

Coordinating work in Swedish schools

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Jacobsson, C. & Pousette, A. Coordinating Work in Swedish Schools. *Göteborg Psychological Reports*, 1999, 29, No. 8. Intra-organizational coordination is generally studied almost exclusively with a case-approach, with the implementation of one specific coordinating method and evaluation of the effects of that method. By contrast, this study explores the daily use of five coordinating strategies in thirty Swedish schools (n = 994 teachers, with an 88 % response-rate to a questionnaire). Furthermore, the relationships between coordinating strategies and (1) coordination problems in the schools and (2) burnout among teachers are investigated. The most important coordinating strategy was 'professional consideration', followed by 'striving for goals'. 'Mutual adjustment' was perceived as important to only a few, and 'following routines' and 'following the boss' were important to almost none of the teachers. The results showed that 'striving for goals' was related to a lesser frequency of coordination problems and lower levels of burnout than 'professional consideration'.

Keywords: Coordination; Coordinating strategy; Burnout; Schools; Teachers

To coordinate work in schools is a difficult but crucial problem for many interested parties (from politicians, managers and teachers, to the pupils and their parents). In order to minimize the negative consequences of the ongoing cost-cutting process within the public sector different efficiency increasing methods have been made the focus of attention. Many of these methods aim at improving intra-organizational coordination. Teambuilding, Total Quality Management (TQM) and Management by Objectives (MBO) are some examples.

Coordinating methods are practiced in many organizations and researchers have pointed out the pros and cons of implementing these methods (e.g., Winitzky & Sheridan, 1995; Crawford & Shutler, 1999; Crown & Rosse, 1995). Often research is carried out using a case-approach, comprising a researcher, a consultant or a manager who implements a new coordinating method in a specific work setting. More rarely the question of how the employees themselves choose to coordinate their work and the consequences of this choice, is addressed.

Burnout among teachers is another problem that has received much attention (e.g., Burke et al., 1996; Friedman, 1993). Schools, together with

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other human service organizations, are often considered to be associated with stressors that may result in burnout. According to several researchers (Maslach, 1982; Koeske et al., 1993), a considerable part of the stress experiences among teachers has its origin in an intense involvement in the pupils.

This study explores the relative importance of different ways of coordinating work among teachers. The study also investigates the relationship between (1) ways of coordination and coordination problems in schools, and between (2) ways of coordination and burnout symptoms among teachers.

Coordinating mechanisms

Although Mintzberg's (1979) classification of coordinating mechanisms in organizations is two decades old, there has been almost no empirical research based on this classification. The main emphasis in previous research has instead been on a single coordinating method such as MBO, its implementation and its effect. These coordinating methods often correspond to one or two of Mintzberg's coordinating mechanisms, even if his classification seldom is used. The coordinating mechanisms are presented below, together with related research.

Mutual adjustment - where the coordination of work is made possible by a process of informal communication between people conducting interdependent work. Research on collaboration (e.g., Gable & Manning, 1997) and teambuilding methods (e.g., Robinson-Kurpius & Keim, 1994) deal with mutual adjustment. The main purpose with teambuilding is to enhance and improve collaboration, which mostly requires team members to adjust themselves to each other. Most often teambuilding includes development of interpersonal bonds, clarified professional roles, shared norms and other factors influencing the efficiency of communication.

Direct supervision - where coordination is achieved by having one individual taking responsibility for the work of others. In the contingency theory about leadership styles (Hersey & Blanchard, 1982), "telling" (as a contrast to "delegating") is a variant of direct supervision. Both practice and research imply that "telling" or direct supervision is an unusual way of coordinating work in schools and other professional organizations. Schools have tended to be characterized by the absence, rather than by the existence, of direct supervision. For instance, Bidwell (1965) characterized schools as loosely structured, granting the teachers autonomy and a relative independence of managers and administrators. But principals' note the existence of supervision or instructional leadership more frequently than teachers do (Wildy & Dimmock, 1993).

Standardization of work processes - where coordination is made possible by having the work content specified in rules or routines to be followed. Repeated behavioral patterns contribute to coordination if members of the organization know what to expect from each other and if they do what is expected of them. Taylor's Scientific Management (Taylor, 1939) is a management idea in this tradition, forcing employees to adopt standardized

behavior in order to achieve an efficient work process. TQM, with the espoused motive of securing the quality of the services, is also a way to standardize the work process. TQM has recently attracted increased attention in the field of education (Crawford & Shutler, 1999), and can also be applied for the purpose of developing work processes rather than securing them at a fixed standard.

Standardization of outputs - where coordination is obtained by the communication and clarification of expected results. Goal setting methods are widespread in organizations today, the best known being MBO. The MBO approach, first described by Drucker (1954), is mainly focused upon organizational coordination by means of a clarified goal-hierarchy for the members of the organization. Regardless of organizational interventions, individual employees tend to differ with regard to how frequently, or in what way, they practice goal setting. For instance, "goal orientation" has been suggested as a personality trait, i.e. individuals are themselves more or less goal directed (Frese et al., 1987). Goal setting has also been suggested to be one of the basic life skills to be learned in teacher preparation, in order to enhance long-term learning (Given, 1994).

Standardization of skills and knowledge – where coordination is reached by specified and standardized training and education for a profession. Fully trained, individuals are presumed to know by themselves what to do and what to expect from others. According to Mintzberg (1979), this is the dominant mechanism in professional bureaucracies, an organizational classification that includes schools. Standardization of skills and knowledge is included in the sociological concept of professions. Professions are not only distinguished from other occupations by their level of technical knowledge, competence and specialized training, but also by a commitment to a set of ethics and an obligation to serve faithfully (Etzioni, 1964). Professional autonomy is in a sense the same as the right to manage and coordinate your own work with regard to professional standards, values, and ethics (Bayles, 1989).

Recently, inter-professional collaboration (i.e. a combination of mutual adjustment and standardization of skills and knowledge) has been widely emphasized in school research (Gable & Manning, 1999; Colbert & Wolff, 1992; Winitzky & Sheridan, 1995). Many researchers are proposing teacher teams as a solution in order to integrate multiple types of expertise for the benefit of the pupils' diverse needs. This may be interpreted as a shortcoming for standardization of skills and knowledge as a single dominant coordinating mechanism in schools.

Coordination problems and burnout among teachers

One of the most obvious consequences of dysfunctional ways of coordinating work is the existence of coordination problems within work teams and schools (Lenn er Axelson & Thylefors, 1998). Typical coordination problems are for example misunderstandings, goal-conflicts and co-workers failing to fulfill their obligations within a shared task. From the employers'

perspective, dysfunctional coordination contributes to economic loss and social problems among the personnel. From the committed teachers' perspective, coordination problems constitute work obstacles - and may easily become a stressor (Greiner et al., 1997).

'Burnout' is a stress-related syndrome and often regarded as a major problem in human service organizations, such as schools. Burnout among teachers has been the object of many researchers' attention (Lunenborg & Cadavid, 1992; Friedman, 1993; Greenglass et al., 1994; Mazur & Lynch, 1989). The condition has been defined as "a syndrome of emotional exhaustion and cynicism that occurs frequently among individuals who do 'people work' of some kind. A key aspect of the burnout syndrome is increased feelings of emotional exhaustion" (Maslach & Jackson, 1981).

The methods teachers use to either prevent or cope with stress in order to avoid burnout has likewise received much interest (e.g., Seidman & Zager, 1991; Kosa, 1990). Coping strategies have usually been described as different ways for individuals to manage stress (as a reaction to a stressor), for instance problem-focused or emotion-focused strategies (Lazarus & Folkman, 1984). More recently, it has been suggested that proactive coping contribute to the understanding of stress and coping (Aspinwall & Taylor, 1997). Proactive coping consist of efforts undertaken in advance of a stressful event in contrast to coping during or after it. Hypothetically, different ways of coordinating work may contribute to variations in levels of burnout by being more or less adequate for proactive coping.

The Swedish school system

In Sweden, nine years of schooling are compulsory for all children from the age of 6 or 7. About 98 % of all pupils attend public schools (municipally governed) and 2 % attend private schools (The Swedish Institute, 1999). The overall goals for Swedish schools are to contribute to the pupils' development of knowledge, their social development, and their wellbeing.

The grades are divided into "junior" (6 to 9 years), "intermediate" (10 to 12 years), and "senior" level (13 to 15 years). Most of the pupils have the same class teacher throughout junior level. Usually, a new class teacher takes over the class at the intermediate level. This teacher takes most of the subjects in the three years at this level. At the senior level, the pupils are taught by a larger number of teachers who are specialized in two or three subjects.

About 98 % of the pupils continue their schooling at upper secondary school (at the age of 16), which offers both vocational and theoretical programs. A separate municipally administered adult education system enables adults with inadequate schooling to reach the upper secondary grade. At both upper secondary level and adult schools, teachers specialize in two or three subjects, and thereby teach more pupils than the teachers at the junior and intermediate level.

In Swedish schools, there is an ongoing change from solitary work to intensified cooperation between teachers, which increases the demand for co-

ordination of different teachers' work. Teacher teams are being formed gradually at all teaching levels all over the country. In general, teacher teams have existed longest at the junior level.

The present study

In contrast to Mintzberg's term coordinating mechanism we have chosen *coordinating strategy* in order to emphasize individuals activity. We define coordinating strategy as the individual's way of coordinating their work with that of their colleagues. The strategies are (when different to Mintzberg's concept, the original terms is put in brackets):

- *mutual adjustment* – coordination is achieved by individuals adjusting to each other in order to get a smooth and efficient work process
- *following the boss* (direct supervision) - coordination is achieved by individuals obeying the orders of a boss
- *following routines* (standardization of work processes) - coordination is achieved by individuals following established routines
- *striving for goals* (standardization of outputs) – coordination is achieved by individuals striving for the espoused goals at the workplace
- *professional consideration* (standardization of skills and knowledge) - coordination is achieved through individuals perception of what to do with respect to professional demands

The overall aim is to study the practice of coordinating strategies among teachers in Swedish schools. More specifically we intend to study:

- 1) the relative importance of different coordinating strategies in the daily work of teachers. Have different schools different dominant coordinating strategies?
- 2) the relationship between the dominant coordinating strategies and coordination problems in schools.
- 3) the relationship between the dominant coordinating strategies and burnout among teachers.

Method

Sample

The study was carried out by means of a questionnaire within a Swedish municipally administered school district with 30 schools, considered to be fairly representative of Swedish schools with regard to work environment (Jacobsson & Pousette, 1998). The study covered all 1,129 teachers in the schools, of which 21 were compulsory schools at both junior and intermediate level, 6 were compulsory schools at senior level, 2 were upper secondary schools, and one was a school for adults. All of the teachers at the

junior level were formally organized in teams. About 30 % of the teachers at the other teaching levels were regular team-members at the actual time, but this number varied between the schools and the teaching levels. Table 1 presents descriptive data of the sample.

Table 1
Descriptive Data of the Sample

	Number	Percentage
Schools in the study	30	-
No. of teachers included in the sample	1129	-
Responding teachers ¹⁾ :	994	88.0
- Females	775	78.4
- Mean age, years	44.2	-
- Mean tenure in profession, years	17.0	-
- Teaching level (pupils age) ²⁾	-	-
compulsory, junior (6 – 9 years) ¹⁾	409	45.4
compulsory, intermediate (10 – 12 years)	152	16.9
compulsory, senior (13 – 15 years)	171	19.0
upper secondary school (16 – 19 years)	140	15.6
adult school (adults)	28	3.1

1) Including 118 pre-school teachers and 159 recreation instructors working with the youngest pupils. 2) 94 subjects did not state a teaching level, the main reason being that they were teaching at several levels.

Procedure

Questionnaires were distributed through the local union representatives at each school together with an introductory letter, which followed an earlier letter distributed through the headmasters. The respondents completed the questionnaire anonymously during working hours, and sent it back to the researchers. The data was collected during one week in early 1998. According to key members of the organization, this was a normal week in terms of work load.

Questionnaire

The questionnaire consisted of 82 questions about work experiences and health issues. Four measurements were used for this study, they were: coordinating strategies (1 question), coordination problems (3 questions), emotional exhaustion (9 questions) and influence on pupils (2 questions). Emotional exhaustion and influence on pupils are in this study considered as measurements of burnout.

To investigate which *coordinating strategy* respondents relied upon most heavily in their daily work they were asked: "Different factors have an influence on us in our work: from your standpoint prioritize the three statements below according to what you are most influenced by in your daily

work". The order of priority was most important, second most important and third most important. The statements were: "We adapt ourselves to one another so that the work goes smoothly" ('mutual adjustment'); "My boss tells me what to do" ('following the boss'); "There are established routines that I follow in my work" ('following routines'); "There are goals for what we are going to accomplish together. I contribute with my work in order for us to succeed" ('striving for goals'); "My education and professional training mean that I usually see for myself what I have to do" ('professional consideration').

Coordination problems were measured using three questions. The questions loaded high in one factor in a factor analysis of nine questions about work obstacles. The questions were: "How often is your work made harder to carry out because of ... a) bad coordination?; b) bad planning?; and c) fellow workers/colleagues who are not doing their job? ". "Bad coordination" was the highest loading item (.78). The scale was Likert-type, with end points 0 (never) and 6 (always). The Cronbach's Alpha for the measurement of coordination problems was .71.

Emotional Exhaustion, one of three factors in Maslach Burnout Inventory (MBI) (Maslach & Jackson, 1981), was measured with a Swedish translation by the authors. Each item in the instrument was a statement, for instance: "I feel emotionally exhausted after work". The range was 0 (never) to 6 (every day) in each item, and the maximum score for the nine-item scale was 54. The mean value for the sample was 21.71 ($SD = 11.71$). The Cronbach's Alpha for Emotional Exhaustion in the sample was .92.

Influence on the pupils was measured by two items with the statements: "I can influence the pupils' development in a positive direction" and "I can influence the pupils in their well-being". The two items were similar to the personal accomplishment factor in MBI (Maslach & Jackson, 1981). The scale was Likert-type, with end points 0 (never) and 6 (always). The correlation between the two questions was .81.

Statistical analyses

All statistical analyses were carried out by means of the computer program "StatView for Windows 5.0", with exception for Cronbach's Alpha which was calculated manually according to guidelines by the SAS institute (1998). Two types of comparative statistics were used in the study, chi-square analysis and analysis of variance (ANOVA). Levels of significance were set to $p < .05$, $p < .01$, and $p < .001$ for all comparisons.

Results

The relative importance of coordinating strategies

The most important coordinating strategy was ‘professional consideration’, followed by ‘striving for goals’. Together, these two were the most important coordinating strategies for 85.1 % of the teachers, as shown in Table 2. ‘Mutual adjustment’ was seldom reported as the most important coordinating strategy, but was marked more frequently as the second or third most important coordinating strategy for the subjects.

Table 2

Relative Importance of Coordinating Strategies, Percentage

	Mutual adjustment	Following the boss	Following routines	‘Striving for goals’	‘Professional consideration’
Most important (n=941)	11.7	0.2	3.0	30.2	54.9
2nd most important (n=942)	23.2	0.6	17.0	35.6	23.6
3rd most important (n=938)	37.7	3.5	21.9	21.8	15.1
Weighted* importance	19.8	0.9	10.8	30.6	37.9

*) Σ (most important x 1.00 + 2nd most x 0.67 + 3rd most x 0.33) / 2

In order to investigate whether teachers working at different levels prioritized coordinating strategies differently a chi²- test was conducted for the subjects’ most important coordinating strategy. ‘Following the boss’ had to be excluded in this analysis since there were too few responses (n = 2). The chi²- test resulted in differences between teaching levels, $\chi^2(12, N = 853) = 93.77, p < .001$. These differences are shown in Figure 1.

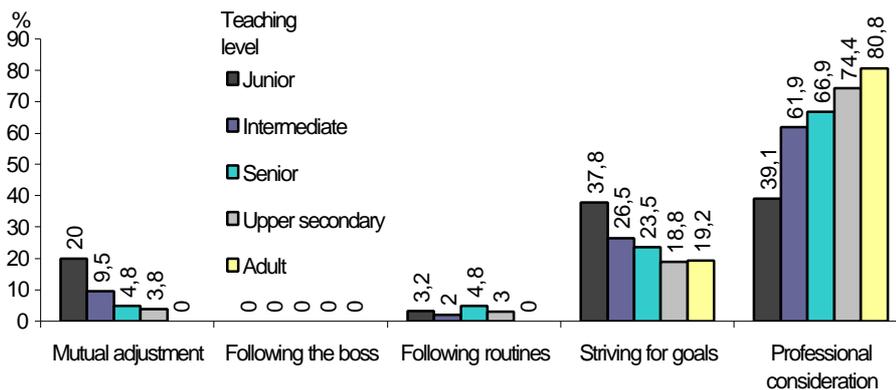


Figure 1. Most important coordinating strategy at different teaching levels, percentage.

According to the standardized residuals of the chi²- test, teachers working at the junior level reported ‘professional consideration’ as comparatively less important, and ‘striving for goals’ and ‘mutual adjustment’ as

more important strategies. Teachers from the intermediate level did not give any major contribution to the χ^2 value. For teachers at the senior level 'mutual adjustment' was comparatively less important and 'professional consideration' more important. For teachers at the upper secondary level 'mutual adjustment' and 'striving for goals' was comparatively less important and 'professional consideration' more important. For teachers at the adult level 'professional consideration' was comparatively more important. Lastly, a χ^2 -test was also conducted for the three subcategories of teachers (class teacher, pre-school teacher and recreation instructor) working at the junior level, but no differences were found with regard to coordinating strategies.

Schools with different dominant coordinating strategies were distinguished. For seven of the schools 'striving for goals' was the most frequent coordinating strategy among the teachers, for the remaining 23 schools 'professional consideration' was most frequent. All of the 'striving for goals' schools were compulsory schools of junior and intermediate level.

For the analysis of the relationship between, on the one hand, coordinating strategies and, on the other, coordination problems and burnout respectively, the seven 'striving for goals' schools were matched with seven 'professional consideration' schools. The matching was carried out with regard to teaching level (junior and intermediate level only), and size of the schools. This resulted in seven 'professional consideration' schools with 208 subjects and seven 'striving for goals' schools with 205 subjects. In the 'professional consideration' schools, 58.4 % of the subjects responded with 'professional consideration' and 28.2 % responded with 'striving for goals' as the most important coordinating strategy. In the 'striving for goals' schools, 46.0 % responded with 'striving for goals' and 32.8 % responded with 'professional consideration' as the most important coordinating strategy. No differences existed between the two types of schools with regard to the number of teachers organized in teams.

Coordinating strategies and coordination problems

The results on coordination problems will be presented in three steps. Firstly, a one-way ANOVA with the two most important coordinating strategies ('professional consideration' and 'striving for goals') for individual teachers is described. Secondly, a two-way ANOVA with teaching level as the additional factor is described, in order to analyze contributions of variance from this factor. Four teaching levels are included in this analysis, with the adult level excluded because too few responded with 'striving for goals' as the most important coordinating strategy at this level. Thirdly, a two-way ANOVA with the schools dominant coordinating strategy as the additional factor to individuals coordinating strategies is described. This analysis is performed on teachers in the 14 schools (7 + 7) that were either dominated by 'professional consideration' or 'striving for goals'.

Teachers with 'professional consideration' as their main coordinating strategy ($M = 2.54$, $SD = 1.0$) experienced more frequent coordination problems than teachers with 'striving for goals' as their main coordinating strategy ($M = 2.32$, $SD = .91$), $F(1, 796) = 9.52$, $p < .01$.

Both the coordinating strategy of individuals and teaching level had main effects on perceived coordination problems. Concerning coordinating strategy of individuals, 'professional consideration' was associated with more coordination problems than 'striving for goals' $F(1, 687) = 4.77$, $p < .05$. Regarding teaching level, teachers working at the lower teaching levels (junior and intermediate) experienced coordination problems less frequently than teachers at higher teaching levels $F(3, 687) = 5.20$, $p < .01$. An interaction effect was also found $F(3, 687) = 2.68$, $p < .05$. This interaction was caused by differences between teachers at senior level and teachers at the other three levels. For teachers at junior, intermediate and upper secondary level 'striving for goals' was associated to a lower incidence of coordination problems than 'professional consideration'. For senior level teachers however, 'striving for goals' was associated with more coordination problems than 'professional consideration'.

The schools' dominant coordinating strategy was shown to be more important for coordination problems than that of the individuals. The analysis revealed a main effect from the schools' dominant strategy $F(1, 319) = 11.84$, $p < .001$, but no main effect from the coordinating strategy of individuals or interaction between the two factors. The 'professional consideration' schools ($M = 2.46$, $SD = 0.86$) had more frequent coordination problems than the 'striving for goals' schools ($M = 2.08$, $SD = 0.89$).

Coordinating strategies and burnout among teachers

The following results on burnout will be presented in the same way as the results on coordination problems. Firstly, the effect from the coordinating strategy of individuals is described. Secondly, contribution of variance from teaching level and thirdly, contribution of variance from the schools' dominant coordinating strategy is presented.

With emotional exhaustion as the dependent variable, differences between the two coordinating strategies were found, $F(1, 795) = 15.00$, $p < .001$. Teachers who mainly coordinated by 'professional consideration' ($M = 22.88$, $SD = 12.00$) were more emotionally exhausted than teachers who coordinated by means of 'striving for goals' ($M = 19.53$, $SD = 11.10$).

Both the coordinating strategy of individuals $F(1, 686) = 6.62$, $p < .01$, and teaching level $F(3, 686) = 5.00$, $p < .01$ had main effects on emotional exhaustion, but no interaction was found. The 'professional consideration' strategy was still associated with higher levels of emotional exhaustion than the 'striving for goals' strategy, and teachers at the junior level in particular were less emotionally exhausted than teachers' at the other teaching levels.

The schools dominant strategy did not contribute with variance to emotional exhaustion. Only a main effect from the individuals coordinating strategy was found $F(1, 320) = 8.02, p < .01$.

With influence on the pupils as the dependent variable, differences between the two coordinating strategies was found $F(1, 795) = 43.57, p < .001$. Teachers who mainly coordinated by 'professional consideration' ($M = 4.04, SD = 0.93$) felt they exercised less influence on the pupils than teachers who coordinated by 'striving for goals' ($M = 4.50, SD = 0.93$).

Both coordinating strategy $F(1, 687) = 27.26, p < .001$, and teaching level $F(3, 687) = 6.10, p < .001$ had main effects on perceived influence on the pupils, but no interaction was found. The 'professional consideration' strategy was still associated with lower levels of influence on the pupils than the 'striving for goals' strategy, and teachers at the junior and intermediate levels experienced greater influence on the pupils than teachers at the other teaching levels.

Finally, the dominant coordinating strategy in the schools did not contribute with variance to influence on the pupils. Only a main effect from the coordinating strategy of individuals was found $F(1, 321) = 10.35, p < .01$.

Discussion

The extensive use of 'professional consideration' is congruent with the prediction of Mintzberg (1979), and confirms that schools coordinate mainly by entitling the professionals' autonomy. Analogous to this finding is the existence of the loose organizational structure, as suggested by Bidwell (1965). Not only the extensive use of 'professional consideration' but also the absence of 'following the boss' supports the view that schools are loosely structured.

On the other hand there were also indicators of a tight organizational structure. Pang (1998), who studied loose and tight coupling forces in schools, suggested goal orientation, communication, consensus and recognition as indicators of tight coupling. These constructs broadly correspond with the strategies 'striving for goals' and 'mutual adjustment'. The frequent use of the former strategy and some use of the latter strategy indicate the existence of a tight structure.

This simultaneous existence of loose and tight organizational structure is to some extent in line with what has been called the simultaneously loose-tight principle (Peters & Waterman, 1982).

'Following routines' was seldom ranked as the most important coordinating strategy, but appeared more frequently as second or third choice in the order of importance. This may be an expression of the "non-routine" character of work in schools, or of unconsciousness among the teachers concerning routines. As noticed by Frese and Zapf (1994), routines are to some extent brought to attention only when they fail to work. The last interpretation would imply a more dominant role for 'following routines' as a coordinating strategy, than is shown in the results of this study.

Least of all did the teachers considered themselves as following their boss in the sense that he or she told them what to do. Autonomy or self-management is expected in schools, as mentioned before. The profession itself, not the manager, supplies most of the structure and coordination (Mintzberg, 1998). Frequent appearance of 'following the boss' would have indicated rather immature subordinates according to Blanchard's theory of appropriate leadership style in relation to the maturity of the subordinates (Blanchard et al., 1986; Thylefors, 1991).

Furthermore, teachers working at different teaching levels varied in their choice of coordinating strategies. Above all, the team-based teachers who worked with the youngest pupils assessed 'striving for goals' and 'mutual adjustment' as more important, and 'professional consideration' as less important, than the other, rarely team organized, teachers. To a considerable degree, this preference may be a consequence of teamwork and the interdependency between team members. Using the coupling concept (Pang, 1998), teamwork contributes to a tight coupling between the individual and the organization.

At an overall organizational level (the 30 schools), Mintzberg's (1979) model with standardization of skills and knowledge as the dominant mechanism in professional bureaucracies is confirmed. However, this does not hold true for seven of the schools. We assume the most plausible explanation for this finding is that teachers in the 'striving for goals' schools had participated together with their leaders in clarifying goals and norms to a greater extent than those teachers in the 'professional consideration' schools.

The results of this study indicate a relationship between differences in the ways of coordinating work and the frequency of perceived coordination problems that occur in the work setting. Above all, the results show that the schools' dominant coordinating strategies explain more of the variations in coordination problems than the individuals' strategies do. This is logical, it is likely that coordination problems are more affected by the collectivity's way of coordinating work than by each and every individual's way. Coordination problems are above all failures of the collective and not of the individual.

Mintzberg (1998) claims that professionals are able to coordinate their efforts because of the standardization of their skills and what they are trained to expect from each other. One explanation to our finding is that the teachers in the 'professional consideration' schools had less realistic expectations of each other. In Sweden, there is an ongoing change-process within the work in schools, heavily influencing the traditional work of teachers. The shift is from solitary work with responsibility restricted to your own class, to a greater emphasis on shared responsibility for all pupils and for the development of the school. Goals and responsibilities have to be quite clear if the 'professional consideration' strategy is to serve coordination, otherwise it is hard to know what to expect from each other. Unclear expectations may contribute to decreasing conflicts between teachers who formerly did not practice, but now do, interdependent work. In a changing work context the 'striving for goals' strategy might help to clarify

these expectations better than the 'professional consideration' strategy, and therefore contribute to reducing coordination problems more effectively.

The findings of this study indicate a relationship between the most important coordinating strategy and burnout. 'Striving for goals' was associated with lower levels of emotional exhaustion and higher levels of influence upon the pupils than 'professional consideration'.

The results raise the question whether 'striving for goals' carries a better built-in coping function than 'professional consideration'. Is it possible that 'professional consideration' is a more energy consuming strategy than 'striving for goals'? A self-management strategy like 'professional consideration' may be rather demanding, since it is always up to the individual to consider what to do. 'Striving for goals' might, on the other hand, reduce energy consumption by directing the teachers' efforts towards goals that are commonly agreed upon. An interpretation with the opposite causality is also possible. Teachers experiencing more emotional exhaustion and lower influence on the pupils may have withdrawn from, or were in conflict with, the espoused goals at the work place. With this interpretation, the condition of being more or less burned out affects the choice of coordinating strategy. Future research, with a longitudinal or experimental design, might shed some light on the causality in the relationship between coordinating strategies and burnout.

Influence on the pupils has, apart from its meaning of personal accomplishment as an aspect of the burnout syndrome, a connection to the organizational goals. The purpose of teaching is to contribute to high levels of knowledge and wellbeing among the pupils. In this respect, the variable is a measurement of subjective goal control. Hence, this might help to explain the fact that the 'striving for goals' strategy was associated with higher levels of influence on the pupils. Teachers who practice the 'striving for goals' strategy probably have a clearer image of the goals, and thereby perceive themselves as in control to a greater extent than teachers guided by 'professional consideration'.

A possible objection to the findings in this study concerns the validity of the measurement of coordinating strategies. The measurement is based on only one item. Is it really measuring different coordinating strategies? There are two arguments for the validity of the item used in the study. Firstly, the results show a variation of responses within the organization, both between different schools and between teachers working at different teaching levels. For instance, the team-working teachers at the lowest teaching level responded more frequently with 'mutual adjustment' or 'striving for goals', and less frequently with 'professional consideration', than the teachers at the other teaching levels (were teamwork was more unusual). Secondly, when relating coordinating strategies to coordination problems in different schools, the result supports the item's ability to discriminate between schools with different frequencies of coordination problems.

Concluding remarks

The advantages of coordination by 'striving for goals' ahead of 'professional consideration' with regard to coordination problems and burnout are quite clear in the results of the present study. However, we would like to end this paper by emphasizing the context once again. The ongoing change process from solitary work to more and more cooperation in teacher teams, is an important factor to be recognized. 'Professional consideration' is probably appropriate when the main content of the work requires the individual's expert knowledge most of the time, and the work is rather solitary. But when these conditions more and more belongs to history, the professional goals and norms in the 'professional consideration' strategy might to some degree be insufficient. In conclusion, changing the content of teachers' work from solitary to cooperation brings about a need for a closer look at how teachers coordinate their work.

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