

Chapter 35

Factors Influencing Professional Development in Teacher Teams within CBE Contexts

Piety Runhaar

35.1 Introduction

Vocational education and training (VET) is, worldwide, increasingly shaped in competence-based ways (Mulder et al. 2007). This means that the competencies needed in professional practice form the starting point of curricula instead of separate academic disciplines (Biemans et al. 2004). An important cause of this switch lies in a disconnection between education and labour market needs. More specifically, increasingly, employers in many countries experienced a gap between educational programmes and graduates' qualifications on the one hand and the competencies employees need in practice to perform well on the other (Mulder 2014). Furthermore, new psychological insights into learning have lead educators to rethink the way students can best develop their competencies. Parallel to current approaches of employees' learning, student learning is nowadays understood as a process in which students actively construct their knowledge together with others (McLaughlin 1997). In competence-based education (CBE), students develop their competencies by building meaningful relationships between knowledge, skills and attitudes in professional practice. This way of learning increases students' learning motivation and in turn enhances their achievements (Schaap et al. 2012).

CBE distinguishes itself from 'traditional', discipline-based education in several respects. For instance, professional core problems are the organising unit for (re) designing the curriculum; learning takes place, to a large extent, in work place setting or settings which are representative for the work situation; the competence development of students is assessed before, during and after the learning process; and much attention is paid to the stimulation of self-responsibility and (self-) reflection of students (see, for more, Wesselink et al. (2010)).

P. Runhaar (✉)
ECS, Wageningen University, Wageningen, The Netherlands
e-mail: piety.runhaar@wur.nl

All together, the switch to CBE is fundamental, and like is the case in all educational innovations, its success depends to a large extent on the competence and efforts of teachers and trainers to make sense of the principles of CBE and to put them into practice. That is, competence is nowadays conceptualised from a ‘situated professionalism perspective’ (Mulder 2014), meaning that competence gets its meaning in the specific context in which it is used. Generic competencies, which are relevant for many professions, like planning, communication, etc., get meaning in a specific context. For instance, communicating for a technician means something different than communication for a hairdresser. In an attempt to make every form of competence development measurable, VET institutions run the risk of narrowing down competencies to a set of quantifiable technical skills (Biemans et al. 2004). Hence, a true transformation of curricula into competence-based education programmes requires from teachers and trainers that they develop new conceptions about learning and assessment (Gulikers et al. 2013) and that they fulfil other roles than they are used to, like coach or tutor (Seezink and Poell 2010). Hence, professional development of VET trainers and teachers in what competence-based education exactly *is* and *how* it can be put into practice has become of crucial importance (Guthrie 2009). This chapter is focused on how teachers’ professional development within the CBE context can be stimulated.

The fact that different disciplines need to be integrated in the curriculum makes the implementation of CBE a team responsibility. Instead of being responsible for instruction in one or two subjects, teachers need to collaborate with each other in order to develop and implement educational programmes, like for hairdressing or construction (e.g. Wesselink et al. (2010)). Hence, the ‘collective competence’ (Boreham 2004) of teacher teams may be even more important than individual teachers’ competence. So, in many countries, VET institutions are implementing team-based organisation structures (Park et al. 2005). As is the case in many organisations nowadays, in VET institutions, teams are not only increasingly viewed as important ‘working units’ but also as important ‘learning units’ within the organisation (Decuyper et al. 2010). Hence, in examining how vocational teachers and trainers can be stimulated to engage in their professional development, the chapter focuses on teachers’ *engagement in team learning activities*.

The chapter will give insight into factors at different levels, which have been addressed in the literature on team learning of professionals in general and teacher learning literature specifically and which relate to employees’ engagement in team learning activities. After this, human resources management (HRM) is proposed as an integrative means to stimulate team learning in VET teacher teams. The concept of HRM refers to all policies, procedures and practices that are explicitly targeted at attracting, retaining, developing and rewarding teachers in such a way that it results in optimal teacher, team and school performance (see also DeArmond et al. (2009)). HRM is widely seen as a powerful means to influence employees’ behaviour. For instance, HRM can increase employees’ commitment to organisation goals and as such enhance employee performances (Boselie et al. 2005). HRM research, however, mainly takes place within profit organisations and scarcely within the educational sector (Smylie et al. 2004). Moreover, HRM research is often focused on

attitudes and behaviours of individual employees and linked to their performances. Although there is a trend to link HRM to employees' learning behaviour, the concept of team learning is still relatively under-researched. This chapter, in this way, aims to combine insights from several scientific domains – namely, HRM, team learning and educational sciences – in order to examine how VET teachers' engagement in team learning activities can be stimulated by means of HRM.

Before the chapter continues, it is important to note that HRM has a built-in tension in that it can be viewed as a means to control employee performance and enhance efficiency, on the one hand – for instance, by means of performance appraisals – and as a means for enhancing work engagement and development of employees, on the other hand, for example, by means of offering development opportunities (e.g. Runhaar and Sanders (2013)). Research shows that HRM systems which are primarily focused on control lead to employees following instruction and doing just what they are told and to a decrease of engagement, whereas HRM systems which mainly focus on commitment enhance employees' initiative and intrinsic motivation (Mossholder et al. 2011). Due to the fact that governments strive to enhance student achievements and to hold schools accountable for this by means of measurable outcomes, VET institutions run the risk of stressing the 'control' aspects instead of the 'commitment' aspects. In this chapter, the focus will therefore be on the commitment elements of HRM.

35.2 Team Learning in Teacher Teams: A Situated Perspective on Learning

The concept of team learning refers to the various activities team members can undertake in order to 'acquire, share and combine knowledge through experience with one another' (Argote et al. 2001: 370). The idea is that through interactions between team members, knowledge and skills gathered by one team member can be transferred to other team members (Van Woerkom and Croon 2009). The exchange of knowledge, experiences, skills and ideas, in turn, enables teams to develop a shared understanding of the complex problems and demands they are confronted with and enables teams to find effective ways to deal with those problems and demands (Decuyper et al. 2010). This added value of team learning has become increasingly crucial to organisations' success.

Within literature on teachers' professional development and team learning, authors have distanced themselves from the 'traditional' training paradigm that implied a 'deficit-mastery model', wherein teacher learning and change was considered as something that 'is done to teachers' (Clarke and Hollingsworth 2002). Nowadays, authors adhere to the *situated perspective on learning* (see also Chap. 1 of this volume) which refers to learning which is often initiated by the learners themselves and which takes place in the same context in which it is applied (Lave and Wenger 1991). In fact, here we see a link with the way competence development of VET students is conceptualised, namely, from a situated professionalism

perspective (Mulder 2014). And just like the assumptions in competence-based education, the idea within this perspective is that learning should not be perceived as a transmission of abstract knowledge from one individual to another, but as a social process which is situated in a specific context and embedded within a social and physical environment. The knowledge and insights that professionals need to continuously develop themselves are embedded in their daily practice and are co-constructed in interactions among colleagues. These ideas are, for instance, reflected in literature on ‘workplace learning’ (Malloch et al. 2010) and ‘communities of practice’ (Tynjälä 2012).

35.2.1 Team Learning Activities

Team learning can consist of different kinds of activities. Next to *formal* learning activities, like following courses or training off-the-job, also the less structured forms of *informal* learning, like collaboration and feedback exchange, can foster team learning (e.g. Marsick and Watkins (2001)). Also, theorists on organisational and team learning propose that learning takes place at different levels, like the individual, interpersonal, team and organisational level. Feedforward processes push lower-level knowledge upwards, while feedback processes facilitate the application of what has been learned at higher levels (e.g. Crossan et al. (1999)). Hence, team learning can take the form of *individual activities*, like self-reflection, keeping up-to-date and observing others, as well as of *interpersonal activities*, like knowledge sharing or problem-solving with colleagues (e.g. Bakkenes et al. 2010; Runhaar et al. 2010) and *team activities* like the storage and retrieval of knowledge (DeCuyper et al. 2010).

35.2.2 Team Learning: Risks and Potential

Reflective practice is, more or less implicitly, at the heart of all team learning activities. For instance, asking for feedback or experimenting with new learning methods implies a reflection on current practice. Also, on a team level, when teams evaluate their performance, this implies a reflection on their results and also on the way these results were accomplished. Critical reflection can, therefore, be viewed as a means to reconstruct the implicit assumptions that underlie one’s actions and to develop other more sophisticated conceptual structures about teaching and education (e.g. Schön (1983)). Despite the potential learning outcomes of reflective practice, we also know that teachers and teams can have difficulty with reflection on their own assumptions and with adopting new ones. For instance, changing one’s assumptions concerning students’ learning and one’s own role in the learning process of students can lead to the idea that one has failed in the past (Runhaar et al 2010). Moreover, by sharing knowledge or asking for feedback, one runs the risk of criticism and, as

such, of being confronted with information that can affect the self-image (Van Woerkom 2004). Hence, people and teams may feel hesitant to engage in learning activities. In the following section, individual and work environmental factors will be presented that may stimulate teachers to overcome the risks associated by learning and, instead, to accentuate its potential.

35.3 ‘AMO Theory of Performance’ as Conceptual Framework

Like all human behaviour, teachers’ engagement in team learning activities can be viewed as a function of individual and contextual factors. To distinguish between the kinds of individual and contextual factors that play a role in explaining employee behaviours, organisation psychologists and management scientists often rely on the so-called AMO theory of performance (Appelbaum et al. 2000). This metatheory states that performance (P) is a function of employees’ abilities (A), their motivation (M) and the opportunities (O) they are offered to perform. In the course of time, this theory has been used to model different kinds of behaviours within organisations, like employees’ engagement in learning activities (see, for instance, Runhaar et al. (2010)). In the following, the AMO theory will be used to categorise different types of stimulating factors. Note that it is not the intention to offer a complete picture. Rather, the goal is to gather ‘ingredients’ of HRM policies and practices that can be used in VET institutions in order to stimulate team learning.

35.3.1 Ability (A) Factors

Team learning activities imply certain skills from the learners. On one hand these skills are related to working in a team, like teamwork and communication skills. On the other hand, these skills are related to learning, like reflection and feedback skills. Let us take reflection skills as an example: reflection is often conceived as a cyclical and recursive process which includes problem-solving that coincides with awareness raising in order to construct professional knowledge (Mena Marcos et al. 2011). Reflection can be viewed as a metacognitive ability which teachers start to develop during teacher education (or earlier in their lives) and which they can further develop during their careers. Literature shows numerous ways in which reflection ability can be promoted, varying from online discussion tools (Whipp 2003) to autobiographical tools and action research (e.g. Etscheidt et al. (2012)). So if certain skills are not present, teachers can undertake action to develop these skills, alone or as a team.

Next to these kinds of abilities, also *the sense of being able* plays a role. A concept which is often examined in relation to learning and development, especially in

the context of educational innovations, is ‘self-efficacy’. *Self-efficacy* refers to the extent to which people believe in their ability to complete tasks and to reach their goals (Bandura 1977). A high sense of self-efficacy is related to the assumption that, with effort, one can improve oneself. As stated above, the ‘risk’ of receiving negative feedback is often inherent to learning activities like knowledge sharing or collegial observations. The higher one’s self-efficacy, the lesser one is afraid to be vulnerable and to reveal what one still has to learn and to openly doubt about one’s practice or assumptions. That is, negative feedback will not have a high impact on the self-image if self-efficacy is high (Runhaar et al. 2010).

In parallel to these individual processes, also at a team level, sense of efficacy seems to play a role in team learning. Van den Bossche et al. (2006) found that when the ‘group potency’ is high (i.e. the collective belief of group members that the group can be effective), more team learning takes place. The belief in the group’s effectiveness strengthens the idea that investment will pay off and so encourages processes of learning.

35.3.2 *Motivation (M) Factors*

Being able and daring to engage in team learning activities is one thing, *being motivated* to engage in those activities is another. The goal orientation theory states that goals are important for the motivation of behaviour, for task interpretation and for how employees react to work outcomes (Dweck 2000). Two types of goal orientation are distinguished in the literature – the *learning goal* and the *performance goal* orientation – and people tend to prefer one above the other (Dweck and Legett 1988). The learning goal orientation refers to employees’ motivation to continuously improve one’s competencies through learning and training new skills, as well as through learning to complete new and more complex tasks. The performance goal orientation refers to employees’ motivation to perform better than others, to seeking affirmation of one’s competence and to avoid negative feedback. When people have a strong learning goal orientation, they tend to view feedback, whether positive or negative, as diagnostically relevant information that helps them to increase their competence (VandeWalle 2001; Tuckey et al. 2002). In case of high goal orientation, people are likely to view activities like asking for feedback, letting others observe you and experimenting with new teaching methods as challenging ways to grow rather than as ‘scary’ activities that may affect their self-image. On the other hand, when people mainly are performance goal oriented, they tend to view ability as difficult to develop and tend to attempt to validate and demonstrate the ability they possess (Dweck and Legett 1988). As a result, they tend to avoid activities which imply the risk of receiving ‘disconfirming information’, like asking for feedback, sharing knowledge, etc. (VandeWalle 2001; Runhaar et al. 2010).

35.3.3 *Opportunity (O) Factors*

Having competent, self-confident and motivated teachers is not enough to ensure that team learning will take place. The work environment wherein teacher teams are embedded must also offer enough opportunities for teachers to learn with and from one another. Factors in the work environment can be more proximal or more distal to teachers' work. Therefore, often a distinction is made between factors at task, team and organisation level (Runhaar et al. 2009). In this section, examples of factors at the different levels will be given.

35.3.3.1 **Task-Level Factors**

In order to translate CBE principles into teaching materials and methods and into the curriculum, teams and individual team members need a certain level of *autonomy*. Autonomy refers to the ability to control various aspects of the work, like tempo, working methods, planning and goals. Autonomy has positive effects on employee motivation (e.g. Deci and Ryan (1985)), their openness to new insights and perspectives (Parker and Wall 1998) and their willingness to implement changes (Cunningham et al. 2002). Moreover, autonomy is a prerequisite for experimentation with new methods (Bransford et al. 2005).

Next to the autonomy, also the *workload* and *work pressure* teachers and teams experience play a role in the amount of team learning that occurs. In case of high workload and pressure, teachers will prioritise their core tasks above 'extra' engagement in learning activities. Workload and work pressure can be related to several task aspects like the amount of teaching hours and classes, the complexity of the student population or the relationship with the manager (see, for instance, Hakanen et al. (2006)). Moreover, there is no objective measure of workload and pressure. That is, every teacher experiences the workload in his/her own way, and teachers differ from each other in how optimistic they are about the resources they possess to cope with the workload (e.g. McCarthy et al. (2009)). Workload, thus, needs to be a recurrent topic in conversations between management and teachers and teams.

35.3.3.2 **Team-Level Factors**

Although teachers in VET institutions increasingly work in teams, this is not to say that collaboration and learning automatically occur within these teams. The fact that teachers have long been used to working in isolation often impedes interaction among teachers (Silins and Mulford 2002) and consequently hinders learning from each other. Different authors have already stressed that interdependence among team members is at the heart of teamwork (Decuyper et al. 2010) and specifically needed for learning to occur (e.g. Little (2003)). This is especially true for teachers' learning in the context of CBE, which is an interdisciplinary, collaborative effort.

Teachers can be interdependent in different ways. Authors often make a distinction between *task interdependence*, defined as the work flowing from one team member to another in such a way that the task performance of one member depends on the task performance of the other (Kiggundu 1983), and *goal interdependence* – referring to the extent to which team members have to contribute to the achievement of group goals (Deutsch 1973). These interdependencies are considered factors that determine the amount and quality of interaction among team members to a large extent (Van der Vegt and Janssen 2003) and also teachers' engagement in learning and team learning activities. The first reason is that interdependence in itself influences the *degree of interaction* between team members (Campion et al. 1993), which can be considered an important prerequisite for learning together with colleagues. Interaction between colleagues enhances the exchange of ideas, experiences and practices, which in turn may lead to reflection on one's own practice and underlying assumptions (Meijrink et al. 2009). The second reason is that interdependence influences the *quality of interaction*. Task interdependence enhances employees feeling of responsibility for each other's task outcomes (Kiggundu 1983) and to team members seeking and giving each other advice when confronted with problems (e.g. Wageman (2001)). When people perceive that their goals are positively related (i.e. goal interdependence), they are motivated to find manners in which mutual goals can be achieved and to resolve issues for mutual benefits. To this end, they aim to integrate their ideas (Deutsch 1973). Research has shown that goal interdependence is positively related to open-minded discussion and diverse views (e.g. Deutsch 1973; Johnson and Johnson 1989). Under the circumstances of high task and goal interdependence, teachers are more likely to engage in learning activities despite the risk of being 'vulnerable'. To give an example, experimenting with competence-based education methods or assessments implies the risk of failure or criticism from colleagues. When all teachers are held accountable as a team for the implementation of CBE, everyone potentially benefits from these experiments which in turn will decrease criticism. Instead, this will enhance the collegial support for new ideas.

35.3.3.3 Organisation-Level Factors

Teams are often embedded in larger institutions where a governing *educational concept* is formulated, for instance, in terms of a mission statement. Teams then have to learn what this concept actually means and how it can best be put into practice. A risk in this process is that teachers, on the base of superficial similarities between the new concept and their current practice, conclude that nothing has to be changed at all (see, for instance, Spillane et al. 2002). To reduce this risk, teacher teams need to be *informed* carefully and repeatedly about the underlying principles of the new educational concepts (Coburn 2004). What works even better is to involve teacher teams in the development of the educational concept. By doing this, a *shared ownership* for the new educational concept can be created which enhances

the acceptance and the willingness to put effort in realising the change (Van der Bolt et al. 2006).

Employees' behaviour is determined to a large extent by the *organisational climate*. Organisational climate refers to the values and norms as perceived by employees and which are enacted by organisational behaviour (for instance, the communication style of managers or relationships among colleagues) and rules and procedures (for instance, HRM and professional development plans) (Burton et al. 2004). The climate can be more or less 'safe' and learning oriented and as such more or less conducive for team learning. Research shows that the more employees perceive the organisational climate as development oriented, the more they tend to engage in learning and innovation (e.g. Van Dam et al. (2008)).

Leaders have an important effect on employee behaviour. Although teams in VET institutions are increasingly self-regulating, they often still have to deal with leaders at a higher level. The way leaders behave and communicate has an important influence on how employees experience the organisation and consequently the way they behave. Specifically in the education setting, school leaders influence the effort teachers put into their jobs (Geijsel et al. 2003), their commitment to educational innovations (Yu et al. 2002) and their engagement in professional development activities in general (Blase and Blase 2000). The *leader-membership exchange (LMX)* theory states that effective leadership derives from mature relationships between leaders and followers (Dansereau et al. 1975; Gerstner and Day 1997). In mature relationships – characterised by mutual trust, influence and respect – leaders and followers develop mutual obligations. Translated to our topic of team learning, this means that when employees can rely on leaders' support and encouragement when needed, or on career investments, they will reciprocate this with effort put into the educational innovation and team learning. In this way, mutual trust and obligations empower and motivate employees to expand beyond the formalised work contract and to put effort in 'higher goals' like educational innovations (Runhaar et al. 2013). Related to LMX theory is the often made distinction between *transactional* and *transformational leadership*, where also an exchange approach to leadership is used (Graen and Uhl-Bien 1995). Transactional leadership refers to the exchange of effort, time, skills and knowledge from the employee vs. salary and secondary labour conditions from the employer (the 'hard' or written part of the labour contract). Transformational leadership refers to the exchange of inspiration, vision and support from the employer on the one hand and engagement, learning and high performance from the employee on the other hand (the 'soft' or unwritten part of the labour contract). Effective leadership develops itself as the focus on material exchange between leader and employee (transactional) and shifts to a focus on social exchange of psychological benefits (transformational). Indeed, research within the context of educational innovations shows that transformational leadership positively influences teachers' commitment to school goals (like CBE), employee learning in general (Lam 2002) and teachers' engagement in reflection, feedback asking, knowledge sharing and innovative behaviour specifically (Runhaar 2008).

35.4 Human Resources Management: An Integrative Means to Stimulate Team Learning

As mentioned in the introduction, the list of factors is not complete, but gives insight into the kinds of factors at different levels that play a role in predicting VET teachers' engagement in team learning activities in the context of the change to competence-based education.

Human resources management (HRM) can be viewed as a powerful means to influence employee behaviour in general and teachers' engagement in team learning activities in specific. With HRM, organisations try to influence employees' ability, motivation and opportunities to perform (Boxall and Purcell 2003). As such, HRM can be viewed as an integrative means that links to all factors listed above. In line with this, Jackson et al. (2006) used the AMO theory of performance in order to define competency-, motivation- and opportunity-enhancing HR practices for, what they call, knowledge-intensive teamwork. They replaced the word 'ability' in the more broader term of 'competency', because the former term refers to a narrow set of individual attributes, whereas the latter term is commonly used to refer to attributes of both individuals and larger social units (see also Chuang et al. (2013)). In line with their work, the following suggestions are formulated for VET institutions that aim to stimulate teachers' professional development within teams.

35.4.1 Competency-Enhancing HR Practices

The primary objectives of competency-enhancing HR practices for team learning are on the one hand to ensure that teams are staffed with members who are competent and who complement each other. On the other hand, these practices aim to facilitate teams and team members to continuously improve their competency. Concerning the *staffing of teams*, it is suggested to *involve team members* in the recruitment and selection of new team members (Chuang et al. 2013). That is, the current team members have best insight into present and missing competencies in the team. Moreover in the search for new team members, not only the technical competencies (needed for core tasks) have to be taken into account but also the *teamwork and learning skills*. Concerning the *development of competence*, teams should be offered training and development opportunities that are related to the specific development issues in teams or individual team members next to institution-wide activities (Chuang et al. 2013). Next to technical competencies, also attention has to be paid to the team learning and collaboration skills. So next to courses or training in CBE matters or subject matters, also training in reflection and feedback exchange or cooperative skills can be offered. Furthermore, supporting teachers in their individual learning needs appears to be preferable to school-wide interventions (OECD 2009) which means that one should as much as possible assure that teachers can attend a course or training when they find that they need it. This presumably also applies to the learning needs of teams. Needless to say, next to formal learning

opportunities, VET institutions need to offer enough time and space for teachers to meet each other as a necessary condition for informal learning.

Related to the role of self-efficacy in teachers' engagement in team learning activities, HR practices can also try to enhance teachers' self-efficacy. According to Bandura's social cognitive theory (Bandura 1977), the social environment can enhance individual's self-efficacy in two ways: by the delivery of positive feedback ('social persuasion') and by offering opportunities to learn from others ('vicarious experience'). A concrete way to address both is by facilitating teachers in observing their team members (or colleagues outside the team) and to actively stimulate teachers to ask feedback from colleagues (for instance, as a preparation for performance interviews). Recognising teachers' performance – under which their professional development, innovative ideas and new solutions to problems – proves another strategy to strengthen teachers' self-efficacy (OECD 2009).

35.4.2 Motivation-Enhancing HR Practices

Given the central role of learning goal orientation in teachers' learning, it is recommended to shape the working situation of teachers in such a way that it promotes their learning goal orientation and creates a so-called *situational learning goal orientation* (Button et al. 1996). This can be done by stressing the importance of teachers' learning by, for example, assuring that teachers have enough time to develop themselves and to learn from each other. Also, by offering teams rewards for their new ideas, it may motivate employees to seek new knowledge and share such knowledge within the team in order to generate creative insights (Chuang et al. 2013).

Within competence-based learning, next to the 'traditional' role of lector, teachers can fulfil different other roles, like the 'learning career' coach of individual students, tutor of a group of students, assessor, educational designer, etc. (Oonk et al. 2013). All these roles require different competencies. Teams thus need people with different qualities, varying from people who have good insight into the developments which take place in workplace settings and the profession to people who possess the ability to assess students' learning needs or career ambitions. The workplace of teachers, in this way, is, in potency, very motivating and also has a high 'learning potential' (Nijhof and Nieuwenhuis 2008). It is recommended to make the different roles and competencies explicit, in order to make teachers aware of the various development possibilities and career paths.

35.4.3 Opportunity-Enhancing HR Practices

The primary objective of opportunity-enhancing HR practices is to create appropriate conditions for teams and team members to engage in team learning (cf Chuang et al. 2013). As we have argued in the former section, these practices can link to the task, team and organisation level. Related to the *task level*, VET institutions have to

ensure that team members and teams have enough autonomy to plan, execute and shape their work. This is needed in order to ensure that teams and team members have enough space to learn about CBE and to find a way to put it in practice. It is also recommended to make teachers' experienced workload a recurrent item in performance or feedback interviews. Related to the *team level*, there should be enough interdependence among team members in order to ensure a certain degree and quality of interactions among team members. The multidisciplinary character of CBE enhances the task interdependence. Goal interdependence can be enhanced by rewarding not only individual teachers for their contribution to CBE but also the team as a whole. This doesn't have to be a pure financial reward; also offering the opportunity to follow a course together or to serve as a model for other teams can be rewarding. Finally, related to the *organisational level*, teams and individual team members must have enough time and room for learning what CBE really encompasses and to experiment with CBE methods and assessments. A first prerequisite is that knowledge about CBE must be available for teachers. This can be done, for instance, by cooperation with educational knowledge centres or universities. Teams need time and space to learn from other teams, within or outside the VET institution. The exchange of 'good practices' can be stimulated, for instance, by means of conferences, organised by several VET institutions together.

Given the important role of leaders, specifically the transformational style, VET institutions are to invest in recruitment and selection procedures for new leaders as well as in management development (MD) programmes for current leaders. Attention should be paid to the topic of team learning and how this can be stimulated as well as to the topic of CBE and how teams can be facilitated in bringing this into their practices.

Finally, concerning the organisational climate, this requires that the importance of team learning is reflected in all communication and behaviours of leaders as well as in rules and procedures in the institution. This cannot be realised by a single HR practice but is related to the HR system as a whole. The following section will elaborate on this more.

35.4.4 A 'Strong HRM System'

HRM, which affects the conditions under which employees' work has to be done, should not be formulated by managers or HRM advisors in isolation, but be developed on the base of a dialogue and negotiation with all stakeholders. Once HRM policies are determined, however, these are not always interpreted by employees as intended (Nishii and Wright 2008). Hence, for HRM to be effective, it is not enough to have good practices (Guest 2011), but the *HRM process* should be taken into account as well (Bowen and Ostroff 2004). Within the process perspective of HRM, HRM is viewed as a means of sending 'messages' to employees about what attitudes and behaviours are expected and rewarded. These messages can help employees to make sense of the psychological meaning of their work situation (e.g. Rousseau 2001). Based on Kelley's (1967) covariation framework, Bowen and Ostroff (2004)

argue that when employees perceive HRM as *distinctive* (the event effect is highly observable) and as *consistent* (the event effect presents itself in the same way across modalities and time), and if they perceive *consensus* (there is agreement among individual views of the event-effect relationship), they can make confident cause-effect relations and understand what is expected of them and rewarded. In turn, this will enhance employee and organisation performance.

Translated to the topic of team learning, in order to stimulate teachers' engagement in team learning activities, the objective of HRM has to be very clear and visible for teacher teams (*distinctive*), the value attached to team learning has to be present in every single HRM practice (*consistent*) and all relevant actors within the VET institution have to share the opinion that team learning is important (*consensus*). Related to these specific features of a strong HRM system, a couple of concrete suggestions can be formulated.

Distinctiveness This aspect of HRM refers to the clearness and visibility with which a VET institution communicates ('sends the message') that team learning is important. It means that HRM practices need to be visible and accessible for teachers. This can be done, for instance, by making 'team learning', 'teacher competence' and 'collective competence' recurrent topics in the 'cycle of conversations' between managers and teams and individual team members. This cycle, for instance, can start off with reflecting on teachers' competence and their developmental needs, be followed by an evaluation of professional development and a performance appraisal, and be finalised by one of several possible outcomes, like a pay increase or the allocation of new tasks. After the cycle has been completed, a new cycle can start (Runhaar et al. 2013). A same kind of system can be applied to the team level where school leaders hold conversations with teams about their collective competence development.

Consistency This can be achieved by an alignment of different HR practices for instance, by means of using teacher competence as a 'leitmotif'. For example, in the Netherlands, the Ministry of Education has initiated the formulation of seven teacher competencies which are adopted by VET institutions in their HRM policies (see for more Runhaar and Runhaar 2012; Runhaar et al. 2013). Examples of these competencies are 'pedagogical competence', 'subject matter didactic competence' and 'competence in collaboration'. The competencies contain a general definition and sub-competencies. Concrete examples of competence at four levels are also provided, which make the framework a practical guidance for teachers' professional development. The competencies can form the starting point for professional development plans (what competencies do I / we have to develop the coming period?), staffing of teacher teams (what competencies are present, which do we need?), performance appraisals and reward. Next to the competence descriptions developed by the Ministry, VET institutions can stress competencies they think are important, like teamwork or learning skills. Using the 'competence language' can enhance teachers' perception of consistency among different HRM practices.

Recently, the Dutch VET council, like the councils for primary and secondary education in the Netherlands, has started with the development of a competency framework for teachers' supervisors (like school leaders or team leaders). Under the title of 'practice-what-you-preach', the most important competencies for managers are being formulated. When VET institutions will start using these in a similar cycle of conversations with their leaders, this would mean an important increase of HRM's consistency and, consequently, its effectiveness.

Consensus Achieving agreement among relevant actors about the goals and features of HRM is important but difficult. Managers are not always educated in the field of HRM, do not all see the added value of HRM or are not aware of the crucial role they play in executing the HRM policy (e.g. Runhaar et al. 2013). Reaching consensus calls for special attention for HRM in Management Development (MD) programmes as well as in management team meetings. Managers can let HRM specialists inform them, but must never forget to validate their HR insights by means of interactions with teacher teams. The teacher teams, of course, know how their collective competence and performance can best be enhanced and what kinds of development opportunities are most suitable.

35.5 Conclusions

The following figure summarises the line of reasoning presented in this chapter, Fig. 35.1.

Team learning can help VET teachers to develop competence-based education, which is inherently a team effort due to its multidisciplinary character. A strong HRM system, characterised by the distinctiveness of and consistency among HR practices and consensus among different actors, can enhance the ability, motivation and opportunities of employees to engage in team learning activities. Achieving a strong HRM system within VET institutions takes time and effort, and, to a large

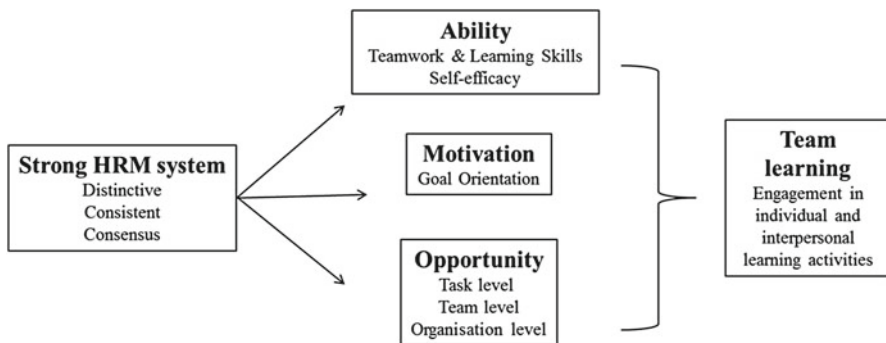


Fig. 35.1 Link between HRM systems and team learning (cf Chuang et al. 2013)

extent, it relies on intensive internal communication among all relevant actors within VET institutions.

The model is based on theories on learning of employees in general or teachers specifically. Nevertheless, the proposed relationships among the variables call for further empirical studies on how HRM can contribute to VET teachers' learning in the context of CBE.

References

- Appelbaum, E., Bailey, T., Berg, P., & Kalleberg, A. (2000). *Manufacturing advantage: Why high-performance work systems pay off*. Ithaca: Cornell University Press.
- Argote, L., Gruengeld, D., & Naquin, C. (2001). Group learning in organizations. In M. E. Turner (Ed.), *Groups at work: Theory and research* (pp. 369–412). Mahwah: Erlbaum.
- Bakkenes, I., Vermunt, J. D., & Wubbels, T. (2010). Teacher learning in the context of educational innovation: Learning activities and learning outcomes of experienced teachers. *Learning and Instruction, 20*, 533–548.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review, 84*, 191–215.
- Biemans, H., Nieuwenhuis, L., Poell, R. F., Mulder, M., & Wesselink, R. (2004). “Competence-Based VET in The Netherlands: Backgrounds and Pitfalls. *Journal of Vocational Education and Training, 56*, 523–538.
- Blase, J., & Blase, J. (2000). Effective instructional leadership: Teachers' perspectives on how principals promote teaching and learning in schools. *Journal of Educational Administration, 38*, 130–141.
- Boreham, N. (2004). A theory of collective competence: Challenging the neo-liberal individualisation of performance at work. *British Journal of Educational Studies, 52*(1), 5–17. doi:[10.1111/j.1467-8527.2004.00251.x](https://doi.org/10.1111/j.1467-8527.2004.00251.x).
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal, 15*, 67–94.
- Bowen, D. E., & Ostroff, C. (2004). Understanding HRM-firm performance linkages: The role of ‘Strength’ of the HRM system. *Academy of Management Review, 29*, 203–221.
- Boxall, P., & Purcell, J. (2003). *Strategy and human resource management*. Bas-ingstoke: Palgrave MacMillan.
- Bransford, J., Derry, S., Berliner, D., & Hammerness, K. (2005). Theories of learning and their role in teaching. In L. Darling-Hammond & J. Bransford (Eds.), *Preparing teachers for a changing world* (pp. 40–87). San Francisco: Jossey-Bass.
- Burton, R. M., Lauridsen, J., & Obel, B. (2004). The impact of organizational climate and strategic fit on firm performance. *Human Resource Management, 42*, 67–82.
- Button, S. B., Mathieu, J. E., & Zajac, D. M. (1996). Goal orientation in organizational research: A conceptual and empirical foundation. *Organizational Behavior and Human Decision Processes, 67*, 26–48.
- Campion, M. A., Medsker, G. J., & Higgs, A. C. (1993). Relations between work group characteristics and effectiveness: Implications for designing effective work groups. *Personnel Psychology, 46*, 823–850.
- Chuang, C.-H., Jackson, S. E., & Jiang, Y. (2013). Can knowledge-intensive teamwork be managed? Examining the roles of HRM systems, leadership, and Tacit knowledge. *Journal of Management*. doi:[10.1177/0149206313478189](https://doi.org/10.1177/0149206313478189).
- Clarke, D. J., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education, 18*, 947–967.

- Coburn, C. E. (2004). Beyond decoupling: rethinking the relationship between the institutional environment and the classroom. *Sociology of Education*, 77, 211–244.
- Crossan, M., Lane, H. W., & White, R. E. (1999). An organizational learning framework: From intuition to institution. *Journal of Management Review*, 24(3), 522–537.
- Cunningham, C. E., Woodward, C. A., Shannon, H. S., Macintosh, J., Lendrum, B., Rosenbloom, D., et al. (2002). Readiness for organizational change: A longitudinal study of workplace, psychological and behavioral correlates. *Journal of Occupational and Organizational Psychology*, 75, 377–392.
- Dansereau, F., Jr., Graen, G., & Haga, W. J. (1975). A vertical dyad linkage approach to leadership within formal organizations: a longitudinal investigation of the role making process. *Organizational Behavior and Human Performance*, 13, 46–78.
- DeArmond, M. M., Shaw K. L., & Wright P. M. (2009). Zooming in and zooming out: Rethinking school district human resource management. In: D. Goldhaber, & J. Hannaway (Eds.), *Creating a new teaching profession*, (pp. 53–79). Washington, DC: The Urban Institute.
- Deci, E. L., & Ryan, R. M. (1985). *Intrinsic motivation and self-determination in human behavior*. New York: Plenum.
- Decuyper, S., Dochy, F., & Van de Bossche, P. (2010). Grasping the dynamic complexity of team learning: An integrative model for effective team learning in organisations. *Educational Research Review*, 5, 111–133.
- Deutsch, M. (1973). *The resolution of conflict*. New Haven: Yale University Press.
- Dweck, C. S. (2000). *Self-theories: Their role in motivation, personality and development*. Philadelphia: Psychology Press.
- Dweck, C. S., & Legett, E. L. (1988). A social cognitive approach to motivation and personality. *Psychological Review*, 95, 256–273.
- Etscheidt, S., Curran, C. M., & Sawyer, C. M. (2012). Promoting reflection in teacher preparation programs: A multilevel model. *Teacher Education and Special Education*, 35(1), 7–26.
- Geijsel, F., Slegers, P., Leithwood, K., & Jantzi, D. (2003). Transformational leadership effects on teacher commitment and effort toward school reform. *Journal of Educational Administration*, 41, 228–256.
- Gerstner, C. R., & Day, D. V. (1997). Meta-analytic review of leader-member exchange theory: Correlates and construct issues. *Journal of Applied Psychology*, 82, 827–844.
- Graen, G. B., & UN-Bin, M. (1995). Relationship-based approach to leadership: development of leader-member exchange (LMX) theory of leadership over 25 years: Applying a multi-level multi-domain perspective. *Leadership Quarterly*, 6, 219–247.
- Guest, D. (2011). Human resource management and performance: Still searching for some answers. *Human Resource Management Journal*, 21, 3–13.
- Gulikers, J. T. M., Biemans, H. J. A., Wesselink, R., & van der Wel, M. (2013). Aligning formative and summative assessments: A collaborative action research challenging teacher conceptions. *Studies in Educational Evaluation*, 39, 116–124.
- Guthrie, H. (2009). *Competence and competency-based training: What the literature says*. Adelaide: National Centre for Vocational Education Research.
- Hakanen, J. J., Bakker, A. B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology*, 43, 495–513.
- Jackson, S. E., Chuang, C., Harden, E. H., & Jiang, Y. (2006). Toward developing human resource management systems for knowledge-intensive teamwork. *Research in Personnel and Human Resources Management*, 25, 27–70.
- Johnson, D. W., & Johnson, R. T. (1989). *Cooperation and competition: Theory and research*. Edina: Interaction Book Company.
- Kelley, H. H. (1967). Attribution in social psychology. *Nebraska Symposium on Motivation*, 15, 192–238.
- Kiggundu, M. N. (1983). Task interdependence and job design: Test of a theory. *Organisational behaviour and human performance*, 31, 145–172.

- Lam, Y. L. J. (2002). Defining the effects of transformational leadership on organisational learning: A cross-cultural comparison. *School Leadership & Management*, 22, 439–452.
- Lave, J., & Wenger, E. (1991). *Situated learning. Legitimate peripheral participation*. Cambridge: University of Cambridge Press.
- Little, J. W. (2003). Inside teacher community: Representations of classroom practice. *Teachers College Record*, 105(6), 913–945.
- McCarthy, C. J., Lambert, R. G., O'Donnell, M., & Melendres, L. T. (2009). The relation of elementary teachers' experience, stress, and coping resources to burnout symptoms. *Elementary School Journal*, 109(3), 282–300.
- Malloch, M., Cairns, L., Evans, K., & O'Connor, B. (2010). *The SAGE handbook of workplace learning*. London: Sage.
- Marsick, V. J., & Watkins, K. E. (2001). Informal and incidental learning. *New Directions for Adult and Continuing Education*, 89, 25–34.
- McLaughlin, M. W. (1997). Rebuilding Teacher Professionalism in the United States. In: A. Hargreaves & R. Evans (Eds.), *Beyond educational reform. Bringing teachers back in*, (pp. 77–93). Buckingham: Open University Press.
- Meijrink, J. A., Meijer, P. C., Verloop, N., & Bergen, T. C. M. (2009). Understanding teacher learning in secondary education: The relations of teacher activities to changed beliefs about teaching and learning. *Teaching and Teacher Education*, 25, 89–100.
- Mena Marcos, J., Sanchez, E., & Tillema, H. H. (2011). Promoting teacher reflection: What is said to be done. *Journal of Education for Teaching: International research and pedagogy*, 37(1), 21–36.
- Mossholder, K. W., Richardson, H. A., & Settoon, R. P. (2011). Human resource systems and helping in organizations: A relational perspective. *Academy of Management Review*, 36, 33–52.
- Mulder, M., Weigel, T., & Collins, K. (2007). The concept of competence in the development of vocational education and training in selected EU member states: A critical analysis. *Journal of Vocational Education & Training*, 59, 51–64.
- Mulder, M. (2014). Conceptions of professional competence. In S. Billett, C. Harteis, & H. Gruber (Eds.), *International handbook on research into professional and practice-based learning*. Dordrecht: Springer.
- Nijhof, W. J., & Nieuwenhuis, L. F. M. (Eds.). (2008). *The learning potential of the workplace*. Rotterdam: Sense Publishers.
- Nishii, L., & Wright, P. (2008). Variability within organizations: Implications for strategic human resource management. In D. B. Smith (Ed.), *The people make the place: Dynamic linkages between individuals and organizations*. New York: Taylor and Francis Group.
- OECD. (2009). *Creating effective teaching and learning environments: First results from TALIS*. Paris: Organisation for Economic-operation and Development.
- Oonk, C., Beers, P. J., & Wesselink, R. (2013). *Doceren in Regiolen. Rollen, taken en competenties van docenten in regionale leerarrangementen. Programma Professionalisering Docenten*. Wageningen: Leerstoelgroep Educatie- en competentiestudies.
- Park, S., Henkin, A. B., & Egley, R. (2005). Teacher team commitment, teamwork and trust: Exploring associations. *Journal of Educational Administration*, 43(5), 462–479.
- Parker, S. K., & Wall, T. D. (1998). *Job and work design: Organizing work to promote well-being and effectiveness*. Thousand Oaks: Sage.
- Rousseau, D. M. (2001). The idiosyncratic deal: Flexibility versus fairness? *Organizational Dynamics*, 29, 260–273.
- Runhaar, P. (2008). *Promoting teachers' professional development*. Dissertation. Enschede: University of Twente.
- Runhaar, P., Sanders, K., & Slegers, P. (2009). *De school als ontwikkelplek voor leraren*. Enschede: Twente Center for Career Research.
- Runhaar, P., Sanders, K., & Yang, H. (2010). Stimulating teachers' reflection and feedback asking: An interplay of self-efficacy, learning goal orientation, and transformational leadership. *Teaching and Teacher Education*, 26, 1154–1161.

- Runhaar, P., & Runhaar, H. (2012). HR policies and practices in vocational education and training institutions: Understanding the implementation gap through the lens of discourses. *Human Resources Development International*, 15(5), 609–625.
- Runhaar, P., & Sanders, K. (2013). Implementing Human Resources Management (HRM) within Dutch VET schools: Examining the fostering and hindering factors. *Journal of Vocational Education & Training*, 65(2), 236–255.
- Runhaar, P., Konermann, J., & Sanders, K. (2013). Teachers' work engagement: considering the interaction with pupils and HR practices as job resources. *Journal of Applied Social Psychology*, 43(10), 2017–2030.
- Runhaar, P., ten Brinke, D., Kuijpers, M., Wesselink, R., & Mulder, M. (2014). Exploring the links between interdependence, team learning and a shared understanding among team members: The case of teachers facing an educational innovation. *Human Resources Development International*, 17(1), 67–87.
- Schaap, H., Baartman, L., & De Bruijn, E. (2012). Students' learning processes during school-based learning and workplace learning in vocational education: A review. *Vocations and Learning*, 5(2), 99–117.
- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Seezink, A., & Poell, R. F. (2010). Continuing professional development needs of teachers in schools for competence-based vocational education: A case study from the Netherlands. *Journal of European Industrial Training*, 34, 455–474.
- Silins, H. C., & Mulford, W. R. (2002). Schools as learning organisations. *Journal of Educational Administration*, 40, 425–446.
- Smylie, M. A., Miretzky, D., & Konkol, P. (2004). Rethinking teacher workforce development: A strategic human resource management perspective. *Yearbook of the National Society for the Study of Education*, 103, 34–69.
- Spillane, J. P., Reiser, B. J., & Reimer, T. (2002). Policy implementation and cognition: Reframing and refocusing implementation research. *Review of Educational Research*, 72(3), 387–431.
- Tuckey, M., Brewer, N., & Williamson, P. (2002). The influence of motives and goal orientation on feedback seeking. *Journal of Occupational and Organizational Psychology*, 75, 195–216.
- Tynjälä, P. (2012). Toward a 3-P model of workplace learning: A literature review. *Vocations and Learning*, 6, 11–36.
- Van Dam, K., Oreg, S., & Schyns, B. (2008). Daily work contexts and resistance to organisational change: The role of leader–member exchange, development climate, and change process characteristics. *Applied Psychology: An International Review*, 57(2), 313–334.
- van Dam, K., Schipper, K., & Runhaar, P. (2010). Developing a competency-based framework for teachers' entrepreneurial behaviour. *Teaching and Teacher Education*, 26, 965–971.
- Van den Bossche, B., Gijsselaers, W. H., Segers, M., & Kirschner, P. A. (2006). Social and cognitive factors driving teamwork in collaborative learning environments: Team learning, beliefs, and behaviors. *Small Group Research*, 37, 490–521.
- Van der Vegt, G. S., & Janssen, O. (2003). Joint impact of interdependence and group diversity on innovation. *Journal of Management*, 29, 729–751.
- Van der Bolt, L., Studulski, F., van der Vegt, A. L., & Bontje, D. (2006). *De betrokkenheid van de leraar bij onderwijsinnovaties - Een verkenning op basis van literatuur*. Utrecht: Sardes.
- VandeWalle, D. (2001). Why wanting to look successful doesn't always lead to success. *Organizational Dynamics*, 30, 162–171.
- Van Woerkom, M. (2004). The concept of critical reflection and its implications for human resource development. *Advances in Developing Human Resources*, 6, 178–193.
- Van Woerkom, M., & Croon, M. A. (2009). The relationships between team learning activities and team performance. *Personnel Review*, 38, 560–577.
- Wageman, R. (2001). The meaning of interdependence. In M. E. Turner (Ed.), *Groups at work theory and research*. (pp. 197–217). Mahwah: Erlbaum.

- Wesselink, R., Dekker Groen, A. M., Biemans, H. J. A., & Mulder, M. (2010). Using an instrument to analyse competence based study programmes: experiences of teachers in Dutch vocational education and training. *Journal of Curriculum Studies*, 42(6), 813–829.
- Whipp, J. L. (2003). Scaffolding critical reflection in online discussions. Helping prospective teachers think deeply about field experience in urban schools. *Journal of Teacher Education*, 54(4), 321–33.
- Yu, H., Leithwood, K., & Jantzi, D. (2002). The effects of transformational leadership on teachers' commitment to change in Hong Kong. *Journal of Educational Administration*, 40, 368–389.