

# Chapter 9

## Five Critical Success Factors for Coaching: A Perspective on Educating Reflective Practitioners



Ger van Doorn

### Contents

9.1 Introduction.....	134
9.2 Five CSFs for Coaching in Relation to Adaptive and Reflective Capacities Within Organizations.....	135
9.2.1 CSF-1—Context: Environmental Awareness When Working and Learning.....	138
9.2.2 CSF-2—Yardstick: Goal-oriented Working and Learning.....	139
9.2.3 CSF-3—Ownership: Self-management in Working and Learning.....	139
9.2.4 CSF-4—Iceberg: Congruence Within One’s Competence Household.....	140
9.2.5 CSF-5—Here & Now: Experiential Learning.....	142
9.3 Guiding Employees from the CSF Perspective.....	143
9.3.1 Context-oriented Guidance (CSF-1).....	143
9.3.2 Goal-oriented Guidance (CSF-2).....	144
9.3.3 Self-management-oriented Guidance (CSF-3).....	144
9.3.4 Competence-oriented Guidance (CSF-4).....	144
9.3.5 Experience-oriented Guidance (CSF-5).....	145
9.4 Discussion.....	145
9.4.1 Implications.....	146
9.4.2 Brief Reflection Upon FMS-NLDA’s Current Educational Practice.....	147
9.4.3 Limitations and Opportunities.....	148
References.....	149

---

The author wishes to express his gratitude to Professor Myriame Bollen, Professor Eric-Hans Kramer and Mrs. Tine Molendijk MSc for their comments on earlier versions of this chapter, GJD.

---

G. J. van Doorn (✉)  
Faculty of Military Sciences, Netherlands Defence Academy, PO Box 90002, 4800 PA  
Breda, The Netherlands  
e-mail: [GJM.v.Doorn@mindef.nl](mailto:GJM.v.Doorn@mindef.nl)

**Abstract** Due to ever faster and drastically changing operational contexts, organizations today have to be increasingly flexible. This requires staff to become adaptive, based on a mode of instantaneous ‘learning while working’, often referred to as *reflective practice*. Consequently, coaching – i.e. facilitating learning – is about to appear as ‘the new leadership’. Van Doorn and Lingsma (2017) defined five so-called *critical success factors (CSFs) for coaching*, and used them for the *ex-ante* and *ex-post* evaluation of both the *process* (enabling learning) and its *product* (learning outcomes). This chapter examines how the theoretical CSF-perspective may offer a practical framework for organizational learning and—more detailed—for the education of reflective practitioners. This question will be addressed by answering two sub-questions: (1) How do CSFs relate to reflective and adaptive capacities within organizations? (2) How can managers apply the CSFs to the benefit of their employees’ learning? It is argued that, generally speaking, the five CSFs—the ‘spectacles with five glasses’—offer a suitable perspective on learning and development within organizations, aiming for their adaptability, based on a well-founded reflective practice. Specific attention is paid to its fitness for the education of future military leaders.

**Keywords** Coaching · Critical Success Factor · Leadership · Educational Philosophy · Organizational Learning · Adaptability · Reflective Practitioner · Informal Learning · Workplace Learning

## 9.1 Introduction

As the (global) social environment of organizations is changing rapidly and radically,<sup>1,2</sup> their operational context is becoming less predictable. Today, managers and employees alike have to relate to their respective circumstances in the nimblest possible manner. This requires *adaptive ability*,<sup>3</sup> for which, in turn, they need a substantial capacity for ‘learning while working’, based on *reflective practice*,<sup>4</sup> preferably integrated within organizational learning.<sup>5</sup>

Until recently, leadership focused mainly, if not exclusively, on employee *performance*. Since roughly a decade however, a shift in emphasis can be seen to *learning capacities*, at *all* levels within organizations. As a result, coaching is gaining recognition as ‘the new leadership’,<sup>6,7,8</sup> defined by Van Doorn and

---

<sup>1</sup> Montuori 2000.

<sup>2</sup> Stacey 2007.

<sup>3</sup> Cundill et al. 2012.

<sup>4</sup> Schön 1983, 1987.

<sup>5</sup> Reynolds 2017.

<sup>6</sup> Bass and Avolio 1990.

<sup>7</sup> Harper 2012.

<sup>8</sup> Yukl 2013.

Lingsma (2017) as: ‘the guidance of learning by individuals, groups and organizations, so as to increase their on the job effectiveness’.<sup>9</sup> To this end, the authors distinguish five *critical success factors* (CSFs), that serve to test both the process (facilitating learning) as well as its results (learning outcomes).<sup>10</sup> The authors view CSFs as crucial to organizational success.<sup>11</sup>

This chapter investigates how CSFs can provide a practical framework for organizational learning; more specifically, for finding out whether organizations, by means of integrated *reflective practices*, can learn to act adequately on change (*adaptivity*). The main question to be addressed is: How do the five CSFs – as identified by Van Doorn and Lingsma – offer a perspective on the education of reflective practitioners? Based on a literature search, this question will be elaborated on in two ways. First, how do CSFs relate to reflective and adaptive capacities within organizations? Second, how can managers apply the CSFs while guiding their people?

The discussion section revolves around the consequences of the CSF perspective for the design, structure and evaluation of educational programs for future (military) leaders.

## 9.2 Five CSFs for Coaching in Relation to Adaptive and Reflective Capacities Within Organizations

This section discusses the first question, i.e. how coaching – i.e. coaching leadership – relates to reflective and adaptive abilities within *learning organizations* (LO). Following Argyris and Schön (1978), the LO-concept attempts to clarify how reflective practice is part of it, adaptivity being the intended effect. According to Senge and Sterman (1992), and corroborated, amongst others, by O’Keeffe (2002), organizations have to develop continually to cope with environmental change. Senge furthermore suggests that organizations transform into communities to which their workers feel connected,<sup>12</sup> as this will increase motivation and improve performance. An LO is seen as an organization transforming itself, by facilitating ongoing learning. Senge distinguishes five strengths or ‘disciplines’, characterising LO-members: (1) personal mastery, (2) awareness of mental models, (3) a collective vision on the organization, (4) team learning, and (5) the ‘umbrella discipline’ connecting the other four: systems thinking.

Typically, LOs are aware of their own strengths and weaknesses, enabling them to remove obstacles blocking successful performance. Such obstacles are seen to

---

<sup>9</sup> Van Doorn and Lingsma 2017, p. 33.

<sup>10</sup> (1) – Environmental awareness, (2) – Goal orientation, (3) – Self management, (4) – Competence (5) – Experiential learning. Labels or metaphors used: *Context, Yardstick, Ownership, Iceberg and Here & Now*.

<sup>11</sup> Rockart 1979.

<sup>12</sup> Senge et al. 2008.

thwart preconditions for organizational learning. For instance, personal mastery does not result solely from formal education and training, but substantially leans on informal learning in the workplace.<sup>13</sup> Based on pro-activity, critical reflection and creativity,<sup>14</sup> informal learning relates to *experiential learning*, *self-directed learning*, *action learning* and *transformative learning*,<sup>15</sup> all especially useful strategies for educating adults.<sup>16</sup>

To foster informal learning in the workplace, a healthy learning culture, characterised by e.g., coaching and coaching leadership, is necessary. Adhering to traditional hierarchy and ‘old values’ in leadership styles can be obstacles to implement a culture in which learning abilities may flourish.<sup>17</sup>

The ability to act adequately upon external influences<sup>18</sup> renders LOs adaptive. Due to their personal mastery, employees learn faster and improve incessantly. Consequently, the pace in organizational change becomes more up-tempo, enabling LOs to keep up with abrupt environmental developments. However, to regard an LO as the sum total of all individual learning fails to take into account the need to *transfer* and *integrate* what has been learned into the organization as a whole,<sup>19</sup> necessitating *interaction* amongst individual learners.<sup>20</sup> Today, organizational capacities for learning are defined by the extent of vertical cooperation between individuals, teams and management, and their contributions must complement each other to be effective.<sup>21</sup> Järvinen and Poikela (2001) stress the meaning of simultaneous learning at all three levels, whilst Høytrup (2004), highlighting the importance of both individuals and group interaction, advocates integration of reflective practices within LOs.

Notably, the LO-concept appears to focus explicitly on strengthening the adaptive capacities of both organizations and their employees. Promoting the self-evident reflection on learning processes, it emphasises one’s own responsibility for the relationship with the working environment, the purposefulness and congruency of one’s actions, within the well-understood setting of currently relevant learning experiences. As such, the LO concept seems to be fully in line with Van Doorn and Lingsma’s 2017 five CSFs, as explained below.

According to the authors, the five factors underpinning successful coaching comprise *environmental awareness*, *goal orientation*, *self-management*, *competence* and *experiential learning* (see Fig. 9.1). In times of rapid change, they consider it even more important when organizational members take their own

---

<sup>13</sup> Eraut 2004.

<sup>14</sup> Watkins and Marsick 1992.

<sup>15</sup> Conlon 2004.

<sup>16</sup> Merriam et al. 2007.

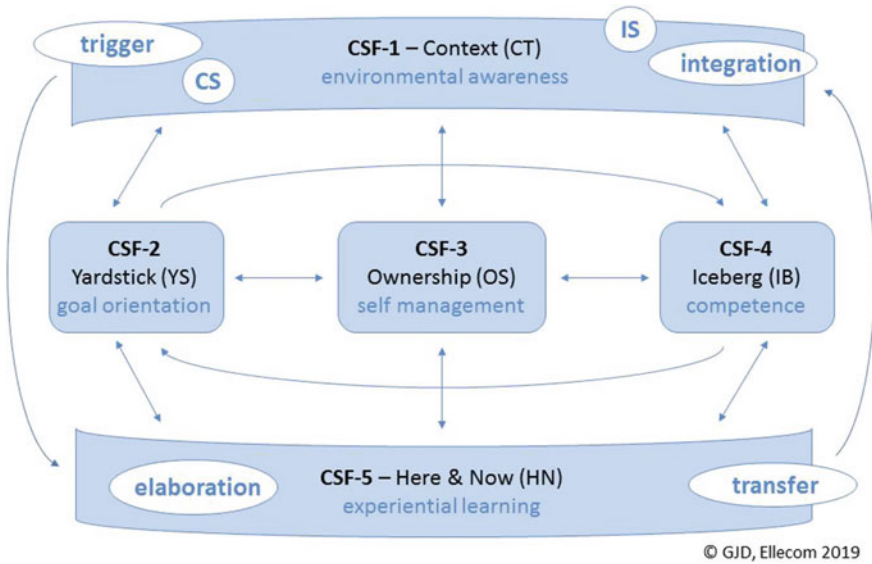
<sup>17</sup> Easterby-Smith et al. 2000.

<sup>18</sup> Pedler et al. 1997.

<sup>19</sup> McDougall and Beattie 1998.

<sup>20</sup> Fenwick 2008.

<sup>21</sup> Mooijman and Olthof 1999.



**Fig. 9.1** The five Critical Success Factors of Coaching (CSFs) interconnected. *Source* Van Doorn (2019)

responsibility (CSF-3) to learn purposefully (CSF-2) about the actual situation they find themselves in (CSF-5), develop the skills required, based on a critical reflection upon their considerations and motives (CSF-4), and apply their newly acquired competences in novel situations, in a context-adaptive process (CSF-1).<sup>22</sup>

As Fig. 9.1 shows, the *Context* (KSF-1) serves both as coaching’s point of departure as well as its focal point. It is triggered by a learning need within the current situation (CS), and the integration of the learning results eventually has to take place there as well, in the intended situation (IS). With the *Yardstick* (CSF-2) as a metaphor,<sup>23</sup> the learner indicates both his actual and desired position. The journey to bridge the gap between these two (CS ≠ IS) requires him to take full *Ownership* (CSF-3) of the process, deliberately centralised in this diagram. The *Iceberg* metaphor (CSF-4) depicts the multi-layered structure of his so-called ‘competence household’ of doing, thinking and feeling (see Sect. 9.3.4). He works on this within the *Here & Now* (CSF-5) of the learning environment, in order to then apply the learnings within the *Context* (CSF-1) of his work environment. Circle completed ...

Now, generally speaking, what makes these factors ‘critical’ to coaching and leadership alike? A lack of goal orientation (Yardstick, CSF-2) and self-management

<sup>22</sup> Van Doorn and Lingsma 2017.

<sup>23</sup> Please note that (2) *Yardstick* and (4) *Iceberg* are *not* the CSFs themselves, only just the metaphors depicting their essence, GJD.

(Ownership, CSF-3) is likely to result in unnecessary loss of energy in the Here-and-Now (CSF-5) of the experiential learning situation. If, in addition, a coachee's situation is marked by *non-alignment* (with the Context, CSF-1) and *incongruence* (within his Iceberg, CSF-4), then, inevitably, his learning is characterised by a 'limited intelligent use of human and material resources'. Continuation of the process should then be seriously reconsidered.

In the next part of this section, the five CSFs will be elaborated with reference to organizational learning, reflective and adaptive capabilities.

### 9.2.1 CSF-1—Context: Environmental Awareness When Working and Learning

CSF-1 (Context) is grounded in *General Systems Theory*,<sup>24,25</sup> *Social Cognitive Theory*<sup>26</sup> and *Organizational Learning Theory*,<sup>27,28</sup> more specifically, *communities of practice*,<sup>29</sup> informal and incidental learning<sup>30</sup> and workplace learning.<sup>31,32</sup> Learning and development are characteristic to *adaptive systems*, i.e., organizations that respond adequately to both internal and external signs.<sup>33,34</sup> So-called *complex adaptive systems* constitute a specific variant, deriving their complexity from various interconnected elements, their adaptivity stemming from the ability to learn and change accordingly.<sup>35</sup> This is exactly why coaching—guiding the learning—must be system-oriented.<sup>36</sup>

Coaching effectiveness should not only be assessed by looking (linearly) at the process and its outcomes, since a coachee's working environment is likely to (circularly) impact his actual performance far more.<sup>37</sup> Relevant aspects include e.g., how coachees coordinate within their team or department or how they cooperate with customers, cooperating organizations, competitors etc. Organizational adaptivity requires *all* members to involve in focused self-reflection, as, often, in

---

<sup>24</sup> Von Bertalanffy 1950, 1972.

<sup>25</sup> Checkland 1985.

<sup>26</sup> Bandura 1986, 1988.

<sup>27</sup> Argyris 1999.

<sup>28</sup> Senge and Sterman 1992.

<sup>29</sup> Wenger 2000.

<sup>30</sup> Marsick and Watkins 2001.

<sup>31</sup> Billett 2004.

<sup>32</sup> Van Woerkom and Poell 2010.

<sup>33</sup> Baumann 2015.

<sup>34</sup> Espejo et al. 1996.

<sup>35</sup> Lansing 2003.

<sup>36</sup> Van Doorn and Lingsma 2017.

<sup>37</sup> MacKie 2007.

longer-term relationships, important others, such as one's team-leader, turn out to be part of the problem instead of the solution.<sup>38</sup>

### **9.2.2 CSF-2—Yardstick: Goal-oriented Working and Learning**

In complex adaptive systems, learning capabilities relate directly to intentional, goal oriented behaviour. Whether organizations act effectively largely depends on *goal alignment* at various organizational levels.<sup>39</sup> Members are connected to the organization by means of their own yardstick, indicating where they currently stand and which direction they tend to take, preferably aligned with the organizational course, involving value driven activities.<sup>40,41</sup>

Furthermore, *setting goals* appears contextually sensitive.<sup>42</sup> Facilitating their achievement means taking into account reciprocal relationships between, on the one hand, someone's thoughts, feelings and behaviours (internally), and his environment<sup>43</sup> (externally) on the other. Mutual adjustment between these connections requires ongoing reflection on this.

A clear yardstick to measure effective behaviour is conditional to any chance of success in a coaching process. However, if the coachee is not bothered by the gap between CS and IS, his intrinsic motivation to remedy the situation will be low. Many of us may know what we want to get rid of (the CS regretted), but not yet where to go (an unclear IS). The responsibility to act on the ensuing delta is at the core of CSF-3, self-management.

### **9.2.3 CSF-3—Ownership: Self-management in Working and Learning**

Self-management, an acknowledged pinnacle to organizational learning,<sup>44</sup> demands a supportive environment.<sup>45</sup> Bandura (2001) argues a self-evident relation between workplace environment (CSF-1), goal orientation (CSF-2) and ownership (CSF-3).

---

<sup>38</sup> Tobias 1996.

<sup>39</sup> Boyatzis 2006.

<sup>40</sup> Biesta 2010.

<sup>41</sup> Eccles and Wigfield 2002.

<sup>42</sup> Pintrich 2000.

<sup>43</sup> Grant et al. 2009.

<sup>44</sup> Margaryan et al. 2009.

<sup>45</sup> Butler 2002.

Three processes, impacting each other as well as the environment, are relevant:<sup>46</sup> (1) *monitoring* own behaviour and effects; (2) *assessing* own behaviour; and, (3) affective *self-regulation*. The reciprocal influence between one's own thinking and doing and a network of social influences<sup>47</sup> is referred to as the *interactionist perspective* of Bandura's Social Cognitive Theory.

Someone's ownership of his learning-while-working-process becomes manifest in his tendency to reflect on himself and his experiences, so as to better deal with the initial situation that urged him to seek guidance. Thus, the connection between ownership and context is made explicit, and *adaptivity* would require him to be attentive to his relationships with others within their shared workplace setting, using all available horizontal, vertical and diagonal interaction lines. However, if he only takes responsibility for his specialist field or domain, he may very well be a senior craftsman, but as a team member there is still a junior.

In complex LOs (CSF-1), clearly designated ownership is important for both individual and teamwork.<sup>48</sup> Self-regulated learning by individuals, on its own, however, does not suffice.<sup>49</sup> In addition, collective learning processes should be *integrated*<sup>50</sup> by informal learning in the workplace.<sup>51,52</sup> Ellinger (2004) refers to *self-directed learning* as an approach in which learners manage the planning, execution and evaluation of their own learning experiences.<sup>53</sup> They refrain from external attribution,<sup>54,55</sup> claiming accountability for their own actions, thoughts and motives, as represented by the next CSF.

#### **9.2.4 CSF-4—Iceberg: Congruence Within One's Competence Household**

*Individual competences* are closely related to the organization's *core competences*,<sup>56</sup> the former being grounded in personal characteristics, such as knowledge and motivation; the latter regarding the qualities organizations need to convince their customers and to distinguish themselves from other suppliers. Competence

---

<sup>46</sup> Schunk 2001.

<sup>47</sup> Bandura 1991.

<sup>48</sup> Siemieniuch and Sinclair 2002.

<sup>49</sup> Confessore and Kops 1998.

<sup>50</sup> Littlejohn et al. 2012.

<sup>51</sup> Boekaerts and Minnaert 1999.

<sup>52</sup> Marsick and Watkins 2015.

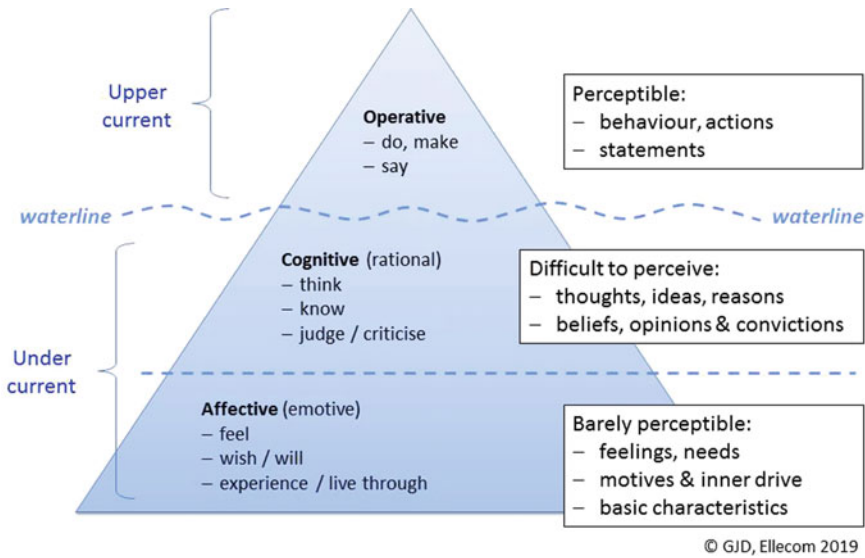
<sup>53</sup> Caffarella 2000.

<sup>54</sup> Lefcourt 2014.

<sup>55</sup> Weiner 1985.

<sup>56</sup> Rakickaite et al. 2011.





**Fig. 9.2** The three-layered Iceberg: operative (upper current), cognitive and affective (under current). *Source* Van Doorn (2019)

development, therefore, is a prerequisite for competitive advantage.<sup>57</sup> Since the competence-based approach to organizational learning has become increasingly context-dependent and context-oriented, CSF-4 and CSF-1 nowadays are inextricably intertwined.<sup>58,59</sup> In other words, the fulfilment of the organizational mission, vision and strategy<sup>60</sup> requires a parallel development of individual and core competences.<sup>61</sup> McClelland (1973, 1998) used the Iceberg metaphor to explain the layered structure of competences<sup>62</sup> (see Fig. 9.2).

Continuous vertical alignment between the iceberg’s layers is needed for individuals to act congruently, i.e. in line with their thoughts and feelings.<sup>63</sup> However visible their behaviour may be though, by no means so are their underlying thoughts and feelings, since they are to be found below the waterline. Experiential learning-by-doing (operatively) results from an interplay between the cognitive and

<sup>57</sup> Prahalad and Hamel 2006.

<sup>58</sup> Suikki et al. 2006.

<sup>59</sup> Boyatzis 2008.

<sup>60</sup> Wickramasinghe and de Zoyza 2009.

<sup>61</sup> Van Doorn 2017.

<sup>62</sup> Spencer and Spencer 1993.

<sup>63</sup> Sheldon and Kasser 1995.

the affective,<sup>64</sup> and coaching largely consists of the reflection on these two layers of a coachee's internal system, within the Here & Now of his momentary experience (CSF-5).

### 9.2.5 CSF-5—Here & Now: Experiential Learning

Experiential learning is considered embodied practice:<sup>65</sup> we relate to our social and natural habitat as physical beings,<sup>66</sup> and the need to keep or restore balance (*homeostasis*) forces us to learn continuously. The ongoing recalibration of this relation requires us to *transform* both ourselves and our environment during an infinitely adaptive process; a perpetual confrontation between CSFs-1 and 4 within the current Here & Now (CSF-5).

Kolb's (1984, 2009) Experiential Learning Theory (ELT) is meaningful to LOs.<sup>67</sup> However, defining EL as 'learning by doing' seems inadequate.<sup>68</sup> It would be better to use 'learning by *reflection* on one's doing', for only the reflection confers meaning to the 'doing'.<sup>69</sup> Schön (1983, 1987) distinguishes between 'reflection *on* action' and 'reflection *in* action', by either looking back on one's actions afterwards, or observing them critically at the very same moment.

Reflection is often defined as a merely cognitive process. Instead, Van Woerkom and Poell (2010) explicitly advocate involving one's unconscious motives and emotions in the practice of critical reflection. Awareness of one's subjective experiences matters for learning fundamentally, by simultaneously paying attention to doing, thinking *and* feeling in the here and now.<sup>70</sup> This comprehensive view regarding the concept of competences—operative, cognitive *and* affective<sup>71</sup>—is in line with the internal and external systems approach to (organizational) learning.

Feedback is most convincing if directly and recognisably connected to the same experience, shared by coach and coachee. This enables the former to instantaneously link his interventions to the latter's concrete and observable behaviour,<sup>72</sup> by first trying to understand it within the momentous here and now.<sup>73</sup> Linking this actual learning situation to the 'there and then' work situation (CSF-1) bestows coaching its immediate relevance and accuracy.

---

<sup>64</sup> Pos et al. 2008.

<sup>65</sup> Kupers 2008.

<sup>66</sup> Merleau-Ponty 1962.

<sup>67</sup> Vince 1998.

<sup>68</sup> Farrell 2012.

<sup>69</sup> Van Doorn and Lingsma 2017.

<sup>70</sup> Jordan et al. 2009.

<sup>71</sup> Van Doorn and Lingsma 2017.

<sup>72</sup> Leising and Bleidorn 2011.

<sup>73</sup> Lievens et al. 2018.

This section has addressed the first question, as to how CSFs relate to reflective and adaptive capabilities within organizations. They appear fit-for-use, as CSF-1 (Context) offers a framework for goal-oriented, self-managed competence development (CSFs 2, 3 and 4), whereas reflection-upon-experience within the Here & Now (CSF-5) underpins actions with insights, thereby giving organizational adaptivity a firmer basis.

Next, in Sect. 9.3 an answer is sought to the second question, about how leaders can apply CSFs while guiding their employees during their reflective learning processes.

### 9.3 Guiding Employees from the CSF Perspective

Managers can use the five CSFs to facilitate their employees' reflection, both *on* and *in* action, thus increasing organizational effectiveness.<sup>74</sup> Altogether the CSFs offer the 'spectacles with five glasses', thus enabling learners and their facilitators to focus precisely on learning processes—including their content—so as to explore and fully comprehend them. For each CSF, this section will elaborate on its anticipated contribution to this endeavour.

#### 9.3.1 Context-oriented Guidance (CSF-1)

CSF-1 refers to the employee's awareness of the environment, which exerts a big influence on his workplace behaviour.<sup>75</sup> Obviously, his manager must be attentive to this too, if only just to facilitate the former's coping. Moreover, to fulfil this complex task coherently, he has to coach *all* his team members.<sup>76</sup> He deliberately brings to the foreground the unpredictability of the context, to subsequently invite them to make it manageable, always in close cooperation with one another.

Contextually geared interventions start by the manager exploring the environment, preferably together with his employees,<sup>77</sup> comprising task and role diversity, organizational positions held by key players etc.<sup>78</sup> To make people navigate more skilfully the complexity of social network relations, information flows may be visibly mapped out using sociograms<sup>79</sup> or interactiograms.<sup>80</sup>

---

<sup>74</sup> From now on in this chapter we will no longer speak about 'coach and coachee', as in the previous sections, but about 'manager and employee', GJD.

<sup>75</sup> Peltier 2011.

<sup>76</sup> Feldman and Lankau 2005.

<sup>77</sup> Hawe et al. 2009.

<sup>78</sup> Foster-Fishman et al. 2007.

<sup>79</sup> Huang et al. 2007.

<sup>80</sup> Fürstenberg 2013.

### 9.3.2 Goal-oriented Guidance (CSF-2)

CSF-2 refers to the employee's level of goal orientation. Goals can be seen as cognitive representations of desired outcomes.<sup>81</sup> Performance improves when managers set them clearly and concretely, as is generally recognised.<sup>82</sup> Bandura (1986) argues that *goal setting* (CSF-2) and *self-regulation* (CSF-3) are inextricably linked. Other authors also find relations between self-regulation and learning (Green et al. 2006) whereas Gregory et al. (2011) find that effectiveness increases by active *goal setting* and *seeking feedback*, thus relating to CSFs 1, 2 and 3.

### 9.3.3 Self-management-oriented Guidance (CSF-3)

CSF-3, ownership, refers to the employee's basic attitude. Does he regard himself as the designer of his own learning, or as a victim of the situation? Characteristically, *learner autonomy* entails the shift of emphasis within the didactic process 'from teaching to learning' and, consequently, modern educational systems focus on *student-centred learning* rather than on teaching staff.

Employees can be guided in two ways, either by control or by supporting their autonomy.<sup>83</sup> The latter way would fit in with workers taking responsibility for planning, executing and evaluating their own learning activities.<sup>84</sup> Often, ownership begins by reflection on the extent to which somebody already engages in self-management.

### 9.3.4 Competence-oriented Guidance (CSF-4)

CSF-4 concerns the employee's competence at the levels of doing, thinking and feeling, plus the degree of congruence between these three. Again, the approach is learner-centred,<sup>85</sup> based on self-management (CSF-3) with the manager as *facilitator*, well aware of the taxonomy of didactic goals.<sup>86</sup>

Romiszowski's (1981, 2016) taxonomy, at a behavioural level, distinguishes *reproductive and productive skills*. The former are based on procedures, protocols and instructions, and can be learned by repetition. These skills are suited to deal with standardised situations, relying on routine actions, not requiring any creativity.

---

<sup>81</sup> Dickinson and Balleine 2012.

<sup>82</sup> Boekaerts et al. 2012.

<sup>83</sup> Reeve 2009.

<sup>84</sup> Sierens et al. 2009.

<sup>85</sup> Frank et al. 2010.

<sup>86</sup> Van Doorn and Lingsma 2017.

The latter, on the other hand, cannot be learned by practicing routines, because these simply never came about. They *per se* have to be dealt with by tackling unforeseen problems in not-standardised situations. Learners will have to approach a reality unknown to them creatively, choosing from equally unknown alternate actions, while often being pressed for time. Only agility of mind and swiftness of action—improvising ability—may lead to the desired adaptivity.

### 9.3.5 Experience-oriented Guidance (CSF-5)

CSF-5 is geared towards experiential learning, and not necessarily defined by the manager being around.<sup>87</sup> This approach is also learner-centred, allowing the employee to make his own discoveries from direct experience.<sup>88</sup> In doing so, ownership is challenged (CSF-3). Managers, facilitating their employee's process of reflection, can give support by granting space to develop adequate self-management skills,<sup>89</sup> e.g., by offering coaching.<sup>90</sup> Questioning is an important technique,<sup>91</sup> especially, when followed up by putting the answers to the test. By remaining non-judgemental, managers can help their employees to develop into self-regulating problem solvers.<sup>92</sup>

It appears, managers have ample opportunities to apply the CSFs while guiding their people during the reflection upon their own performance, looking through 'the spectacles with five glasses'. Learning effects are dependent on techniques used to enable reflection, such as *problem-based learning*,<sup>93</sup> *problem solving*, *critical questioning*, as well as to have learners themselves voice and synthesise their own learning outcomes. To support reflection, Gray (2007) suggests *storytelling*, conversation and dialogue, *critical incident analysis* and the use of reflective metaphors.

## 9.4 Discussion

The five CSFs for coaching can serve as tools to operationalise reflective practice within organizations in order to increase their adaptivity. Moreover, as coaching offers a basic didactic philosophy for training professionals as reflective practitioners, the five CSFs are of value for educational purposes. This section generally

---

<sup>87</sup> Rogers et al. 2013.

<sup>88</sup> Moon 2004.

<sup>89</sup> Heron 1999.

<sup>90</sup> Brockbank 2006.

<sup>91</sup> Wood Daudelin 1997.

<sup>92</sup> Barnett 1995.

<sup>93</sup> Löbner 2006.

outlines some possible consequences for the training of future managers, soon to be the new guides of their employees' learning. More specifically, brief attention is paid to the design, structure and evaluation of the educational program at the Faculty of Military Sciences (FMS-NLDA). A closer look is given to the way in which the reflective practitioner may already have taken shape as an educational objective. In addition, a quick scan is also carried out to see whether the (theoretical) CSF perspective has already found its way to the (practical) implementation of education, possibly even as part of the didactic concept.

### 9.4.1 Implications

As discussed in Sect. 9.3, managers may apply CSFs to guide their employees' learning, experientially and informally. To do so, they themselves need to be educated as *reflective practitioners* to remain adaptive, both individually and as part of a learning collective.<sup>94</sup> One wonders how this would translate to job- and competence profiles, and what requirements as to knowledge, skills and professional attitudes should be added to educational profiles to enable *continuous improvement*<sup>95</sup> for all organizational members.

In general terms, professional education should aim at: (1) promoting *mastery* at all organizational levels, during informal learning processes in the workplace; (2) promoting *learning conditions* for informal learning to take place. e.g., coaching (others) and peer group learning;<sup>96</sup> (3) promoting *collective learning processes*,<sup>97</sup> focusing on *interaction* among individual learners and vertical cooperation between individuals, teams and management; (4) focusing on *levels of reflection*, within both the internal and external system; (5) focusing on *each CSF's essence*, remaining aware of their critical aspects.

Specifically, professional education can prepare future managers for CSF-related tasks:

- CSF-1—facilitate employees to deal more effectively with their *environment*, clarifying its complexities, and invite them to make these manageable, together with others;
- CSF-2—help employees to learn *purposefully* while working, giving them concrete directions;
- CSF-3—encourage employees' *ownership* in an autonomy-supporting way, starting with the reflection on their current degree of self-management;

---

<sup>94</sup> Ruijters 2016.

<sup>95</sup> Cohen-Vogel et al. 2015.

<sup>96</sup> Van Doorn and Lingsma 2013.

<sup>97</sup> Lee and Roth 2007.

- CSF-4—guide employees in *congruent-competent behaviour*, focusing on both reproductive (routinely) and productive (creative-improvising) skills;
- CSF-5—let people make their own discoveries based on *direct learning experiences*, facilitating reflection and self-direction.

To promote employees' goal and competence orientation, examine their basic attitude and stimulate their self-management, the leader-coach has various working models available.<sup>98</sup> Beattie (2006) puts forward a hierarchy of nine facilitating behaviours, of which the basic forms 'performing skillfully' and 'providing information' occur most often, closely resembling traditional leadership behaviour. More subtle and sophisticated ones though, such as 'challenging' and 'reinforcing desirable behaviour', require additional development, since they are not part of many manager's natural repertoire.<sup>99</sup>

Vocational education programs aiming to train future managers as supervisors of reflective practitioners, should show a certain degree of reflection themselves, regarding at least five aspects of their tasks and responsibilities: (1) actively invite to a self-evident, natural reflective practice in a psychologically safe learning environment; (2) promote the five CSFs and act accordingly and recognisably; (3) be permissive instead of directive; (4) be inviting instead of indoctrinating; (5) nurture autonomy rather than dominate.

#### ***9.4.2 Brief Reflection Upon FMS-NLDA's Current Educational Practice***

When we now briefly examine how the FMS-NLDA is currently operating from the CSF perspective described above, the following can be noted. The vision and policy, mentioned in the Education Quality Manual (EQM<sup>100</sup>), aims to develop students into *thinking soldiers*, who are expected to operate effectively within unpredictable environments. They should be able to apply theoretical insights creatively to cope with problems in the field. Their attitude has to be critical, and they need to grasp the assignment's broader context.

The EQM's *Curriculum Structure* (Section 2) shows that FMS deliberately pursues the reflective practitioner concept. Additionally, it can be deduced from the *Educational Organization* (Section 3) that CSFs 1, 3 and 5 (*environmental awareness, self-management, experiential learning*) have been incorporated within the planned approach. To this end, teaching staff are expected to apply didactic principles of 'active learning' and associated methods, such as small group-working, dialogue, collaboration and peer feedback.

---

<sup>98</sup> See for instance: Van Doorn and Lingsma 2017, pp. 505–614.

<sup>99</sup> Beattie 2006.

<sup>100</sup> Faculty of Military Sciences (FMS) 2016.

Less favourably though, the EQM's *Evaluation* Section (5) appears to focus more on the *quantity* of FMS's output, thus seemingly refraining from its initially formulated goal 'to educate reflective practitioners', which is more of a *qualitative* nature. The same goes for the *Guidance and Mentoring* Section (6), solely aiming at 'getting students to study within the official timeframe.' So, due to the moulding of the *qualitative* objective (reflective practitioners) into numbers, plotted in time, the final test of the result mainly takes place in *quantitative* terms. Furthermore, it is not entirely clear how FMS brings about the self-reflective attitude and approach of teachers themselves, whereas precisely *that* should induce the desired reflective practice among students.

By and large, the specific objective of reflective practiotioning—preferably students' new, lifelong habit—could benefit from a more consistent implementation; not only within the design phase of training programs (*ex-ante*), but—plausibly even more important—of the evaluation phase (*ex-post*) as well. A CSF-tailored articulation, *in qualitative terms of process and content*, may give further substance to the educational objective initially stated.

### 9.4.3 *Limitations and Opportunities*

Discussing organizational adaptivity, the reader might find this chapter only to contain 'yesterday's news'. After all, according to Hargrove (1995) and Wierdsma and Swieringa (2002), the above considerations do not go beyond Argyris' (1999) *single loop learning*, i.e. behaviour *improvement*. Its *innovation* requires *double loop learning* though, its ongoing *development* even *triple loop*.<sup>101</sup> Far from being a superficial affair, real—transformative—learning, takes place within the middle and bottom layers of McClelland's (1993) Iceberg (CSF-4).

Furthermore, mere adaptivity may be deemed conflicting with CSF-3: ownership. By simply adjusting to their environment, organizations can be estimated as reactive followers, rather than proactive designers of their own process.<sup>102</sup> This raises the question whether we would not better invest in developing anticipatory and innovative rather than adaptive capabilities. In Romiszowski's (1981) words: should not we transform from reproductive performers to productive creators of a new reality? Especially when research shows that learning and personal mastery thrive better in innovative organizations than in adaptive ones.<sup>103</sup>

Third, although adaptivity is connected to incidental learning in the workplace<sup>104</sup> and the leader-coach is supposed to give impetus to informal learning

---

<sup>101</sup> Wierdsma and Swieringa 2002.

<sup>102</sup> Covey 1989.

<sup>103</sup> Llorens-Montes et al. 2004.

<sup>104</sup> Eraut 2004.



particularly,<sup>105</sup> this does not mean that formal learning should be looked down on. According to Tynjälä (2008) informal and formal learning should amalgamate to develop new expertise for dealing with change, as almost all workplace situations entail elements of both variants.<sup>106</sup> Ellström (2011) adds that heed should be paid to the integration of individual and organizational competences. Nisbet, Lincoln and Dunn (2013) nonetheless note that informal and inter-professional learning still rarely takes place.

More recently even, Ruijters (2018) remarks that ‘new leadership typologies, necessary in learning organizations, still remain limited.’ According to this author, the direction to take would involve creating space for the whole of human beings, both leaders and employees. It is about ‘knowing what is going on, working from values, establishing connections between people, across functions, within their own system and beyond.’<sup>107</sup>

A world to win, it seems ...

## References

- Argyris C (1999) *On organizational learning*, 2nd edn. Blackwell, New York.
- Argyris C, Schön DA (1978) *Organizational learning: A theory of action approach*. Addison-Wesley, Reading, MA.
- Bandura A (1986) *Social foundations of thought and action: a social cognitive theory*. Prentice Hall, Englewood Cliffs, NJ.
- Bandura A (1988) Organizational application of Social Cognitive Theory. *Australian Journal of Management* 13:275–302.
- Bandura A (1991) Social cognitive theory of self-regulation. *Organizational Behaviour and Human Decision Processes* 50:248–287.
- Bandura A (2001) Social cognitive theory: An agentic perspective. *Annual Review of Psychology* 52:1–26.
- Barnett BG (1995) Developing reflection and expertise: Can mentors make the difference? *Journal of Educational Administration* 33:45–59.
- Bass BM, Avolio BJ (1990) The implications of transactional and transformational leadership for individual, team, and organizational development. *Research in Organizational Change and Development* 4:231–272.
- Baumann O (2015) Models of complex adaptive systems in strategy and organization research. *Mind and Society* 1–15. <http://link.springer.com/article/10.1007/s11299-015-0168-x>. Accessed 14 May 2015.
- Beattie RS (2006) Line managers and workplace learning: Learning from the voluntary sector. *Human Resource Development International* 9:99–119.
- Biesta GJ (2010) Why ‘what works’ still won’t work: From evidence-based education to value-based education. *Studies in Philosophy and Education* 29:491–503.
- Billett S (2004) Workplace participatory practices: Conceptualising workplaces as learning environments. *Journal of Workplace Learning* 16:312–324.

---

<sup>105</sup> Conlon 2004.

<sup>106</sup> Marsick 2009.

<sup>107</sup> Ruijters 2018, p. 162.

- Boekaerts M, Minnaert A (1999) Self-regulation with respect to informal learning. *International Journal of Educational Research* 31:533–544.
- Boekaerts M, Smit K, Busing F (2012) Salient goals direct and energise students' actions in the classroom. *Applied Psychology* 61:520–539.
- Boyatzis RE (2006) An overview of intentional change from a complexity perspective. *Journal of Management Development* 25:607–623.
- Boyatzis RE (2008) Competencies in the 21st Century. *Journal of Management Development* 27:5–12.
- Brockbank A (2006) *Facilitating reflective learning through mentoring and coaching*. Kogan Page, London.
- Butler D (2002) Qualitative approaches to investigating self-regulated learning: Contributions and challenges. *Educational Psychologist* 37:59–63.
- Caffarella RS (2000) Goals of self-learning. In: Straka GA (ed) *Conceptions of self-directed learning: Theoretical and conceptual considerations*. Waxmann, Münster, pp 37–48.
- Checkland P (1985) From optimizing to learning: A development of systems thinking for the 1990s. *Journal of the Operational Research Society* 36:757–767.
- Cohen-Vogel L, Tichnor-Wagner A, Allen D, Harrison C, Kainz K, Socol AR, Wang Q (2015) Implementing educational innovations at scale: Transforming researchers into continuous improvement scientists. *Educational Policy* 29:257–277.
- Confessore SJ, Kops WJ (1998) Self-directed learning and the learning organization: Examining the connection between the individual and the learning environment. *Human Resource Development Quarterly* 9:365–375.
- Conlon TJ (2004) A review of informal learning literature, theory and implications for practice in developing global professional competence. *Journal of European Industrial Training* 28:283–295.
- Covey SR (1989) *The seven habits of highly successful people*. Simon & Schuster, New York.
- Cundill G, Cumming GS, Biggs D, Fabricius C (2012) Soft systems thinking and social learning for adaptive management. *Conservation Biology* 26:13–20.
- Dickinson A, Balleine BW (2012) Causal cognition and goal-directed action. In: Heyes C, Humber L (eds) *The evolution of cognition*. MIT Press, Cambridge MA, pp 185–204.
- Easterby-Smith M, Crossan M, Nicolini D (2000) Organizational learning: debates past, present and future. *Journal of Management Studies* 37:783–796.
- Eccles JS, Wigfield A (2002) Motivational beliefs, values, and goals. In: Fiske ST, Schacter DL, Sahn-Waxler C (eds) *Annual Review of Psychology*. Annual Reviews, Palo Alto CA, pp 109–132.
- Ellinger AD (2004) The concept of self-directed learning and its implications for human resource development. *Advances in Developing Human Resources* 6:158–177.
- Ellström PE (2011) Informal learning at work: Conditions, processes and logics. In: Malloch M, Cairns L, Evans K, O'Connor BN (eds) *The SAGE handbook of workplace learning*. Sage, London, pp 105–119.
- Eraut M (2004) Informal learning in the workplace. *Studies in Continuing Education* 26:247–273.
- Espejo R, Schuhmann W, Schwaninger M, Bilello U (1996) *Organizational transformation and learning: A cybernetic approach to management*. Wiley & Sons, Chichester.
- Faculty of Military Sciences (2016) *Education Quality Manual*. Netherlands Defence Academy (NLDA), Breda.
- Farrell TS (2012) Reflecting on reflective practice: (re)visiting Dewey and Schön. *TESOL Journal* 3:7–16.
- Feldman DC, Lankau MJ (2005) Executive coaching: A review and agenda for future research. *Journal of Management* 31:829–848.
- Fenwick T (2008) Understanding relations of individual-collective learning in work: A review of research. *Management Learning* 39:227–243.
- Foster-Fishman PG, Nowell B, Yang H (2007) Putting the system back into systems change: A framework for understanding and changing organizational and community systems. *American Journal of Community Psychology* 39:197–215.
- Frank JR, Snell LS, Cate OT, Holmboe ES, Carraccio C, Swing SR, Harris KA (2010) Competency-based medical education: Theory to practice. *Medical Teacher* 32:638–645.

- Fürstenberg F (2013) *Grundfragen der Betriebssoziologie [Basic questions of business sociology]*. Springer, Berlin/Heidelberg.
- Grant AM, Curtayne L, Burton G (2009) Executive coaching enhances goal attainment, resilience and workplace well-being: A randomised controlled study. *The Journal of Positive Psychology* 4:396–407.
- Gray DE (2007) Facilitating management learning: Developing critical reflection through reflective tools. *Management Learning* 38:495–517.
- Green LS, Oades LG, Grant AM (2006) Cognitive-behavioral, solution-focused life coaching: Enhancing goal-striving, well-being, and hope. *The Journal of Positive Psychology* 1:142–149.
- Gregory JB, Beck JW, Carr AE (2011) Goals, feedback, and self-regulation: Control theory as a natural framework for executive coaching. *Consulting Psychology Journal: Practice and Research* 63:26–38.
- Hargrove R (1995) *Masterful coaching: Inspire an ‘impossible future’ while producing extraordinary leaders and extraordinary results*, 3rd edn. Wiley & Sons, San Francisco.
- Harper S (2012) The leader coach: A model of multi-style leadership. *Journal of Practical Consulting* 4:22–31.
- Hawe P, Shiell A, Riley T (2009) Theorising interventions as events in systems. *American Journal of Community Psychology* 43:267–276.
- Heron J (1999) *The complete facilitator’s handbook*. Kogan Page, London.
- Høyrup S (2004) Reflection as a core process in organisational learning. *Journal of Workplace Learning* 16:442–454.
- Huang W, Hong SH, Eades P (2007) Effects of sociogram drawing conventions and edge crossings in social network visualization. *Journal of Graph Algorithms and Applications* 11:397–429.
- Järvinen A, Poikela E (2001) Modelling reflective and contextual learning at work. *Journal of Workplace Learning* 13:282–290.
- Jordan S, Messner M, Becker A (2009) Reflection and mindfulness in organizations: Rationales and possibilities for integration. *Management Learning* 40:465–473.
- Kupers W (2008) Embodied inter-learning: An integral phenomenology of learning in and by organizations. *The Learning Organization* 15:388–408.
- Lansing JS (2003) Complex adaptive systems. *Annual Review of Anthropology* 32:183–204.
- Lee YJ, Roth WM (2007) The individual-collective dialectic in the learning organization. *The Learning Organization* 14:92–107.
- Lefcourt HM (2014) *Locus of control: Current trends in theory and research*, 2nd edn. Taylor & Francis, East Sussex.
- Leising D, Bleidorn W (2011) Which are the basic meaning dimensions of observable interpersonal behaviour? *Personality and Individual Differences* 51:986–990.
- Lievens F, Lang JWB, d Fruyt F, Corstjens J, van de Vijver M, Bledow R (2018) The predictive power of people’s intra-individual variability across situations: Implementing whole trait theory in assessment. *Journal of Applied Psychology* 103:753–771.
- Littlejohn A, Milligan C, Margaryan A (2012) Charting collective knowledge: Supporting self-regulated learning in the workplace. *Journal of Workplace Learning* 24:226–238.
- Llorens-Montes FJ, Garcia-Morales VJ, Verdu-Jover AJ (2004) The influence on personal mastery, organisational learning and performance of the level of innovation: adaptive organisation versus innovator organisation. *International Journal of Innovation and Learning* 1:101–114.
- Löbler H (2006) Learning entrepreneurship from a constructivist perspective. *Technology Analysis & Strategic Management* 18:19–38.
- MacKie D (2007) Evaluating the effectiveness of executive coaching: Where are we now and where do we need to be? *Australian Psychologist* 42:310–318.
- Margaryan A, Milligan C, Littlejohn A, Hendrix D, Graeb-Koenneker S (2009) Self-regulated learning in the workplace: Enhancing knowledge flow between novices and experts. Paper presented at the 4th International Conference on Organizational Learning, Knowledge and Capabilities (OLKC), Amsterdam.

- Marsick VJ (2009) Toward a unifying framework to support informal learning theory, research and practice. *Journal of Workplace Learning*, 21(4), 265–275.
- Marsick VJ, Watkins KE (2001) Informal and incidental learning. In: Merriam SB (ed) *The new update on adult learning theory: New Directions for Adult and Continuing Education*. Jossey-Bass, San Francisco, pp 25–34.
- Marsick VJ, Watkins KE (2015) *Informal and incidental learning in the workplace*. Routledge, London.
- McClelland D (1973) Testing for competence rather than for ‘intelligence’. *American Psychologist* 28:1–14.
- McClelland D (1998) Identifying competencies with behavioural-event interviews. *Psychological Science* 9:331–339.
- McDougall M, Beattie RS (1998) The missing link? Understanding the relationship between individual and organisational learning. *International Journal of Training and Development* 2:288–299.
- Merleau-Ponty M (1962) *Phenomenology of perception*. Routledge, London.
- Merriam SB, Caffarella R, Baumgartner L (2007) *Learning in adulthood: A comprehensive guide*, 3rd edn. Wiley, New York.
- Montuori LA (2000) Organizational longevity: Integrating systems thinking, learning and conceptual complexity. *Journal of Organizational Change Management* 13:61–73.
- Mooijman E, Olthof S (1999) Van leren naar lerend vermogen [From learning to learning ability]. *Opleiding en Ontwikkeling* 12:37–41.
- Moon J (2004) *A handbook of reflective and experiential learning: Theory and practice*. Routledge, London.
- Nisbet G, Lincoln M, Dunn S (2013) Informal interprofessional learning: An untapped opportunity for learning and change within the workplace. *Journal of Interprofessional Care* 27:469–475.
- O’Keeffe T (2002) Organizational Learning: a new perspective. *Journal of European Industrial Training* 26:130–141.
- Pedler M, Burgoyne J, Boydell T (1997) *The Learning Company: A strategy for sustainable development*, 2nd edn. McGraw-Hill, London.
- Peltier B (2011) *The psychology of executive coaching: Theory and application*, 2nd edn. Routledge, Hove, East Sussex.
- Pintrich PR (2000) An achievement goal theory perspective on issues in motivation terminology, theory, and research. *Contemporary Educational Psychology* 25:92–104.
- Pos AE, Greenberg L, Elliott R (2008) *Experiential therapy*. In: Lebow J (ed) *Twenty-first century psychotherapies*. Wiley, Hoboken, NJ, pp 80–122.
- Prahalad CK, Hamel G (2006) *The core competence of the corporation*. Springer, Berlin/Heidelberg.
- Rakickaite J, Juceviciene P, Vaitkiene R (2011) Structure of professional service firm’s organizational competence. *Social Sciences* 73:51–61.
- Reeve J (2009) Why teachers adopt a controlling motivating style toward students and how they can become more autonomy supportive. *Educational Psychologist* 44:159–175.
- Reynolds M (2017) *Organising reflection*. Routledge, London.
- Rockart JF (1979) Chief executives define their own data needs. *Harvard Business Review* 57:81–93.
- Rogers CR, Lyon HC, Tausch R (2013) *On becoming an effective teacher: Person-centred teaching, psychology, philosophy, and dialogues with Carl R Rogers and Harold Lyon*. Routledge, London.
- Romiszwski AJ (1981) A new look at instructional design. Part I. Learning: Restructuring one’s concepts. *British Journal of Educational Technology* 12:19–48.
- Romiszwski AJ (2016) *Designing instructional systems: Decision making in course planning and curriculum design*. Routledge, London.
- Ruijters MCP (2016) Het is de toon die de muziek maakt: componeren van ontwikkelstrategieën [It’s the tone making the music: composing development strategies]. *Tijdschrift voor Management en Organisatie* 70:79–93.

- Ruijters MCP (2018) Leidinggeven aan leren en ontwikkelen. In: Ruijters MCP, Queeste naar goed werk; over krachtige professionals in een lerende organisatie [Quest for good work; about powerful professionals in a learning organization]. Vakmedianet, Deventer, pp 159–169.
- Schön DA (1983) *The Reflective Practitioner: How professionals think in action*. Basic Books, New York.
- Schön DA (1987) *Educating the reflective practitioner*. Jossey-Bass, San Francisco.
- Schunk DH (2001) Social cognitive theory and self-regulated learning. In: Schunk DH, Zimmerman BJ (eds) *Self-regulated learning and academic achievement: Theoretical perspectives*, 2nd edn. Erlbaum Mahwah NJ, pp 125–151.
- Senge PM, Smith B, Kruschwitz N, Laur J, Schley S (2008) *The necessary revolution: How individuals and organizations are working together to create a sustainable world*. Currency Doubleday, New York.
- Senge PM, Sterman JD (1992) Systems thinking and organizational learning: Acting locally and thinking globally in the organization of the future. *European Journal of Operational Research* 59:137–150.
- Sheldon KM, Kasser T (1995) Coherence and congruence: Two aspects of personality integration. *Journal of Personality and Social Psychology* 68:531–543.
- Siemieniuch CE, Sinclair M (2002) On complexity, process ownership and organisational learning in manufacturing organisations, from an ergonomics perspective. *Applied Ergonomics* 33:449–462.
- Sierens E, Vansteenkiste M, Goossens L, Soenens B, Dochy F (2009) The synergistic relationship of perceived autonomy support and structure in the prediction of self-regulated learning. *British Journal of Educational Psychology* 79:57–68.
- Spencer LM, Spencer SM (eds) (1993) *Competence at work: models for superior performance*. Wiley & Sons, New York.
- Stacey RD (2007) *Strategic management and organisational dynamics: The challenge of complexity to ways of thinking about organisations*, 5th edn. Pearson Education, Harlow.
- Suikki R, Tromstedt R, Haapasalo, H (2006) Project management competence development framework in turbulent business environment. *Technovation* 26:723–738.
- Tobias LL (1996) Coaching executives. *Consulting Psychology Journal: Practice and Research* 48:87–95.
- Tynjälä P (2008) Perspectives into learning at the workplace. *Educational Research Review* 3:130–154.
- Van Doorn GJ (2017) Organisatie coaching op basis van de vijf kritieke succesfactoren [Organizational coaching based on five critical success factors]. *Tijdschrift voor Coaching [Magazine for Coaching]* 13:81–91.
- Van Doorn GJ, Lingsma MM (2013) *Intervisiecoaching; kortdurende begeleiding van lerende groepen [Coaching peer consultation; short-term guidance of learning groups]*, 2nd edn. Boom, Amsterdam.
- Van Doorn GJ, Lingsma MM (2017) *De vijf kritieke succesfactoren voor coaching; kennis en kunde voor de competente coach [Five critical success factors of coaching; knowledge and skills for competent coaches]*. Boom, Amsterdam.
- Van Woerkom R, Poell RF (eds) (2010) *Workplace learning: Concepts, measurement and application*. Routledge, London.
- Vince R (1998) Behind and beyond Kolb's learning cycle. *Journal of Management Education* 22:304–319.
- Von Bertalanffy L (1950) An outline of general system theory. *The British Journal for the Philosophy of Science* 1:134–165.
- Von Bertalanffy L (1972) The history and status of general systems theory. *Academy of Management Journal* 15:407–426.
- Watkins KE, Marsick VJ (1992) Towards a theory of informal and incidental learning in organizations. *International Journal of Lifelong Education* 11:287–300.
- Weiner B (1985) An attributional theory of achievement motivation and emotion. *Psychological Review* 92:548–573.
- Wenger E (2000) Communities of practice and social learning systems. *Organization* 7:225–246.

- Wickramasinghe V, de Zoyza N (2009) A comparative analysis of managerial competency needs across areas of functional specialization. *Journal of Management Development* 28:344–360.
- Wierdsma AFM, Swieringa J (2002). *Levend organiseren; als meer van hetzelfde niet helpt* [Learning while organising; when more of the same offers no relief], 2nd rev. edn. Noordhoff, Groningen.
- Wood Daudelin M (1997) Learning from experience through reflection. *Organizational Dynamics* 24:36–48.
- Yukl GA (2013) *Leadership in organizations* (8th edn). Prentice-Hall, Upper Saddle River, NY.

**Lieutenant Colonel Ger van Doorn, MSc** is an academic lecturer on Leadership, Ethics and HRM and a researcher at the Faculty of Military Sciences of the Netherlands Defence Academy, as well as a personal, executive and team coach on call for the Expertise Centre for Defence Management (ECLD). Together with Marijke Lingsma – a widely acknowledged pioneer of coaching in The Netherlands – he wrote *Intervisiecoaching; kortdurende begeleiding van lerende groepen* [Coaching peer consultation; short-term guidance of learning groups] (2013) and *De vijf kritieke succesfactoren voor coaching; kennis en kunde voor de competente coach* [Five critical success factors of coaching; knowledge and skills for competent coaches] (2017). His research focuses on coaching's ontological and epistemological foundations and the implications for its practitioners.