



UvA-DARE (Digital Academic Repository)

Social exchange in Dutch schools for vocational education and training

The role of teachers' trust in colleagues, the supervisor and higher management

Thomsen, M.; Karsten, S.; Oort, F.J.

DOI

[10.1177/1741143214535737](https://doi.org/10.1177/1741143214535737)

Publication date

2015

Document Version

Final published version

Published in

Educational Management and Administration

[Link to publication](#)

Citation for published version (APA):

Thomsen, M., Karsten, S., & Oort, F. J. (2015). Social exchange in Dutch schools for vocational education and training: The role of teachers' trust in colleagues, the supervisor and higher management . *Educational Management and Administration*, 43(5), 755-771. <https://doi.org/10.1177/1741143214535737>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

Social exchange in Dutch schools for vocational education and training: The role of teachers' trust in colleagues, the supervisor and higher management

Educational Management
Administration & Leadership
2015, Vol. 43(5) 755–771
© The Author(s) 2014
Reprints and permission:
sagepub.co.uk/journalsPermissions.nav
DOI: 10.1177/1741143214535737
emal.sagepub.com



Maren Thomsen, Sjoerd Karsten and Frans J Oort

Abstract

In this study we examined the role of trust as a mediator in social exchange between teachers and their school, particularly between perceived procedural justice and perceived organizational support, on the one hand, and teachers' affective organizational commitment and organizational citizenship behaviour, on the other hand. A model was developed that distinguished between trust in three agents: team members, the supervisor and higher management. The model was tested in the context of Dutch schools for vocational education and training on a sample of 845 teachers. Data was collected using questionnaires and was analysed with structural equation modelling. Results show that trust was a predictor for desirable teacher outcomes and a mediator in social exchange. In particular trust in team members was related to affective organizational commitment and organizational citizenship behaviour. Trust in the supervisor and trust in higher management were neither related to organizational commitment nor to organizational citizenship behaviour. Perceived organizational support was related to teachers' trust in all trust targets. It also had a direct effect on organizational commitment. Procedural justice influenced trust in the supervisor and trust in higher management. The authors discuss the results in light of previous findings and the context of the study.

Keywords

Trust, social exchange, schools, organizational citizenship behaviour, organizational commitment, organizational support, procedural justice, management, teachers

Corresponding author:

Maren Thomsen, University of Amsterdam, Nieuwe Prinsengracht 130, 1018 VZ Amsterdam, The Netherlands.
Email: M.Thomsen@uva.nl

Introduction

Having committed employees who are willing to go beyond the call of duty is one of the most critical success factors of contemporary organizations (Organ, 1997; Rappaport et al., 2003; Smith et al., 1983). For the effectiveness of schools it is important that teachers, for example, help and support each other and that they seek ways to improve work processes and share their experiences. Although this behaviour, referred to as organizational citizenship behaviour, does usually not directly contribute to the core tasks of the organization, it maintains the broader organizational, social and psychological environment to facilitate the core activities (Motowildo et al., 1997). Also teachers' affective commitment to the school organization can contribute positively to the effectiveness of schools. Employees who feel affectively committed to their organization are more likely to be loyal and to put extra effort into their work and they are less likely to quit their job (e.g. Meyer et al., 2002). In educational research affective commitment has received less attention than in other fields of research (Chan et al., 2008); however, teachers' organizational commitment has empirically been linked to their citizenship behaviour (Bogler and Somech, 2004; Somech and Bogler, 2002).

A lot of attention has been paid to factors that might foster organizational citizenship behaviour (e.g. Organ et al., 2006) and affective organizational commitment (e.g. Meyer et al., 2002). Also in the educational context several studies have investigated antecedents of organizational citizenship behaviour and organizational commitment, such as empowerment (e.g. Bogler and Somech, 2004, 2005), school climate (e.g. DiPaola and Tschannen-Moran, 2001), trust (e.g. DiPaola and Hoy, 2005; Ghamrawi, 2011) and leadership (e.g. Hulpia et al., 2011; Khasawneh, 2011; Somech and Ron, 2007). Although organizational characteristics have been studied in relation to teacher outcomes, a more comprehensive view of the employee–organization relationship to explain attitudes and behaviour of teachers, particularly in large organizations with several management layers, has been fairly neglected in educational research. In this study we related to social exchange theory (Blau, 1964), stating that the employee–organization relationship goes beyond the simple economic exchange of means. Therefore, we particularly focused on the role of trust in social exchange.

Empirical studies that included trust as a mediator in social exchange (Ayree et al., 2002; Colquitt et al., 2012; Konovsky and Pugh, 1994) mainly focused on trust in one single exchange partner, usually the supervisor. However, the overall level of trust an employee has in his or her organization is likely to be an aggregate of the trustworthiness of a variety of different exchange partners (Dietz and Den Hartog, 2006; Gillespie and Dietz, 2009). To capture the scope of the whole school organization, we included three trust targets of teachers: trust in higher management, trust in the supervisor and trust in team members.

This study makes three contributions to the literature. Firstly, we looked at teachers' attitudes and organizational behaviour from a social exchange perspective and examined the role of trust as a mediator in the relationship between teachers and their school. Secondly, our model distinguished between three trust targets of teachers: the teacher team, the supervisor and higher management. This made it possible to explore the separate contribution of teachers' trust in different trust targets to their attitudes and behaviours towards the school. Finally, studying employee–organization relationships linked to specific organizational contexts is underdeveloped (Coyle-Shapiro and Shore, 2007). Since the organizational context might influence the relative importance of different exchange partners within organizations, it is important to take the specific context into account. In this study we examined the social exchange relationship between teachers and their

school in the context of Dutch schools for vocational education and training (VET), which can usually be characterized as team-based organizations.

Context of the study: Dutch vocational education and training schools

Dutch VET schools provide a vocationally oriented type of schooling that prepares students for middle-ranking positions in industry, government and the service sector (Karsten and Meijer, 1999). In the Netherlands almost half of the students in the second phase of secondary education attend this kind of education. In 2012 there were 70 VET schools in the Netherlands with on average 7704 students, some schools having as many as 20,000 students and more. VET schools operate quite autonomously from the central government with a lot of formal decision-making being made at the school level. Due to the lump-sum financing,¹ schools have, for example, the possibility to differentiate in class size and didactic approach (Karsten and Meijer, 1999).

Due to their size, in VET schools leadership usually is distributed. VET schools usually have three management layers: supervisors or middle managers (first level), who usually manage between one and four (teacher) teams, location directors or sector directors (middle level), who either manage one of the schools' locations or are responsible for one branch of VET, and the school's director(s)² (top level). Furthermore, most teachers have, next to their teaching obligations, certain administrative tasks, such as team coordination or coordination of students' work placements (Groenberg and Visser, 2011). Tasks of first-level managers usually are the translations of the school's objectives to the team level, educational leadership and coaching of the teacher team(s), evaluation of the education provided by the teacher team(s), recruitment and selection of new personnel, and advising the middle-level managers (De Rooij and Vink, 2009).

In an attempt to reduce bureaucratic structures in VET schools, more authority has been given to teacher teams (Hermanussen and Thomsen, 2011). Teacher teams, currently, form the core organizational units of VET schools (Groenberg and Visser, 2011). They are usually organized around groups of students following the same educational track and are responsible for the (further) development and provision of the trainings as well as some administrative tasks, such as coordination tasks and planning, formally carried out by middle management (Hermanussen and Thomsen, 2011; Witziers et al., 1999). Since 2008 the collective agreement³ gives teacher teams, for example, the right to decide how certain tasks should be distributed in the team. Management as well as the majority of the team members have to approve to it (MBO Raad, 2008).

Theoretical background

Social exchange

Teachers' organizational citizenship behaviour and commitment to the school organization can be related to their relationship with (agents of) the school. According to Blau (1964), relationships can be seen as the product of a history of exchange. This exchange can be either economic or social. In economic exchange it is specified in advance what is exchanged and when the exchange occurs (Organ et al., 2006). In the teacher-school relationship the basis for economic exchange usually is the employment contract. Teachers agree to perform certain tasks for a specified period of time in exchange for basic pay, benefits and privileges. In addition to the exchange agreed upon in the employment contract, teachers are involved in economic exchange whenever they have clear arrangements about the exchange. This can be in exchange with managers or other agents of the organization, such as colleagues. Once teachers start interacting with others in their school, their

relationship is likely to expand beyond the economic exchange and they will develop a social exchange relationship with (agents of) their school organization. In contrast to economic exchange, in social exchange it is not specified what will be exchanged (Blau, 1964). This means that exchange partners offer benefits to one another without knowing when or whether the other will reciprocate.

In the teacher–school relationship, teachers may engage in social exchange with (agents of) the school by performing organizational citizenship behaviour. Organizational citizenship behaviour has been defined as behaviour that is ‘discretionary, not directly or explicitly recognized by the formal reward system and that in an aggregate promotes the effective functioning of the organization’ (Organ et al., 2006: 8). Thus, it involves activities that exceed the duties of the teacher’s employment contract and other agreements. Teachers might benefit (agents of) the school by, for example, attending voluntary meetings, organizing open days or helping colleagues with their work. In this way, organizational citizenship behaviour might serve as a way to reciprocate for benefits teachers receive from the school organization.

Teachers might also feel commitment to their school organization due to social exchange. Affective organizational commitment has been defined as ‘employees’ emotional attachment to, identification with, and involvement in, the organization’ (Allen and Meyer, 1990: 1). Exchange theorists have conceptualized the development of commitments between partners, next to purely behavioural patterns of exchange, as ‘affective bonds that develop from repeated experiences with successful exchanges between the same partners’ (Molm et al., 2000: 1405). In social exchange positive experiences with (agents of) the organization are likely to be attributed to the organization’s good will due to the absence of assurance structures, and are thus likely to increase the feeling of affection and commitment towards the organization.

Benefits teachers might receive from (agents of) the school, on the other hand, are support to perform their jobs effectively and for their socio-emotional needs, recognition of extra work effort and fair treatment (Ayree et al., 2002; Organ et al., 2006). Perceived organizational support can be seen as the general belief of employees ‘concerning how much an organization values their contribution and cares about their well-being’ (Eisenberger et al., 2001: 42). Several studies have found support for positive links between perceived organizational support and organizational citizenship behaviour (e.g. Eisenberger et al., 2001; Liden et al., 2003; Rhoades and Eisenberger, 2002; Wayne et al., 2002; Witt, 1991), as well as perceived organizational support and affective organizational commitment (e.g. Eisenberger et al., 2001; Meyer et al., 2002; Rhoades et al., 2001). Also fair treatment, referred to as perceived organizational justice, has been found to be an important antecedent of affective organization commitment (e.g. Colquitt et al., 2001; Johnson and Chang, 2008; Moorman et al., 1993), as well as organizational citizenship behaviour (e.g. Masterson et al., 2000; Moorman et al., 1993; Niehoff and Moorman, 1993).

The role of trust in social exchange

Although social exchange theory is used regularly to explain the relationship between beneficiary organizational characteristics and employees’ attitudes and behaviour towards the organization, only a few researchers have empirically studied the underlying processes in social exchange. In line with Blau (1964) we argue that trust is a key element in social exchange. The uncertainty whether the other party will pay back the *debt* indicates that risk is always involved in social exchange (Molm et al., 2000). However, the feeling of risk is likely to decrease once the social exchange relationship has grown stronger and experiences have taught that one can trust another

to reciprocate. Trust can be seen as a way to reduce uncertainty (Mishra, 1996) and can therefore be expected to be a key element in social exchange. On the one hand, without the willingness to take a risk and to accept uncertainty, a social exchange relationship is unlikely to develop and, on the other hand, social exchange enables the development of trust. In economic exchange trust is less likely to develop, because the exchange is agreed upon in advance, but in social exchange reciprocation is likely to enhance trust in the other party and to be seen as a sign of the other party's trustworthiness (Molm et al., 2000).

Trust is a very complex concept, which has, for example, been studied as part of social capital (e.g. Dhillon, 2009) and leader–member exchange (e.g. Wayne et al., 2002). A great diversity of conceptualizations and definitions of trust exist. Dietz and Den Hartog (2006), for example, divide trust into input, process and output. The input contains elements, such as the trustor's predisposition to trust, characteristics of the trustee and the quality and nature of the trustor–trustee relationship, the process consists of the belief and the decision to trust, and the output consists of the behavioural consequences. There is a lack of consensus on a precise definition of trust; however, many definitions focus on the trust process and include the willingness to take a risk or be vulnerable in the relationship with another party (e.g. Mayer et al., 1995; Rousseau et al., 1998; Tschannen-Moran and Hoy, 2000). Rousseau et al. (1998: 395), for example, define trust as 'a psychological state comprising the intention to accept vulnerability (to another) based upon positive expectations of the intentions or behaviour of another'.

From the employees' perspective, organizational support and organizational justice are likely to influence the level of employees' trust in the organization. Trust in a person or another entity depends to a large degree on the characteristics of the trustee (Dietz and Den Hartog, 2006). The characteristics that make a trustee trustworthy have been studied quite intensively. Most frequently ability, benevolence, integrity and predictability are associated with increasing the trustworthiness of a trustee (Dietz and Den Hartog, 2006). If organizational support, such as the expression of concern and recognition of extra effort, is ascribed to the discretionary choice of (the agent of) the organization rather than external control, such as the employment contract, it is likely to be associated with the benevolence of the organization (Rhoades and Eisenberger, 2002). Hence, it might contribute positively to the evaluation of the organization's trustworthiness.

In addition, fairness in the organization might contribute positively to the evaluation of the organization's trustworthiness. It might be an expression of the integrity of the organization and increase the level of trust employees have in the organization. In fact, meta-analyses have found positive relationships between justice and trust (e.g. Cohen-Charash and Spector, 2001; Colquitt et al., 2001; Dirks and Ferrin, 2002).

Employees' trust in the organization is likely to affect employees' affective commitment and organizational citizenship behaviour. As Chiaburu and Byrne (2009: 205) suggested, 'trust motivates individuals to commit, to make the organization successful and as a result to perform for the organization'. Some scholars have theoretically (e.g. Blau, 1964; Büssing, 2000; Molm et al., 2000) and empirically (e.g. Ayree et al., 2002; Büssing, 2002) shown a positive relationship between affective organizational commitment and trust. Also organizational citizenship behaviour has theoretically been linked to trust. Mayer et al. (1995), for example, suggested that employees who trust their organization are more willing to cooperate. There is also some empirical evidence of a positive link between trust and organizational citizenship behaviour (e.g. Ayree et al., 2002; Konovsky and Pugh, 1994).

In order to find out which role trust plays in the social exchange relationship between Dutch VET teachers and their school, we focused in this study on two research questions:

To what extent do perceived organizational support and perceived procedural justice relate to the level of teachers' trust in the school organization (cf. teacher team, supervisor and higher management)?

To what extent does teachers' trust in the school organization (cf. teacher team, the supervisor and higher management) relate to their affective organizational commitment and organizational citizenship behaviour?

Method

Procedure

Teachers ($n = 3396$) of 10 Dutch VET schools were informed about the study through email by the researchers and partly by management staff of the schools and asked to participate in the survey. A digital questionnaire, which included measures of perceived procedural justice, perceived organizational support, trust in higher management, trust in the supervisor, trust in the teacher team, organizational citizenship behaviour and affective organizational commitment, was distributed to the employees.

Sample

Of the teachers, 26.5% returned the questionnaire. Some cases could not be used, resulting in a final sample size of 845. The average age of the respondents was 48 years ($SD = 10.2$) and 54% was 50 years or older; 46% was female. Based on information about the demographic characteristics of the Dutch VET teachers, the sample can be considered representative: in 2011 55% of the population of Dutch VET teachers was 50 years or older and 45% was female (Ministry of Education, Culture and Science, 2012). Of the respondents, 13% worked in small schools (<5000 students), 10% in medium-sized schools (5000–10,000 students) and 77% in large schools (>10,000 students). Of all VET teachers in the Netherlands, 18% work in small schools, 22% in medium-sized schools and 60% in large schools. This means that our sample has some underrepresentation of teachers working in medium-sized schools and some overrepresentation of teachers working in large schools. With regard to the location of the schools, our sample has an underrepresentation of teachers working in schools in large cities. Of the respondents, 6% work in large cities (>300,000 inhabitants) and 94% in small cities and towns ($\leq 300,000$ inhabitants) compared to 21% and 79%, respectively, of all VET teachers in the Netherlands. However, in line with the population of VET teachers, the sample consists of more teachers working in schools located in small cities and towns than teachers working in schools in larger cities. In the analyses, we corrected for the under- and overrepresentations of respondents from small, medium-sized and large schools, because size of the school might considerably influence social relationships within schools.

Measures

The variables were measured with multi-item scales. These scales consisted of previously validated items, translated into Dutch, and newly developed items. Because we used translated and some newly developed items, we used principal component analyses to check the structure of the questionnaire. In general each of the items had its highest loading on the component associated with the other items of the same scale. An exception is explained in the section below. For most items, respondents indicated the extent of their agreement with each item on a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Perceived procedural justice (Cronbach's $\alpha = 0.85$). Scholars usually make a distinction between perceived distributive justice, who gets what, perceived procedural justice, the fairness of the mechanisms of distribution, and interactional justice, the perceived fairness of the interpersonal treatment (Cohen-Charash and Spector, 2001; Colquitt et al., 2012; Hoy and Tarter, 2004; Niehoff and Moorman, 1993). We focused in this study on perceived procedural justice because of the specific context and purpose of the study. Procedural decisions, other than distributive decision, are taken within VET schools and might therefore contribute to the evaluation of the trustworthiness of the organization. Niehoff and Moorman (1993) developed and validated a six-item measure of perceived procedural justice. The items were slightly adjusted to fit the context of VET schools. One item was eliminated. In addition, the term *general manager* was replaced by the term *organization*. Example items are 'This organization makes sure that all employee concerns are heard before job decisions are made', 'The rules in this organization are followed by everyone' and 'This organization provides extra information and explains decisions when employees ask for that'.

Perceived organizational support (Cronbach's $\alpha = 0.87$). Five high-loading items of the perceived organizational support scale of Eisenberger et al. (1986) were selected and slightly adjusted to fit the present context. Example items are 'This organization values my contribution to its well-being', 'Even if I do my very best, this organization does not notice that' and 'This organization ignores all of my criticism' (negatively formulated question).

Trust in higher management (Cronbach's $\alpha = 0.93$), *trust in the supervisor* (Cronbach's $\alpha = 0.94$), *trust in the teacher team* (Cronbach's $\alpha = 0.88$). A six-item scale to measure trust in higher management (THM), an eight-item scale to measure trust in the supervisor (TS) and an eight-item scale to measure trust in the teacher team (TT) were developed based on the work of Gillespie (2003). The THM scale contains questions about the belief of teachers in the trustworthiness of higher management staff. An example item is 'I believe that higher management staff takes account of my wishes and needs'. The TS and TT scales contain questions about the willingness of teachers to rely on their supervisor, and respective members of their team, in situations in which they are vulnerable; thus, their behaviour implies taking a risk. Example items are 'I am willing to rely on my supervisor to make every effort to support my needs' (TS) and 'I am willing to believe that my colleagues will support me in difficult situations' (TT).

Affective organizational commitment (Cronbach's $\alpha = 0.86$). The six-item scale of Honingh (2008), developed and tested for the context of Dutch VET schools, was used to measure affective organizational commitment. Example items are 'This organization means a lot to me' and 'The problems of this organization feel like my own problems'.

Organizational citizenship behaviour towards colleagues (Cronbach's $\alpha = 0.78$), *organizational citizenship behaviour regarding information* (Cronbach's $\alpha = 0.68$), *organizational citizenship behaviour regarding extra tasks* (Cronbach's $\alpha = 0.86$). Two scales to measure organizational citizenship behaviour towards the organization (OCBO) and organizational citizenship behaviour towards the teacher team (OCBT), developed for elementary schools by Somech and Drach-Zahavy (2000), were adjusted to fit the present context of VET schools. Eight items were eliminated and two newly developed items were added, resulting in a five-item scale for OCBO and a six-item scale for OCBT. Respondents we asked to indicate the frequency of their behaviour on a five-point Likert scale (1 = (almost) never, 5 = very often). For the recent sample, principal component analysis indicated a three-component

structure of the items: one component including four items related to helping colleagues (OCBC), one component including three items related to getting informed about what is going on in the organization and sharing information (OCBIN) and one component including two items related to the willingness to volunteer for extra tasks (OCBET). Example items are 'I help colleagues who have been absent for a while' (OCBC), 'I keep myself informed about what is going on in this organization' (OCBIN) and 'I take responsibilities that are formally not part of my job' (OCBET).

Analytical method

The research questions were investigated through structural equation modelling. The overall goodness of model fit was evaluated using the maximum likelihood chi-square (χ^2_M) and the root mean square error of approximation (RMSEA). The χ^2_M measure provides a test of exact fit: if the χ^2_M value is significant then we assume that the model does not exactly fit the data. The RMSEA is an index of approximate fit. A RMSEA value smaller than 0.05 indicates close fit of the model, a value between 0.05 and 0.08 indicates reasonable fit and a value larger than 0.10 suggests poor fit (Browne and Cudeck, 1992).

To account for the dependency between members of the same team we identified clusters through team membership and applied the robust maximum likelihood (MLR) method, as implemented in Mplus (Muthén and Muthén, 2006). When the information regarding team membership of a respondent was not available, we used school membership instead.⁴

The initial path model was modified on the basis of standardized residuals and modification indices as indicators for poor representation of the observed relationships, but only if theoretically justified. To test whether the fit of the adjusted model improved significantly in comparison to the previous model, we used Satorra–Bentler scaling of the chi-square difference test (χ^2_D) to account for non-normality (Satorra, 2000). If the χ^2_D is statistically significant, the modified model represents the data better than the previous model.

Because the sample was not representative regarding school size, we corrected in the analyses for these under- and overrepresentations.

Results

To test the anticipated relationships we assessed the fit of a path model with full mediation (Figure 1). This model had a poor fit ($\chi^2_M = 86.96$, $df = 8$, $p < 0.000$, RMSEA = 0.108, 90% confidence interval (CI) = [0.088, 0.129]). The highest modification index suggested that the fully mediated effect via trust underestimated the relationship between perceived organizational support and affective organizational commitment. A direct relationship between perceived support and organizational commitment is plausible because being committed does not necessarily imply taking a risk. Commitment might develop through other mechanisms, such as satisfaction or affection. The addition of a direct effect of perceived organizational support on affective organizational commitment improved the fit significantly. The model with partial mediation (Figure 2) fitted significantly better ($\chi^2_D = 67.49$, $df = 1$, $p < 0.01$). The χ^2_M measure of exact fit is still significant ($\chi^2_M = 20.15$, $df = 7$, $p = 0.005$), but the RMSEA index indicates close fit (RMSEA = 0.047, CI = [0.024, 0.072]). This model is the best-fitting model since additional adjustments did not lead to significant better fitting nor theoretical plausible models. Figure 2 gives a graphical display of this final model with standardized estimates of all direct effects.

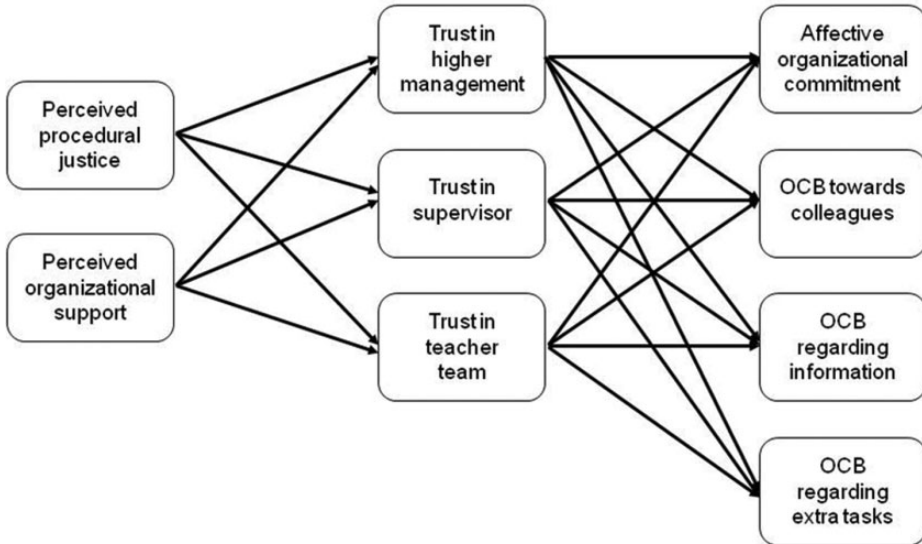


Figure 1. Hypothesized model of organizational characteristics, trust and teachers' outcomes. OCB: organizational citizenship behaviour.

Note: For clarity we left out the (residual) covariances.

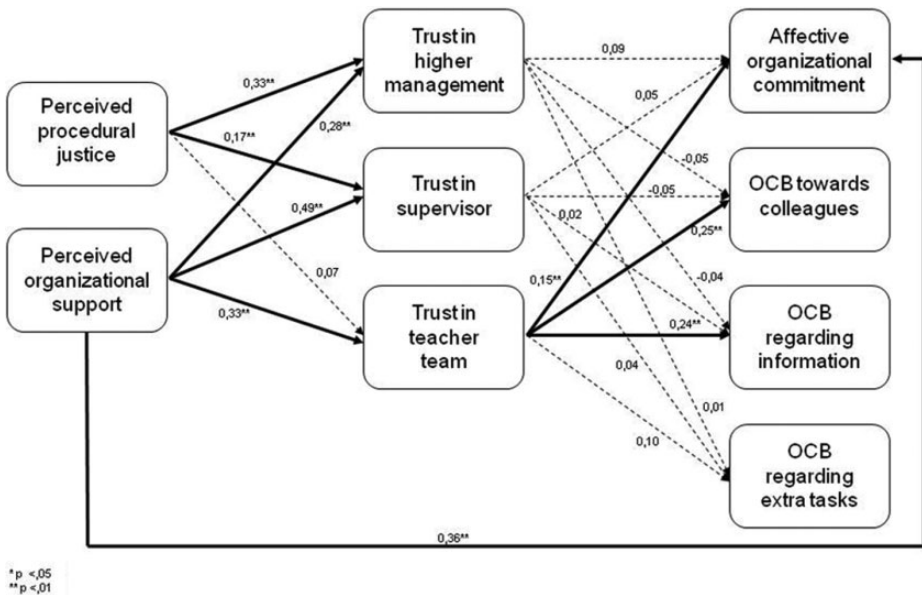


Figure 2. Final model of organizational characteristics, trust and teachers' outcomes. OCB: organizational citizenship behaviour.

Note: For clarity we left out the (residual) covariances.

Table 1 represents the standardized parameter estimates of the final model. The results show that perceived organizational support and perceived procedural justice positively influence the level of teachers' trust in their school organization. The levels of trust in higher management and in the supervisor are significantly related to both organizational characteristics, support and justice. Trust in the teacher team, on the other hand, is only affected by perceived support.

The results also indicate that teachers' trust in the school organization influences their affective commitment to the school and their citizenship behaviour. However, trust in the different trust targets contributes to these outcomes to different degrees. Trust in the teacher team is significantly related to teachers' affective organizational commitment and to their citizenship behaviour towards colleagues and regarding extra information. Trust in higher management and trust in the supervisor do not affect any of the teacher outcomes.

The results show that trust plays an important role in social exchange between teachers and their school. However, not all trust targets are equally relevant. Trust in the teacher team plays a role in the relationship between support and the teacher outcomes. Trust in the supervisor and trust in higher management do not at all mediate between support and procedural justice, on the one hand, and teacher outcomes, on the other hand. Furthermore, the findings indicate that the relationship between support and commitment is not fully mediated by trust. Perceived organizational support also influences organizational commitment directly.

Discussion

The purpose of this study was to examine the role of trust in social exchange between Dutch VET teachers and their school organization. Structural equation modelling results provide evidence that trust mediates between perceived support, on the one hand, and teachers' commitment and citizenship behaviour, on the other hand. Teachers' trust in the organization, thus, seems to be important for them to be willing to go the extra mile for the school. However, the effects of perceived support are not completely mediated by trust. This indicates that affective commitment also develops without a trusting relationship between teachers and their school. The relationship between support and affective commitment might also be mediated by other mechanisms, such as job satisfaction or affection. Former studies have found a relationship between job satisfaction and commitment (e.g. Mathieu and Zajac, 1990; Meyer et al., 2002).

In this study we distinguished between teachers' trust in different trust targets within the school. Trust in the various targets seems to play a different role in the social exchange relationship between teachers and their school. In particular trust in the teacher team seems to be important for teachers' commitment and citizenship behaviour. Trust in the supervisor and trust in higher management do not seem to play any role at all. Since this finding is not in line with earlier studies that found, for example, a significant effect of trust in the supervisor on organizational citizenship behaviour (Ayree et al., 2002; Konovsky and Pugh, 1994), it might indicate that the results are specific for the context of the study. In the last decade distributing leadership among various players within schools, including teachers, has gained popularity (e.g. Harris et al., 2007; Hulpia et al., 2011). Also Dutch VET schools have implemented or are currently implementing team-based organizational structures giving teacher teams more decision-making power (Hermanussen and Thomsen, 2011). Teachers usually, informally, fulfil certain management tasks within their teams (Groenenberg and Visser, 2011; Witziers et al., 1999). In addition, the supervisor, who carries formal management responsibilities (first-level management), usually has a large span of control. This might reduce the interactions between supervisors and teachers and the visibility and

Table 1. Standardized parameter estimates of the final model of organizational characteristics, trust and teachers' outcomes.

Direct effects	Standardized estimates	Standard errors
Perceived procedural justice → Trust in higher management	0.332**	0.040
Perceived procedural justice → Trust in supervisor	0.166**	0.034
Perceived procedural justice → Trust in team members	0.069	0.044
Perceived organizational support → Trust in higher management	0.280**	0.034
Perceived organizational support → Trust in supervisor	0.491**	0.038
Perceived organizational support → Trust in team members	0.327**	0.040
Perceived organizational support → Affective organizational commitment	0.361**	0.041
Trust in higher management → Affective organizational commitment	0.087	0.045
Trust in higher management → OCB towards colleagues	-0.054	0.043
Trust in higher management → OCB regarding information	-0.036	0.038
Trust in higher management → OCB regarding extra tasks	0.008	0.042
Trust in the supervisor → Affective organizational commitment	0.051	0.044
Trust in the supervisor → OCB towards colleagues	-0.045	0.056
Trust in the supervisor → OCB regarding information	0.024	0.043
Trust in the supervisor → OCB regarding extra tasks	0.038	0.041
Trust in team members → Affective organizational commitment	0.151**	0.041
Trust in team members → OCB towards colleagues	0.250**	0.043
Trust in team members → OCB regarding information	0.244**	0.042
Trust in team members → OCB regarding extra tasks	0.104	0.054
Correlations	Standardized estimates	Standard errors
Perceived procedural justice – Perceived organizational support	0.682**	0.023
Residual covariances	Standardized estimates	Standard errors
Trust in higher management – Trust in supervisor	0.246**	0.041
Trust in higher management – Trust in team members	0.148**	0.039
Trust in supervisor – Trust in team members	0.317**	0.042
Affective organizational commitment – OCB towards colleagues	0.214**	0.039
Affective organizational commitment – OCB regarding information	0.199**	0.038
Affective organizational commitment – OCB regarding extra tasks	0.247**	0.041
OCB towards colleagues – OCB regarding information	0.493**	0.034
OCB towards colleagues – OCB regarding extra tasks	0.458**	0.033
OCB regarding information – OCB regarding extra tasks	0.361**	0.040
Residual variances	Standardized estimates	Standard errors
Trust in higher management	0.685**	0.030
Trust in supervisor	0.620**	0.033
Trust in team members	0.857**	0.022
Affective organizational commitment	0.722**	0.043
OCB towards colleagues	0.950**	0.017
OCB regarding information	0.939**	0.021
OCB regarding extra tasks	0.983**	0.012

Note. $n = 845$.

* $p < .05$.

** $p < .01$.

OCB: organizational citizenship behaviour.

influence of supervisors in the daily work of teachers. Supervisors might thus play a less important role than they do in traditional, more bureaucratic organizations. Consequently, the importance of the supervisor to teachers' overall judgement of the organization might be relative small, reducing the significance of trust in the supervisor as a trigger for organizational commitment and citizenship behaviour. Trust in higher management might not contribute to teacher outcomes, because of the large size of Dutch VET schools. Teachers usually do not have any contact with higher management. As a result, the influence of higher management on teacher outcomes might generally only be limited.

Team members, on the other hand, might be of particular importance in the daily work of teachers. Team-based organizations are usually characterized by shared control and empowerment of employees (Seibert et al., 2011; Somech and Drach-Zahavy, 2007). This means that employees are expected to work more collaboratively with each other, to be more self-directing and 'to be less reliant on a formal supervisor to direct their work' (Ford and Seers, 2006: 258). Consequently, trust in team members might be particularly important for a teacher to feel committed to the organization and go the extra mile.

Although perceived procedural justice and perceived organizational support are significantly related to teachers' trust in almost all trust targets, our findings show that the strength of the relationships varies. Perceived procedural justice is most strongly related to trust in higher management and not at all to trust in the teacher team, whereas support particularly influences teachers' trust in the supervisor. This might indicate that procedural decisions are mainly associated with (higher) management levels of the school, although teacher teams in VET schools carry out some middle-management tasks themselves. The differences might also indicate that the antecedents of trust vary according to the type of relationship involved. Perceived support, for example, is more strongly related to trust in the supervisor than to trust in team members. According to Sheppard and Sherman (1998), in deep dependency relationships, such as between subordinates and supervisors, the display of concern plays a more important role in order to develop trust than in shallow-interdependency relationships, such as the relationship between peers.

Limitations

All findings should be interpreted against the backdrops of the study's limitations. Firstly, the design of this study does not provide indisputable evidence of causation. Structural equation modelling revealed a satisfactory fit of the model; however, causal relations cannot be made from statistical results only. Although the independent variables in our model have been identified by theory and/or empirical research to be antecedents of the dependent variables, the results only show that casual relationships are possible. Secondly, the study was carried out in the context of team-based organizations, specifically Dutch VET schools. This means that the results cannot be generalized without caution to other organizational settings. However, we believe that taking account of the specific context is at the same time a strong point of this study. Since the employee–organization relationship is very likely to be influenced by the organizational setting, knowledge of the setting makes profound and more reliable conclusions possible. Furthermore, the use of questionnaires to measure trust might not fully capture the multifaceted nature of the concept. We tried to take account of this constraint by being explicit in the description of the measurement about what parts of the concept we intended to measure. In addition, participation in the study was voluntary and the respondents might therefore reflect a selected group. Although the sample seems representative of the population of Dutch VET teachers with respect to demographic

characteristics, respondents with specific other characteristics might be over- or underrepresented in the sample. Finally, in a research design such as this, common method bias and overlap between the different concepts might be a concern. To avoid overlap between the different concepts we developed the questionnaire with great caution, following the recommendations of Podsakoff and Organ (1986), and eliminating obvious overlap in items across measures. Principal component analysis across all concepts showed that all items, except one, corresponded the most with the intended concepts (with loadings higher than 0.4). Common method bias, however, might still account for parts of the significance of the relationships between concepts.

Suggestions for future research

In summary, the findings of this study underscore that trust in the school organization is a predictor for desirable teacher outcomes, and a mediator of the teacher–school relationship. The findings indicate that trust in different exchange partners has different antecedents as well as different outcomes. Consequently, it seems worthwhile to include trust in all exchange partners separately in further research on trust in organizations.

In particular the role of trust in colleagues in social exchange should get more attention in future research. Since trust in team members played a significant role with respect to desirable attitudes and behaviour of the respondents in our study, research on ways to increase trust in colleagues might be a valuable contribution to further increase the effectiveness of schools and other organizations. It would be very interesting to reveal how management behaviour or human resource management practices can stimulate trust in colleagues. Also further knowledge on the relationship between human resource management practices and perceived support and justice, as well as trust in management, would be valuable. In addition, it is recommended to include more relational variables, such as the frequency of interaction between teachers and management, in studies on trust and other teacher outcomes, because they are very likely to have an impact.

Finally, we want to encourage future research to take the specific organizational contexts into account. More clarity of how organizational contexts shape and influence social exchange relationships would contribute to the knowledge about employees' organizational attitudes and behaviour.

Notes

1. Schools are financed based on the number of enrolled students.
2. Large schools may distribute responsibilities among multiple directors.
3. Collective agreement: a contract between an employer or employers and one or more unions on behalf of all employees represented by the union(s). It usually sets out wages, rules, rights and working conditions.
4. Because school and team membership is not the same, we also conducted the analyses without the respondents from whom the information about team membership was not available ($n = 582$). Since these analyses yielded similar results, we decided to use the whole sample for this study.

References

- Allen NJ and Meyer JP (1990) The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology* 63(1): 1–18.
- Ayree S, Budhwar PS and Chen ZX (2002) Trust as a mediator of the relationship between organizational justice and work outcomes: test of a social exchange model. *Journal of Organizational Behavior* 23(3): 267–285.

- Blau PM (1964) *Exchange and Power in Social Life*. New York: Wiley.
- Bogler R and Somech A (2004) Influence of teacher empowerment on teachers' organizational commitment, professional commitment and organizational citizenship behavior in schools. *Teaching and Teacher Education* 20(3): 277–289.
- Bogler R and Somech A (2005) Organizational citizenship behavior in school. How does it relate to participation in decision making? *Journal of Educational Administration* 43(5): 420–438.
- Browne MW and Cudeck R (1992) Alternative ways of assessing model fit. *Sociological Methods & Research* 21(2): 230–258.
- Büssing A (2000) Identität und Vertrauen durch Arbeit in virtuellen Organisationen? In: Boos M, Jonas KJ and Sassenberg K (eds) *Computervermittelte Kommunikation in Organisationen*. Göttingen: Hogrefe, pp.57–72.
- Büssing A (2002) Trust and its relationship to commitment and involvement in work and organizations. *Journal of Industrial Psychology* 28(4): 36–42.
- Chan W, Lau S, Nie Y, et al. (2008) Organizational and personal predictors of teacher commitment: The mediating role of teacher efficacy and identification with school. *American Education Research Journal* 45(3): 597–630.
- Chiaburu DS and Byrne ZS (2009) Predicting OCB role definitions: Exchanges with the organization and psychological attachment. *Journal of Business and Psychology* 24(2): 201–214.
- Cohen-Charash Y and Spector PE (2001) The role of justice in organizations: A meta-analysis. *Organizational Behavior and Human Decision Processes* 86(2): 278–321.
- Colquitt JA, Conlon DE, Wesson MJ, et al. (2001) Justice in the millennium: A meta-analytic review of 25 years of organizational justice research. *Journal of Applied Psychology* 86(3): 425–445.
- Colquitt JA, LePine JA, Piccolo RF, et al. (2012) Explaining the justice-performance relationship: Trust as exchange deepener or trust as uncertainty reducer? *Journal of Applied Psychology* 97(1): 1–15.
- Coyle-Shapiro JAM and Shore LM (2007) The employee-organization relationship: Where do we go from here? *Human Resource Management Review* 17(2): 166–179.
- De Rooij JPG and Vink CR (2009) *Commitment van Middenmanagers*. Tilburg: IVA.
- Dhillon JK (2009) The role of social capital in sustaining partnership. *British Educational Research Journal* 35(5): 687–704.
- Dietz G and Den Hartog D (2006) Measuring trust inside organisations. *Personnel Review* 25(5): 557–588.
- DiPaola M and Hoy WK (2005) School characteristics that foster organizational citizenship behavior. *Journal of School Leadership* 15(4): 387–406.
- DiPaola M and Tschannen-Moran M (2001) Organizational citizenship in schools and its relationship to school climate. *Journal of School Leadership* 11(5): 424–445.
- Dirks KT and Ferrin DL (2002) Trust in leadership: Meta-analytic findings and implications for research and practice. *Journal of Applied Psychology* 87(4): 611–628.
- Eisenberger R, Armeli S, Rexwinkel B, et al. (2001) Reciprocation of perceived organizational support. *Journal of Applied Psychology* 86(1): 42–51.
- Eisenberger R, Huntington R, Hutchison S, et al. (1986) Perceived organization support. *Journal of Applied Psychology* 71(1): 500–507.
- Ford LR and Seers A (2006) Relational leadership and team climates: Pitting differentiation versus agreement. *The Leadership Quarterly* 17(3): 258–270.
- Ghamrawi N (2011) Trust me: Your school can be better – A message from teachers to principals. *Educational Management Administration & Leadership* 39(3): 333–348.
- Gillespie N (2003) Measuring trust in working relationships: The behavioural trust Inventory. In: *annual meeting of the Academy of Management*, Seattle, August 2003.

- Gillespie N and Dietz G (2009) Trust repair after an organization-level failure. *Academy of Management Review* 24(1): 127–145.
- Groenenberg R and Visser K (2011) De breedte van de docentfunctie. In: Moerkamp T, Hermanussen H, Groenenberg R, et al. (eds) *Personeelsbeleid in het middelbaar beroepsonderwijs*. Alphen aan den Rijn: Kluwer, pp.39–50.
- Harris A, Leithwood K, Day C, et al. (2007) Distributed leadership and organizational change: Reviewing the evidence. *Journal of Educational Change* 8(4): 337–347.
- Hermanussen J and Thomsen M (2011) Werken in teams – Stand van zaken. In: Moerkamp T, Hermanussen H, Groenenberg R, et al. (eds) *Personeelsbeleid in het Middelbaar Beroepsonderwijs*. Alphen aan den Rijn: Kluwer, pp.51–77.
- Honingh M (2008) *Beroepsonderwijs tussen Publiek en Privaat*. PhD Thesis, University of Amsterdam, The Netherlands.
- Hoy WK and Tarter CJ (2004) Organizational Justice in schools: No justice without trust. *International Journal of Educational Management* 18(4): 250–259.
- Hulpia H, Devos G and Van Keer H (2011) The relation between school leadership from a distributed perspective and teachers' organizational commitment: Examining the source of the leadership function. *Educational Administration Quarterly* 47(5): 728–771.
- Johnson RE and Chang C (2008) Relationship between organizational commitment and its antecedents: Employee self-concept matters. *Journal of Applied Social Psychology* 38(2): 513–541.
- Karsten S and Meijer J (1999) School-based management in the Netherlands: The educational consequences of lump-sum funding. *Educational Policy* 13(3): 421–439.
- Khasawneh S (2011) Shared leadership and organizational citizenship behaviour in Jordanian public universities: Developing a global workforce for the 21st century. *Educational Management Administration & Leadership* 39(5): 621–634.
- Konovsky MA and Pugh SD (1994) Citizenship behavior and social exchange. *The Academy of Management Journal* 27(3): 656–669.
- Liden RC, Wayne SJ, Kraimer ML, et al. (2003) The dual commitment of contingent workers: An examination of contingents' commitment to the agency and the organization. *Journal of Organizational Behavior* 24(5): 609–625.
- Masterson SS, Lewis K, Goldman BM, et al. (2000) Integrating justice and social exchange: The differing effects of fair work procedures and treatment on work relationships. *Academy of Management Journal* 43(4): 738–748.
- Mathieu J and Zajac M (1990) A review and meta-analysis of the antecedents, correlates, and consequences of organizational commitment. *Psychological Bulletin* 108(2): 171–194.
- Mayer RC, Davis JH and Schoorman FD (1995) An integrative model of organizational trust. *Academy of Management Review* 20(3): 709–734.
- MBO Raad (2008) *Collectieve Arbeidsovereenkomst voor Beroepsonderwijs en Volwasseneneducatie 2007-2009*. Rijswijk: Den Haag Media Group.
- Meyer JP, Stanley D, Herscovitch L, et al. (2002) Affective, continuance, and normative commitment to the organization: A meta-analysis of antecedents, correlates, and consequences. *Journal of Vocational Behavior* 61(1): 20–52.
- Ministry of Education, Culture and Science (2012) Kerncijfers 2007-2011. Available at: <http://www.rijksoverheid.nl/documenten-en-publicaties/jaarverslagen/2012/05/16/kerncijfers-2007-2011.html> (accessed 14 February 2013).
- Mishra AK (1996) Organizational responses to crisis: the centrality of trust. In: Kramer R and Tyler T (eds) *Trust in Organizations*. Thousand Oaks, CA: Sage, pp.261–287.

- Molm LD, Takahashi N and Peterson G (2000) Risk and trust in social exchange: An experimental test of the classical proposition. *The American Journal of Sociology* 105(5): 1396–1427.
- Moorman RH, Niehoff BP and Organ DW (1993) Treating employees fairly and organizational citizenship behavior: Sorting the effects of job satisfaction, organizational commitment, and procedural justice. *Employee Responsibilities and Rights Journal* 6(3): 209–225.
- Motowildo SJ, Borman WC and Schmit MJ (1997) A theory of individual differences in task and contextual performances. *Human Performance* 10(2): 71–83.
- Muthén LK and Muthén BO (2006) *Mplus statistical analysis with latent variables. User's guide*. Los Angeles, CA: Muthén & Muthén.
- Niehoff BP and Moorman RH (1993) Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal* 36(3): 527–556.
- Organ DW (1997) Organizational citizenship behavior: It's construct clean-up time. *Human Performance* 10(2): 85–97.
- Organ DW, Podsakoff PM and MacKenzie SB (2006) *Organizational citizenship behavior: its nature, antecedents and consequences*. Beverly Hills, CA: Sage.
- Podsakoff PM and Organ DW (1986) Self-reports in organizational research: Problems and prospects. *Journal of Management* 12(4): 531–544.
- Rappaport A, Bancroft E and Okum L (2003) The aging workforce raises new talent management issues for employees. *Journal of Organizational Excellence* 23(1): 55–66.
- Rhoades L and Eisenberger R (2002) Perceived organizational support: A review of the literature. *Journal of Applied Psychology* 87(4): 698–714.
- Rhoades L, Eisenberger R and Armeli S (2001) Affective commitment to the organization: The contribution of perceived organizational support. *Journal of Applied Psychology* 86(5): 825–836.
- Rousseau D, Sitkin SB, Burt RS, et al. (1998) Not so different after all: Across-discipline view of trust. *Academy of Management Review* 23(3): 393–404.
- Satorra A (2000) Scaled and adjusted restricted tests in multi-sample analysis of moment structures. In: Heijmans RDH, Pollock DSG and Satorra A (eds) *Innovations in multivariate statistical analysis. A Festschrift for Heinz Neudecker*. London: Kluwer Academic Publishers, pp.233–247.
- Seibert ES, Wang G and Courtright SH (2011) Antecedents and consequences of psychological and team empowerment in organizations: A meta-analytic review. *Journal of Applied Psychology* 96(5): 981–1003.
- Sheppard BH and Sherman DM (1998) The grammar of trust: A model and general implications. *The Academy of Management* 23(3): 422–437.
- Smith CA, Organ DW and Near JP (1983) Organizational citizenship behavior: Its nature and antecedents. *Journal of Applied Psychology* 68(4): 653–663.
- Somech A and Bogler R (2002) Antecedents and consequences of teacher organizational and professional commitment. *Educational Administration Quarterly* 38(4): 555–577.
- Somech A and Drach-Zahavy A (2000) Understanding extra-role behavior in schools: the relationship between job satisfaction, sense of efficacy, and teachers' extra-role behavior. *Teaching and Teacher Education* 16(5-6): 69–659.
- Somech A and Drach-Zahavy A (2007) Schools as team-based organizations: A structure-process-outcome approach. *Group Dynamics, Theory, Research, and Practice* 11(4): 305–320.
- Somech A and Ron I (2007) Promoting organizational citizenship behavior in schools: The impact of individual and organizational characteristics. *Educational Administration Quarterly* 43(1): 38–66.
- Tschannen-Moran M and Hoy WK (2000) A multidisciplinary analysis of the nature, meaning, and measurement of trust. *Review of Educational Research* 70(4): 547–593.

- Wayne SJ, Shore LM, Bommer WH, et al. (2002) The role of fair treatment and rewards in perceptions of organizational support and leader-member exchange. *Journal of Applied Psychology* 87(3): 590–598.
- Witt LA (1991) Exchange ideology as a moderator of job attitudes: Organizational citizenship behavior relationships. *Journal of Applied Social Psychology* 21(18): 1490–1501.
- Witziers B, Sleegers P and Imants J (1999) Departments as teams: Functions, variations and alternatives. *School Leadership & Management* 19(3): 293–304.

Author biographies

Maren Thomsen is a PhD student at the Research Institute of Child Development and Education, University of Amsterdam. She works at the expert center VET (ecbo) in's Hertogenbosch, The Netherlands. Her specific research interests include trust, human resource management and vocational education (VET).

Sjoerd Karsten is professor of educational policy and organization at the University of Amsterdam. His research centres on pupils at risk, migrant youth and vocational education (VET).

Frans J Oort is professor of methods and statistics and the director of the Research Institute of Child Development and Education, University of Amsterdam. His specific research interests include statistical modeling, measurement, and measurement issues in educational research.