grader", which the teachers had nominated the theme of that school year. The result was that the pupils sometimes even asked the teachers to give them a "sermon", a long and thorough general reprimand. The reprimands were strict but also made an appeal. The teachers spent a considerable amount of time on giving the pupils reasons for good behaviour through these reprimands: "everybody would feel better in the class" if the pupils were calmer, and if the pupils kept on being very noisy, "nobody will be able to work in the class". It was noteworthy that the teachers reprimanded the pupils without pre-planning what to say. Although the two teachers did not explicitly discuss their disciplinary styles, they had a shared awareness of when to intervene and how to react. As one teacher said, being "firm but gentle" (interview 3, 1st grade) usually helped, and this was the guideline they both followed with the pupils. Furthermore, as mentioned earlier, the teachers choose a theme for each school year which they then set as a goal for the pupils and use as a reminder of how to behave.

This model, however, did not exclude the possibility of an individual teacher acting independently if necessary. During the reprimand above, Lisa had a second role. As well as talking to the class with Matt, she was standing next to Peter, a very talkative boy. Although the teachers did not talk about their disciplinary styles, they did talk about some pupils and the discipline strategies best suited to them. For example, with Peter the teachers had found that sometimes the best strategy was to sit down next to him because "It's no use scolding him all the time." In addition to the two teachers, the classroom assistant monitored the most demanding pupils, so that it was usually easy to position an adult next to a talkative pupil. The purpose of the mere proximity of an adult was to prevent such a pupil from disturbing the others. Teacher proximity was used quite often and while it did not always keep Peter from talking, he was told to talk quietly to the adult next to him. In the present instance, Peter was not talking, and hence Lisa's gesture might have had no particular purpose. I imagine, however, that she expected comments from Peter during the general discussion and thus her action was preventive in nature.

> [During the beginning of a lesson.] The teachers tell everybody to stand up and to calm down. Lisa scolds Andy while Matt helps Peter who has problems standing up straight. Somebody asks about the results of a running competition and about a biology exam. (Field notes, 6th grade)

Classroom management and discipline demanded a lot of time and effort from the teachers, especially at the beginning of lessons, in both the first and sixth grade. The field notes above illustrate another shared approach by the teachers in keeping discipline. Here, after telling the pupils to stand up, both teachers worked with individual pupils to make them behave properly. The teachers did not negotiate their actions or whether they should have started the actual teaching. At no time did I observe them discussing a general disciplinary policy and yet, they clearly had one.

6.5. *Switching roles flexibly*

> [A group of pupils have gathered around me and my computer behind the classroom. Matt laughs about my new friends.] Finally the pupils calm down and Matt continues explaining the schedule. Perry asks if they are allowed to bring some snacks to school on Wednesday; Lisa answers "We'll see about that". She is next to Ian and helps him to raise his hand at the right moments. Ewan suggests that they could go to the computer class during their craft lesson. The class is restless, so Lisa tells everybody to stand up and exercise for a little while. John is trying to avoid doing the exercises that the teachers are demonstrating in front of the class. Some pupils are having problems with some of the exercises, and so Lisa walks slowly around the classroom with the assistant. Finally, the class gets back on track. Ewan is told to be quiet; Matt positions himself next to Ewan's desk. Lisa talks about the schedule. (Field notes, 1th grade)

[1] The section where Andy and Lisa talk about going to the church is coded as "discussion".

In the third model, the teachers were jointly responsible for both the content of the lesson and for classroom management. This was based on co-planning, which resulted in shared knowledge of the content and the structure of the lesson, and thus allowed them to switch their roles flexibly. Furthermore, co-planning resulted in shared pedagogical leadership, as the field notes show. At any time, without any negotiation, a teacher could take over the other teacher's role. Such role switching took place very smoothly every time because for the teachers it was a routine to which they did not give much thought: "it just goes like that."

> T1: It goes naturally if there is a situation, for example, where we give a sermon, then we don't have to decide turns beforehand
>
> T2: no, we really don't [laughing] (Interview 3, 1st grade)

At the beginning of the lesson, the teachers have clear roles: Matt is teaching and Lisa is responsible for classroom management. However, individual support to pupils is not enough and Lisa decides to interrupt the lesson with an exercise break and Matt follows her lead. After the exercise, the teachers switch roles, Lisa continuing the teaching and Matt helping a pupil. The third classroom rule, "All the adults in the school must be obeyed", had certain implications in a classroom with three adults. The teachers supported each other in every situation and never questioned a decision made by another teacher in front of the pupils. The role switching in the middle of teaching and the change from teaching to an exercise session required no negotiation nor did it trigger any comments from the either teacher. Thus, the teachers showed agreement through their actions, following the principle of equity between adults. My interpretation of this is that the teachers trusted each other's judgement: whatever one of them did or said happened for a reason. These reasons, of course, could have been discussed after the lesson but this never happened.

7. Discussion and conclusions

This study examined classroom management in a co-teaching context. This study added to the basic models of co-teaching (Friend et al., 2010; Villa et al., 2004) by presenting a more detailed analysis of the teacher roles. The focus in the classroom observations was pupil misbehaviour and discipline, but this paper had a wider focus on the teachers' collaborative classroom management practices and their premises. Teachers have two main tasks in the classroom: to manage the classroom and to teach. This study showed that co-teaching allows teachers to divide their main tasks and thus provides the individual teacher with an opportunity to focus on one task at a time. However, what was new to earlier literature on co-teaching (e.g. Kamens, 2007; Trent et al., 2003; Weiss & Lloyd, 2003) was that the two tasks were often mixed in practice. The teachers used three models of collaborative classroom management. The models differed according to the teachers' responsibilities in a classroom situation. In the first model, the teachers had divided their roles for the whole lesson so that one teacher taught and the other managed the classroom; in the second model the teachers shared responsibility for classroom management but not teaching. In the third model, the teachers had not divided their roles in advance but nevertheless shared responsibility for both classroom management and teaching.

Collaboration and co-teaching does not mean that the two teachers rely on each other every moment. On the contrary, the flexible use of different roles suggests that the teachers studied here were at the level of true team teaching (Villa et al., 2004), with equal roles in relation to both the pupils and each other. Their classroom practice together with their experience of collaboration indicated mutual trust and respect, which are necessary conditions for successful teacher collaboration. Furthermore, there was a delicate harmony between a single teacher's actions and her or his awareness of the other's actions. This harmony suggests that the teachers' actions were based on shared understanding of, for example, the goals and means of classroom management. What was particularly interesting was that this shared understanding had not been explicitly discussed. The teachers thought it might have been there from the beginning. This indicates a need for further research to examine in more detail if some teachers feel the opposite that creating a shared disciplinary policy of this kind needs a lot of effort. Although the four classroom rules were expressions of this shared understanding, and as such, necessary for the pupils, the framework for classroom management and good behaviour was constructed in the everyday interaction between the two teachers and the pupils. In this, the unity of the teachers had a significant role and it was constructed in various ways.

The clear casting of the first model is easy for teachers, and this model could also be used with a teacher and a classroom assistant. In such a situation, however, the roles would be fixed since the assistant would not be officially competent to take the responsibility for teaching. In the co-teaching context, however, the teachers are able to take different roles rather flexibly. This is preferable because if the roles are not switched from time to time, the danger exists that one teacher, or the assistant, becomes labelled as the keeper of discipline, which is not necessarily a favourable position from the viewpoint of either individual pupils or the teacher. A reason for this is that while the concept of a "difficult pupil" is problematic (Graff, 2009) teachers tend to consider some pupils more challenging than others. Although the discipline strategies of the teachers were not the prime focus of this study, the use of an adult's presence to support pupil behaviour, as exemplified above, is worth noting. The teachers felt that this very simple strategy worked well. Such flexible use of adults to support pupils with behavioural problems is a rather positive alternative to a personal assistant whose presence can even be exclusionary (Rose, 2001). In an ordinary classroom with only one adult it is often difficult to use, whereas in a co-teaching context it is easy to apply. Thus, it can be concluded that in co-teaching, in addition to taking pupils' characteristics into account (Evertson &

Weinstein, 2006), the teachers may have the possibility to also take their own characteristics into account because they have the possibility to withdraw from a difficult, or even frustrating, situation and call for another teacher to take over.

This study shows that classroom management is a significant part of teachers' work and that sharing the workload supports teachers' well-being. Sharing means, however, that co-teachers' roles are not permanently assigned but that both teachers participate in both management and teaching tasks. Another interesting notion is that working with a challenging pupil is easier in a co-teaching situation, even if both teachers are general educators. This suggests that sometimes the special needs of pupils of this kind are, in fact, only a need for increased adult attention and do not require a special needs teacher. However, for some teachers sharing their work might be a challenge. In co-teaching, instead of sending a pupil to receive special education outside the classroom, the situation will be handled by one teacher in front of another. Thus, in a co-teaching situation a teacher is continuously exposed, consciously or unconsciously, to another teachers' presence and thus, can never hide his or her actions in the classroom. Therefore, co-teaching can be a fruitful environment for personal and professional learning.

In sum, the results of this study suggest that in the co-teaching context behavioural problems do not necessarily become as easily associated with individual pupils, simply because there is more than one adult in the classroom who can assist in handling disruptive situations. Less emphasis on individual pupil–teacher relationships may also mean better teacher–pupil interaction. Thus, the most significant benefit of collaboration seems to be the emotional support of another adult, which probably resulted in the high tolerance of small disruptions observed in this study. These results are supported by an earlier study by (Pfeifer & Holtappels, 2008).

As has been concluded previously (Akin-Little et al., 2007; Lewis, Romi, Qui, & Katz, 2005), understanding classroom discipline across cultures is not an easy task. Similarly, the specific cultural and pedagogical context is a crucial factor when examining teachers' classroom management methods. The classroom studied here differs from an ordinary Western classroom in several ways. First, it had three adults instead of only one. Second, both of the studied classes in fact comprised two classes one of which was a special education class. In Finland, these classes can have a maximum of ten pupils and therefore the total number of pupils in the amalgamated classes was very reasonable. Third, boys comprised two-thirds of the pupils in both classes. This may have had impact on the classroom life in general. Fourth, Finnish school system, where teachers spend several years with the same group of pupils, supports teachers' efforts to create and modify a classroom management system to suit the needs of a particular class.

This study was exploratory in nature and shows that there is need for more research in similar classrooms with more than one adult present. Future studies could seek to overcome, some of the methodological limitations of this study. First, the coding procedures used in this study concerned only events including obvious or expected misbehaviour, while positive events such as praise were not included. Therefore, no conclusions can be drawn about the extent to which the teachers used praise, for example, in their classroom. Second, the use of video cameras would have allowed more detailed analysis of the interaction between the pupils and the teachers and between the two teachers, and enabled closer examination of the teachers' disciplinary styles. Despite these limitations, however, this study contributes to our understanding about collaborative classroom management in classroom situations and, thus may positively influence teachers' attitudes towards teaching in a heterogeneous classroom.

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