

**Facilitating Management Learning – Developing Critical Reflection  
through Reflective Tools**

Dr David E Gray

School of Management

University of Surrey

Guilford

GU2 7XH

01483 689754

07974 653459

[D.E.Gray@surrey.ac.uk](mailto:D.E.Gray@surrey.ac.uk)

**Accepted version: 17 July 2006**

**Reference: ML 601**

# **Facilitating Management Learning – Developing Critical Reflection through Reflective Tools**

## **Abstract**

The aim of this article is to explore how the practice of critical reflection within a management learning process can be facilitated through the application of reflective processes and tools. A distinction is drawn between reflection as a form of individual development (of, say, the reflective practitioner), and *critical* reflection as a route to collective action and a component of organizational learning and change. Critical reflection, however, is not a process that comes naturally to many managers and may have to be learned or facilitated, either in formal classroom contexts, or through learning processes such as coaching, mentoring and action learning. The article discusses some of the tools available to learning facilitators, in helping a group or client towards a more critically reflective understanding of their situation and organization. These include processes such as storytelling, and reflective and reflexive conversations, and the use of tools such as reflective metaphors, critical incident analysis, reflective journals, repertory grids and concept mapping. Such tools provide an aid to critical reflection, which is seen as one process that mediates between experience, knowledge and action.

**Key words:** critical reflection, reflective tools, management development, facilitated learning

The aim of this article is to explore how the practice of critical reflection within a management learning setting can be facilitated through the application of reflective processes and tools. To date, much of the discourse on critical reflection within the management literature has highlighted the significance of reflective processes to management understanding and self-knowledge, without offering much enlightenment on the mechanics of how this can be achieved. This article attempts to examine a range of reflective processes and tools (the latter including storytelling, metaphors, critical incident analysis and repertory grids) that might serve to assist the work of workshop facilitators, coaches, mentors and others who are engaged in assisting the management learning process. Some of these processes and tools have traditionally been used in professional contexts other than management learning. In this article the focus will be on their relevance for management learning itself. It should be noted that these tools and processes are offered as exemplars for illustration – the list is not meant to be exhaustive. A deliberate distinction is also drawn between reflection and *critical* reflection, the latter incorporating a focus on the questioning of assumptions and social rather than individual perspectives, as well as an attention to the analysis of power relations in organizations. The article strives to show, then, how reflective tools can be used to facilitate this *critical* element of reflection.

## **MANAGEMENT LEARNING AND CRITICAL REFLECTION**

Reflection is an active and purposeful process of exploration and discovery, often leading to unexpected outcomes. It is the bridge between experience and learning, involving both cognition and feelings (Boud et al., 1985), aiding managers in achieving emancipation from ‘perspective-limiting assumptions’ (Kayes, 2002: 138).

It is important because it allows us to critique our taken-for-granted assumptions, so that we can become receptive to alternative ways of reasoning and behaving (Raelin, 2001). Hence, reflection is much more than understanding. It involves the absorption of a concept into personal knowledge structures, relating the concept to the person's other forms of knowledge and experience (Leung and Kember, 2003). Yet, while reflection is a key component of learning, it has received insufficient attention in the management or leadership literature (Ollila, 2000). One explanation for this is that managers themselves have always placed a higher premium on action than reflection (Daudelin, 1996).

Action and experience, however, do not inevitably lead to learning (Jarvis, 1995). One element of human experience is to build up a mental model of the way the world works. As long as experiences conform to this structure, mental models can remain unmodified and no learning takes place. Non-learning, then, can be a response to everyday experience. A direct, primary experience may also lead to non-learning if the reaction to the experience is one of mental or physical discomfort – a personal crisis, for example, may serve to absorb attention rather than facilitate calm reflection. Anxiety and avoidance strategies may also serve to hinder learning (Vince, 1996). Management learning can be enhanced, however, by proactive critical reflectivity – the surfacing and critiquing of tacit or taken for granted assumptions and beliefs. This takes place through the dialectical relationship between reflection and action in which reflection is a precursor to action, but the process of action leads to further thinking and reflective processes (Høyrup, 2004). Within these processes, if reflection is over-emphasized, what we are left with is abstract theory. Reflection requires the 'active application of concepts in practice' (Marsick and Watkins, 1990: 8).

Reflection has been described as the practice of ‘periodically stepping back to ponder the meaning of what has recently transpired to ourselves and to others in our immediate environment’ (Raelin, 2002: 66). Reflection can also be seen as a form of response to experience – the total response of a person to a situation or event (Boud et al., 1985). Reflective learning may also involve disbelieving what was previously held to be true (Weick, 2002). It is important to distinguish, however, between reflection (examining the justifications for one’s beliefs), critical reflection (making an assessment of the validity of one’s assumptions, examining both sources and consequences) and critical self-reflection (reassessing the way one has posed problems and one’s orientation to perceiving, believing and acting). By critiquing the presuppositions on which beliefs are built, critical reflection encourages learning at a deeper, transformative level (Mezirow, 1990). These notions of reflection, however, are largely rooted in psychological processes of *individual* growth (which include the development of the ‘reflective practitioner’).

One of the criticisms of management education is that it has been too influenced by such individualistic, psychological perspectives (Reynolds and Vince, 2004). What is needed is a critical approach that focuses on collective, situated processes that help us to inquire into organizational practices. This context includes social, cultural and political factors (Reynolds, 1998, 1999a). Adopting a critical perspective means making ‘a ruthless and courageous examination and deconstruction of assumptions, norms, expectations, limitations, language, results and applications of one’s work’ (Boyce, 1996:9). This model of critical reflection, then, raises questions that are moral as well as technical in nature, highlights the processes of power that are embedded in social structures and practices, and recognizes that experience is a social as well as an individual phenomenon (Reynolds, 1999b). Critical reflection must be a social act of

collective empowerment if it is to move beyond personal to social transformation (McLaren and da Silva, 1993). Reflection, then, is not restricted to being a process of quiet self-fulfilment, but is a political process directed against irrationality and injustice (Kemmis, 1985). This shows individuals how their beliefs and attitudes may be ideological illusions that help to preserve a social order which is alien to their collective experiences and needs.

Critical reflection, for example, promotes consciousness and hence the potential for autonomy, allowing human beings to make informed judgements that are not impeded by 'socially unnecessary dependencies associated with subordination to inequalities of wealth, power and knowledge' (Alvesson and Willmott, 1996: 13). Western society is dominated by the ideology of individualism, encouraging us to assume that we are self-determining, sovereign human beings. Personal attributes are rewarded, and individual success celebrated as a manifestation of individual ability and effort. A *critical* evaluation of autonomy, however, recognizes the reality of interdependence, and sees the necessity for taking personal responsibility for participating in changing conditions that are associated with domination. This means that critical reflection needs to be shifted from individual to organizational learning and from a focus on individual to collective action if it is to be a component in the politics of organizational learning and change (Vince, 2002). A retrospective focus on the past needs to be replaced by the practice of reflection as an integral part of day-to-day management (reflection-in-action). Management action will generate knowledge about power relationships in organizations and this knowledge will provide further (collective) opportunities for reflection (social reflection-in-action) and further political activities or decisions.

Yet if managers are to learn from critical reflection, they also need to develop learning systems that are different. In this sense, reflection, as a critical learning process, needs to be trained (Ollila, 2000); it is thus a learning process that can be helped by the support of facilitators (Boud et al., 1985; Marsick and Watkins, 1997). A process of critical inquiry, reflection requires some facilitation ‘to help learners reframe their knowledge base’ (Raelin, 2005: 135). These perspectives, however, still tend to view critical reflection as a psychological process, at best, one that involves generating problem-solving capabilities. Yet if managers are to attain what Alvesson and Willmott (1992) term ‘micro-emancipation’, achieved through the ability to find ‘loop-holes’ in managerial and organizational control, then critical management pedagogy needs to embrace both content (organizational procedures and relations) and processes (participative values) (Reynolds, 1999a). This means going beyond transformative and learner-centred approaches to experiential learning, where psychological and individual discourse still predominate, to approaches that emphasize social and political processes, including language, power, history and culture (Reynolds, 1999a).

If reflection is a prime process in management development, how can managers become more critically reflective? Engaging with critical reflection that challenges existing norms, and the existing social, cultural and political status quo, can prove unsettling both mentally and emotionally and may even cause disruption both at work and at home (Reynolds, 1999a). Critical reflection may also lead to scepticism and cause one to call into question long-established belief systems, leading to a strong feeling of anxiety and even a loss of a sense of identity (Alvesson and Willmott, 1992), as well as fear, resentment and feelings of being intimidated (Brookfield, 1987). How, then, can managers be supported in their critical reflective processes?

This article now examines a number of reflective processes and tools that may serve to provide support.

## **TOOLS AND PROCESSES FOR PROMOTING CRITICAL MANAGEMENT REFLECTION**

One of the problems faced by many modern managers is that the pace and demands of the workplace allow little space for reflection (Raelin, 2002). Indeed, rather than step back and reflect on what is happening around them (although this itself can be individualistic and limiting), managers are often happy to clutch at the first logical explanation that comes along (Vince, 2002). This is why the promotion of processes and implements for facilitating the reflective process may offer a starting point and focus for reflection. Tools, by definition, help us to perform tasks more efficiently, speedily, or both. The power of reflective tools and processes comes in their ability to encourage managers to stand back from what is happening, and to examine their personal thinking.

Some of the dialogical processes and tools to be discussed here are used by professional practitioners such as teachers and health care workers, while others emanate largely from the field of management development, including formal approaches such as accredited programmes or workshops. What they all have in common is that they are used by managers for the process of sense-making, the complex process through which people create and maintain their inter-subjective world (Balogun and Johnson, 2004). The purpose of this section is to illustrate how specific processes and tools from the fields of both professional development and formal management development can be applied to the facilitation of management learning both at an individual, psychological level, *and* at a critical (social, cultural,



and political) level. Where available, reference is also made to a limited number of empirical studies that show how some of these reflective tools have been used to assist the learning of managers and other professionals.

A summary of these processes and tools is provided in Table 1. A distinction is made between processes (stories and conversations) that involve discursive conversations, and tools (instruments) that can be used both as stand-alone devices, or to facilitate reflection. In each example, attention will be given to how these processes and tools can be used to engage with critical reflection. This description, however, will be presented critically, that is, the limitations or potential contradictions of using these approaches will also be explored.

[Table 1 here]

### **Storytelling**

Storytelling is a powerful means by which we can seek to explore and understand our own values, ideas and norms (Gold and Holman, 2001). It can help us to create order out of a chaotic world (Bolton, 2001). Storytelling is a collective act (in the sense that stories are told *to* people), encouraging us to share meanings (because meanings must be made explicit if the story is to be understood). As such, then, stories help to establish a social cohesion which otherwise might be unattainable. Storytelling is therefore an important management skill (Boje, 1991a), and ‘the preferred sense-making currency of human relationships among internal and external stakeholders’ (Boje, 1991b: 106). Stories often contain either implicit or explicit arguments for or against a proposition. They also help managers to articulate accounts of quite complex events in which they are immersed, but in a way that helps them to develop new insights and understandings, new perspectives and therefore new ways of acting (Gold

et al., 2002). This analysis of arguments also helps managers to more easily recognize the perspectives of their colleagues. Shared stories in organizations can be valuable as a way of amending and altering organizational reality, as a means of sharpening and renewing a sense of purpose within organizational groups or teams, and for creating a sense of vision and strategy. Stories are emotionally and symbolically charged narratives that do not present information or facts, but serve to enrich and infuse facts with meaning (Gabriel, 2000), including social and political meaning.

Being a good storyteller does not make someone a good manager. To understand the principles of storytelling means having a degree of self-understanding, self-insight and self-respect – important cornerstones of management. Storytelling involves:

- The story: someone tells it to someone who listens.
- The understanding: the people and the teller begin to understand something that was only superficially known to them before.
- The shared meaning: couples or groups use their shared understanding of the story as a metaphor that facilitates wider understanding of other phenomena (Kaye and Jacobson, 1999)

Storytelling can often involve the weaving of the story into on-going conversations where teller and listener are sending cues to manage how the story is interpreted (Boje, 1991a).

Organizational stories need to be: concrete (about real people, actions and events); familiar to those in the work setting; and believable to the listeners (Morgan and Dennehy, 1997). They must also allow listeners to learn about organizational norms – ‘how things are done around here’. Structurally, they involve the description of the

setting, a build up ('trouble's coming!'), and a crisis or climax. Then, crucially, they (hopefully) also involve learning and new behaviours or awareness. The process of storytelling can be improved by practice – by managers listening to stories told by others, or by trying the act of storytelling themselves (perhaps by taking a story from a newspaper or book and retelling it). This could also involve telling stories in pairs (Morgan and Dennehy, 1997). This shared meaning might evolve through, say, a coaching process that encourages coachees to tell a story about their vision for their organization, a new set of ideas or an experience that evoked particularly strong emotions (either positive or negative). Indeed, coaches themselves might provide a personal narrative that illuminates options for handling difficult situations (as an exemplar), or even coach managers and leaders in the principles of storytelling, partly as a way of expanding their reflective skills. There should be a focus on their insider's knowledge, including family issues, thoughts, struggles, concerns and role models that have been influential (Kaye and Jacobson, 1999).

The impact of storytelling and argument analysis has been researched within a professional development course for managers (Gold et al., 2002), who found that this approach drew managers into questioning their current organizational practice, personal identity and relationships with those around them – including experts and figures of authority. It facilitated reflection, self-awareness and a better (critical) understanding of others as well as themselves. It also helped some managers to engage in a critique of authority. However, despite evidence of enhanced reflective processes, there was little indication of managers critiquing their own authority or expertise – hence, a *self*-critical use of critical reflection did not emerge.

What is required is a critical approach to using storytelling, through using organizational myths and exploring alternative meanings and interpretations of the

same myth (Alvesson and Willmott, 1996). Central to this approach is valuing doubt and uncertainty, so that a space can be opened up for critical self-reflection and emancipation. There is a danger, however, that some people will go no further than mere common-sense explanations that lack the wisdom to challenge conventional accounts. Not only should reflection focus on the object of the critique, but the authority of the critique itself should be brought forward for disputation, to avoid the danger of merely replacing the authority of one account with another. Courageous storytellers have to be honest ‘soldier[s] in the struggle against personal alienation’ (Barone, 1992: 143). Such stories can help to address Vince’s (1996) concern for the surfacing of the under-emphasized emotional aspects of organizations, providing a focus on feelings, meaning and experience, allowing a unique, critical insight into social practices (Dehler et al., 2001).

### **Reflective and reflexive conversations and reflective dialogue**

*Reflective* conversations are part of what Schön (1987, 1991) has called reflection-in-action. In contrast to models of technical rationality that purport objectively to ‘know’ the world independently of the practitioner’s values and views, the practitioner’s reflective conversation with a situation is seen as unique and uncertain. In these circumstances, the practitioner acts as an agent and, through, his or her transactions with the situation, helps to shape it. Hence, a manager’s understanding of the situation must include his or her own contribution to it. Yet, the situation also has a life of its own, independent of personal intentions, and this may foil projects and reveal new meanings. Hence, the practitioner must be willing to enter into situations of ambiguity and uncertainty. ‘The unique and uncertain situation comes to be understood through the attempt to change it, and changed through the attempt to understand it’ (Schön, 1991: 132). Practitioner inquiry becomes a form of research, in which means and ends

are framed *interdependently*, and in which knowing and doing are combined. Such inquiry involves experimentation, a process of reflection and further experimentation.

A reflective conversation occurs as a result of dilemmas within the field of practice that are bounded by a role frame, that is, the conventions and personal frames of reference through which practitioners view their professional roles. Role frames act as filters through which problems are analysed and new strategies devised. Schön (1987) sets the reflective conversation within the context of what he terms the *practicum*, a virtual context that approximates to the world without being part of it. Typically, a learner takes on a problem under the supervision of a professional practitioner (as coach). Within the *practicum*, the learner performs set tasks, with the role of the coach being to demonstrate, advise, question and criticize.

These notions are taken a stage further with the concept of the *reflexive* conversation (Cunliffe, 2002). Reflexivity is very different from reflection, which can be regarded as a modernist idea that searches for patterns, logic and order. In contrast, reflexivity means ‘complexifying thinking or experiences by exploring contradictions, doubts, dilemmas, and possibilities’ (Cunliffe, 2002: 38). It embraces subjective understanding of reality in order to think more critically about one’s values and the effect of one’s actions on others (Cunliffe, 2004). Reflexivity, then, means being able to be critical of our *own* intellectual assumptions (Palmer and Dunford, 1996) and reflecting on reflecting (Day et al., 2003). Hence, managers must lay emphasis on reflexivity, on focusing upon their own actions, thoughts and feelings (Bolton, 2001). They come to make sense of their situations from within the activity itself. What is necessary is that these managers are given help to recognize that they are acting beings within these structures, making sense of actions in practical and responsive ways from inside the experience. ‘This “inside-out” approach assumes that, rather like

a hologram, every small insight, question, or action leads to different ways of relating, which work from within, to influence the whole' (Cunliffe, 2002: 40). Hence, reflexive conversations may serve to promote multiple interpretations of reality – including critiques of previously uncontested forms of organizational 'truth'. This means challenging decisions that are justified solely on profit, posing instead 'more collaborative, responsive, and ethical ways of managing organizations' (Cunliffe, 2004: 408) to transform old ways of managing and theorizing.

Reflective and reflexive conversations can be distinguished from (but contain some similarities to) *reflective dialogue*, the latter comprising situations where *groups* of managers share their thoughts and feelings on a subject and then self-reflect on themselves and their reactions to the dialogue of other participants (Mirvis and Ayas, 2003). Reflective dialogue provides managers with the opportunity to critically examine the underlying assumptions behind their thinking and to develop a shared language that emerges from the practice of collective inquiry (Jacobs and Heracleous, 2005). Through group dialogue, assumptions and mental models are made more visible and intelligible so that collaborative inquiry into their causes can commence (Isaacs, 1993). Critical reflection on existing mental models (a diagnostic moment) allows for the shaping of emergent mental models (a generative moment) (Jacobs and Heracleous, 2005), but this will only occur if disagreements with the group are seen as an opportunity for learning. Rather than imposing one's own views, a manager must suspend his or her assumptions and listen to the interpretations of others (Schein, 1996).

## **Reflective metaphors**

A metaphor is a form of expression in which a concept used for one thing is symbolically applied to another (Marshak, 1993). As such, they display a paradoxical and logical inconsistency (Hill and Levenhagen, 1995). For example, to say that an organization is a 'machine' may capture some of its salient features, but is clearly false in the literal sense. However, metaphors can be a very powerful medium for understanding and presenting ideas, insights and intuitions not always available through the kinds of rational discourse prevalent in many formal development programmes. Metaphors do not simply describe an external reality, they also become part of that reality and '*prescribe* how it ought to be viewed and evaluated' (Tsoukas 1991: 570; original emphasis). We could take an example of someone describing an employer as a person who 'sucks the blood of his employees' (Tsoukas, 1991: 570). This is more than a description of a real process; it is used to evoke certain commonly held images and, thus, implicitly offers value judgements and prescribes a mode of behaviour. By contrast, a literal language discourse could describe the same person as someone who 'extracts surplus value from the labour of his employees' and then proceed to define the concept of surplus value in order to demonstrate the process of surplus value appropriation. Literal language tends to be the dominant discourse in science and rationalist management theory (and formal management development programmes), but, unlike metaphors, fails to capture the continuous flow of events or get close to the experience.

Metaphors, however, are not complete descriptions of an entity. For example, if we complimented a manager for his 'bullish' instincts, we would be implying something about his strength and determination while ignoring other elements of the metaphor such as size, bellow and quadruped physique. A metaphor, then, is based upon a

partial truth and requires a one-sided abstraction in which certain features are emphasized and others suppressed (Morgan, 1980). So, effective metaphors rely on ‘constructive falsehood as a means of liberating the imagination’ (Morgan, 1980: 612). Rather than looking for reassuring parallels in business metaphors, we should instead seek troubling differences (Ghyczy, 2003). Using metaphors to generate strategic perspectives begins to work only when the metaphors themselves do not work. ‘Attracted by familiar elements in the metaphor but repelled by the unfamiliar connection established between them, our minds briefly “lag behind”, engulfed in a curious mixture of understanding and incomprehension’ (Ghyczy, 2003: 88).

The use of metaphors is essentially a shared enterprise, which needs to be pursued in the spirit of *critical inquiry*. Indeed, given that metaphors contain an emotive content and are likely to evoke an emotional response (potentially a critical incident – see later), they may serve to challenge accepted mental models (Hill and Levenhagen, 1995). Here, they can be useful in two aspects: alignment, that is, the task of organizing action towards a single purpose, and motivating individuals towards concerted action. This includes attunement, preparing individuals to send and receive information, with metaphors helping to focus on salient cues. Metaphors, then, enable us to see organizations in a new way, thus opening up fresh creative possibilities (McCourt, 1997), and potentially rich strategic insights (Gray, 2003). Knowing what type of metaphor someone is using helps to understand how they are construing a situation.

An empirical study of 98 first-line managers and supervisors, shows how the use of metaphors to describe their organization, reveals a range of perceptions, attitudes and feelings that were previously subconscious or not articulated (Oswick and Montgomery, 1999). Indeed, the study reveals how metaphors can be used to give



voice to previously tacit perceptions. However, the research also points to a potential danger if metaphors are used to focus on just one element of an organization (for example, organizational change), rather than the organization as a whole. Hence, metaphors may act to focus attention towards one set of interpretations, to the detriment of others.

In a similar vein, metaphors have been commandeered by those who are attracted to the idea that the human world should mirror the apparently consensual operations of nature, over which they, as the expert analysts or managers of these systems preside (Alvesson and Willmott, 1996). So, metaphors are rooted in particular assumptions and ideas about the world, and their popularity derives from their role in legitimizing particular power-invested world-views. Metaphors themselves should be reflected on *critically*, including the way in which they are selectively adopted. The linkages between metaphors and the issues of power, knowledge and responsibility are either made weakly or are not made at all. For example, organic and machine metaphors are used to portray organizations as stable, unitary, robust and conflict-free. Metaphors like ‘colonization’ or ‘mystification’ are more practically relevant, but theory and practice of management is dominated by ‘a narrow range of metaphors that deny or disregard its darker features’ (Alvesson and Willmott, 1996: 95). Within learning situations, then, the role of workshop facilitators, mentors or coaches could be to open up and give voice to critical metaphors that may serve to challenge accepted management norms, structures and practices.

### **Reflective journals**

A reflective journal is a personal and unstructured product of reflective writing (Bolton, 2001), and, as such, contains personal anecdotes, stories, or descriptions of

work-related problems. It is important to distinguish between reflective journals, logs and diaries. A log contains a simple recording of events, a sort of aide-mémoire (Bolton, 2001). In contrast, a diary can contain stories of events, hopes, fears, memories, thoughts and ideas. A reflective journal, however, goes beyond this, and contains deliberate thoughts and analysis related to managerial practice. As such, it could contain a description and analysis of critical incidents from the workplace. Reflective journals move learners through all levels of Bloom's (1956) taxonomy and are capable of promoting critical thinking (Varner and Peck, 2003).

Reflective journals have a long pedigree in the professional development of groups such as pre-service teachers and health professionals, where they provide a medium through which learners can identify viable topics for concern, and reflect critically on their experiences (Uline et al., 2004). Such journals help professionals (such as managers) to think about their attitudes, beliefs and assumptions in order to promote self-evaluation. Typically, a reflective journal will address at least two issues. One is a daily personal reflection on a person's experiences within the organization. The second is a reflection on how their personal objectives (which are agreed with a personal supervisor – in a role not dissimilar to that of a coach or mentor) are being implemented and met. The contents of a reflective journal are usually confidential to the writer so that it becomes a safe environment for learning. The contents, however, may be shared with others (for example, fellow workshop participants, a facilitator or coach) if the writer seeks feedback or support.

Keeping a reflective journal helps us to 'define and redefine our purposes, locate and reconstruct our values and to fix our affective orientation to people and things within our organization' (Ghaye and Lillyman 1997: 46). They can contain a description of critical learning incidents (see next), reflections on personal professional values and

an analysis of the contradictions between what the professional or manager wants to do (espoused theories) and what he or she may do in practice (theories-in-use). Reflective journals can be used for collecting data so that elements of managerial practice can be evaluated or so that pent-up frustrations can be released. Writing a reflective journal sensitizes self *to* self and enables those providing feedback and help, such as a coach, to become sensitive ‘within the moment’ (Johns, 2000: 33).

A research study amongst 87 pre-service teaching professionals reports that reflective journals are successful for the development of reflective skills (Uline et al., 2004). The use of journals allows greater insights into the relationship between theory and practice, and reveals learning issues that require further discussion and development. Again writing from the perspective of teacher-educators with pre-service teachers, another study shows how the reflective writing process can provide a valuable tool in the coach-client relationship (Spalding and Wilson, 2002). Journals act as a permanent record of thoughts and experiences and can provide a means of establishing and maintaining a relationship between coach and client. For the coach, they can act as a ‘window’ into the client’s feelings and experiences and as a dialogical tool for promoting discussion and reflective thinking – in line with Dewey’s (1933) assertion that reflection must be taught.

However, aspects of the above discussion may serve to illustrate some of the potential weaknesses of journal writing as a reflective tool for managers. Although journal writing may facilitate self-reflection, the personal (private) nature of this process may tend to promote reflection as introspection. If critical reflection is to occur, journal contents (or at least those contents that a manager is willing to divulge), may benefit from being exposed to group discussion. Within the process of group reflective dialogue, for example, this collective critiquing of a manager’s personal accounts,

reflections and analysis may generate new insights, perspectives and strategies for action and engagement.

### **Reflecting on critical incidents**

The concept of critical incidents (first devised by Flanagan, 1954), involves an interpretation of the significance of an event (Tripp, 1993). These are not necessarily dramatic events, and may occur in the routine of everyday managerial practice. What makes them critical is that they are indicative of significant underlying trends, motives or structures. At first sight, many of these events appear to be ‘typical’ rather than ‘critical’. They become classified as critical, however, through the process of *reflective analysis*. The creation of a critical incident, then, comes in two stages. The first is that the nature of the incident becomes noted and described, such as through a reflective journal. In the second stage, the incident becomes critical when it is linked to a wider social context (Tripp, 1993). This also includes how the political world works (Brookfield, 1990).

Central to the first stage of this process is that descriptions need to be richer and more detailed than mere diary entries. They are also, rarely, the final product, but will be continually developed and updated, since detailed description provides the foundations for subsequent reflective analysis. Typical ways of creating a critical incident is to look for two, contrasting types of event: typical and untypical. The latter includes events that are counter-instances or ‘exceptions to the rule’, possibly promoting analysis of what causal factors precipitated the event – in Argyris’ (2002) term, double loop learning. Critical incidents, then, can be highly personal in nature and can help to trigger deep, and sometimes discomfiting, introspection, even becoming ‘developmental turning points’ (Skovholt and McCarthy, 1988: 69). A

significant proportion of critical incidents can be classified as ‘mistakes’ (Cormier, 1988), which can challenge the individual’s sense of self, competence, professional and managerial identity and their relationships with others. Yet, they are essential catalysts for developmental progress, and hence valuable potential focal points for personal learning.

In an empirical study of small to medium-sized enterprises (SMEs), entrepreneurs report the importance that critical incidents have had on their learning (Sullivan, 2000). Such incidents allow these leaders to dissect, reflect, learn and act in new ways, and are, in some cases, crucial in saving the viability of their businesses. What is significant is the availability of mentors with whom the critical incidents can be discussed – again, demonstrating the importance of learning through the facilitation of reflection.

Another empirical study reports on 135 critical incidents amongst pre-service teachers, finding that the use of such incidents increases their reflective capabilities (Griffen, 2003). They are able to develop more rounded, multiple perspectives, and to overcome personal fears. They do not, however, make significant improvements in their levels of thinking, tending to limit themselves to traditional or personal perspectives rather than wider, social views. The author concludes that using critical incidents to generate higher levels of thinking may require the use of probing questions to explore incidents within the framework of wider organizational and social contexts. The use of probing questions, of course, is just one resource within the coach’s toolkit (Egan, 1998).

Locating critical incidents within the phenomenological tradition (that is, entering another person’s frame of reference), such events can be used to promote an alternative critically reflective perspective (Brookfield, 1990). As part of an exercise,

three people write about a critical incident based upon their recollection of a news or political broadcast that made them angry. Each member of the triad relates their incident, with the other two members trying to identify the assumptions about appropriate political behaviour that they assume to be embedded in the description, using critical incidents as 'heuristic mechanisms through which we account for events in our lives' (Brookfield, 1990: 177). These assumptions help to uncover the kinds of value systems the narrator holds. However, once again this approach focuses mainly on individual perspectives, the personalization of events, potentially, serving to hide their criticality within a social, political or organizational context. In contrast, if critical incidents are shared collectively with other managers, space may be created for recognizing the commonality of such incidents across organizations, the institutional causes of these incidents and their broader social and political impact on members of the organization.

### **Repertory grids**

Another potentially important tool for eliciting reflective processes is the repertory grid, first devised by clinical psychologist Kelly (1955) to explore individuals' personal constructs, that is, their personal thinking about sets of ideas, people or events. Kelly's Personal Construct Theory is essentially a theory of personality, suggesting how people are motivated, how they learn and how they communicate. People's behaviour is influenced by the ways in which they classify what is happening around them, hence they construe and interpret situations, noting their salient features in order to anticipate events. A person's system of personal constructs is not just a collection of treasured memories, it is a guide to living. 'It is a repository of what one has learned, a statement of one's intents, the values whereby one lives and the banner under which one fights' (Candy, 1990: 281). The user first identifies a small set of

*elements* (for example situations he or she has experienced, which could include problems or crises), and then defines some *constructs* (some of the attributes of these elements). Constructs are formed with two opposing poles, for example, ‘motivating-demotivating’, ‘creative-destructive’, ‘friend-enemy’. The repertory grid, then, is a matrix of elements, with each element rated (numerically along a scale) against the specified constructs. Analysing the grid allows for the identification of those elements that feature most strongly (are accorded the highest rating), and how they are construed.

As a diagnostic instrument the repertory grid has become quite common in a range of disciplines from psychotherapy to management team building and decision-making, as well as for making tacit expert knowledge explicit (Stumpf and McDonnell, 2003). This also includes training and development areas such as performance appraisal, competence development and problem solving (Easterby-Smith et al., 1996). Hence, the repertory grid is an excellent conversational tool for management learning, since it reveals the way in which learners perceive the world around them, and allows an expert (coach, mentor or facilitator) to gain understanding by inspecting and reflecting on the grid and to separate out salient information from background ‘noise’ (Stumpf and McDonnell, 2003). A grid conversation, for example, encourages a manager to make explicit what distinguishes one experience from another. A coach, then, can facilitate the manager in examining the grid and can identify constructs that he or she thinks might be important or personally revealing.

Even though first devised as a tool for self-understanding, repertory grids are also highly flexible and can provide the potential for the *collective* exploration of organizational culture, social structures and political dimensions. Repertory grids can be analysed beyond the level of individual psychology to explore how groups of

learners construe the same array of elements (Candy, 1990). So, an action learning set or a similar grouping could discuss a range of elements, say, features of organizational behaviour such as downsizing, bullying in the workplace, corporate social irresponsibility, financial mismanagement etc. Individual members of the set will define their own constructs for each of the elements, but then the set collectively identifies differences and also similarities in their constructs to calculate and discuss the extent of their shared construing. The identification of points of difference as well as similarity can become the basis for ‘collective action and even *social transformation*’ (Candy, 1990: 285; my emphasis). Hence, the shared construing of constructs becomes not just a matter of individual critical reflection on personal constructs, but a means of shared construction towards critical reflective action.

### **Concept mapping**

Concept mapping is a graphic technique that attempts to tease out a learner’s cognitive framework in a given domain in order to gain an insight into the person’s understanding (and also beliefs and biases). The learner maps a series of concepts hierarchically and then links the concepts with arrows that are labelled with explanatory phrases. A pair of concepts linked like this is called a proposition. Concept maps are often confused with, but are not the same as, mind maps. The latter help rapid brainstorming of ideas and the formulation of simple associations. Concept mapping, however, is a more reflective process, emphasizing the ‘how’ and ‘why’ of links. It may promote the development of thinking skills by providing an ‘explicit point of focus for reflection’ (Kinchin and Hay, 2000: 45). However, an empirical study found that the process of creating a concept map is not automatically intuitive for some participants, especially in interpreting the maps (Kolb and Shepherd, 1997). Hence, if some individuals are more capable of conceptual thinking than others, we



might suggest that the facilitation of interpretation, say, with a coach, or within a mentoring relationship, might assist understanding. Indeed, concept maps are tools that can provide the basis for the negotiation of shared meanings and social communicative validation through the process of dialogue (Deshler, 1990).

The notion of concept maps was first developed by Novak (1998), who argues that they are an ideal way of empowering learners, for getting them to identify key concepts, to become engaged with meaningful learning and even to learn how to learn. They are a way of helping individuals (and organizations) capture, store, share and create new knowledge (Novak, 1998). Concept maps contrast sharply with rote learning, where the learner is seen as an empty vessel, passively absorbing information (Freire, 1985). Learners should work with words that have meaning in the life of the learner, so that they have control over the acquisition of new knowledge (Novak, 1998). Through this process, concept maps help us to check our assumptions about the relationships among our ideas, gaps in our thinking and our anticipation of events.

In addition, while concept maps can be used to identify and analyse features of the taken-for-granted assumptions of an individual, they can also be used for analysing concerns drawn from organizational or group life (Deshler, 1990). This could include concerns that are part of public decision making, allowing us to engage in social action. Hence, within a management learning context, dilemmas can be introduced through the creation of concept maps as a means of provoking reflection. Critical reflection is likely to occur when the themes under review are of significance to participants, or are puzzling, cognitively dissonant or constraining. It is through dialogue and discussion of concept maps that we are able to challenge false consciousness, circular thinking and misconceptions (Deshler, 1990). Hence, if used

within, say, a management development workshop, dialogue allows for the discussion and negotiation of shared meanings and understanding. Collective or corporate concept maps can be used by groups to engage in ‘transformative organizational or group learning’ (Deshler, 1990: 347). This is because concept mapping has the capacity to go beyond instrumental rationality and to engage with what Habermas (1984, 1887) calls explicative discourse, a mode of communicative action which is directed towards paying attention to language itself as a means to understanding ourselves (self-reflection) and our relations with others.

### **SOME CRITICALLY REFLECTIVE THOUGHTS**

Management learning can encompass reflection by managers on their experiences, which, in turn, can act as a direct source (and resource) of learning and can be enhanced by critical reflectivity. Managers, however, do not necessarily automatically engage with critical reflection. Management learning processes (such as coaching, mentoring or action learning) require specific and active interventions with facilitators, or collaborative learning with peers. This article has sought to demonstrate how reflective tools and processes can contribute to the learning of managers, and particularly the critically reflective element within it. It is acknowledged, however, that empirical research in the application of these tools to learning has taken place largely in fields of professional development (health care and education being two examples) rather than management itself. The current analysis has largely focused on the *potential* of these tools for management learning and highlights the need for further empirical research in this field. As has been noted, some experiences (particularly routine or discomfoting ones) may lead to non-reflection and non-learning. With the demands of the modern workplace, individuals have less time to engage with the kinds of social and community level relationships

that help to shape learning (Conlon, 2004). Without the supportive mechanisms of a mentor or colleague, employees may experience feelings of helplessness, frustration and eventual burnout.

Yet it is with some of these supportive mechanisms that this article has been concerned, since, as we have seen, the reflective tools described have the capability to be used in collaboration with a workshop facilitator, coach, mentor or peer group. Their potential is not just for reflection but *critical* reflection because they allow managers not only to explore their personal feelings, but to make informed judgements based upon a recognition of the imbalances of knowledge, power and wealth that exist in society and organizations. Stories and metaphors offer creative and illuminating ways through which managers can see both themselves and their organizational situations in new ways, opening up fresh insights and possibilities for action and experience. Similarly, critical incidents, perhaps written up and examined within a reflective journal, if shared with others, allow not only for analysing of individual experiences, but for critiquing the social and political impact of such incidents within a broader organizational context. While reflective tools and processes constitute resources for individual self-reflection, *critically* reflective tools allow for the critiquing of collectively constructed norms and values within which experience and reflection are embedded, potentially contributing to our understanding of reflection both in terms of individual and organizational learning.

Word count (not including Abstract and References ) = 7194

## REFERENCES

- Alvesson, M. and Willmott, H. (1992) 'On the Idea of Emancipation in Management and Organizational Studies', *Academy of Management Review* 17(3): 432-64.
- Alvesson, M. and Willmott, H. (1996) *Making Sense of Management: A Critical Introduction*. London: Sage.
- Argyris, C. (2002) 'Double-Loop Learning, Teaching and Research', *Academy of Management Learning and Education* 1(2): 206-18.
- Balogun, J. and Johnson, G. (2004) 'Organizational Restructuring and Middle Manager Sensemaking', *Academy of Management Journal* 47(4): 523-49.
- Barone, T.E. (1992) 'Beyond Theory and Method: A Case of Critical Storytelling', *Theory Into Practice* 32(4):236-44.
- Bloom, B.S. (1956) *Taxonomy of Educational Objectives. Handbook 1: Cognitive Domain*. New York: Longman.
- Boje, D.M. (1991a) 'Learning Storytelling: Storytelling to Learn Management Skills', *Journal of Management Education* 15(3): 279-94.
- Boje, D.M. (1991b) 'The Storytelling Organization: A Study of Story Performance in an Office-Supply Firm', *Administrative Science Quarterly* 36(1): 106-26.
- Bolton, G. (2001) *Reflective Practice: Writing and Professional Development*. London: Paul Chapman Publishing Limited.
- Boud, D., Keogh, R. and Walker, D. (1985) 'What is Reflection in Learning?', in D. Boud, R. Keogh and D. Walker (eds) *Reflection: Turning Experience into Learning*, pp 7-17. London: Kogan Page.

- Boyce, M.E. (1996) 'Organizational Story and Storytelling: A critical Review', *Journal of Organizational Change Management* 9(5): 5-26.
- Brookfield, S. (1987) *Developing Critical Thinkers: Challenging Adults to Explore Alternative Ways of Thinking and Acting*. Milton Keynes: Open University Press.
- Brookfield, S. (1990) 'Using Critical Incidents to Explore Learners' Assumptions',. in J. Mezirow (ed.) *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning*, pp 177-193. San Francisco, CA: Jossey-Bass Publishers.
- Candy, P.C. (1990) 'Repertory Grids: Playing Verbal Chess', in J. Mezirow (ed.) *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning* pp 271-295. San Francisco, CA: Jossey-Bass Publishers.
- Conlon, T.J. (2004) 'A Review of Informal Learning Literature, Theory and Implications for Practice in Developing Global Professional Competence', *Journal of European Industrial Training* 28(2-4): 283-95.
- Cormier, L.S. (1988) 'Critical Incidents in Counselor Development: Themes and Patterns', *Journal of Counseling and Development* 67 (October): 131-2.
- Cunliffe, A.L. (2002) 'Reflexive Dialogical Practice in Management Learning', *Management Learning* 33(1): 35-61.
- Cunliffe, A.L. (2004) 'On Becoming a Critically Reflexive Practitioner', *Journal of Management Education* 28(4): 407-26.
- Daudelin, M.W. (1996) 'Learning from Experience Through Reflection', *Organizational Dynamics* 24(3): 36-49.

- Day, M.M., Kaidonis, M.A. and Perrin, R.W. (2003) 'Reflexivity in Learning Critical Accounting: Implications for Teaching and Its Research Nexus', *Critical Perspectives on Accounting* 14: 597-614.
- Dehler, G.E., Welsh, M.A. and Lewis, M.W. (2001) 'Critical Pedagogy in the "New Paradigm"', *Management Learning* 32(4): 493-511.
- Deshler, D. (1990) 'Conceptual Mapping: Drawing Charts of the Mind', in J. Mezirow (ed.) *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning* pp 336-353. San Francisco, CA: Jossey-Bass Publishers.
- Dewey, J. (1933) *How We Think: A Restatement of the Relation of Reflective Thinking to the Educative Process*. New York: D.C. Heath and Company.
- Easterby-Smith, M., Thorpe, R. and Holman, D. (1996) 'Using Repertory Grids in Management', *Journal of European Industrial Training* 20(3): 3-30.
- Egan, G. (1998) *The Skilled Helper: A Problem-Management Approach to Helping* (6<sup>th</sup> ed.). Pacific Grove, CA: Brooks/Cole Publishing Company.
- Flanagan, J.C. (1954) 'The Critical Incident Technique', *Psychological Bulletin* 51(4): 327-58.
- Freire, P. (1985) *The Politics of Education: Culture, Power and Liberation*. South Hadley, MA: Bergin and Garvey.
- Gabriel, Y. (2000) *Storytelling in Organizations: Facts, Fictions and Fantasies*. Oxford: Oxford University Press.
- Ghaye, T. and Lillyman, S. (1997) *Learning Journals and Critical Incidents: Reflective Practice for Health Care Professionals*. Salisbury: Quay Books.

- Ghyczy, T. von (2003) 'The Fruitful Flaws of Strategy Metaphors', *Harvard Business Review* Sept-Oct: 86-94.
- Gold, J. and Holman, D. (2001) 'Let Me Tell You a Story: An Evaluation of the Use of Storytelling and Argument Analysis in Management Education', *Career Development International* 6(7): 384-95.
- Gold, J., Holman, D. and Thorpe, R. (2002) 'The Role of Argument Analysis and Storytelling in Facilitating Critical Thinking', *Management Learning*, 33(3): 371-88.
- Gray, D. (2003) 'A Gallery of Metaphors', *Harvard Business Review* Sept-Oct: 92-3.
- Griffen, M.L. (2003) 'Using Critical Incidents to Promote and Assess Reflective Thinking in Preservice Teachers', *Reflective Practice* 4(2): 207-20.
- Habermas, J. (1984) *The Theory of Communicative Action, Volume 1: Reason and the Rationalization of Society*. London: Heinemann.
- Habermas, J. (1987) *The Theory of Communicative Action, Volume 2: Lifeworlds and System: A Critique of Functionalist Reason*. London: Heinemann.
- Hill, R.C. and Levenhagen, M. (1995) 'Metaphors and Mental Models: Sensemaking and Sensegiving in Innovative and Entrepreneurial Activities', *Journal of Management* 21(6): 1057-74.
- Høyrup, S. (2004) 'Reflection as a Core Process in Organizational Learning', *Journal of Workplace Learning* 16(8): 442-54.
- Isaacs, W. (1993) 'Taking Flight: Dialogue, Collective Thinking and Organizational Learning', *Organizational Dynamics* 22(2): 24-40.

- Jacobs, C.D. and Heracleous, L.Th. (2005) 'Answers for Questions to Come: Reflective Dialogue as an Enabler of Strategic Innovation', *Journal of Organizational Change Management* 18(4): 338-52.
- Jarvis, P. (1995) *Adult and Continuing Education* (2<sup>nd</sup> ed.). London: Routledge.
- Johns, C. (2000) *Becoming a Reflective Practitioner*. Oxford: Blackwell.
- Kaye, B. and Jacobson, B. (1999) 'True Tales Tall Tales: The Power of Organizational Storytelling', *Training & Development* (March): 44-51.
- Kayes, C. (2002) 'Experiential Learning and Its Critics: Preserving the Role of Experience in Management Learning and Education', *Academy of Management Learning and Education* 1(2): 137-49.
- Kelly, G.A. (1955) *The Psychology of Personal Constructs*. New York: W.W Norton & Co.
- Kemmis, S. (1985) 'Action Research and the Politics of Reflection', in D. Boud, R. Keogh and D. Walker (eds.) *Reflection: Turning Experience into Learning* pp 139-163. London: Kogan Page.
- Kinchin, I. and Hay, D. (2000) 'How a Qualitative Approach to Concept Map Analysis Can Be Used to Aid Learning by Illustrating Patterns of Conceptual Development', *Educational Research* 42(1): 43-57.
- Kolb, D. and Shepherd, D.M. (1997) 'Concept Mapping Organizational Cultures', *Journal of Management Inquiry* 6(4): 282-95.
- Leung, D.Y.P. and Kember, D. (2003) 'The Relationship between Approaches to Learning and Reflection upon Practice', *Educational Psychology* 23(1): 61-71.



- Marshak, R.J. (1993) 'Managing the Metaphors of Change', *Organizational Dynamics* 22(1): 44-56.
- Marsick, V.J. and Watkins, K.E. (1990) *Informal and Incidental Learning in the Workplace*. London: Routledge.
- Marsick, V.J. and Watkins, K.E. (1997) 'Lessons from Informal and Incidental Learning', in J. Burgoyne and M. Reynolds (eds.) *Management Learning: Integrating Perspectives in Theory and Practice* pp 295-311. London: Sage.
- McCourt, W. (1997) 'Discussion Note: Using Metaphors to Understand and to Change Organizations: A Critique of Gareth Morgan's Approach', *Organizational Studies* 18(3): 511-22.
- McLaren, P. and da Silva, T.T. (1993) 'Decentering Pedagogy: Critical Literacy, Resistance and the Politics of Memory', in P. McLaren and P. Leonard (eds) *Paulo Freire: A Critical Encounter* pp 47-89. London: Routledge.
- Mezirow, J. (1990). 'How Critical Reflection Triggers Transformative Learning', in J. Mezirow (ed.) *Fostering Critical Reflection in Adulthood: A Guide to Transformative and Emancipatory Learning* pp 1-20. San Francisco, CA: Jossey-Bass Publishers.
- Mirvis, P.H. and Ayas, K. (2003) 'Reflective Dialogue, Life Stories and Leadership Development', *Reflections* 4(4): 39-48.
- Morgan, G. (1980) 'Paradigms, Metaphors, and Puzzle Solving in Organizational Theory', *Administrative Science Quarterly* 25(4): 605-23.
- Morgan, S. and Dennehy, R.F. (1997) 'The Power of Organizational Storytelling: A Management Development Perspective', *Journal of Management Development* 16(7): 494-501.

- Novak, J.D. (1993) 'Human Constructivism: A Unification of Psychological and Epistemological Phenomena in Meaning Making', *International Journal of Personal Construct Psychology* 6: 167-93.
- Novak, J.D. (1998) *Learning, Creating and Using Knowledge: Concept Maps as Facilitative Tools in Schools and Corporations*. Hillsdale, NJ: Laurence Erlbaum Associates.
- Ollila, S. (2000) 'Creativity and Innovativeness through Reflective Project Leadership', *Reflective Project Leadership* 9(3): 195-200.
- Oswick, C. and Montgomery, J. (1999) 'Images of an Organization: The Use of Metaphor in a Multinational Company', *Journal of Organizational Change* 12(6): 501-23.
- Palmer, I. and Dunford, R. (1996) 'Conflicting Uses of Metaphors: Reconceptualizing Their Use in the Field of Organizational Change', *Academy of Management Review* 21(3): 691-717.
- Raelin, J.A. (2001) 'Public Reflection as the Basis of Learning', *Management Learning* 32(1): 11-30.
- Raelin, J.A. (2002) "'I Don't Have Time to Think!" Versus the Art of Reflective Practice', *Reflections* 4(1): 66-75.
- Raelin, J.A. (2005) 'Don't Bother Putting Leadership into People', *Academy of Management Executive* 18(3): 131-5.
- Reynolds, M. (1998) 'Reflection and Critical Reflection in Management Learning', *Management Learning* 29(2): 183-200.

- Reynolds, M. (1999a) 'Grasping the Nettle: Possibilities and Pitfalls of a Critical Management Pedagogy', *British Journal of Management* 9: 171-84.
- Reynolds, M. (1999b) 'Critical Reflection and Management Education: Rehabilitating less Hierarchical Approaches', *Journal of Management Learning* 23(5): 537-53.
- Reynolds, M. and Vince, R. (2004) 'Critical Management Education and Action-Based Learning: Synergies and Contradictions', *Academy of Management Learning & Education* 3(4): 442-56.
- Schein, E.H. (1996) 'Kurt Lewin's change theory in the field and in the classroom', *Organizational Dynamics* 9(2): 27-47.
- Schön, D.A. (1987) *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass Publishers.
- Schön, D.A. (1991) *The Reflective Practitioner: How Professionals Think in Action*. Aldershot: Arena.
- Skovholt, T.M. and McCarthy, P.R. (1988) 'Critical Incidents: Catalysts for Counselor Development', *Journal of Counseling and Development*, 67 (October): 69-72.
- Spalding, E. and Wilson, A. (2002) 'Demystifying Reflection: A Study of Pedagogical Strategies that Encourage Reflective Journal Writing', *Teachers College Record* 104(7): 1393-421.
- Stumpf, S. and McDonnell, J. (2003) 'Using Repertory Grids to Test Data Quality and "Expert" Hunches', 4<sup>th</sup> *International Workshop on Theory and Applications of Knowledge Management (TAKMA '03)* Prague, 1-5 September.

- Sullivan, R. (2000) 'Entrepreneurial Learning and Mentoring', *International Journal of Entrepreneurial Behaviour and Research* 6(3): 160-75.
- Tripp, D. (1993) *Critical Incidents in Teaching: Developing Professional Judgement*. London: Routledge.
- Tsoukas, H. (1991) 'The Missing Link: A Transformational View of Metaphors in Organizational Science', *Academy of Management Review* 16(2): 566-85.
- Uline, C., Wilson, J.D., and Cordry, S. (2004) 'Reflective Journals: A Valuable Tool for Teacher Preparation', *Education* 124(3): 456-60.
- Varner, D. and Peck, S.P. (2003) 'Learning from Learning Journals: The Benefits and Challenges of using Learning Journal Assignments', *Journal of Management Education* 27(1): 52-77.
- Vince, R. (1996) 'Experiential Management Education as the Practice of Change', in R. French and C. Grey (eds) *Rethinking Management Education*. London: Sage.
- Vince, R. (2002) 'Organizing Reflection', *Management Learning* 33(1): 63-78.
- Weick, K. (2002) 'Puzzles in Organizational Learning: An Exercise in Disciplined Imagination', *British Journal of Management* 13:S7-S15.

**Table 1 Reflective processes and tools framework**

Reflective processes (shaded) and tools	Sources	Application (individual, pair or team)	Facilitation process	Links	Advantages	Critique
Storytelling	Boje, 1991a; Boje, 1991b; Morgan and Dennehy, 1997	At all levels, but most likely at individual due to the personal nature of the narrative. In pairs if told to an external agency, e.g. a coach	Facilitator, coach or mentor gets manager to provide an articulation of problems or events through a story. The meaning of the story is then jointly explored	Stories may be narrated/constructed within <b>reflective journals</b> . They may contain <b>reflective metaphors</b> and the analysis of turning points – <b>critical incidents</b>	Creative exploration of values, novel ideas, organizational norms or contradictions and individual viewpoints (including alternative perspectives). Self identity and characterization – we are ‘told’ by stories	Danger of exposing deep seated psychological anxieties  Potential lack of connection or focus with organizational issues if not rooted in ‘reality’  Do not necessarily engender <i>critical</i> reflection (on self and organizational perspectives). Potentially self-reverential, introspective and narcissistic
Reflective and reflexive conversations	Schön, 1987, 1991	Often in pairs – the learner with experienced practitioner	Facilitator may observe or listen, and stimulate reflective conversation through questioning, criticism or advice	Reflective conversation may contain <b>reflective metaphors</b> and discussion of <b>critical incidents</b>	Aid reflection-in-action, and the search for new meanings, options and perspectives	Need to critique own intellectual assumptions (Palmer and Dunford, 1996) and the impact of our acts on others (Cunliffe, 2004). Need for <i>reflexive</i> conversations and multiple interpretations of reality
Reflective dialogue	Isaacs, 1993; Jacobs and Heracleous, 2005; Mirvis and Ayas, 2003; Schein, 1996	Usually in groups	Facilitator encourages turn taking, and encourages the group to challenge taken-for-granted perspectives and assumptions. Welcomes disagreements	Reflective dialogue may contain <b>reflective metaphors</b> and discussion of <b>critical incidents</b>	Promotes shared critical reflection. Mental models are made explicit for group critique and evaluation	Potential for disagreement and conflict, unless group processes are well managed by the facilitator
Reflective metaphor	Marshak, 1993; Morgan, 1980	At individual, pair or team level. ‘The best metaphorical thinking is	Facilitator encourages manager to think up a metaphor to describe	May be embedded within a <b>story</b> or used as a trigger within a	Help to define what is happening, assess a situation and create shared	May be pressed into service too quickly as a model for action when metaphors are best used to

		done in the company of others' (Ghyczy, 2003: 94)	themselves, an event or situation. The choice of metaphor and its implications for individual and organizational behaviour are analysed	<b>reflective conversation.</b> Their emotive content may trigger <b>critical incidents</b>	understanding for action (including collaborative action for organizational change). May help to identify salient clues (Hill and Levenhagen, 1995)	search for new knowledge (Ghyczy, 2003)  They may divert attention towards certain interpretations and away from others (Palmer and Dunford, 1996)
Reflective journal	Bolton, 2001; Uline et al, 2004; Varner and Peck, 2003	Highly individual, but content may (at discretion of author) be shared with others	All or some elements may be kept confidential, or shared with a facilitator to explore thoughts, ideas and analysis. Facilitator provides support and/or challenge	Can contain <b>stories</b> , use of <b>metaphors</b> and the noting of <b>critical incidents</b>	Aids reflective and critical thinking and developing self-awareness (and social awareness), particularly if contents are shared and collectively critiqued	May be largely descriptive not analytical and cause discomfort in cultures not used to personal disclosure
Critical incident analysis	Flanagan, 1954; Tripp, 1993	Highly individual, but content may (at discretion of author) be shared with others	Events/incidents noted or verbally described. Classified as critical, or not, through reflective discussion/analysis with facilitator, coach or mentor	May be noted with <b>stories</b> , identified in <b>reflective conversations</b> and documented and analysed in <b>reflective journals</b>	Highlights key turning points and catalysts for personal and organizational change	Criticality of events not always evident at the time. May personalize the event and fail to locate its criticality within its social, political or organizational context
Repertory grids	Easterby-Smith et al 1996; Kelly, 1955	Normally individual, although elements may be construed through group discussion	Can be used as a diagnostic tool. Core constructs can then be discussed and analysed with the facilitator or group	Can be used in <b>reflective conversations</b> with a coach to explore norms, values and beliefs	Identification of personal constructs and tacit knowledge	Knowledge cannot be 'dichotomized' in the way that repertory grids use bipolar constructs – it is more holistic and complex
Concept mapping	Deshler, 1990; Novak, 1993, 1998	Individual, but can also be used by groups	Facilitator helps manager(s) to explore how and why concepts are selected and linked	Can be used to map and analyse <b>critical incidents</b> and <b>metaphors</b>	Makes cognitive frameworks explicit for subsequent analysis and discussion	Not all people are comfortable or skilful in thinking conceptually (Kolb and Shepherd, 1997)