Antecedents of Department Heads' Job Autonomy, Role Clarity, and Self-Efficacy for Instructional Leadership

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Abstract

Department heads are increasingly responsible for instructional leadership. Therefore, it is important to understand the antecedents of self-efficacy in their work, which can motivate them to increase their leadership efforts. Our theoretical model depends on principals' feedback for department heads, department heads' trust in their principals, and perceptions of time pressure. We argue that the relational trust between department heads and principals creates social exchanges that catalyze department heads' self-efficacy in instructional leadership, perceived job autonomy, and perceived role clarity. We explored our theoretical model using structural equation modeling of cross-sectional survey data completed anonymously by department heads. We found that effective feedback-based school leadership is positively related to department heads' self-efficacy and perceptions of job autonomy and role clarity, with relational trust between the principal and department heads playing a key role. Time pressure is also positively associated with department heads' mentoring self-efficacy. This study fills a gap in the literature and contributes to the field of leadership in learning by explaining the various antecedents to department heads' self-efficacy, perceived job autonomy, and role clarity.

Keywords: *department heads; principal's feedback; relational trust; job autonomy; role clarity; self-efficacy.*

Introduction and purposes

School leadership is a key element in any school's success (Day et al., 2009; Leithwood, Louis, Anderson, & Wahlstrom, 2004). Leadership requires the exercise of influence and direction for school improvement (Anderson, Leithwood, & Seashore Louis, 2012), while management requires operational functions of leadership (Bush, 2007). Schools are traditionally organized in a three-layer hierarchy: the leadership team (led by the principal), teachers, and pupils (Ingersoll, 2003). School principals have overall responsibility for their schools' results and serve as strategic leaders. School leaders' communication might influence the beliefs and preferences of department heads, teachers, and learners (Leithwood & Riehl, 2003).

During early periods of relaxed forms of school management, the principal has appeared to be a first amongst equals (Day, Leithwood, & Sammons, 2008). In this type of institutional arrangement, the principal's position of authority was supported by the reputation of the principal's experience and merits. However, at that time the classroom was 'the private domain of teachers in which principals may not be welcome' (Hallinger, 2005, p. 232), where each individual teacher was a monarch of their own little kingdom, acting alone in their main work of teaching learners and evaluating their academic work (Lortie, 1975). This egg-box structure of schooling placed constraints on the potentially positive synergies that can exist between school professionals within the social organization of the school (O'Day, 2002). Despite the presence of this type of teacher insularity in the work of the school, it was expected that school teachers collaborated and carried out some tasks as a team. In the 1980s for instance, secondary teachers teaching the same subject or class might collaborate over planning content, homework, learner-parent meetings.[1] However, the teachers who managed

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[1] This example is based on experiences from Norwegian upper secondary schools by one of the authors.

this kind of collaboration in the 1980s were not actually instructional leaders, but operational managers with very constrained responsibilities.

In the wake of the effective school movement after the millennium shift, it was widely recognized that principals in instructionally effective schools exercised strong instructional leadership and '…descriptions of these principals tended towards a heroic view of their capabilities' (Hallinger, 2005, p. 223). However, one principal could not 'serve as the instructional leader for an entire school without the substantial participation of other educators' (Lambert, 2002, p. 37). In addition, principals in secondary schools have often not had subject-specific expertise in more than two or three school subjects. Therefore, subject-specific tasks were typically delegated to department heads (or deputy heads) within the school organization, resulting in shared leadership (Floyd & Woolridge, 1997; Hallinger, 2005; Gronn, 2000). Today, principals, assistant principals, and department heads form leadership teams (Hallinger & Heck, 2010; Hjertø & Paulsen, 2017). Each school or district may differ in the way they organize their staff. However, the principal is at the top and assistant principals divide administrative assignments and staff-mentoring responsibilities. In addition, usually there are departments, which are led by a department head. In high school these departments can be organized by subject. In lower grades they are usually organized by grade level, or divided up into ability-level groups. Most often, the department heads have positions with a mix of administration and teaching.

In recent decades, local education authorities have received increased responsibility for the quality of teaching in several countries, which has contributed to stronger local management of schools. There are many examples of local authorities re-formulating performance targets for local schools to exceed national averages in pupil performance. Target management has put greater pressure on principals to achieve greater levels of success (Elstad & Turmo, 2011). Due to this development, many countries have experienced either

the rise in the number of middle management leaders—department heads (Kaplan & Owings, 1999; Muijs & Harris, 2003; Owen et al., 1983; Sun, 2012)—or an increasing need for middle management (Bennet, 2004; Busher, 2005, 2006; Glover, Gleeson, Gough, & Johnson, 1998).

Several studies have examined schools' department heads and assistant principals, but there is little research examining middle management (Paulsen, 2008; Abrahamsen, 2018). Still, little is known about what influences work performance in this important part of the school system. This article focuses on department heads and their role related to instructional leadership. A primary reason for the change in the function of department heads is the desire to increase learner attainment by improving teachers' instruction (Harris, Jamieson, & Russ, 1995), or instructional leadership. Teacher evaluation arrangements are a central component of instructional leadership (Cohen & Goldhaber, 2016). Teacher evaluation is a complex task for department heads, something that demands instructional leaders navigate less-charted waters (Lejonberg, Elstad, & Christophersen, 2017; Flores & Derrington, 2017). Some department heads also follow up with teachers via appraisal conversations based on these measures (Lejonberg et al., 2017).

Department heads' motivation for doing a good job is an important precondition for this work. Prerequisites for their motivation are self-efficacy in instructional leadership (Federici & Skaalvik, 2012; Judge, Jackson, Shaw, Scott, & Rich, 2007), perceptions of their job autonomy, and role clarity (Fenton-O'Creevy, 2001). The purpose of this study is to explore how principals' feedback for employees is related to department heads' perceptions of role clarity, job autonomy, as well as their self-efficacy for instructional leadership. Since department heads have seldom been investigated in educational leadership literature (Paranosic & Riveros, 2017), this study fills a critical gap on middle management in schools.

Theoretical framework

The literature on leadership uses a variety of adjectives, such as 'instructional', and 'transformational' to describe leadership (Hallinger & Heck, 2010; Leithwood, 1992; Spillane, 2013). Often, multiple styles of leadership are needed to create a balanced approach (Hallinger, 2005; Aas & Brandmo, 2016; Leithwood & Riehl, 2003; Marks & Printy, 2003). The instructional leadership approach encourages a focus on improving teaching via teacher evaluation arrangements (Glickman et al., 2001).

Transformational leadership is based on the tenet that certain behaviors among principals can encourage followers to achieve higher levels of job performance (Bass, 1985; Burns, 1978). Transformational leaders foster their employees' commitment to an articulated vision and inspire them to work well. The positive association between transformational leadership and follower behaviors is well documented in leadership literature (e.g. Fuller, Patterson, Hester, & Stringer, 1996; Judge & Piccolo, 2004), but is more controversial in school leadership literature (Barnett, McCormick, & Conners, 2001). However, we find it plausible that principals might use transformation skills to inspire department heads and teachers to follow their goals, create teams, and establish a culture of collaboration and cohesiveness among school professionals. Fostering a moral purpose and giving feedback to employees are also important components of this endeavor. Leithwood and Jantzi (1990) have showed that there are similarities between transformational leadership in a school and transformational leadership in a business environment.

In this study, we spliced together aspects of transformational leadership theory, instructional leadership theory, job characteristics theory (Hackman & Oldham, 1980), self-efficacy theory (Bandura, 1977, 1997), and the theory of relational trust inside a school organization (Bryk & Schneider, 2002) to explore the associations among their various components. A main tenet of the theoretical framework we pursue is that leadership is

conceptualized as a 'mutual influence process, rather than as a one-way process in which leaders influence others' (Hallinger, 2005:234). Therefore, our focus is on the interactions between the principal and the department heads. A core aspect of principal-department head relationships is that department heads develop social exchanges. We presume that a principal's feedback can influence department heads' self-efficacy and their perceptions of autonomy and role clarity. Social exchange here refers to department heads perceiving that they are treated favorably by their principals and feel a commitment to return this positive behavior in their instructional leadership and management efforts. Department heads operate in the middle of the school's organization, between the leadership team and the teachers (Bridges, 2009). The reason for this style of organization is to direct the leadership team towards instruction and learners' attainment by distributing leadership through teacher teams (mainly subject-related departments), with clearly defined roles as department heads responsible for instructional leadership (Gronn, 2000). Distributed leadership is a strategic arrangement that is widely used to facilitate instructional leadership. In recent years, department heads—the individuals responsible for staff members' teaching in one or two school subjects—have begun to perform instructional leadership and follow up with teachers by observing classroom teaching, managing teaching evaluations and focusing on learning results on exams and assignments. The development of this new role for department heads has changed the way schools focus on leadership (Abrahamsen, 2018; Abrahamsen & Aas, 2014; Busher & Blease, 2000).

Hypotheses

Autonomy is a basic psychological need (Deci & Ryan, 1985, 2000). Job autonomy refers to an employee's feeling of freedom and discretion in his or her job (Morgeson & Humphrey, 2006) and helps employees feel responsible and satisfied in their job. Social trust has an overall influence on how well schools work for teachers and learners (Browning, 2014)

and serves as a dimension of social capital (Coleman, 1990). Relational trust greases the cogs of school relationships, and is the basis of the relationships underlying the social exchanges between principals and department heads (as well as teachers). Therefore, we introduce relational trust as a mediating component between a principal's feedback and a department head's perception of job autonomy since 'principals play a key role in developing and sustaining relational trust' (Bryk & Schneider, 2002, p. 137). The tenet of the framework is that relational trust culminates in social exchanges within the principal-department head role set, which catalyze the department head's perceived job autonomy, role clarity, and self-efficacy in instructional leadership (see figure 1. for the hypothesized model).

Hypothesis 1: Principal's feedback is positively related to his or her followers' job autonomy via relational trust

Department heads need to know their responsibilities and perform them well. A principal's communication and feedback define followers' perceptions of role clarity. If followers' job roles are clearly defined, and their work is clearly 'feedbacked', then they know what they are expected to do and what they can expect from other school professionals. We believe that trust between a principal and a department head plays a key role in school improvement. Thus, trust is assumed to positively influence department heads' perceptions of role clarity. Poorly defined or conflicting role expectations serve as stressors.

[Figure 1 about here]

Hypothesis 2: Principal's feedback is positively related to his or her followers' perceptions of role clarity via relational trust

Work stress is not a disease. Some individuals are motivated by stressful situations, while others are demotivated, even to the point that they take sick leave. Some sources of department heads' stress may include a feeling of being between the devil and the deep blue sea (Ribbins, 1997). Other common stressors may include time pressures, problems associated

with colleagues, pressures to meet result targets, and lack of professional opportunities. We measured one dimension of department heads' perception of the work context: their feelings of having a heavy workload, having to do administrative work in the evenings and weekends, and having hectic school-days with little time for rest or recovery (i.e. time pressure). To our knowledge, these components have not yet been investigated in studies on department heads. Poor role descriptions occur when there is a lack of clarity in what is expected of department heads.

Hypothesis 3: Principal's feedback is negatively related to his or her followers' perceptions of role clarity via time pressure

Linked to the aforementioned argument, we also assume that time pressure is related to job autonomy.

Hypothesis 4: Principal's feedback is negatively related to his or her followers' perceptions of job autonomy via time pressure

Studies of leaders' performance feedback have suggested that transformational effects are explained by how followers feel about themselves in terms of self-efficacy (Dvir, Eden, Avolio, & Shamir, 2002; Dvir & Shamir, 2003; Hackman & Oldham, 1980). Our basic premise is that self-efficacy is important in shaping an employee's work effort (Judge et al., 2007). Albert Bandura (1977) introduced the concept of self-efficacy beliefs to assess a person's capabilities to attain a desired level of performance in an endeavor. Bandura (1997) assumed that a belief in one's capabilities was a powerful driving mechanism that influences one's motivation to act, the effort put forth in an endeavor, and the persistence of using coping mechanisms in the face of setbacks. We, therefore, suggest that department heads' efficacy beliefs are an important prerequisite for their efforts. In the following paragraphs, we outline the proposed antecedents.

Vicarious experiences and verbal persuasion occur when a principal models or gives feedback on a target activity. The impact of the 'feedbacked' achievement on the department head's self-efficacy beliefs depends on the degree to which the department head has relational trust with the principal (Bryk & Schneider, 2002). When a principal with whom a department head shares relational trust performs well, the department head's self-efficacy is enhanced. One of the most important work tasks for department heads is following up with teachers' teaching (Abrahamsen, 2018). They can collect the necessary information for this task via observations, value-added scores and learners' feedback (organized by anonymous learner surveys). The next step is for department heads to conduct mentoring sessions with their teachers. Self-efficacy beliefs increase if a department head perceives her or his mentoring achievement as a success, as this contributes to expectations that future performances are likely to be successful as well (Abrahamsen & Aas, 2014). Principals could support or stimulate department heads' mentoring skills to increase the potential for school improvement (Lejonberg et al., 2017). While increased self-efficacy may produce greater effort, failures lower self-efficacy beliefs, resulting in decreased motivation (Tschannen-Moran, Hoy, & Hoy, 1998).

Hypothesis 5: Principal's feedback is positively related to his or her followers' self-efficacy in instructional leadership via relational trust

A workload might have both positive and negative impacts on an employee's self-efficacy: a moderately high workload might induce positive challenges, positively affecting a department head's self-efficacy, while a very high workload might negatively influence a department head's self-efficacy. Therefore, we are careful to formulate an explorative assertion on the associations between feedback, time pressure, and self-efficacy in instructional leadership.

Method

Research site

This study was conducted in Norway. The Norwegian education system is mainly public, with 96% of children and adolescents attending public primary and lower secondary schools and the remaining 4% attending private schools (Statistics Norway, 2017). In Norway, education is free at all levels, including upper secondary and higher education. The school system includes ten years of compulsory primary and lower secondary education and an additional three years of optional upper secondary education. Primary and lower secondary school covers education for children aged six to fifteen years, whereas upper secondary school covers education for adolescents aged sixteen to eighteen years. In compulsory education (grades 1 through 10), the same curriculum is employed in all schools across the country.

Over the last few decades, the Norwegian educational system has been increasingly influenced by international trends, meaning there have been an increased focus on school quality, student achievement, and accountability and an emphasis on school development and leadership training. However, according to researchers on school governance, the Norwegian school system has softer accountability policies than those typically found in the USA and the UK (Mausethagen, 2013; Møller & Skedsmo, 2013). A common explanation for this is that market mechanisms are downplayed in the Norwegian education (Mausethagen, 2013), and the attention to student learning outcome is closely linked to the promotion of equality and quality and not simply as a means to promote transparency and efficiency (Aas &Brandmo, 2016; Møller, 2009; OECD, 2015; Telhaug, Mediås, & Aasen, 2006).

Participants and procedures

Our sample comprised of 251 department heads (62% female and 38% male) from 138 schools in Norway. Regarding age, 28% were below the age of 40, 32% were between the age

of 40 and 50, and 40% were above the age of 50. The participants' age was also mirrored in their teaching experiences, with as much as 40% having more than 20 year of teaching experience. In this study, department heads are defined as middle leaders of their school who have leadership responsibility for an organizational unit or department in a school. These units or departments might vary in size (i.e., by the number of students and teachers) and are usually organized by subject area or grade level.

The data was collected by a 99-item digital survey questionnaire distributed by email. The sampling was conducted as part of another country-wide study in which school principals were asked to nominate three department heads in their school. Considering not all schools have three department heads, particularly small primary schools, we considered that the nomination process did not cause any serious sample bias (e.g., nominating only department heads that were closely related to the principal). The overall response rate was 49.5%, which is a typical response rate in organizational research (Baruch & Holtom, 2008). However, to justify the variety and spread of the final sample, we scrutinized the participants with respect to several background variables. This examination revealed that there were participants from each of the 19 counties of Norway, with more participants from urban areas than rural ones. Moreover, the participants represented a variety of school sizes: 10.5% were from schools with 100 students or less, 29% were from schools with 101–300 students, 34.5% were from schools with 301–600 students, 13.5% were from schools with 601–1000, and 12.5% were from schools with more than 1000 students. Regarding school type, 24% of the participants were from primary schools (grade 1–7), 14.5% were from combined primary and lower secondary schools (grade 1–10), 18% were from lower secondary schools (grade 8–10), 1% were from combined upper and lower secondary schools (grade 8–13), and 42% were from upper secondary schools (grade 11–13). It should be noted that secondary schools in Norway are usually bigger and contain of more students than primary schools. Since bigger schools

tend to have more department heads, it is reasonable that we got more participants from secondary schools than primary schools.

The way leadership responsibility is organized in Norwegian schools vary based on school size, the amount of administrative resources available, and are usually the result of local decisions. In almost every Norwegian school, the principal has formal responsibility for all personnel. However, in many schools, especially bigger schools, this responsibility is delegated to department heads. In our study, 74% of the department heads reported to have personnel responsibility.

Measures

The measures used in the current study were previously used by the authors in published studies for teachers and principals. For this study, the measures were adapted to fit into the work-context of department heads in schools.

Feedback from principal

The feedback measure was originally adapted from Patterson et al. (2005) and contained three items focusing on the frequency of principals' feedback on followers' job performance. The three items were worded 'At this school, the principal gives regular feedback to the employees about the quality of their work', 'At this school, the principal never gives feedback to the employees about the quality of their work'(reversed), and 'At this school, the principal rarely gives feedback to the employees about the quality of their work' (reversed). Responses to these items were given on a six-point scale: (1) false, (2) mostly false, (3) more false than true, (4) more true than false, (5) mostly true, and (6) true. Cronbach's alpha for the scale was .80.

Relational trust

The principal-department head relationship was measured by a three-item scale adapted from Bryk and Schneider (2002). The first item focused on the department heads'

personal trust in the principal, 'I trust the principal in his/her words'. The second and third items focused on department heads' perceptions of leadership behavior associated with trustworthy leadership, 'The leadership at this school handles its tasks in a smooth way so that the school works well', and 'The principal expresses personal interest in teachers' professional development'. These items were rated on a six-point scale: (1) completely disagree, (2) mostly disagree, (3) more disagree than agree, (4) more agree than disagree, (5) mostly agree, and (6) completely agree. Cronbach's alpha for the scale was .82.

Time pressure

The measure of perceived time pressure was inspired by Skaalvik and Skaalvik (2011) and contained three items. The items were 'Administrative work must often be done after working hours', 'Life at school is hectic and there is no time for rest and recovery', and 'Meetings and ad hoc tasks take a lot of time that should really have been used for strategic work and school development'. Responses to these items were given on a six-point scale: (1) false, (2) mostly false, (3) more false than true, (4) more true than false, (5) mostly true, and (6) true. Cronbach's alpha for the scale was .68.

Job autonomy

The job autonomy measurement was adapted from Morgeson and Humphrey (2005) and contained three items focusing on autonomy to organize and schedule work tasks. The items were 'The job allows me to make my own decisions about how to schedule my work', 'The job allows me to decide on the order in which things are done on the job', and 'The job allows me to plan how I do my work'. Responses to these items were given on a six-point scale: (1) false, (2) mostly false, (3) more false than true, (4) more true than false, (5) mostly true, and (6) true. Cronbach's alpha for the scale was .89.

Role clarity

Role clarity was measured using a three-item scale adapted from Rizzo, House, and Lirtzman (1970). It should be noted that Rizzo et al. (1970) named this concept 'role ambiguity'. However, the items we used 'were in the direction of role clarity' (p. 160). The items were 'I know exactly how much authority I have', 'I know what my responsibilities are', and 'I know exactly what is expected of me'. Responses to these items were given on a six-point scale: (1) false, (2) mostly false, (3) more false than true, (4) more true than false, (5) mostly true, and (6) true. Cronbach's alpha for the scale was .71.

Self-efficacy for instructional leadership

Self-efficacy for instructional leadership was measured by using a three-item scale from Brandmo, Tiplic, and Elstad (2014) focusing on advising and mentoring teachers regarding their instruction. The items were 'How certain are you that you can guide teachers in their teaching?', 'How certain are you that you can provide specific mentoring to teachers who struggle to maintain order in their class?', and 'How certain are you that you can provide good mentoring to teachers on how a teaching session can be organized to increase students' learning?'. Responses to these items were given on a seven-point Likert type scale: (1) Not certain at all, (2) 'blank', (3) Quite uncertain, (4) 'blank', (5) Quite certain, (6) 'blank', and (7) Absolutely certain. Cronbach's alpha for the scale was .80.

Analytical approach

We used structural equation modelling with Mplus 7 (Muthén & Muthén, 2012) to test our hypothesized model. Initially, we examined the dimensionality of scores by means of confirmatory factor analysis (CFA). Since some item scores tended to be non-normal, we used robust maximum likelihood estimation for the CFA and final model testing. Robust maximum likelihood estimation provides corrected chi-square values for model fit and corrected standard errors for parameter estimates when data is non-normal (Brown, 2015). To evaluate the overall fit of the model, we applied the chi-square statistics and other fit-indices provided

by the Mplus 7 software (Muthén & Muthén, 2012), specifically the comparative fit index (CFI), the root mean square error of approximation (RMSEA), and the standardized root mean square residual (SRMR). After reviewing the literature concerning cut-off criteria for goodness of fit (Bentler, 1990; Bentler & Bonett, 1980; Hu & Bentler, 1998, 1999; Marsh, Hau, & Wen, 2004; Schermelleh-Engel, Moosbrugger, & Müller, 2003), and taking the current analytic situation (e.g., model complexity) into account, we set the following criteria for model evaluation: CFI ≥ .90, RMSEA ≤ .08, and SRMR ≤ .09 indicate an acceptable model fit, while CFI ≥ .95, RMSEA ≤ .05, and SRMR ≤ .06 indicate a good model fit.

Results

Preliminary analyses

Initially, we explored all variables regarding psychometric properties. Most items were normally distributed. However, some items diverged from the normal distribution. The most serious violation of the normality assumption was one of the trust-items, which were moderately skewed (-1.7) and peaked (4.4). To deal with this challenge, we decided to run robust statistics (robust maximum-likelihood). First, we tested a basic measurement model through confirmatory factor analyses (CFA) with all the latent variables included (feedback, time pressure, relational trust, job autonomy, role clarity, and self-efficacy). This model was properly fitted to data: χ^2 [120] = 155, p = .017; RMSEA = .034 [90% CI = .015– .049]; CFI = .98; SRMR = .047. Each of the items had adequate loadings to their respective factors. More specifically, except for one role clarity item, which was loaded .51, the loadings ranged from .57 to .95. Descriptive statistics and reliability for these factors are presented in table 1, together with the zero-order correlations.

[Table 1 about here]

Structural model testing

In the first structural model, we wanted to test both direct and indirect paths from feedback to the dependent variables. Therefore, we regressed the three dependent variables (job autonomy, role clarity, and self-efficacy) on both the mediator variables (relational trust and time pressure) and the independent variable (feedback). In addition, the two mediator variables were correlated. This model contained the same relationships as the initial measurement model (see the CFA above), and the fit was equal: χ^2 [120] = 155, p = .017; RMSEA = .034 [90% CI = .015– .049]; CFI = .98; SRMR = .047. None of the direct paths from feedback to time pressure (β = -.08), job autonomy (β = -.06), role clarity (β = .00), and self-efficacy (β = .03) were significant. However, feedback did predict relational trust significantly (β = .56, p < .001). Additionally, relational trust significantly predicted job autonomy (β = .27, p < .001), role clarity (β = .57, p < .001), and self-efficacy (β = .24, p < .01). Time pressure significantly predicted self-efficacy (β = .20, p < .05), while the path to job autonomy (β = -.06) and role clarity (β = -.06) were not significant. In addition to the direct paths, there were significant indirect effects of feedback on the dependent variables via relations trust: job autonomy (β = .15, p < .01), role clarity (β = .32, p < .001), and self-efficacy (β = .14, p < .05). The indirect effects of feedback on the dependent variables via time pressure were all close to zero and non-significant.

Due to the results above, we decided to test a modified model where the direct paths from feedback to the dependent variables (job autonomy, role clarity, self-efficacy) were removed (see figure 2). This model was equivalent with the hypothesized model (see figure 1). This revised model fit the data slightly better than the previous model: χ^2 [123] = 155, p = .026; RMSEA = .032 [90% CI = .012– .047]; CFI = .98; SRMR = .048. As in the previous model, feedback significantly predicted relational trust (β = .56, p < .001), but not time pressure (β = -.08, p >.05). Relational trust significantly predicted job autonomy (β = .23, p < .001), role clarity (β = .57, p < .001), and self-efficacy (β = .26, p < .001). In addition, there

were significant indirect effects of feedback on job autonomy (β = .13, p < .01), role clarity (β = .32, p < .001), and self-efficacy (β = .14, p < .001) via relational trust. Only one of the direct paths from time pressure to self-efficacy (β = .20, p < .01) was significant. Neither the path to job autonomy (β = -.06, p >.05) nor the path to role clarity (β = -.06, p >.05) were significant. Moreover, no significant indirect effects of feedback on the dependent variables via time pressure were found. Altogether, the independent variables (inclusive mediators) explained 6% of the variance in autonomy, 34% of the variance in role clarity, and 9% of the variance in self-efficacy.

[Figure 2 about here]

Discussion

The purpose of this study was to explore how principals' feedback for employees, relational trust and time pressure were related to department heads' perceptions of role clarity, job autonomy, and self-efficacy in instructional leadership. Moreover, we wanted to examine the function of relational trust and time pressure as intermediate variables. Although the model testing revealed there were no direct effects of feedback on job autonomy, role clarity, or self-efficacy, feedback had significant indirect effects on the same set of variables via relational trust. These results support hypotheses 1, 2, and 5. Furthermore, it illustrates the central role relational trust plays in school organizations, which corresponds to theories on relational trust (Bryk & Schneider, 2002; Colman, 1990; Tschannen-Moran, 2014) and previous findings in teacher samples (Helstad & Møller, 2013; Tiplic, Brandmo, & Elstad, 2015; Tiplic, Lejonberg, & Elstad, 2016; Van Maele & Van Houtte, 2012).

In this study, the feedback between the school principal and the followers seemed to induce department heads' sense of relational trust, which related to their perception of job autonomy. Given that feedback can take several forms (Atwater, Roush, & Fischthal, 1995), it is not obvious that frequent feedback induces more trust or perceptions of job autonomy. In a

case study, Abrahamsen (2017) found that department heads often experienced tension between being controlled and having autonomy in work. On one hand, the department heads wanted to be influential leaders with decisional power. On the other, they often needed confirmation from their principal on the decisions they made. Abrahamsen (2017) concluded that principals' approach to balancing control and autonomy was significant for how meaningful the department heads found their jobs. As such, the findings of this study may indicate that principals usually regulate their feedback with concern for control and autonomy for their followers. However, since we could not find a direct effect from feedback to autonomy, only an indirect effect via relational trust, it seems like communication characterized by trust is crucial for having a positive outcome related to job autonomy.

Role clarity was the dependent variable with the strongest relation to trust (directly) and feedback (indirectly). Although the link between these variables was found in previous research in the business sector (Podsakoff, MacKenzie, & Bommer, 1996), the strength of these relationships in our study was somewhat surprising. Previous research indicates that employees' understanding of their role may stem from various sources and diverse levels in the organization (Lapointe, Vandenberghe, & Boudrias, 2014; Kauppila, 2014). For instance, department heads can learn what is expected from them by approaching strategic plans, local rules, decisions made in the leadership team and from colleagues, as well as the organizational culture. One can also imagine that the department heads, particularly newcomers in the role, seek feedback from the principal to clarify their mandate or to get support in their decisions (Whitaker & Dahling, 2007). Thus, the feedback may be initiated both by principals and department heads. Independent of who takes the initiative, the results from this study indicate that relational trust is important for gaining a positive outcome.

Self-efficacy is an important job-related variable, and predicts better work-related performance, higher levels of job satisfaction, and lower motivation for leaving the position

(Federici & Skaalvik, 2012; Judge et al., 2007). At a time when department heads receive more responsibility for leading their teachers (Abrahamsen, 2014), whether through mentoring activities, professional development work, or teacher evaluation arrangements, self-efficacy for instructional leadership emerges as a key-construct for mid-level leadership in schools. The results of this study indicate that regular feedback from the principal, as well as trusting communication with the principal, can build department heads' self-efficacy for instructional leadership. It should also be noted that self-efficacy and role clarity were moderately correlated in our models. This might imply that building role clarity and self-efficacy is associated with processes in these leaders' development.

Feedback was not significantly related to time pressure. Moreover, feedback had no significant effects on job autonomy or role clarity via time pressure. Thus, hypotheses 3 and 4 were not supported. However, the analyses revealed a negative correlation between time pressure and relational trust, which means that department heads that experienced a certain level of time pressure in their job, also tended to feel less trust in their relationship with the principal or school leadership team. A possible explanation of this finding is that department heads were dissatisfied with the workload distribution within the leadership team, reducing their relational trust. However, since we did not measure workload, this is speculation.

The analyses also revealed a significant positive path from time pressure to self-efficacy. This result means that higher scores of perceived time pressure tended to go together with higher scores of self-efficacy. There might be several explanations for this finding, although such explanations are also speculative. For example, it might be that the department heads, who feel confident in instructional leadership, take more responsibility and are busier with instructional leadership activities, and because of that feel more time pressure. Previous research also indicates that time pressure, up to a certain level, can have positive outcome and induce creativity based on personality factors (e.g. openness to new experiences) (Baer &

Oldham, 2006). Moreover, in studies of teachers, Skaalvik and Skaalvik (2010; 2011) found a positive, but weak, relationship between time pressure and job satisfaction, which also highlighted the possibility of positive outcomes from time pressure. It is, however, most common to associate heavy workload and time pressure with negative outcomes like emotional exhaustion and burnout (Friedman, 2002; Skaalvik & Skaalvik, 2010, 2011).

Altogether, this study implies that regular feedback from school principals on job performance produces several positive outcomes for department heads: increased feeling of job autonomy, better understanding of what is expected of them in their role, and higher self-efficacy for instructional leadership. However, an important condition for these positive outcomes seems to be relational trust, which greases the school organizations' 'machinery'. Previous research indicates that school principals play a critical role in engaging department heads in a positive way that contributes to school improvement and growth (Klar, 2011). Thus, this study implies that school principals should consider what kind of strategies or leadership styles they choose to implement in their school (Abrahamsen, 2018). According to the findings in this study, leadership that emphasizes and incorporates relational trust is preferable. This might include openness about organizational and personal values, frequent and open communication between the members of the leadership team, agreement about administration rules, having routines for solving disagreements, and transparent decision-making (Bryk & Schneider, 2002; Colman, 1990; Colman, 2012; Güntert, 2015; Tschannen-Moran, 2014.)

The results of this study may also indicate that there are various vulnerabilities related to the role of middle leaders in schools. On the personal level, middle leaders in schools are often in the beginning of their leadership career. Usually, they have limited managerial experience and competence, and their leadership identity is still in its early development phase (Busher, 2005; Day & Harrison, 2007). In addition, they have to operate in an

environment where their responsibility and authority are not always made explicit (Abrahamsen, 2018). In situations when the middle leader might need supervision and support from their superior, a break in communication or a lack of relational trust might cause a chain of negative consequences (e.g., a drop in work-related motivation and well-being, insecurity about task solving, and lower job achievement). Consequently, this also represents a system-level vulnerability; more specifically, this represents a vulnerability related to how we organize leadership in our schools and how we recruit middle leaders (who are typically experienced teachers). Therefore, it is important to gain updated knowledge about educational middle leaders' work situation and role and how this role can be organized in efficient ways as well as to explore the challenges and constraints related to such positions. Such knowledge might, in turn, have implications for recruitment, training, and development programs. In this respect, the current study represents a first step on this new avenue.

Strengths, limitations, and implication for further research

One strength of this study was that the psychometric characteristics of the structural models were found satisfactory. In addition, the use of latent variables made it possible to identify measurement errors and consider only the true variance of the relationships between the latent variables (Brown, 2015). Among the limitations of the present study was the constructs were measured with a self-reported questionnaire, which are subjective in nature (Fowler, 2014). Consequently, a methodological triangulation or multilevel approach (e.g., including principal data) would be preferable. Therefore, we suggest that further research should combine survey data with observations of department heads' work or their principals' quality judgments of their work. Moreover, interviews might have given us more in-depth information about their intentions and reflections. Such approaches should strengthen interpretive validity and provide a better understanding of the nature of the feedback given, and the interaction between the department heads and their principals.

Another limitation was the possibility of concurrent models and interpretation of causal relationships. Although the tested models were theory-based, there might be other plausible models. Some of the tested relationships may have a bidirectional nature, since one can imagine that increased role clarity may cause more relational trust, not only the other way around. However, given the analytical context and our set of constructs, we considered the tested models were most plausible. Related to this is the interpretation of causality. This study was based on a cross-sectional design and correlational data. Thus, while the structural equation modeling we performed comes with causal terminology (e.g., direct and indirect effects), longitudinal or, preferably, experimental work is needed to draw firmer causal conclusions about the relationships we tested.

It should be noted that this study was not based on a randomized sampling. Consequently, we cannot generalize the finding to Norwegian department heads with certainty. However, given the participants' distribution geographically and by school type and size, we believe these findings represent salient characteristics of the Norwegian population of department heads. Moreover, since the phenomenon of school department leadership is not unique for Norway, we believe that our findings also have transfer-value to other comparable countries. An interesting avenue for further research in this respect is to replicate this study across diverse school cultures and accountability regimes.

Conclusion

This study contributes in several ways to the growing body of knowledge about middle leadership in schools. Firstly, the results of the current study indicate that frequent feedback from a leader (i.e., a school principal) on work quality may contribute positively to department heads' understanding of their job responsibilities (role clarity), their perception of job autonomy, and their self-efficacy for instructional leadership. However, the relationships between feedback and the aforementioned outcome variables were mediated by relational

trust. This finding suggests that a trustful relationship between a principal and a middle leader is a condition for a positive outcome from performance feedback.

Given the research design of the current study and the measures used (see the Method section), we were not able to elaborate the content and form of the feedback or in which particular context the feedback was given. Thus, we suggest that future studies should explore which type and form of feedback seem more useful for creating positive outcomes for school middle leaders (Abrahamsen, 2018). Related to this, we also suggest future studies to explore principals' feedback strategies and considerations for using adapted and personalized feedback (e.g., whether the principals consciously adapt their feedback to each employee's needs and personality).

In this study, the middle leaders' trust in the principal was a condition for a positive outcome from the performance feedback. However, given the current study's design and methodology, we were not able to provide detailed information about how trust and feedback interact with or influence one another (Colman, 2012; Tschannen-Moran & Gareis, 2019). Although the tested models were theory-based, the tested relationships may have a bidirectional nature (see also the Limitation section). Consequently, we suggest that future studies should gather more detailed research evidence concerning how trust emerges between principals and school middle leaders, and particularly how trust in such relationships is accompanied by various forms of feedback.

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   570–591.

Table 1.
Descriptive statistics and estimated inter-correlations for the latent variables

Variables	1	2	3	4	5	6
1. Feedback						
2. Relational trust	.56***					
3. Time pressure	-.08	-.20*				
4. Job autonomy	.10	.24***	-.10			
5. Role clarity	.32***	.58***	-.17	.31***		
6. Self-efficacy	.14	.22**	.15	.05	.33***	
Mean	4.35	5.13	4.00	5.12	4.86	5.42
SD	1.06	0.76	0.98	0.69	0.62	0.84

$* p < .05, ** p < .01, *** p < .001.$

Figure captions

Figure 1. The hypothesized model. + = positive prediction, – = negative prediction, +/– =

valence not prespecified.

Figure 2. The final model of standardized path coefficients and explained variance in the

prediction of dependent variables. * $p < .05$, ** $p < .01$, *** $p < .001$.
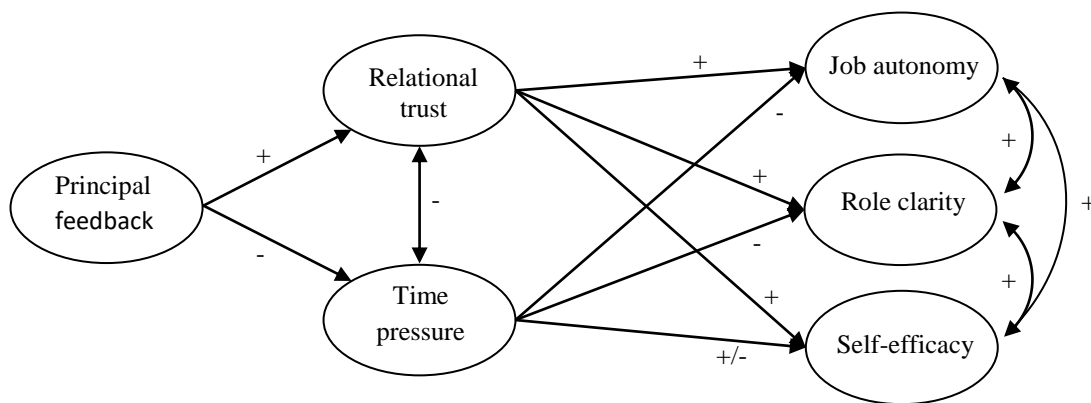
Figure 1

Figure 2

$R^2 = 31\%$

$R^2 = 6\%$

Relational trust

Principal feedback

.56***

-.08

.23***

-.06

.22**

.01

$R^2 = 34\%$

.57***

Job autonomy

Role clarity

-.18*

-.06

.27**

Time pressure

.26***

.20*

Self-efficacy

$R^2 = 1\%$

$R^2 = 9\%$