TEACHING TEACHERS ABOUT REFLECTION AND WAYS OF REFLECTING

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ABSTRACT   The concept of the reflective practitioner (Schon, 1983) informs the work of many professionals, including educators of professionals. While theory concerning what it means to be a reflective practitioner is relatively well developed and widely known, there is less familiarity with the repertoire of specific thinking skills that can be used as reflection tools. In this paper, I draw on scholarship on reflection and reflective practice, as well as my own reflected-on experiences, to establish a case for teaching specific reflection skills. A selection of those skills is described and discussed.

INTRODUCTION

A review of literature about the concept of reflection reveals widely contrasting views about the character of this everyday activity (for reviews see Adler, 1991; Bengston, 1995; Cole, 1997; Ecclestone, 1996; Grimmett et al., 1990; Hatton & Smith, 1995). For some, reflection seems to be a synonym for thinking in general, whereas for others it is a distinctive form of thinking defined by particular purposes, foci, timing and skills. With this in mind, Hatton and Smith (1995) identify four aspects of reflection that are variously interpreted: first, "whether reflection is limited to thought process about action, or is more inextricably bound up in action"; second, "the time frames within which reflection takes place, and whether it is relatively immediate and short term, or rather more extended and systematic"; third, "whether reflection is by its very nature problem-centred or not"; and fourth, "how conscientiously the one reflecting takes account of wider historic, cultural and political values or beliefs in framing and reframing practical problems to which solutions are being sought, a process which has been defined as critical reflection" (p. 34).

Some reviewers have expressed concern about this variability, as well as lack of clarity, in viewpoints about reflection and the related construct of the reflective practitioner. For example, Silcock (1994) observed that because the concept of reflection was not analysed and defined adequately, "reflective practice has become as much an opaque slogan as an illuminating model in recent years" (p. 287). Bengston (1995) contended similarly that "'reflection' is often used in an unreflected manner. This doesn't only apply to the public debate. Also in written contributions, a notion of reflection is used that seldom is clarified" (p. 24).

In spite of confusion over usage, reflection seems to be a central and essential feature of the mental life of most people. Silcock goes as far as to suggest that it is a process "which may be involved in every rational act we

take" (p. 274). As such, it may often be engaged in automatically or intuitively and therefore be difficult to recognise, define and articulate (Dreyfus & Dreyfus, 1986; Brown & McIntyre, 1993). Notwithstanding this possibility, I offer the following definition:

> Reflection is thinking about an experience with the intention of deciding what it means, how it can be explained and what the meaning and explanations might imply for the future. It includes thinking about the character and quality of such thinking and associated thoughts.

The outcomes of such thinking include meanings, explanations, anticipations, beliefs, assumptions, world views and values which either confirm or change those that the person previously had in mind. Collectively, these outcomes constitute theories or mental models which influence how we understand, and act in, the world. Senge (1990) contends that these models are usually tacit, unexamined and untested. He also considers working with mental models, using the skills of reflection and inquiry, to be one of five disciplines required for personal mastery, and to build learning organisations:

> The discipline of working with mental models starts with turning the mirror inward; learning to unearth our internal pictures of the world, to bring them to the surface and hold them rigorously to scrutiny. It also includes the ability to carry on "learningful" conversations that balance inquiry and advocacy, where people expose their own thinking effectively and make that thinking open to the influence of others (1990, p. 9).

Thinking that is intended to achieve these outcomes may in turn serve different broad purposes. Ecclestone (1996) identified three such purposes for the inquiry that reflection involves, each purpose derived from contrasting assumptions and values concerning the nature of professional practice and professional development. *Technical Inquiry* is concerned with the efficient and effective application of knowledge derived in particular from empirical research, as well as the observation of experienced practitioners. Reflective practice involves teachers drawing on such knowledge when assessing and accounting for whether teaching aims and learning outcomes have been achieved *Practical Inquiry* is concerned with improving the way teachers make decisions about practice and to help them voice their concerns, try new practices and think about the consequences of what they do. Reflective practice is the process by which teachers examine their everyday ideas and practices and construct their own practical wisdom. *Critical Inquiry* is concerned with identifying the way beliefs, goals and practices are shaped by ideology, institutional structure and political constraints. Reflective practice involves teachers in the analysis of contradictions between their personal values and beliefs and the dominant (and possibly repressive) social and institutional norms that influence their practice, consideration of the wider impacts of their current practice and determination of personal and political actions that might effect beneficial change.

The definition above acknowledges and accommodates these three contrasting conceptions of the purposes that reflection might serve.

REFLECTION AND BEING AN EFFECTIVE TEACHER

Korthagen and Wubbels (1995) observe that definitions of reflection with a focus on teaching implicitly or explicitly incorporate views about what constitutes good teaching. Certainly, reflection is a concept that is central to my own views about the attributes of effective teachers. I assume that teachers who are best equipped to facilitate their students' learning have the following attributes:

> a rich repertoire of teaching methods and skills; sensitivity to the myriad of factors that make particular ways of teaching more or less appropriate; good control of specific teaching skills; willingness and capacity to "research" their own teaching; and awareness that the choices that they make concerning teaching and learning objectives and approaches are shaped by their beliefs about the primary purposes of education. They can make those beliefs explicit and teach in ways that fit these purposes. In this sense their teaching is educative (Haigh & Katterns, 1984: 23-27).

The capacity to research teaching rests, in part, on a capacity for reflection. An awareness of the manner in which beliefs shape choices is also founded in reflection.

CONSTRAINTS ON BEING REFLECTIVE

While the case for becoming a reflective practitioner may be readily supported, many factors have been identified as potential constraints on being reflective (e.g. Day, 1993; Silcock, 1994; van Manen, 1995; Eraut, 1995; Eccleston, 1996; Maughan, 1996; Cole, 1997; Platzer, Snelling & Blake, 1997; Boud & Walker, 1998). These constraints can include:
- lack of time
- the view that reflection may sometimes disrupt, and detract from, good performance
- doubts about whether reflection is an activity that will have significant pay-offs, particularly when tasks associated with professional education programmes have been left behind and habitual routines have been established
- beliefs about the relative value of knowledge derived from personal reflection on current practice compared with that derived from a technical-rational approach to inquiry
- the preoccupation of novices with acquiring a set of "getting started" rules, which may mean they have neither the desire or capacity to engage in productive reflection
- lack of appreciation of different reflection needs according to the novice or expert status of the individual

- evidence of some practical knowledge which may not be able to be made explicit and articulate
- features of the immediate environment which might prompt reflection also making it more difficult to engage in reflection (e.g. unpredictability, rapid change)
- psychological states (e.g. anxiety, fear, loneliness, helplessness, hostility)
- concern that reflection may involve moving beyond one's comfort zone
- unsympathetic colleagues who see reflection as unnecessary or potentially destabilising concern about the consequences of public disclosure of private thoughts
- uncertainty about what would be a worthwhile focus for reflection
- not having a shared language for talking about what is reflected on and the reflection process
- having familiarity with only one model of reflection or believing that a prescribed model is *the* model
- a limited repertoire of reflection skills that can be used competently, and with sensitivity
- an overemphasis on the use of writing techniques as a catalyst and aid for reflection.

As Senge et al. (1994) observed:

> It takes a great deal of perseverance to master this discipline (working with mental models), perhaps because very few of us have learned how to build the skills of inquiry and reflection into our thoughts, emotions and everyday behaviour. When we begin practising those skills we bring to the surface some of our unconscious, automatic responses. We see, perhaps for the first time, what we have done to ourselves and others through automatic or incomplete thinking. Even when we get glimpses of our mental models, knowing how to act differently is not obvious (p. 240).

THE CASE FOR LEARNING AND TEACHING ABOUT REFLECTION

Reflection on my own experiences has convinced me that valuing reflection is one thing but being able to engage effectively in reflection is another. The latter requires an appreciation of what it would be worthwhile reflecting on and a rich repertoire of reflection skills. This view is echoed by Bright (1996) who observes that:

> "Reflective practice" entails a genuinely critical, questioning orientation, and a deep commitment to the discovery and analysis of positive and negative information concerning the quality and status of a professional's designed action . . . the main purpose of truly "reflective practice" is to assist the professional in the efficient identification of authentic and accurate information concerning all relevant aspects of her action. This must include assessing, amending or changing the possibly erroneous or inadequate information she used as a basis for the design of her action, in as

objective or disinterested manner as possible . . . In contrast, because inefficient reflection is "closed" and therefore limits the type and quality of information it will admit to the reflective process, it may be more prone to defend and justify the action rather than critically examine it" (pp. 165–166).

His emphasis, then, is on the quality of information that professionals attempt to make available to themselves through reflection when planning and evaluating action, and the attitudes and skills that will enable them to obtain the highest quality information. This is also the emphasis in my own related work which involves directly teaching colleagues about reflection and ways of reflecting. Working with colleagues to help them develop their teaching has made me aware that while most accept the case for being reflective, they are often unsure what they might reflect on, their repertoire of reflection skills tends to be relatively modest and they do not characteristically reflect on the nature and quality of their reflecting and reflections. This seems to confine them largely to looking hopefully for recipes (Haigh, 1996).

In the light of my own experiences and the critique of scholars such as Bright, I believe that advocates of reflective practice need to reflect on their assumptions about the capacity of people to reflect productively and powerfully on their own experiences. Sometimes those assumptions seem unreasonable, or are untested, and the idea of teaching specific reflection skills is not considered.

When I do begin to teach others about reflection and reflection skills, I do not assume that they accept the case for reflective practice. So, as a way of highlighting the significance of reflection, I often use the following simple technique. I ask them to tell me about a quality or skill that they know, for sure, they need to do their present job well and how they got to know that this quality or skill was required. Almost invariably, they identify something that they have learned from reflected-on experience rather than from such sources as books, schooling, courses or workshops. Their knowledge is personal and practical rather than public and general. Asking these questions often prompts stories about reflection-based learning that prove a powerful and persuasive way of revealing both the significance of reflection and effective ways of reflecting (Beattie, 1995; Gartner, Latham & Merritt, 1997). This sets the scene for further intensive work which focuses on both the what and the how of reflection.

TEACHING WHAT TO FOCUS REFLECTION ON

Understandably, reflection is most typically prompted when experiences do not fit those that were anticipated or planned and are, therefore, likely to be a source of surprise, disappointment or frustration. Schon (1983) proposes that these experiences that generate surprising, negative information are potentially the most instructive. However, I emphasise the value of reflecting on those that did fit and were a source of satisfaction or delight. Often, the relief, or pleasure, that comes from things going well seems to close off reflection. As a result, the individual may remain unaware of some of the

factors that accounted for that outcome and, in turn, find it difficult to reproduce them in the future. Francis (1997) notes his similar move from a focus on problematic and puzzling incidents to those that "are seen as ordinary and understood" because "it is here that we can best confront the values and beliefs that underpin our thinking, perception and action" (pp. 171-172).

I also draw their attention to features of thoughts and thinking that could be a focus for reflection. Often, I do this initially by helping them consider why explanations are such an important category of thought and why getting the right explanations is so significant. I prompt consideration of these issues by presenting a problem situation, asking for possible explanations and then tracing the likely implications of differing explanations. These implications may concern thoughts and feelings about oneself and others, expectations for how things could be in the future and subsequent goals and actions. As the different consequences associated with different explanations are revealed, the need for complete, accurate and honest explanations is highlighted. The issue then becomes one of how explanations fulfil these criteria. Other types of thinking can be similarly identified and associated implications for reflection made explicit.

Finally, I prompt colleagues to reflect beyond the immediate practice context of the classroom to contemplate a broader set of institutional, social, political, moral and ethical factors that may have an impact on their practice. In doing this, I am acknowledging the views of a number of scholars who have emphasised that reflection will be a limited, impoverished activity if such matters are neglected or avoided.

TEACHING HOW TO REFLECT

Here are some of the reflection skills that can be used either for self-reflection or to help someone else reflect. While reflection is often a solitary process, it can become much more productive when facilitated by a skilful and sensitive colleague. As Brookfield (1995), a strong advocate for this view, observes, "although critical reflection often begins with autobiographical analysis, its full realisation occurs only when others are involved" (p. 140).

Facilitative Questioning

Central to reflection is asking questions. When such questioning is facilitative, it prompts practitioners to go beyond their first thoughts and taken-for-granted ideas about situations, experiences and their own actions (or inaction), to critically examine underpinning beliefs, assumptions and values, and to generate and evaluate their own solutions to their own problems. My experiences, however, suggest that when people set out to help others reflect, they often adopt a "fix-it-up" questioning approach that steers the practitioner to the questioner's own point of view, for example:

> Isn't the problem . . . ?
> Isn't it more likely to be due to . . . ?
> Wouldn't it be better to . . . ?
> Don't you think you should . . . ?

Don't the benefits outweigh the negatives . . . ?
While this may be unintentional, it diminishes the value of reflection and reinforces the value of teaching specific reflection skills, including questioning.

Thinking Beyond First Thoughts and Taken-for-granted Ideas

I introduce several other techniques that can assist thinking beyond ideas that come to mind immediately but which may not be the only possibilities. Some of these techniques have been developed by de Bono (1992, 1994) who has identified forms of thinking that constrain expansive thinking. He cited arrogant certainty that one's ideas are correct or best; viewing incorrect ideas as, by definition, useless ideas; and assuming that once one correct idea emerges, there will be no benefit from thinking further. The techniques, which are intended to prompt more sustained thinking along new lines, include redefining the problem, challenging the dominant idea, asking for five reasons and shifting perspectives.

Redefining the problem: As Edwards (1998) observes, "too many people think they know *the* problem from the start, and often also think they know *the* solution. It is seldom that simple" (p. 3). The "redefine-the-problem" technique simply involves generating multiple definitions of the problem. A best definition may then be selected and possible solutions constructed for it. Alternatively, several definitions may be considered appropriate and solutions developed for each. A range of solutions may then be selected and implemented. For example, if there is a perceived problem to do with interest, is the problem uninterested students, uninteresting subject matter, an uninterested teacher, a teacher who does not know how to engender interest, or a teacher who does not know the significance of interest for learning success? Perhaps the real problem is unrelated to interest.

Challenging the dominant idea: Familiar ideas that immediately and effortlessly come to mind, and seem obvious, are often difficult to put to one side so that other ideas can emerge or be constructed. The "challenge-the-dominant-idea" technique involves recognising that an idea falls into this category and escaping from it by creating a distinctly different idea and exploring its implications. For example, a dominant conception of teaching may be that teaching is communicating ideas, a view that might be escaped from by proposing that teaching is painting, or trading, or acting, and so on. As alternative conceptions are explored, fundamental assumptions, beliefs and values in respect to teaching may be confronted and re-examined.

Asking five reasons or whys: This can be a very powerful technique (Ross, 1994) for prompting thinking about what causes problems. While there are several variants of the technique, in essence it involves first asking why a problematic situation exists. Once no further explanations are forthcoming to this initial query, why is asked again of each explanation. Up to five iterations of this process are completed. As the process continues there tends to be a convergence around a few systemic sources such as a widely-held view, a

policy, or a long-standing uncontested practice. Such root causes need to be addressed if there is to be an enduring, sound, solution to the problem.

Shifting perspectives: Sometimes initial thoughts dominate because no effort is made to go outside a personal point of view; to go from an egocentric to a sociocentric perspective. This is often evident when change is being confronted and the preoccupation is with the personal implications of change. The following technique has been used in workshops on managing response to change. It aims to prompt consideration of the thoughts and feelings that others might have and the way ideas that have originated in one person's mind might disseminate through a group of people. Participants are asked to stand in the shoes of those who support change and to try to identify both the experiences and thoughts that may account for their stance. Then they are asked to consider the experiences and points of view of those who are opposed to change. Personal positions are not declared. This process exposes different perspectives and the possible grounds for them. While the outcome may well be a reinforcement of an existing stance, often it is a moderated or changed position.

Identifying Unknowns and Uncertainties

Reflection tends, in the first instance, to be directed to assumed knowns about an experience, what it means, what explains it, and what it portends. Uncertainties and unknowns are often given little systematic attention. Discomfort or embarrassment about not knowing, or lack of appreciation of the significance of thinking about unknowns, may account for this. A simple questioning strategy for considering this domain of knowledge is:
> What is uncertain or not known?
> Could uncertainties and unknowns become knowns?
> If yes, how?
> If no, what are the implications of putting plans on hold, or developing contingency plans?

There is a body of scholarship associated with ignorance that provides helpful frameworks and tools for reflection on this terrain of knowledge (Edwards, 1990; Stocking, 1992).

Analysing Explanations

Explanations for the past have implications for the future. These implications become apparent when certain features of explanations are noted. Questions like, is this something to do with me? Is this something I can control? are important. Expectations need to be considered. Could this happen again and will I be able to control whether it does? Plans raise questions of how to stop something re-occurring. To help ensure sound explanations and plans, explanations can be analysed systematically using a framework provided by attribution theory (Weiner, 1986). This framework distinguishes several features of explanations: locus which is internal or external to the person's stability which is always or sometimes present; control which is whether

control can be exercised; and influence which can be exerted. This analysis provides a basis for deciding whether something is likely to re-occur and whether it would be possible to shape future circumstances by controlling or attempting to influence particular factors.

Thinking About Unproductive Thinking

Unproductive thinking takes many forms. Two forms that I teach others about, and help them look out for, are inference leaps and biased explanations.

Inference leaps: Argyris (1991, 1993) describes a ladder of inference that can be used to trace the typical succession of observations and thoughts that give rise to, and explain an action. The steps on the way to action may include observing something (He said, When are you retiring?), selecting data and adding meaning to observations (It is the second time he has asked. This is not a disinterested query), making assumptions based on these meanings and drawing conclusions (He wants my job) and then adopting beliefs about the world based on these assumptions (People are always going to be plotting a takeover). These beliefs are the basis for action (I will arrange his transfer to another team). Argyris believes that people often act unwisely because they never consciously monitor and examine the inference leaps that they make as they move up these steps. Again, questions are the best tool for examining the ladder of inference and for revealing flawed reasoning. Some are, What lead you to that assumption? Did you consider any other data? What did you decide that meant? Could it be interpreted differently? Where did your reasoning go next? What is the assumption here?

Biased explanations: Research on explanations confirms that most people, for a variety of motives, bias their explanations on occasions. Three forms of bias are self-defensive explanations, helplessness-justifying and ego-enhancing explanations. When things go wrong, the ego is protected if the causes are considered external ("It was not anything to do with me."). It can also be protected by the assertion that it is not possible to control or influence the factors that account for particular circumstances ("I cannot change anything. There is nothing I can do. I am helpless."). When things go well, the ego is enhanced if the causes are perceived as internal ("It was something I did."). Use of the five whys and explanation analysis processes can help reveal such forms of bias.

CONCLUSION

In this paper, I have proposed that three pre-requisites for effective reflective practice are belief in the value of reflection, knowledge of what would be a worthwhile focus for reflection and a rich repertoire of reflection skills. I have also recommended that advocates of reflective practice should review their assumptions about the extent to which they, and others, possess these pre-requisites. It may well prove necessary for further learning and teaching about these aspects of reflection if the potential benefits are to be realised. Specific

examples of skills that can be taught have been presented. Once these fundamental skills for effective reflective practice exist, consideration should also be given to other conditions that can constrain reflection. When conditions are favourable, reflection can become the occasion and the process for learning that transforms lives.

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