

Chapter 4

Organizing for Deliberate Practice Through Workplace Reflection

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4.1 Introduction

In recent decades, evidence-based approaches for making decisions have been marking a new era of progress in different welfare sectors and offer great promise for the development of a range of professional practices. The notion that research should be able to tell us what works and, thus, contribute to improve work stems from the assumption that research has the potential to secure the effectiveness of interventions as well as legitimize a choice made by a rational individual (Biesta, 2007; Kvernbekk, 2011). The focus of the use of evidence-based approaches has thus far primarily been on practitioners' instrumental use of knowledge (Broadhurst, Hall, Wastell, White, & Pithouse, 2010; Nutley, Walter, & Davies, 2007). That is, a focus on actual changes in work practices, rather than on conceptual use in the form of enhanced awareness, knowledge and understanding of one's work and shifts in ideas and attitudes concerning various work aspects. Hence, caution has been raised that evidence-based practice that lacks the advantage of careful analysis or reflection and ethical considerations may have unforeseen and potentially harmful effects when intervening in the lives of service users (Gray, Plath, & Webb, 2009). The quest for evidence-based practice has highlighted the importance of workplace learning and reflection, as practitioners are increasingly expected to critically appraise research studies that inform their work and integrate new findings into their practice (Nutley et al., 2007; Thomas, 2004; Trinder, 2008).

This chapter addresses the issue of workplace reflection as a means of deliberately promoting professional learning and the remaking of practice. A basic assumption in this chapter is that professional learning has the potential to be enhanced when practitioners make use of different knowledge sources, such as practice

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experience, policy and research. A key argument is that when tacit knowledge (i.e. wisdom, experience and personal beliefs) is articulated and externalized, it can be shared by others, and can possibly be challenged using explicit knowledge (i.e. research and regulations) and function as the basis for learning (Nonaka & Takeuchi, 1995). Learning is understood here as transformation between tacit and explicit knowledge.

However, against the backdrop of previous research, learning in work presupposes a workplace designed to promote learning (Ellström, Ekholm, & Ellström, 2008; Gustavsson, 2007), in other words, has “learning readiness” (Billett, 2001). Therefore, the assumed reflection processes may not happen by accident; rather they have to be intentionally promoted (Dewey, 1917). Reflection on and in practice “is insufficient unless it is connected to deliberation and action-taking” (Evans, *in press*); humans are not created to just sit and reflect (Alvesson & Spicer, 2012).

In making its case, the chapter is structured in three sections. Following this introduction, the first section begins with a brief elaboration of the notion of reflection, as it is important to qualify and position this construct as a deliberate act. Then, a distinction is made between two different but complementary knowledge forms, research-based and practice-based knowledge. The distinction is made to underline the importance of the challenge that the interaction of different knowledge sources may create. In addition, two modes of learning in work, adaptive and developmental learning, are explored to gain a better understanding of the learning processes at work. By conceptualizing four levels of action: (i) skill-based or routinized action, (ii) rule-based action, (iii) knowledge-based action and (iv) reflective action, the different learning modes show how knowledge and reflection are used to different degrees to handle a certain task in the course of daily work. The first section concludes in a conceptual model that illustrates how reflection can be used to enhance professional learning at work. In the second section, two mini cases involving professionals in the public sector in Sweden serve as examples of how organized reflection can provide a mechanism for practitioners to interact with research-based and practice-based knowledge. In the third, some of the challenges involved in achieving reflection at work in order to support professional learning and the reworking of practice are addressed. These challenges are helpful for managing a broad strategic environment for learning at work.

4.2 Theoretical Framework

The concept and practices of reflection have generated considerable interest over the last decades, especially in the wake of the publication of Schön’s book, *The Reflective Practitioner* (Schön, 1983). When the book was published, the literature on reflection was largely focused on its enactment in the context of education, training and preparing for work. The role of workplace reflection for practitioners in work had received far less attention (Boud, Cressy, & Docherty, 2006; Gray et al., 2009), which made the book a valuable contribution to the field.

The foundation for the concept of reflection originates from the philosopher and pragmatic John Dewey and his writings in the early part of the twentieth century

(Dewey, 1910, 1917, 1938). Reflection is typically described as a mechanism to translate experience into richer learning than might otherwise occur if reflection was not entertained through examining one's attitudes, beliefs and actions, to draw conclusions to enable better choices or responses in the future. Dewey attaches great value to the act of reflection and conceptualizes it as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends" (Dewey, 1910, p. 9).

If we elaborate further on the notion of reflection, with a focus on reflective practice, it has as its starting-point where "the taken for granted is questioned so that a potential learning situation is generated" (Jarvis, 1992, p. 178). Reflection can be understood to interrupt the flow of experience to produce knowledge. Dewey (1917, p. 9) suggests that there is "no conscious experience without inference; reflection is native and constant". Experience means living, and living takes place in an environment not in a social and physical vacuum. Individuals constantly interact with the environment to effect changes that would not otherwise occur. Reflection needs to take into consideration data beyond our personal, interpersonal and organizational taken for granted assumptions to enable an understanding of how knowledge has been constructed (Reynolds & Vince, 2004). Dewey turns against the notion of experience as a matter of individual consciousness based exclusively on the past, which indicates that a genuinely objective world enters into individuals' actions and is modified through their responses. Instead, he suggests that experience is intersubjective, communicative and social; it is a process of "undergoing", where private consciousness is an incidental outcome of experience (Dewey, 1917). Capacity to infer is precisely the same as the use of natural occurrences for the discovery and determination of consequences, which according to Dewey (1910) is the ability to act intelligently. Ryle (1945) suggests that there is no gap between intelligence and practice that corresponds to the gap between theory and practice, rather, to do something intelligent, whether internally or externally, that is, through thinking or doing, is to do *one* thing in a certain manner. To act intelligently and acquire knowledge through the power of conscious reasoning and deliberate analytical thought (i.e. reflection) symbolizes a rational individual (Sadler-Smith & Sheffy, 2004). The rational action lies within the individual to integrate the knowing of *what* is the case with the knowing *how* to perform (Ryle, 1945).

Reflection has long been regarded as a personal matter, but today we can see increasing emphasis on the social collective aspects of reflection. The demand for professionals to continuously engage with learning and renewal of professional capacity has been reinforced and opportunities for critical reflection and reflexive awareness of the impact of informal work processes are held to be necessary for promoting and supporting developments in practice (Baldwin, 2004; Boud et al., 2006; Broadhurst et al., 2010; Evans, 2011; Otto, Polutta, & Ziegler, 2009; Reynolds & Vince, 2004). Otto et al. (2009) have suggested the need for a second generation of evidence-based practice that recognizes the importance of reflexive professionalism, which entails the ability to draw on both research-based and practice-based knowledge to make justified judgements and decisions about what is desirable and

appropriate in various work situations. Subsequently, the interplay between different forms of knowledge are held to play an important role in achieving high quality in different work processes (Gray et al., 2009; Trinder, 2008), and in the development of capabilities to justify these judgments and contribute to sustainable development in the organization (Evans, 2015).

4.2.1 Two Different but Complementary Knowledge Forms

Like all phenomena, knowledge must be related to the time and context in which it is placed. Since Aristotle's tripartite theory of knowledge (i.e. episteme, techne and phronesis), several knowledge typologies have been consistently reported in the literature (Eraut, 2004; Estabrooks et al., 2005; Lindblom & Cohen, 1979; Ryle, 1945). Today, rapid changes in society and the increasing demand for transparency and accountability in work have undoubtedly challenged the existing knowledge base of many professions (Svensson & Evetts, 2010). While the evidence-based movement has highlighted the importance of basing practice on the most up-to-date and trustworthy scientific knowledge to promote an explicit and improved process for decision making, research has shown that practitioners put high trust in experience when it comes to dealing with the often complex situations encountered in daily practice. In this debate of what constitutes valuable knowledge for practice, a common distinction is made between two forms of knowledge: research-based and practice-based knowledge (Table 4.1).

Research-based knowledge is derived from empirical research as well as concepts, theories, models and frameworks. Practice-based knowledge is gradually built up from practitioners' experience, which is manifested in the expertise and skills in their craft. The source is often a specific problem that requires a solution, such as how to handle a service user's complaint.

Research-based knowledge is scientifically grounded and generated in a highly structured and systematic process, which generally begins with a thorough analysis of the problem under study before research questions and the issue to be investigated are formulated. If, for example, an increase in mortality among infants was found in a certain area, it would be necessary to take a range of different factors into account before actually targeting the root of the issue. While research-based knowledge rarely provides quick solutions to problems, practice-based knowledge predominantly serves to solve the problems that occur in everyday life and work (Nilsen, Nordström (Avby), & Ellström, 2012). The subjective and context-bound nature of practice-based knowledge limits its generalizability, whereas research-based knowledge in general aims for relevance beyond the immediate boundaries of the specific study (Ellström & Nilsen, 2014).

Research-based knowledge is explicit and is usually articulated in writing, which facilitates communication and knowledge exchange. Other forms of codified knowledge, such as different types of reports, may be considered research-based knowledge although they have not been subjected to a rigorous quality control process.

Table 4.1 Key characteristics of research-based and practice-based knowledge

Characteristics	Research-based knowledge	Practiced-based knowledge
Rationale for knowledge development	Obtaining improved understanding or explanation of problems	Finding solutions to problems
Desirable knowledge attributes	Possible to generalize	Content-specific, hands-on use in concrete, everyday situations
	Accessible to and understandable by others	Unique, personal, usually tacit knowledge
	Primarily expressed in writing	Expressed in action
Knowledge diffusion	Accessible and available	Embedded individuals and organizations
	Easy to share	Difficult to share
Content dependent	Not generally	Yes
Other terms in use	Scientific knowledge	Ordinary knowledge
	Research-based evidence	Practice-based evidence
	Theoretical knowledge	Everyday knowledge
	Codified or explicit knowledge	Tacit or implicit knowledge
	Know-that, Know why	Know-how
Means to develop knowledge	Learning-by-studying	Learning-by-doing
	Empirical studies	Pragmatic activities
	Theorizing	Experiencing

Practice-based knowledge, on the other hand, tends to be tacit, expressed through action rather than words (Nilsen et al., 2012). It is most easily picked up through imitation; it entails the acquisition of professional common sense knowledge and understanding of what means (actions) may lead to intended results (Kvernbekk, 1999). Without this general knowledge of action-result linkages, Kvernbekk holds that practitioners would have no knowledge that works and would have to start from the beginning in every situation they face. Thus, practice-based knowledge is a form of procedural knowledge that becomes increasingly embedded in the individual based on the results of study, experiences and personal encounters; it is also termed “know-how” (Garud, 1997; Ryle, 1945; Schön, 1983). Tacit knowledge is viewed as implicit thesis, often consisting of habits and culture that we do not recognize in ourselves and can therefore be difficult to access and communicate to others (Polanyi, 1966; Schön, 1983). But if this embodied type of knowledge remains tacit, it becomes impossible to expose its basis to critical testing.

Although analytically distinct, in practice the ways of knowing are not mutually exclusive; different forms of knowledge may work in tandem (Ellström & Nilsen, 2014). It is rarely an either/or choice for practitioners, but more often a question of making sense of many different sources of knowledge, some of which may be research-based and others that are practice-based. Neither is it possible nor desirable to isolate these two types of knowledge or knowing; the two knowledge forms reinforce each other and become the making of each other, and therefore neither one can be valued higher than the other (Dewey, 1910). Under different circumstances,

either knowledge source may dominate depending on factors such as the type of activity, education or profession. What is valid and counts as knowledge will differ from context to context and knowledge will be publicly accepted if it is believed to be true or to have a reasonable probability of being true; either it is based on research, other scientific procedures or on practice knowledge (Eraut, 2004).

Knowledge use tends to be a complex process that requires the individual's awareness of existing knowledge, motivation to use the knowledge, resources, such as time and money, and change at both an individual and organizational level (Backer, 1991). It is held that successful organizations have the ability to bring different knowledge together and organize learning at and between organizational levels (i.e. individual, group and system levels) (Garud, 1997). To better understand the knowledge use and learning processes in work, I turn to Ellström's (2001, 2006) distinction between two major modes of learning: adaptive and developmental learning.

4.2.2 Two Modes of Learning in Work

A basic assumption behind Ellström's (2001, 2006) model of learning is that different work tasks require different degrees of awareness that can be described on a continuum, from being conscious and deliberate to being routinized and performed with little or no conscious control. Here, the importance of action is identified in connection with learning. That is, learning in work is "a result of actions and interactions of individuals engaging in certain work practices" (Ellström, 2011, p. 109). Indeed, previous research in the field of workplace learning has identified that learning and work are intimately linked to daily practices (Billett, 2002; Ellström, 2001, 2011; Eraut, 2000, 2007).

In Ellström's (2001, 2006) action-oriented model of learning, a distinction is made between four levels of action: (i) skill-based or routinized action, (ii) rule-based action, (iii) knowledge-based action and (iv) reflective action. Learning is assumed to occur as interplay between routinized and reflective levels of action, which entails the use of knowledge and reflection to different degrees for optimal handling of a certain task encountered in the course of daily work. Consequently, the notion of learning means transformation of knowledge based on interactions between tacit and explicit knowledge (Nonaka & Takeuchi, 1995). Polanyi (1966) proposes that an individual's act of knowing exercises a personal judgement in relating evidence to an external reality of which he is seeking to apprehend. He argues against the belief that science is somehow value free. Rather he presupposes that many bits of tacit knowledge, such as informed guesses, hunches and imaginings, are essential in an exploratory act and when brought together, new knowledge may be formed. From a constructivist perspective, this integration process suggests that individuals construct new personal knowledge by combining different forms of knowledge. Thus, before research-based knowledge actually leads to changes in thinking and behaviour, the knowledge has to be actively related to what individuals already know.

Based on the idea that the four levels of action entail different levels of knowledge use and reflection, a distinction can be made between adaptive and developmental learning. The notion of adaptive learning encompasses the development of skills for handling routine tasks or problems that occur in daily practices (Ellström, 2006). In the learning process, the learner progresses from a reflective or knowledge-based level of action to a skill-based level of action and the learning is foremost based on experience (e.g. through processes of imitation and trial and error) and yields efficient, effective and reliable task performances that are stable over time (Ellström, 2011).

In contrast, the process of developmental learning moves in the opposite direction, from the level of skill-based and routinized actions to the level of knowledge-based and reflective actions (Ellström, 2011). Developmental learning has its focus on more radical changes of a prevailing situation and is assumed to be triggered when individuals or groups within an organization act to develop new ways of handling tasks, situations and often complex problems involved in a job (Ellström, 2011). This mode of learning is broadly similar to concepts such as Argyris and Schön's (1978) "double-loop learning" and Mezirow's (1991) "transformative learning".

Although experience-based adaptive learning may serve as a basis for daily practices, it is insufficient to challenge the existing state of well-learned and routinized thought and action patterns. Organizations as well as practitioners are required to deal alternately with well-known tasks and handle new problematic situations, thus, both adaptive and developmental learning are needed (Ellström, 2006). The challenge is to provide opportunities for developmental learning in organizations without sacrificing the necessary adaptive learning, or vice versa. To capture the learning processes at work is however difficult because learning and work are closely intertwined in daily practices and most learning within the workplace is actually found in the challenge of the work itself (Billett, 2002; Ellström, 2001, 2011; Eraut, 2000, 2007). But, as argued above, not only is it impossible to criticize an individual's unarticulated knowledge and skills but also there is a risk of underestimating their competence and their contribution to the organization. Thus, anchored in previous research on learning in work (Billett, 2001, 2004; Ellström et al., 2008; Rainbird, Fuller, & Munro, 2004), the workplace requires a design, not only for production, but also for supporting learning.

4.2.3 Workplace Reflection as Means for Professional Learning

There appears to be considerable consensus among researchers that contextual factors, such as how work is organized, are conditions for the learning process (e.g. Malloch, Cairns, Evans, & O'Connor, 2011; Rainbird et al., 2004). But, too high a focus on the situated character of learning can underestimate the importance of other forms of knowledge, such as theoretical ideas that are not context dependent,

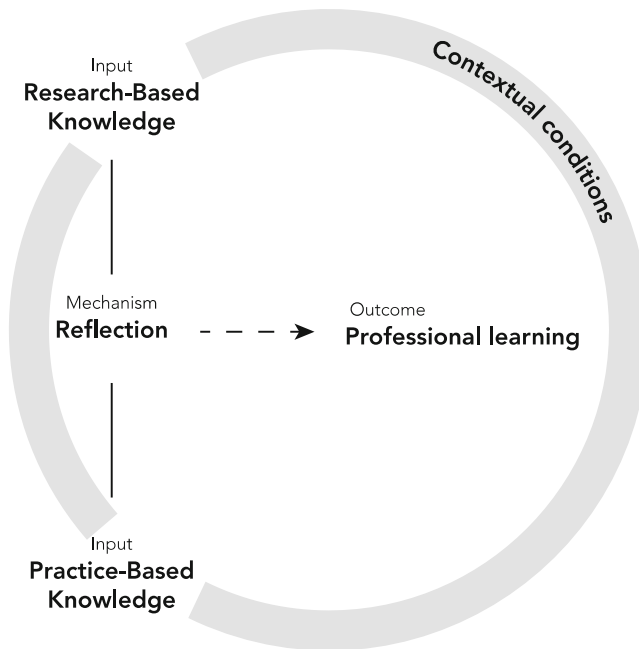


Fig. 4.1 Conceptual model. Reflection as a mechanism for the practitioner to interact with research-based and practice-based knowledge for professional learning

and thus constrain the interaction of theory and practice (Fuller, Munro, & Rainbird, 2004).

The basic assumptions behind this chapter are illustrated in Fig. 4.1. Professional learning has the potential to be enhanced when the practitioner use (interacts with) different knowledge sources, such as practice experience, policy or research, but only if some degree of awareness is involved. Importantly, clarification is necessary regarding the use of the word “professional”. Basically, professions are knowledge-based occupations and professionals are held as agents and carriers of a knowledge society, which implies that practices are built on scientific principles (Brante, 2013). However, the professional turf and traits tend to change over time. The use of professional and professionalism have become attractive attributes that warrant a particular standard of work (Evetts, 2014) rather than merely symbolizing a practice based on science. Thus, being a professional is associated with the notion of expertise, which entails an individual being competent, accountable and experienced in a specific field (Svensson & Evetts, 2010). In light of the changing turf, doubts have been raised concerning the value and importance of drawing a sharp line between professions and other occupational settings (Evetts, 2014; Svensson & Evetts, 2010). Evetts suggests that both social forms share many common characteristics; for example, the strong dependency on organizational environments and that occupational identity is produced via specific work cultures, training and experience.

Here, the attribute “professional” is used to accentuate the expertise that is developed gradually in and through work.

A simple conceptual model illustrates how reflection can provide a mechanism for the practitioner to use different forms of knowledge to support professional learning. This chapter underlines the importance of how research-based knowledge may challenge established assumptions and practice-based knowledge among practitioners, and thereby also trigger learning. The contextual conditions are assumed to both enable and constrain knowledge use, and thus the opportunities for the individual to engage in and be supported for learning.

The figure has tentacles in the critical appraisal model of evidence-based practice, which emphasizes the importance of assimilating different knowledge sources to reach justified decisions (Sackett, 1996). The figure is also grounded in Dewey’s (1910) philosophy, which underlines the importance of intelligent action, suggesting that action alone does not create learning but rather reflective thinking is essential; and the pragmatic belief that theoretical knowledge and practice-based experience are the making of each other, and therefore neither one can be valued higher than the other. Ultimately, the figure has been informed by previous research on learning in work (Billett, 2001, 2004; Ellström et al., 2008; Rainbird et al., 2004), which suggests that learning in work requires a workplace designed not only for production of goods or services but also to promote learning.

4.3 Organizing for Reflection at Work

In this section, two cases illustrate how practitioners in the public sector in Sweden deliberately drew on research-based knowledge to challenge existing practice-based knowledge regarding everyday situations and problems encountered in the workplace. Organized activities created a space for practitioners to distance themselves from their everyday work, thus triggering developmental learning.

The first case concerned reflection groups consisting of managers from three sectors (social work, health care and education) in a medium-sized municipality in Sweden. Each group consisted of nine managers, internally recruited by the management of each organization. The managers all had responsibility for both economic and personnel issues in their respective organizations. The group met on a monthly basis over 1 year, with a break in the summer. Generally, the reflection meetings lasted 3 h, including a coffee break. The reflection programme was initiated as an executive tool with the aim of facilitating the managers’ learning for improved handling of everyday decision making in situations they considered particularly challenging or difficult.

The groups were all supervised by a facilitator whose task was to observe, provide a structure for the meetings and encourage the participants’ activities as well as actively contribute to the discussions with theories, models and experience in the areas of leadership and organizational development. With a starting point in topics derived from the participants’ real-life situations and dilemmas encountered at

work, the facilitator used challenging questions to enable the participants to examine their assumptions or opinions and discuss alternative ways of viewing the issues that were brought up. The discussions touched upon issues such as workload, problem solving in everyday work, feedback from managers and colleagues, conflicts among the staff, goal clarity and the execution of leadership at work, but also broader issues, such as changes in the surrounding environment, were discussed. Everything that was discussed was always carefully followed up at the next meeting to enable learning from any actions that had been taken in practice or additional concerns that had evolved concerning the topic.

In the second case, reflection groups were part of a trainee programme in social work in one of Sweden's ten largest municipalities. The first programme was initiated in 2006, with one succeeding programme so far. Each group consisted of five candidates. The first group of candidates was selected from 130 applicants aged between 25 and 33 years with disparate educational backgrounds. The group of candidates in the second programme was similar in composition.

The purpose of the trainee programme was to prepare the candidates for future managerial tasks in social work and the municipality sector. By allocating the candidates to different organizational departments, the programme aspired to achieve improved conditions for boundary-crossing work practices and networking within social work. Furthermore, broad marketing of the programme had a more long-term goal to change general public attitudes towards social work and make it more attractive to pursue a career in this sector. The candidates were seen as important ambassadors for the role of social work and the public sector in general. The first programme lasted 5 months; the second programme was extended to 9 months based on the evaluation of the first programme.

The programme comprised professional training and various forms of work practice. Group meetings devoted to reflection on issues that the candidates had encountered in work practice and that were relevant to management and leadership in social work were an important element. These reflection meetings were held monthly, with a facilitator providing a structure for the discussions. The meetings were arranged around the candidates' questions and logbooks from work practice. Articles and web lectures prepared by the facilitator were used to provide a broader and more theoretical view of the wide range of topics brought up, from abstract concepts such as learning to dilemmas experienced in the workplace. For example, discussions about workplace conflicts drew on theories and research findings on mechanisms behind conflicts and how individuals react in conflicts. This integration of practice-based experiences and research-based knowledge helped the candidates to view the issues from new perspectives.

Both reflection programmes provided a formal, scheduled opportunity to meet and discuss matters of relevance to the professionals' learning. The participants had full support from their respective management and their participation was encouraged, which gave this activity some priority. The reflection meetings lasted for several hours and the programmes were carried out over an extended period of time.

The programmes were evaluated by means of interviews. Analysis of the responses to an open-ended question on the participants' perceived impact of organized reflection on their regular work practice resulted in three overarching themes:

1. the participants experienced an enhanced capability concerning their role as leaders,
2. the participants felt acknowledged for their intellectual capacity to reason and to handle different work situations,
3. the participants believed that the reflection increased their general understanding of their work as their assumptions and experiences were challenged.

4.4 Discussion

The cases described above point to the relevance of a conceptual use of research, in contrast to the tendency of an evidence-based practice agenda focusing on practitioners' instrumental use of research-based knowledge. The findings from the analysis suggest that reflection improved the participants' overall understanding of their work, enhanced their security in their work roles, and made them feel acknowledged for how they reasoned and acted concerning various work situations. Research-based knowledge did not necessarily contribute to solving specific short-term problems at work, but was important in improving their understanding of the problems they had encountered, which could potentially lead to improved handling of similar situations in the future.

Evidence-based approaches are often described in terms of instrumental rationalism prescribing explicit and rational processes for decision making that deemphasize intuition and unsystematic professional expertise (Broadhurst et al., 2010). Adherence to a regulated and structured decision-making process (workflow) tends to be emphasized, that is, adaptive learning. In contrast, this chapter highlights the potential importance of using research-based knowledge to challenge established patterns of thought and action to achieve developmental learning. This type of learning may be particularly important for unlearning as practitioners tend to hold on to an intervention experienced to work (Lindblom & Cohen, 1979), rather than rely on new evidence of its ineffectiveness. To establish routines and habits through learning from experience is one way to cope successfully with the daily flow of events while maintaining a sense of security and stability in life (Giddens, 1984), also referred to as "habits of mind" (Brehmer, 1980, p. 226). A recent study lends support to the notion that behaviours are quite stable and habits are easily generated (Avby, 2015). If the cognitive system has a model developed through experience, which in addition has been proven to work, there is simply no need to find any better model to be used in a similar situation (Brehmer, 1980). Thus, to neglect negative information (i.e. contradictions to a belief or principle) makes sense under the so-called real-world conditions in which people usually have to learn. Because "belief is not a momentary mode of consciousness; it is a habit...mostly (at least) uncon-

scious; and like other habits, it is...perfectly self-satisfied". Doubt, on the other hand, is not a habit "but the privation of a habit" (Pierce, 1905, p. 168).

Unquestionably, there is a huge body of work suggesting that organizations and their members have great difficulty with intelligent mobilization of cognitive capacities (Alvesson & Spicer, 2012; Kahneman & Klein, 2009; Stanovich & West, 2000). People tend to interpret action-result linkages in terms of causal connections. Alvesson and Spicer (2012, p. 1196) have coined the term "functional stupidity", which refers to organizationally supported lack of reflexivity, substantial reasoning and justification. Functional stupidity puts constraints on individuals' employment of their own cognitive activities and thus can save the organization and its members from the frictions provoked by doubt and reflection; however, there is a risk of foregoing potential developments.

Despite the fact that practitioners tend to rely heavily on the same ordinary techniques of speculation practiced casually in everyday life (Lindblom & Cohen, 1979), the cases suggest that reflection made it possible to externalize aspects of knowledge that the practitioners had taken for granted or were unaware of, thus offering deeper and more useful understanding of their work practice. Thus, the findings lend support to the notion that organized reflection can offer a more thoughtful practice, a so-called deliberate practice (Ericsson, Krampe, & Tesch-Römer, 1993). Deliberate practice provides opportunities for training, professional learning and social problem solving that are designed and arranged with a focus on improving particular tasks and skills (Ericsson, 2008; Ericsson et al., 1993), such as in this case, the role as a leader.

The reflection programmes in the two cases had several characteristics associated with successful deliberate practices, such as individual motivation, a well-designed project, training opportunities (i.e. to reflect on the role as a leader) and feedback. First, without feedback, performance improvement is viewed as only minimal even for highly motivated learners (Ericsson et al., 1993, p. 367). Feedback was indeed a thread that ran throughout the meetings, in acknowledging the participants' ways of handling dilemmas in practice, encouraging the participants to test their concerns in the safe setting provided by the reflection meetings, and challenging and offering alternative views on the topics under discussion. Second, the participants in the reflection programmes were highly motivated to be part of the reflection groups. The reflection literature has emphasized that this type of activity requires the individual's active engagement (Boud, Keogh, & Walker, 1985). Mezirow (1991) states that conscious awareness and deliberate choice are prerequisites to reflection. Third, some researchers have cautioned that guided reflection may inhibit the dynamic and unpredictable nature of reflection processes, potentially turning reflection into a situation similar to responding to a questionnaire or following a recipe (Cressey, Boud, & Docherty, 2006). But Gray (2007) argues that a facilitator, coach or mentor is essential to facilitate managers' reflection, because this is an activity or skill that managers must learn; managers typically place a higher premium on action than on reflection. In these cases, the facilitators played key roles in structuring the discussions and linking the participants' experiences to relevant research-based knowledge. Without the facilitators' active input, it would

have been impossible to draw on research-based knowledge to the extent that was done in the two cases. Research on practitioners' use of research findings has highlighted the importance of facilitation (i.e. enabling strategies that provide practical assistance for individuals and groups) in the remaking of practice (Reynolds & Vince, 2004).

In times of intellectual capitalism, understanding how to create knowledge, maintain it and put it to strategic use concerns both practitioners and academics (Garud, 1997, p. 93). In the cases described here, it appears that the deliberate use of research-based knowledge can provide practitioners with analytical tools that make it easier to go beyond their specific here-and-now circumstances of current work practices or problems. The findings suggest that conflicts and ambiguity in the form of encountering other possibly new viewpoints are not potential threats to learning; rather they provide potential opportunities for learning (Dewey, 1910), and may possibly yield alternate perspectives and new ways of reasoning and behaving.

The cases demonstrate how workplace reflection *can* be used to cross-fertilize different knowledge forms. The extent to which expectations of a more evidence-based practice in various fields have actually led to an increased focus on workplace learning and reflection in practice is currently unknown. Matters relevant to workplace reflection and the evidence-based agenda include several research challenges. These include investigations into the extent to which reflection in the workplace that specifically draws on research-based knowledge occurs in various practice settings and the extent to which it is part of the management agenda. To what extent can the use of research-based knowledge facilitate learning and a more deliberate practice? To what extent can reflection activities challenge the knowledge that is taken for granted at the individual and organizational levels? And how is reflection that specifically draws on research-based knowledge best organized? There are many research questions that need to be solved for improved understanding of the role of research-based knowledge in reflection at work.

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