

Does teachers' ordinary daily teamwork support teacher learning and organizational learning?

Lise Tingleff Nielsen, PhD. student, DOCSOL, Learning Lab Denmark, School of Education, University of Aarhus¹

ABSTRACT

This paper presents a survey study attempting to shed light on to what extent ordinary daily teamwork (in schools) contains activities, presumed to support professionals' (here: schoolteachers') opportunities to challenge and change their own practice. Thirteen primary schools served as the population for this study. 403 teachers and educators answered the questionnaire. The paper concludes that ordinary daily team meetings do not offer many possibilities to look at, talk about, reflect on and work with teaching practice. Talk about a 'few specific pupils', 'social problems in the classroom', 'disciplinary problems' and 'practical matters' occupy most of the meetings. A conclusion may be that ordinary daily collaboration in teams contributes to teachers work with important and necessary conditions for *doing* teaching but not for *developing* teaching. In the paper these findings are discussed and it is suggested that the relation between teamwork, teacher learning and organizational learning could be a relevant topic of further research.

1. INTRODUCTION

Teacher collaboration (teamwork) has, just like in many other western countries, been introduced in almost every school in Denmark. Teamwork has many purposes in practice. Regarding professional and organizational development, teamwork in schools is often seen as a way to support *organizational learning processes*, i.e. a simultaneous development of individual and organization (Elkjær 2005; Elkjær & Wahlgren 2006). The ideal is, that the constructive experiences teachers acquire during team collaboration, should improve classroom practice and become deeply rooted in the organizational actions (Argyris & Schön 1996).

But how does that ideal look in practice? Does teachers' ordinary teamwork support teacher learning and organizational learning? This is the research interest of the project underlying this paper. Imants and colleagues have done studies indicating, that the relations between conditions of organizational learning and 'professional communities' are weak (2001), but still we know very little about this. The purpose of this paper is to shed light on to what extent ordinary daily teamwork – and not a special or ideal sort of teamwork – contains activities that we, with reference to earlier research and primary assumptions about 'learning', must expect to support professionals' (here: schoolteachers') opportunities to challenge and change their own practice.

This paper is based on a 'work in progress'. The analysis and findings presented here are thus the very first step in a research project containing both survey data and data from interviews and case studies.

¹ Lise Tingleff Nielsen, DOCSOL, Learning Lab Denmark, University of Aarhus, Tuborgvej 164, DK 2400 København NV, Phone: +45 8888 9923, Email: litn@dpu.dk

2. TEAM COLLABORATION

2.1 The learning possibilities of team collaboration

What do we know about teachers' learning in teams? A major part of the research literature on 'teacher collaboration', 'teachers' professional communities' and 'teachers' learning communities agrees on at least two points: First, bringing teachers together does not assure reflection and learning and secondly, learning in teams does not necessarily lead to improvement of teaching in classrooms (e.g. Bryk et al. 1999). Several research projects however indicate that collaboration in teams *could* be an important resource for teachers' professional development and for improving teaching in classrooms. (Louis et al. 1996; Louis & Marks 1998; Wilson & Berne 1999; Grossman et al. 2001; Andrews & Lewis 2002; Elwood & Klenowski 2002; Lieberman & Wood 2002; Little 2003; Minnett 2003; Snow-Geron 2005; McLaughlin & Talbert 2006; Goddard & Tschannen-Moran 2007; Henkin et al. 2007; Hindin et al. 2007; Plauborg et al. 2007).

Louis and colleagues (Louis et al. 1996; Louis & Marks 1998) have conducted large-scale studies across 24 schools. They showed that 'teacher professional community' characterized as a deprivatized practice (containing among other things: peer coaching, teamed teaching and structured classroom observations), support what they defined as 'organizing classrooms for learning' and 'academic performance of students'. One of their conclusions was that professional communities create a context for teachers' collective engagement in sustained efforts to improve practice.

The kind of team collaboration which seems to have a favourable effect on teachers' insight into the learning processes of pupils, and thereby *probably* also of significance for the development of teachers' teaching practice, is described as 'joint work' (Little 1990; Little 1999). It is a sort of team collaboration, where to a greater or lesser extent planning, implementation and evaluation of teaching is a joint affair. The teachers collectively question their own teaching routines, examine new conceptions of teaching and learning and engage in an ongoing dialogue about the quality of the pupils' work and products (Stokes 2001; Little 2003; Minnett 2003; Snow-Geron 2005).

In a study focusing not only on teachers self-reported experiences of learning, but also on the researchers' analysis of both interviews, meetings and classroom practice, Hindin et al (2007) support these findings. In their study they showed, that teachers' joint reflection on experienced classroom practice – and not only on planning – seems to have a positive impact on teacher learning. It's however important to notice, that Hindin et al also found, that the teachers, participating in the study, varied dramatically in extend and kind of teaching experience they brought into the group. The two teachers, who had developed most expertise in a new way of teaching, tended for instance, not to describe their practices at teacher meetings. These findings support the conclusion that collaboration in teams has the potential to challenge and develop teachers' professional competences, but also that the dialogue in the group not necessarily reflects the current practice.

With reference to Louis and Marks (1998) and based on their own research McLaughlin & Talbert among other things add, that teacher learning is supported when teachers get the opportunity to focus on instruction and student learning *specific to the settings* in

which they teach and when they get opportunities to collaborate with colleagues inside and outside the school (Talbert & McLaughlin 2002; McLaughlin & Talbert 2006). Lieberman & Miller (2000) also point out, that professional communities and teachers' work with authentic problems (i.e. work with specific questions about teaching and learning) can support teacher learning. They stress the difficulty of changing teaching practice. It may take a long a time and require room for experiments, which means room for trying new ways of teaching and time to *reflect* upon it.

Imants (2001) underlines, that reflection should not be regarded as a positive means for professional development per se. Recurrent practices show how teachers are "encouraged for the most part, to focus their reflections inwardly at their own teaching and on their students, to the neglect of any consideration of the social conditions of schooling that influence their work in the classroom. This individualistic bias makes it less likely that teachers will be able to confront and transform those structural aspects of their work which hinder their accomplishment of their educational mission." (Zeichner 1993 after Imants et al. 2001). To be effective, reflection should therefore be inquiry or data based. Reflection should also be a social activity in order to challenge underlying assumptions.

To sum up: A number of studies indicate that teacher collaboration, where teachers collectively question their own teaching routines, examine new conceptions of teaching and learning and engage in an ongoing dialogue about the quality of the pupils' work and products, may have a positive impact on teacher learning. The path between teacher collaboration, professional development and instructional improvement (organizational learning) is however not a direct one. One of the reasons might be, that professional activities and norms within a school can be oriented towards a variety of purposes, from which instructional improvements just happen to be one of the options.

2.2 Team collaboration in Danish schools

The perspective of the project is a more general understanding of the relations between team collaboration practices, teaching practices in the classroom and organizational learning processes. But since the research context is 'schools in Denmark' here follows a brief introduction to experiences with teachers' teamwork in Denmark.

Danish teachers usually teach individually, but are at the same time very often organized in teams where a group of teachers (representing different subjects) share responsibility for teaching and social matters in a specific group of pupils. An argument for using teams as a widespread form of organization are among others that it "can ensure a unified teaching plan, which considers the learning and development of the individual pupil"² (Undervisningsministeriet 1998). In addition to this, a key argument for establishing team collaboration is that it can help create a stimulating work environment and increase exchange of experiences by the participating teachers. Finally, team collaboration is, as mentioned above, often established on the grounds that it promotes a more modern and development-oriented school culture supporting teacher learning and organizational learning.

It's a common practice in Danish schools that the school leaders expect the teams to meet on a regular basis to talk about instruction, practical matters, pedagogical challenges, social and disciplinary problems among the pupils etc. Experiences from

² translated by the author

collaboration with teams however reflect many different kinds of team collaboration. Some teams are just two persons dealing with joint planning instruction and evaluation of nearly all teaching in one class in second grade. Other teams are made up of 12 teachers meeting twice a year discussing social problems in one department of the school. Another team could be five teachers on fifth grade meeting one or two times a month to coordinate practical matters and talk about pupils with certain problems.

2.3 Special and ordinary daily teamwork

It is important to notice, that a major part of the referred literature dealing with 'teacher collaboration', 'teachers' professional communities' and 'teachers' learning communities' focuses on '*special*' collaborative settings. That is, groups of teachers created because of the particular research project (e.g. study groups) or teams of teachers with a special interest in their own professional development (Grossman et al. 2001; Andrews & Lewis 2002; Elwood & Klenowski 2002; Little 2002; Little 2003; Snow-Gerono 2005).

This paper argues that these kinds of *special* teamwork differ from what you could call *ordinary daily teamwork*. Ordinary daily teamwork, in Denmark, could be defined as the mandatory form of team organization which, generally speaking, all Danish teachers must take part in. The ordinary daily teamwork is designed because the teachers in the team share responsibility for teaching and for social and practical matters in relation to a specific group of pupils. The ordinary sort of teamwork does not necessarily have an explicit purpose or do not necessarily concentrate on a specific pedagogical interest or challenge. In ordinary daily teamwork, teachers work together, because of their qualifications in relation to specific subjects. It's important to be aware, that the teams reside within ordinary daily work and do not necessarily have a particular focus on professional growth, inquiry or joint examination of problems of teaching practice. When we only look at *special* teamwork, we easily paint a too rosy picture. Ordinary daily teamwork has to cope with a lot of every day tasks and a lot of practical problems in relation to organizing teaching, therefore one can not just assume daily teamwork to be concentrated on pedagogical reflection and improvement of teaching. Like Hargreaves pointed in (1994) and with references to every day experiences we may presume that also in Denmark a large proportion of the team collaborations, are primarily concerned with coordination of tasks, practical organization and exchange of tips and ideas and not with a joint undertaking of the planning, implementation and evaluation of teaching (Hargreaves 1994).

The obvious question to practice is whether *ordinary* daily teamwork offers opportunities to support organizational learning? With reference to Imants *organizational learning* is in this paper regarded as the process and result of organised and collective reflection and work on teaching and learning in the school (Imants et al. 2001). An example of 'a result of collective reflection and work on teaching and learning' could obviously be improving of teaching practice. The question, in other words, is thus: Is the *ordinary* daily sort of team collaboration an opportunity for the *school's* development of a pedagogical practice that supports both teacher learning and improvement of the pedagogical practice of the school?

2.4 Opportunities for teacher learning in ordinary daily teamwork

The underlined question above is the focus of the *research project* underlying this paper. The *survey* described in the succeeding paragraphs aiming to shed light on one dimension of the question. The research project is based on an understanding of

learning as a social activity, which is both situated and determined by the actual historical and social context (Leontjev 1975/2002). The survey is only able to grab the teachers' interpretation of what they did on their last team meeting – it can not capture the complex set of learning opportunities (and difficulties) in the school as an organizational setting. Therefore it only offers a preview of the examination of whether collaboration in ordinary teams has the opportunity to support organizational learning. The follow-up will be a more exhaustive case study containing observations and interviews.

With references to the literature on teachers' learning in professional communities the survey is based on the following assumptions:

- If teachers jointly *look at, talk about, reflect on and work with their teaching practice*, it means; if teachers in a team share planning, implementation and evaluation, and if teachers question their own teaching routines, examine new conceptions of teaching and reflect on the quality of the pupils work and products, it will not *automatically* induce teacher learning or improvement of teaching.
- But if teachers jointly *look at, talk about, reflect on and work with their teaching practice* it will be much more *probable* that the teachers will develop their teaching competences and the school will develop better conditions for teaching and learning.

The questionnaire therefore asks to *activities* done on team meetings in order to focus on to what extend teachers, at their team meetings, *look at, talk about, reflect on and work with their teaching practice*. It asks whether or not planning, implementation and reflecting upon teaching is a shared practice in Danish teachers' ordinary daily teamwork. It also sheds light on to what extend ordinary teamwork offers opportunity to question teaching routines, examine new conceptions of teaching and learning and engage teachers in an ongoing dialogue about the quality of the pupils' work. Finally it aims to capture other activities possibly dominating the team meetings.

3. METHOD

3.1 Participants in the survey

The survey includes every school in two Danish municipalities, a total of 16 schools: Nine schools in the first municipality and seven in the other. The survey encompasses every employee who does teaching work. That is, every teacher and those educators³ involved in teaching in the early grades. The participating schools represent both small village schools doing only 0-6th grade teaching and larger city schools doing 0-9th grade teaching (that is, with pupils aged 6-15 years). Four of the 16 schools are small with less than 25 teachers, while the other 12 schools are 'normal-sized' with between 40 and 60 employees doing teaching. At deadline for this paper, 13 of the 16 schools had completed the survey in the period January - March 2008. The remaining three schools are scheduled to complete the survey in April 2008.

³ 'Educators' here mean (social) educators/'pedagogues' (In Danish: pædagoger) working in the schools' after-school center (In Danish: SFO, Skolefritidsordning). All the participating educators do some lessons of teaching in the early grades.

3.2 The practical ways of the survey

The practical work with the survey (visiting the schools, making them fulfil the questionnaire) has been done by visiting the teachers at already planned staff meetings where everybody was (supposed to be) present. It was done by first introducing them to the ideas of the research project, then handling out the questionnaire and during the fill-out I was present in case of misunderstandings or questions related to the intentions and ideas in the questionnaire. When completed, I collected the questionnaires and those not present at the meeting were registered in order for them to get a questionnaire sent home for them to fulfil. The analysis of the questionnaires was then done by entering the data in SAS 9.1 and using SAS Enterprise Guide. So far, only simple frequency analysis has been made on the data set.

3.3 The construction of questions in the questionnaire

This paper reflects the part of the questionnaire where focus is on activities done on the latest team meeting. That is, the questions asked in this part of the questionnaire, seeks to capture what practical doings the team did on their meeting.

The questions have been constructed on the basis of semi-structured interviews. Seven different interviews were done - five single interviews with one teacher each and two team interviews. The purpose of the interviews was to get descriptions of experiences with teamwork and to learn more about typical practical activities during team meetings. It was then possible to make a list of the most possible activities during team meetings. Added to this list were also my own experiences from participating in various team meetings. Last was added some activities presumed – to a greater or less extend – to provide opportunity to *look at, talk about, reflect on and work with teaching practice*. Regarding this last category, the questions asked were:

	Yes	No	Don't know
5.11 At the last team meeting we planned a course with project work, a course focusing on a specific subject or the like			
5.15 At the last team meeting we planned some of the activities for the next course			
5.29 At the last team meeting we discussed pedagogical issues			
5.30 At the last team meeting we talked about some of the problems and challenges I experience in my teaching			
5.32 At the last team meeting we did a <i>first hand</i> evaluation of some part of our teachings			
5.33 At the last team meeting we did a <i>systematic</i> evaluation of a course			
5.40 At the last team meeting we <i>talked about</i> how to improve our teaching by doing new ways of teaching			
5.41 At the last team meeting <i>we worked thoroughly</i> on how to improve our teaching by trying new ways of teaching			

5.43 At the last team meeting we talked about strengths and weaknesses we have noticed – <i>by teaching together</i> – in each others teaching			
5.44 At the last team meeting we talked about strengths and weaknesses we have noticed – <i>by observing</i> – in each others teaching			
5.47 At the last team meeting we did an evaluation of some of the products made by pupils			
5.48 At the last team meeting we did an evaluation of some of the pupils' work processes			

Table 1 Part from questionnaire: Activities presumed to provide opportunity to *look at, talk about, reflect on and work with teaching practice*

A total of 42 questions have been listed in Appendix 1. The idea with the 42 questions was to map what *activities* teachers do during team meetings – *without* asking them to come up with categories themselves. At the same time, this method also tries to rule out the risk of falling in to the survey-pit of uncertain self-written answers and the following uncertain conclusions.

The questions in the questionnaire were pointed at the most recent team-meeting. This was done with reference to various research in the act of getting the most precise responses to questionnaires (Fowler 1993; Olsen 2005). More general questions like "How often do you do..." would most likely produce too uncertain and unspecific answers from the respondents compared to questions with a specific meeting in mind.

4. RESULTS

The survey has been completed on 13 different Danish public schools. 403 teachers/educators have completed the questionnaire. 70% are women. 30% are men. The average response rate is 83 %. Considering the participation of all schools in two municipalities, and the fact that all teachers and educators, attending already planned meetings, have completed the questionnaire, it must be assumed that it is highly random who did not complete the questionnaire.

A frequency analysis of the part of the questionnaire asking questions about possible activities during team meetings has been done. A complete list of the frequency table can be seen in Appendix 1. A Frequency of (for instance) 78% means that 78% of the asked teachers/educators have answered "yes" to the current question (see Table 2).

The five most frequent activities are listed in Table 2:

Activity	Frequency
5.25 At the last team meeting we talked about a few specific pupils	78 %
5.16 At the last team meeting we exchanged information	77 %
5.17 At the last team meeting we talked about disciplinary problems	68 %

5.23 At the last team meeting we talked about social problems in the classroom	67 %
5.18 At the last team meeting we coordinated practical matters	63 %

Table 2 Most frequent activities

Social and disciplinary problems occupy most of the meetings: Table 2 shows that talk about a 'few specific pupils', 'social problems in the classroom' and 'disciplinary problems' happens between 67 % and 78 % of the team meetings contained in this survey. These answers are consistent with immediate comments about team collaboration, collected through interviews and from the visits done on all 13 schools. The teachers and the educators for instance told that social problems with some pupils or entire classes take up a lot of team-time.

Practical matters and exchange of information occupy a lot of the meetings: Second to the very frequent talks about social and disciplinary-related matters, we find team meetings occupied with practical issues (Table 2). To 'exchange information' has a frequency of 77 % while 'to coordinate practical matters' has a frequency of 63 %. Such answers paint a picture of teams as primary a forum for coordinating and handling daily doings in the context of handling upcoming lessons.

Systematic evaluation and development of teaching practice occupy very few meetings: Five of the activities characterized above as activities that cause possibility to *look at, talk about, reflect on and work with teaching practice* (Table 1) happens at below 12% of the meetings.

Activity	Frequency
5.41 At the last team meeting we worked thoroughly on how to improve our teaching by trying new ways of teaching	11 %
5.47 At the last team meeting we did an evaluation of some of the products made by pupils	11 %
5.43 At the last team meeting we talked about strengths and weaknesses we have noticed – by teaching together – in each others teaching	9 %
5.44 At the last team meeting we talked about strengths and weaknesses we have noticed – by observing – in each others teaching	5 %
5.33 At the last team meeting we did a systematic evaluation of a course	4 %

Table 3 Less frequent activities of 'Activities presumed to provide opportunity to *look at, talk about, reflect on and work with teaching practice*'

The results from the survey indicate that structured team-doings such as; look at, talk about, reflect on and work with teaching practice (e.g. evaluation of a concrete session and processing of systematic observations in class) are those done less (Table 3). In other words, activities referred to in literature as having the highest impact on teacher learning and changing of classroom practice, are those done less.

Less systematic pedagogical discussions and more rough evaluations occupy some meetings: The fact that systematic work to develop teaching practice is not a dominating

activity at the team meetings, does *not* mean, that actions such as working with pedagogical issues are absent from the meetings. The answers in Table 4 indicate that between 26 % and 47 % of the teachers/educators have been occupied doing joint planning of teaching or more spontaneous evaluation of some previous sessions.

Activity	Frequency
5.15 At the last team meeting we planned some of the activities for the next course	47 %
5.30 At the last team meeting we talked about some of the problems and challenges I experience in my teaching	44 %
5.29 At the last team meeting we discussed pedagogical issues	43 %
5.48 At the last team meeting we did an evaluation of some of the pupils' work processes	43 %
5.11 At the last team meeting we planned a course with project work, a course focusing on a specific subject or the like	42 %
5.32 At the last team meeting we did a <i>first hand</i> evaluation of some part of our teachings	29 %
5.40 At the last team meeting we <i>talked about</i> how to improve our teaching by doing new ways of teaching	26 %

Table 4 Frequency of other activities presumed to provide opportunity to *look at, talk about, reflect on and work with teaching practice'*

In addition to questions related to activities during team meetings, the questionnaire also asked questions seeking to capture the teachers' evaluation of their current team collaboration. From this, it is relevant to emphasise the following:

Activity	Do not agree ↔ Agree					
	No answer	1	2	3	4	5
6.01 I am content with the collaboration in the team	5 %	2 %	9 %	19 %	31 %	34 %
6.02 Our team does collaboration well	5 %	2 %	7 %	17 %	32 %	37 %

Table 5 Evaluation of team collaboration

In Table 5 it can be seen that the major part of the teachers and educators consulted, are satisfied with their teamwork and the way it works. Around 84 % (19+31+34) were to a lesser or greater extent contented with their current team collaboration, and 88 % stated that they would join team collaboration even if they didn't have to⁴. Several answers to

⁴ Not shown in table

the open question in the end of the survey; "Other comments?" support this. Typical answers thus point to teamwork as seen as a valuable part of the job. This finding concurs with a survey indicating that 75% of teachers in Denmark find their teamwork to work very well (Christiansen & Larsen 2007).

5. DISCUSSION AND CONCLUSIONS

5.1 Possibilities of learning and improvement of practice

On the basis of the results illustrated above it is possible to summarize: Teachers are generally seen contented with their teamwork. *Ordinary daily* team meetings (picked randomly from the sample of 13 schools used here), however do not offer many possibilities for the teachers / educators to look at, talk about, reflect on and work with teaching practice. Or put in other words: According to the respondents, their team meetings do not leave much room for collective reflection on teaching and learning and related improvement of e.g. teaching practice (organizational learning). In addition to this, it is possible to sum up the team's use of time as dominated by discussing social and disciplinary issues and as a forum for practical coordination and task-solving. A conclusion may be that ordinary daily collaboration in teams contributes to teachers work with important and necessary conditions for *doing* teaching but not for *developing* teaching.

In this way there seems to be a mismatch between the idealistic purpose of the way of organising schools in teams and the ordinary daily practice of teachers' team collaboration. These findings are not surprising, since they correspond to daily experience from working together with various teams. The findings of the survey thus underpin some of the presented presumptions of teachers' ordinary daily teamwork and prepare the ground for new questions and further research:

Why does ordinary daily teamwork offer so few possibilities to look at, talk about, reflect on and work with teaching practice? The current survey does not shed light on this question. Visits on the participating schools and some of the preliminary interviews however gave rise to some interesting reflections:

One of the reasons why team meetings do not leave much room for systematic work to evaluate and improve teaching practice, apparently comes from the fact that social and disciplinary matters take up the time. The immediate explanation to this, according to the respondents, is their need for opportunities to share difficult challenges with each other - in particular disciplinary troubles or dealings with children with social related problems. Such troubles put challenges to both the personal and the professional competences of the teacher, who needs the team for subsequent processing and discussions. By example, some teachers illustrate how working with a particular class presents many social and disciplinary challenges where immediate actions are required like making rules of order, taking contact to parents, social authorities and the like.

The teachers'/educators' explanations underline an important characteristic: The team is – in practice – not first and foremost a forum for pedagogical inquiry and teacher learning. It's to a great extent an important forum for collegial support (and maybe that's why so many teachers stress the positive impact of team collaboration). The finding that 'the social and disciplinary problems' occupy the meetings also reflects that teaching in practice is a matter of being able to tackling social and disciplinary challenges.

The interviews done with different teams brings forth another issue capable of putting the results from the survey into perspective: Some teachers mention that to reflect on a specific teaching practice or maybe complete a more systematic evaluation of a course is not necessarily a meaningful doing in everyday working life. One reason is the teacher's position as a 'Lone Ranger' doing teaching by herself – a teacher does not *need* to know or share the daily teaching practice with each other. Another reason is that they don't see the need for systematic reflection in practice. "We do evaluation by ourselves all the times", some teachers say and continues: "doing joint evaluation often seems artificial". In the light of this, it can be constructive to further investigate why many teachers do not see the team as a forum for focused learning. What do the teachers then experience as valuable doings? How well is the school going on as a context for teacher learning?

Some teams mention their meetings very often are dominated by tasks or challenges related to collegial matters, and so they do not have the necessary time to do joint planning and reflection they way they would like to. Some teams experience heavily loaded agendas, where many issues need taking care of *before* focused work with teaching practice can be commenced. As an example of this, the team may have to discuss proposals from the headmaster, write an information-letter to parents or plan the next Halloween party. Further on, some teams also have to do schedule planning – an action that may be further troubled by periods with many new colleagues or colleagues just returned from sick leave due to stress. In this context the many different challenges of the team comes into light and shows how challenges related to colleague matters may stand in the way of handling matters related to pedagogical issues. In addition to this, some team point out the difficulty of working with a concrete teaching practice when the team faces problems in relation to leadership and organization of the meetings: Who, by example, has the competence / authority to put a systematic evaluation of a course into the daily agenda?

In connection with the above mentioned it is worth to emphasise that pedagogical issues not necessarily are absent from team meetings (according to the survey). Joint planning regarding practical matters and pedagogical discussions in general terms do happen - maybe because doing pedagogical discussions on a general level happens to be easier to do - compared to structured discussions with ground in specific situations - or there may be other explanations. The fact that the survey shows pedagogical discussions do happen, but only on the general level, give rise to the following questions: Which actions and themes for discussion are recognized as acceptable according to the 'school-culture'? What influence would a more systematic approach to look at, talk about, reflect on and work with teaching practice have on a teacher's handling of the daily teaching job? To do research on these topics, it becomes relevant to look in general at the impact of team collaboration on the school as an organization:

How does team collaboration influence practice – when looked at in general?

If ordinary daily collaboration in teams happens *not to be* the dominating source of a determined way to improve teachers' competences and school practice, what is then the function of doing teamwork? Is it just a chance to get-together? Or does it the opposite, divide teachers in groups without contact? What is the impact of teamwork on the teachers' and the school's working environment?

What influence does team collaboration have on teacher's continued learning and on organizational learning? The results from the survey point in the direction of team collaboration as *not* having the dominating effect in the processes of teacher's continued

learning. With reference to social learning theories, where learning is characterized as participation (Lave & Wenger 1991) there is no doubt, that some sort of learning does happen during teamwork. The question is however what the influence and product of this learning happens to be. What is of importance and relevance? As McDermott puts it: 'Learning is in the relationships between people. Learning in the conditions that bring people together and organize a point of contact that allows for particular pieces of information to take on a relevance...' (MacDermott after Murphy 1999).

Could you imagine learning in teams to be a limiting factor when the aim is to stimulate the teachers' asking of reflective questions to practice? Or could you imagine the effect of the team to either preserve or favour certain cultural recognized approaches to teaching practice? To investigate such questions become significant when need be for a more precise answer to the relation between teamwork, teacher's learning and the development of organizational conditions and practices (organizational learning).

5.2 Reflections on the survey method

One of the most apparent biases in the survey comes from the fact that the questionnaire only targets one out of several possible team meetings. The reason for this design though is, as mentioned earlier, to avoid too many generalisations or unintended too positive assessments. The drawback to this method is – among others – that you cannot know how typical the particular meeting referred to, is. Is it a 'one in a million' meeting, or does the actions stated by the teacher fulfilling the questionnaire, happens often? This bias is also why no unifying assessment of the level of teamwork on each school will be made. The results are viewed as snapshots – temperature-measurements of team collaboration in Denmark on a random picked day.

Another circumstance that could influence the analysis and interpretation of the survey data is the fact that the questionnaire only targets formal established meetings in the team. The informal team collaboration not put into system by formal meetings has not been covered in this study. In addition to this bias, a questionnaire can for good reasons only capture the way the respondents experience what they were doing on a specific meeting. Again it is therefore important to emphasize that the findings described here only has the capability to shed light on *some aspects* of activities during ordinary daily teams' meetings. The survey data has the potential to put into focus some patterns of dominating team activities when viewed across the 13 participating schools, but it is necessary to supplement these preliminary results with the more vary findings from the upcoming observation study.

7. APPENDIX

Appendix 1

Activity	Frequency
5.25 At the last team meeting we talked about a few specific pupils	78 %
5.16 At the last team meeting we exchanged information	77 %
5.17 At the last team meeting we talked about disciplinary problems	68 %
5.23 At the last team meeting we talked about social problems in the classroom	67 %

5.18 At the last team meeting we coordinated practical matters	63 %
5.13 At the last team meeting we talked about the latest teaching sessions	58 %
5.26 At the last team meeting we talked about (some of) the pupils' families and their social background	58 %
5.37 At the last team meeting we talked about meetings with parents	50 %
5.15 At the last team meeting we planned some of the activities for the next course	47 %
5.20 At the last team meeting we talked about our rules of order	45 %
5.30 At the last team meeting we talked about some of the problems and challenges I experience in my teaching	44 %
5.29 At the last team meeting we discussed pedagogical issues	43 %
5.31 At the last team meeting we talked about our attitudes to the work with the class / classes	43 %
5.48 At the last team meeting we did an evaluation of some of the pupils' work processes	43 %
5.11 At the last team meeting we planned a course with project work, a course focusing on a specific subject or the like	42 %
5.35 At the last team meeting I learned from my colleagues' experiences	41 %
5.22 At the last team meeting we inspired each other in relation to teaching practice	35 %
5.36 At the last team meeting we formulated social teaching goals	31 %
5.32 At the last team meeting we did a <i>first hand</i> evaluation of some part of our teachings	29 %
5.42 At the last team meeting we worked with plans for each pupil	27 %
5.14 At the last team meeting we made changes to the schedule for the next period	26 %
5.19 At the last team meeting we, based on the teaching goals set up for a specific course, agreed on which methods and ways of teaching we were going to use	26 %
5.40 At the last team meeting we <i>talked about</i> how to improve our teaching by doing new ways of teaching	26 %
5.34 At the last team meeting we discussed matters of relevance to the school	25 %
5.49 At the last team meeting we talked about each others attitude to our job as teachers	25 %
5.12 At the last team meeting we talked about teaching materials	24 %
5.28 At the last team meeting we talked private	24 %
5.38 At the last team meeting we made a outline of a information-letter to parents	19 %
5.27 At the last team meeting we talked about classroom layout	19 %
5.45 At the last team meeting we talked about what goes on at school	19 %
5.24 At the last team meeting we formulated teaching goals	17 %

5.51 At the last team meeting we talked about how to organize our teamwork	16 %
5.46 At the last team meeting we worked on some matters related to a joint school-development project	15 %
5.52 At the last team meeting we talked about what the content of our teamwork should be	12 %
5.41 At the last team meeting we worked thoroughly on how to improve our teaching by trying new ways of teaching	11 %
5.47 At the last team meeting we did an evaluation of some of the products made by pupils	11 %
5.21 At the last team meeting we talked about everything and nothing, and it didn't really got us any further	11 %
5.39 At the last team meeting we talked about collaboration problems in the team	9 %
5.43 At the last team meeting we talked about the strengths and weaknesses we have noticed – by teaching together – in each others teaching	9 %
5.50 At the last team meeting we planned a social get-together for staff	8 %
5.44 At the last team meeting we talked about the strengths and weaknesses we have noticed – by observing – in each others teaching	5 %
5.33 At the last team meeting we did a systematic evaluation of a course	4 %

Table 6 Activities at team meetings. The table shows all the questions asked about activities on team meetings in the questionnaire. The numbers refer to the order of the questions in the questionnaire.

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