Teaching critical reflection in healthcare professional education

Elizabeth Morrow (née Smith)
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Submitted: August 2009

Abstract
Despite widespread and long-standing commitment to the notion of critical reflection across the healthcare professions, it is unusual for the theory and practice of critical reflection to be taught as a subject in Higher Education. There is good evidence to show that reflective techniques such as critical portfolios and reflective diaries can help students to consolidate and assess their learning of a discipline and its associated practices. Yet, there are also known drawbacks of such techniques, including students becoming overly self-critical and the infinite regress of reflection on action.

This paper offers a theoretically informed model of critical reflection which encompasses different purposes (thinking, learning and assessment of self and social systems), together with different forms and domains of reflection (personal, interpersonal, contextual and critical). Explicitly teaching this model helps students to find ways to understand complex professional issues for themselves. At the same time teaching critical reflection creates new challenges for curricula design, assessment and teacher professional development.

Introduction
The ability to be a critical reflector is held as important across a wide range of healthcare professions including medicine, nursing and the allied health professions (Brookfield, 1987; Boud et al., 1995; Johns, 2004). Critical reflection can support professional development through assessment of decisions and actions and it can lead to improvements in service delivery and patient experiences of care (Brookfield, 1987; Mezirow, 1994). The teaching of critical reflective skills in Higher Education (HE) offers a way for practitioners to gain insight into their own professionalism (Schön, 1991; Larrivere, 2000) and the knowledge and power of the disciplines they align themselves with (Giddens, 1976; Habermas, 1978; Foucault, 1982).

Despite widespread and long-standing commitment to the notion of critical reflection across the health professions, it can be difficult to assimilate into teaching because the language is complex and the debates extend to literatures on critical thinking (Kemmis, 1995), critical analysis (Brookfield, 1987; Boud et al., 1995) reflective practice (Schön, 1996; Johns, 2004) and reflexivity in research (Holland, 1999; Maathun and Doucet, 2003). What is striking is that little is known about the difficulties, practicabilities and methods of critical reflection (Finlay and Gough, 2003; Hsiung, 2008) or the issues of teaching critical reflection in academic contexts (Brockbank and McGill, 1998; Larrivere, 2008). Critical reflection has been described as an extended and abstract outcome of learning (Biggs, 2003), which implies that students will absorb such knowledge and skills during their higher education experiences. While this could be true, it could also mean that students could learn more effectively if teachers specifically explained general purposes and approaches to critical reflection alongside delivering the curricula.

This paper draws together multiple interpretations and uses of critical reflection from the broad fields of education, research methods and professional development to develop a more defined language and theory base. The ideas put forward here are informed by my teaching of research critique and reflectivity to students of medicine, nursing and other health related disciplines on postgraduate research methods courses in the United Kingdom.

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Purposes of critical reflection

What it means to critically reflect has been extensively debated by a number of philosophers, social theorists, researchers, educators and therapists. It is a notion that has been associated with a range of outcomes including improved thinking, learning and assessment of self and social systems. I will briefly describe these purposes here with a view to their application to professional healthcare education.

In relation to thinking, Dewey (1933) describes critical reflection as problem solving or investigation brought about by a moment of doubt. Critical reflection could be thought of as a process of “thinking about the conditions for what one is doing and the effects” (Stein, 1991, p.2). Critical reflection is perceived to be of value for surfacing the influences on, and effects of, thinking and behavior (Birch and Miller, 2000). In psychology, Mezirow (1981) suggests reflection can be a point of access and assessment to preconceptions. Critical reflection is also held as a way of examining our own subjective thoughts about who we are, our identities, beliefs and so on (Wilson, 2002). Self-reflection is not only associated with understanding self, it is perceived as being central to the therapeutic action of psychoanalysis (Lewis, 2000).

A corresponding social theory perspective of critical reflection is that it allows us to examine the uniqueness of our individual ‘positionality’ within social systems (Foucault, 1982; Giddens, 1976). This could mean looking at how we align ourselves with particular identities (mother, father, doctor, nurse, patient etc.) or how these identities encourage us to act in certain ways. The broader, yet related, sociological notion of ‘reflective knowing’ is a conception of critical reflection as the thinking that can occur beyond established and accepted social processes. For example, reflective knowing reflects on established professional stereotypes or practices to ask why professional groups have acquired particular ways of being. According to the social theorist Jürgen Habermas:

“Critical reflective knowing is neither behavioural nor technical, not truth establishing nor captured by a discipline. It critiques all other forms of knowledge, and in so doing, it moves beyond merely reproducing what is” (Habermas, 1978 p. 42)

In the context of education, critical thinking has been perceived as a way of improving professional practice rather than simply recreating professional knowledge (Barnett, 1994). Kolb’s (1984) well-known model of the learning process posits reflection as a step-wise process within a cycle of learning which also includes planning, action and evaluation. In this particular model, reflection is perceived as being part of learning rather than outside or independent of it. Kolb’s conception serves to extend learning beyond reproducing received knowledge. However, because this conception positions reflection within learning, it could mean that student reflection is limited to personal actions, rather than a more holistic critique of reflection on learning, teaching or reflectivity itself (Blandley, 1999).

Other educational theorists have suggested that it is possible to learn to become more critically reflective; or to get better at reflecting. According to Taylor (1987) the transformation to self-direction progresses through four major stages: disorientation, exploration, reorientation and equilibrium. Larrivee (2000) conceptualizes reflective practice in teaching as including four hierarchical levels of reflection: pre-reflection, surface reflection, pedagogical reflection and critical reflection. Key elements which distinguish levels are the ability to systematically consider how personal and situational factors come to bear on interactions with students, and how student’s personal and situational factors influence learning. A limitation of these conceptualizations is that they imply a sequential set of reflective acts can be followed to reach a perceived end-goal of reflective competence.

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In healthcare education critical reflection has been advocated as a way of students undertaking self-assessment of performance. Critical reflection features strongly in professional development and adult education literature (for example, Brookfield, 1987; Mezirow, 1981) where the approach is to encourage individuals to take a critical attitude to their own work and to position themselves in relation to the ideas and practices they encounter (Leach et al., 2000). Schön (1996) describes critical reflection as an “act of professional artistry” (p.12) that can involve reflection-on-action (after the event) and reflection-in-action (at the time of the event). These perspectives correspond with the notions that critical reflection can support professional competency and professional development. As such, a self-critical form of reflection can be used to gain insights and assess one’s own thoughts and behaviours (discussed later in this paper).

In some health and social science research traditions critical reflection has been approached as a way of assessing and overcoming biases in knowledge construction. A positivist view would be that only by becoming aware of our personal biases can we can aspire to be objective (Gadamer, 1989; Denzin and Lincoln, 2005). Traditionally in phenomenology the notion of ‘bracketing’ aims to put one’s pre-judgments or assumptions aside (Paley, 2005; Wall et al., 2004). Similarly, in Grounded Theory critical reflection is put into practice through writing memos about the types of data collected or emergent themes of the analysis (Cutliffe, 2003).

In constructivist research traditions, the issue of bias is perceived in a different way. In such traditions the view is that knowledge is always socially constructed and therefore contingent because it is linked to the people and social contexts within which it was created (Merton, 1942; Foucault, 2006; Huising, 2008).

Through reflexivity, critical reflection becomes part of a process of examination of the interrelationship between self and knowledge creation (Alveson and Sköldberg, 2000). In this context critical reflection is:

“a critical and rigorous process which pays systematic attention to personal, interpersonal, and contextual factors influencing what is said and done, or not said and not done through the research” (Smith, 2008)

The practice of reflexivity concerns issues of why knowledge is created and who can make claim to being knowledgeable (Powell, 1995; Heron, 1995; Burawoy, 1998). From a critical theorist research approach, critical reflection is essential for examining how knowledge creation is directed towards political or ethical goals. While in feminist and emancipatory research traditions, reflection is approached as a way of learning about one’s own life and gaining insight into how to improve one’s own situation (Doelinger, 2006).

Although these purposes may seem diverse, collectively they offer teachers and students a framework for understanding why they choose to critically reflect, what they chose to reflect on, and the techniques they chose to make use of.

Reflective techniques in healthcare education

In HE students studying clinically-based courses, such as nursing and medicine are likely to encounter critical reflection in the form of completing professional development portfolios or Continuous Professional Development (DH, 1999). It is not a currently a requirement of pharmacy courses to teach critical reflection or CPD. The subject of reflexivity (the interrelationship between self and knowledge creation) is most likely to be taught as part of research methods courses (Finlay and Gough, 2003) which postgraduate healthcare students may or may not attend courses on. For example, the Economic and Social Research Council include reflexivity as part of an optional research seminar programme for doctoral students (ESRC, 2008).

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There is evidence to show that reflective techniques, such as those summarized in Table 1, can help students to consolidate and reflect on their learning of a discipline and its associated practices (Plummer, 2001). As a minimum, this could involve reflecting on the experience of a lesson by completing a student evaluation form. More structured types of reflection such as Critical Incident Technique (Flanagan, 1954) and critical portfolios encourage students to think about the circumstances and impact of personal behaviours in the context of particular events (Brockbank and McGill, 1998). Students may also undertake interactive reflective work as part of experience-based learning, such as in Problem-based Learning (Pyrenius et al., 2007) and service user involvement in teaching (Felton and Stickley, 2004). There is no space here to examine the specifics of these techniques but it is important to state that little is known about the extent or quality of teaching of critical reflection in healthcare professional HE nationally.

One commonly reported drawback of using reflective techniques is that individuals can slide into self-conscious cynicism, isolated thinking and self-absorption (Boud and Walker, 1998; Weick, 1999; Alvesson and Sköldberg, 2000; Lewis, 2000; Finlay, 2002). In educational contexts this could mean students who are reflecting on their own work become inward looking and allow self-inspection to dominate the work itself (Schön, 1996). Baker (1990) argues that excessive rhetorical awareness can become “a house of mirrors” which can isolate individuals from the rest of the world or lead to disengagement in a process which students are not interested in.

A further issue is the potentially negative self-regulatory function of reflection. Clegg (1999) suggests that at an extreme, self-reflection can become the internalization of political project and adherence to a way of being without conscious scrutiny. In my own teaching I have observed that students tend to be critical of their own performance rather than adopting a balanced critical perspective of their judgements and actions within the social contexts they inhabit (corresponding with observations made by Johnson & Cassell, 2001). This can be problematic because negative feelings about one’s performance can form major barriers towards learning, distort perceptions and undermine the will to persist (Boud et al., 1995). As a critical reflector myself I have learnt that it is possible to overcome the potential paralysis of self-inspection and reflection on personal actions (Schön, 1991) by applying a broader understanding of the alternate forms and domains of critical reflection.
Forms and domains of critical reflection

Although there is a need to better define critical reflection, it should not be considered a fixed entity. Being a critical reflector involves ‘de-centring’ oneself (Bolam et al., 2003), stepping back from one’s own practices and “visualizing oneself over time and place” (Stronach et al., 2007, p.180). By teaching that critical reflection can take different forms and involve different domains, students may find it is easier to make use of reflective techniques and to explain how they have made use of reflectivity. Drawing from the literature it is possible to suggest four forms and domains of critical reflection (Box 1.).

A broader framework for critical reflection, (presented as a model in figure 1) may help to moderate self-criticism and self-regulatory aspects of reflectivity (Bleakley, 1999). My experience of sharing this model with students is that it helps them to put their decisions and actions into perspective and assess favoured lines of knowledge and practice. It helps students to understand that:

- Personal beliefs, relationships, concepts, language, methods, culture and politics permeate all professional activity; and that critically reflecting on these, and other influences is part of critical reflection.

- A person’s view of a subject or practice depends on their position, not only in a spatial sense (where they live, work, the communities they are part of) but also in more general terms (cultural values and what is normal to them) and in a metaphoric sense (their outlook on life).

How a person chooses to critically reflect, and what they critically reflect on, changes over time and is influenced by external influencing factors.

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Box 1: Forms and domains of critical reflection

**Personal Thoughts and actions**

Personal reflection could involve recording one’s own perceptions, judgements, reactions and behaviours in relation to an issue or practice ((Mezirow, 1994; Finlay, 2002). Personal reflection has been described as self-inspection (Colbourne and Sque, 2004), personal reflexivity (Brookfield, 1993), self-awareness (Giddens, 1976), and the ability to represent oneself to oneself (Wolfe, 2003). According to Larrivee (2000) personal reflectivity can be thought of as a set of ‘filters’ such as past experience, feelings and mood, agendas and aspirations, that are brought to bear on any situation and influence resultant responses.

**Interpersonal Interactions with others**

Interpersonal reflection means paying attention to the relationships that are central to the history and undertaking of a particular activity (Hardy, Phillips and Clegg, 2001). Examining interpersonal interactions, such as teacher-student or patient-doctor, can help to reveal the established norms surrounding a given practice. For example, the expectation or impact of duty of care or consent processes. A further dimension of interpersonal reflectivity is the group dynamics and team working that influence decision-making in any given context.

**Contextual Concepts, theory and methods**

Contextual reflection could include examining how established concepts, theories and methods inform and influence practice (Schön, 1996; Johns, 2004). Put another way, contextual reflection involves questioning the knowledge structures we operate within (Gadamer, 1989). It leads to the question, how might things have been done differently if an alternative frame of reference (Weick, 1999) or way of thinking had been used? Examples could be how the use of different concepts of care influence different approaches to healthcare practice or how notions of scientific knowledge influence what can be thought of as evidence for practice.

**Critical Political, ethical and social contexts**

Critical reflection examines the limitations placed around thinking or practice by bringing issues of power into focus (Riley et al., 2003). Critical reflection involves making explicit any ethical, political or social issues encountered and the impact this may have had on the people involved, or those not involved (Mauthner and Doucet, 2003). Critical reflection involves asking what questions, issues or ways of thinking have been privileged by whom and for what reasons?
Critical reflection and the Academy

Teaching critical reflection adds a further dimension to the supercomplexity (Barnett, 2000) of learning and teaching in HE. To be theoretically consistent with the broader perspective of critical reflection described here, pedagogy would aim to guide students to think and "find voice" (Hertz, 1997 p.3), rather than aiming to reproduce a particular set of facts or techniques in a student's mind. It would aim to provide space to explore thinking and the framing assumptions we employ to make judgements about the world (Woolgar, 1988). Teaching critical reflection can be at odds with traditional academic practices (Boud and Walker, 1998) particularly so in the sciences, which focus on teaching operational and academic forms of knowledge (Barnett, 1994). Encouraging students to reflect on 'what I think' or 'how I learn and think' does not fit well with outcome-based assessment in HE (Ecclestone, 1999). The demands of healthcare education are such that the need to ensure students achieve task-based competencies, tend to direct teaching and learning towards that which can be observed and measured (Getz et al., 2008).
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At the same time critical reflection offers some promising solutions to existing challenges in HE. For example, reflection supports the well-established argument that learning should include both the assimilation of subject knowledge and the confidence to question and adapt that knowledge (Barnett, 1994). It also supports the idea that new practitioners are empowered to question, and potentially improve upon, what they are doing or why they are doing it (Clegg, 1999). Critical reflection encourages both teachers and learners to reflect upon what understanding is and how it can be achieved.

“epistemological pandemonium...an openness and even ruthlessness in the domain of knowing and understanding” (Barnett, 2000)

It is therefore important that future work examines whether there is sufficient space for critical reflection within healthcare HE curricula and whether defining learning outcomes for critical reflection is productive (Hussey and Smith, 2002). Clearly some teaching strategies and techniques are more consistent with the ethos of critical reflection than others. For example, a didactic approach allows little space for reflection within the teaching environment, or flexibility for students to explore their own thoughts on a topic or to develop reflective skills. I have found that it can be helpful to employ teaching techniques such as role play or patient stories (Roth and Tobin, 2002) to encourage students to perceive alternative ways of thinking and knowledges.

Assessing and monitoring critical reflection in learning

Explicitly teaching healthcare students about theories and techniques of critical reflection could lead to the question of how to appraise an individual’s knowledge, understanding, abilities or skills of it (HEA, 2006). Whilst critical reflection is a well-established concept in professional development, particularly in nursing where reflection underpins a more client-centred and holistic view of practice (Schön, 1991), assessment tends to be formative rather than summative. In the wider context of HE, focus on measured attainment means that the design and development of mechanisms to monitor and assess critical reflection have not been a priority (Hodkinson and Hodkinson, 2001).

It is well-known that in HE designing a “feedback loop” into assessment tasks can enable students to apply formative feedback (from staff or peers) to improve their performance in subsequent assessments (HEA, 2006). Figure 2 shows a simple reflective tool that I use at the end of sessions to encourage students (and myself) to reflect in a structured way. Building in reflective tools like this one, also offers useful development opportunities for assessment practice, including exploring student perceptions of the importance and meaning of intended learning outcomes and stimulating self-directed learning (as in figure 2: Actions/next steps).

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Assessment of critical reflection is complicated because of defining what it is and whether it has been understood or applied (Larrivee, 2008). There is also a more fundamental tension associated with attempting to set standards for critical reflection; “To impose a unitary view of near-objectivity on the assessment process is to require the learner to conform to the reality of the assessor” (Leach et al., 2001). One possible alternative is self-assessment, which is thought to empower students by activating them to influence events (Leach et al., 2001). It may be possible to encourage students to reflect on their autonomy, self-direction, critical reflection and transformation – including critiquing knowledge/power formations (Morley, 2003), but learners will vary in their desire and confidence to make judgments about their own work (Leach et al., 2001). The danger is that the range of available reflective techniques, domains and forms of critical reflection combined with a self-driven and self-specific form of assessment risks a relativistic position where what has been done or achieved is purely subjective (Morley, 2004). If achievements towards being reflective are to be monitored and assessed there needs to be some basis for comparison or markers of quality (Ramsden, 1992). This is not to say that students may benefit from being engaged in self-assessed reflective processes that are not part of their formal assessment.

With these issues in mind, it is possible to extrapolate key indicators from the literature with which critical reflection could be observed and monitored (Figure 3). There is no space here to examine or explain these indicators in depth. However, there are two important questions that should be noted: how teachers should account for variation in student’s preconceived ideas about critical reflection; and, the degree and scope of reflection that is appropriate for students to engage in at different levels of learning.

Figure 2: Reflective summary

<table>
<thead>
<tr>
<th>Critical Reflections</th>
<th>Issue</th>
<th>Ideas/thoughts</th>
<th>Actions/next-steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal:</td>
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<td>Interpersonal:</td>
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Figure 3: Indicators of critical reflection

<table>
<thead>
<tr>
<th>Domain 1: Self-critical (reflecting on your own thoughts and actions)</th>
<th>Domain 2: Interpersonal (reflecting on interactions with others)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Key considerations could include:</strong></td>
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</tr>
<tr>
<td>• Why are you interested in a particular issue or topic?</td>
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<tr>
<td>• What questions seem important to you?</td>
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</tr>
<tr>
<td>• What informs your views?</td>
<td>• What informs your views?</td>
</tr>
<tr>
<td>• What aspects of your background are you drawing on?</td>
<td>• What aspects of your background are you drawing on?</td>
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<tr>
<td>• What personal experience do you have?</td>
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<table>
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<tr>
<th>Domain 3: Contextual (reflecting on concepts, theories or methods used)</th>
</tr>
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<tr>
<td><strong>Key considerations could include:</strong></td>
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<tr>
<td>• What insights were generated, or do you hope to generate, by using a particular approach?</td>
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**Teacher critical reflection**

Given that theories and techniques of critical reflection can help to structure student learning, they could also help improve teaching practices. Teachers may also pass through phases of critical reflection (such as those identified by Taylor, 1987, and Larivière, 2008) and may also encounter problems with degree of predictability. Schön (1991) identifies four main practical issues for teachers: finding time to reflect, fear of surfacing unmanageable complexity, infinite regress of reflection on action, and the apparent incompatibility of reflection with action; as well as political issues such as the potential to be seen as a danger to the stable system of rules and procedures within which teachers are expected to deliver their technical expertise (Freire, 1985).

Creating spaces to deconstruct conceptual clouds with students is far more intellectually demanding than teaching the facts. Critical reflection ‘permits’ students to question the role of teacher and the ideas they present– which can be felt as criticism and be demoralizing for teachers. On the other hand perceiving identities as being more fluid and negotiable may help to improve student learning by circumventing established dichotomies of teacher/student. Accordingly, Schön (1991) suggest a reflective stance that teachers may adopt to support critical reflection: including being explicit about presumed expert-knowledge and a desire to connect with student thoughts and feelings about the topic at hand. In my experience making these views clear to students helps to bridge differentials in knowledge and power by helping to identify occasions where students can take more control of their learning.

**Conclusions**

Teaching critical reflection marks a new chapter in Higher Education. It opens a revolving door between the belief that objective knowledge exists or can be taught; and to the uncertainties of knowledge and the need to address personal and social influences on professional practices. Drawing attention to the different purposes of critical reflection may help to achieve more collaborative and constructive approaches to thinking, learning and assessment. A wide range of reflective techniques are already available and have been taken? What different insights may be/have been made if a different approach or perspective had been taken?

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been used in a range of professional development and educational contexts.

Learning about theories and techniques of critical reflection is a logical step towards students being able to recognise and negotiate complex ethical and professional issues for themselves. The domains and indicators of critical reflection that I have identified here can help students to be constructive in their criticism and pay attention to personal and social influences on their practice that might otherwise be overlooked.

Approaches and techniques of critical reflection can be taught but students should also be made aware that the distinctly personal component of self-critical reflection is crafted at ones own pace and to ones own taste.

Essentially, teaching critical reflection in HE requires creating conditions for intellectual challenge – which is a challenge. Although I have offered a broad and balanced framework for critical reflection here, and a way of perceiving the strengths and limitations of the social and cultural contexts that we learn within, teaching critical reflection creates new challenges for curricula design, assessment and professional development. Teaching new generations of critical reflectors will help to assure that the revolving door between knowledge and uncertainty always remains open.

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