TITLE PAGE

Title of article:

Reflection - moving from a mandatory ritual to meaningful professional development

Author details:

Deborah Murdoch-Eaton, John Sandars.

Leeds Institute of Medical Education, School of Medicine, University of Leeds, Leeds UK LS2 9NS

d.g.murdoch-eaton@leeds.ac.uk

+44 113 343 4377

(No fax number in our department)

Key words:

Reflection, professional development,

Word Count: 2854

Abstract

Reflection has become established as a key principle underpinning maintenance of standards within professional education and practice. A requirement to evidence reflection within performance review is intended to develop a transformative approach to practice, identify developmental goals and ultimately improve health care. However some applications have taken an excessively instrumental approach to the evidencing of reflection, and whilst they have provided useful templates or framing devices for recording individualistic reflective practice, they potentially have distorted the original intentions. This article revisits the educational theory underpinning the importance of reflection for enhancing performance, and considers how to enhance its value within current paediatric practice.

Introduction

Reflection is considered one of the key principles and values underpinning maintenance of Good Medical Practice (1). Reflection is defined as "*a metacognitive (thinking about thinking) process that creates greater understanding of both the self and the situation so that future actions can be informed by this understanding*" (2) . The General Medical Council revalidation procedures require all UK paediatricians to have used reflection as part of their evidence of professional development and all trainees are also expected to use reflection in the completion of their portfolio (3,4). Despite this emphasis on reflection within medical education and professional development, there is little discussion around the principles and policies that underpin these approaches in clinical practice as to what is reflection, how to effectively use reflection for professional development, or even the evidence for its impact. The appearance of complying with requirements to "reflect" becomes more important that the intended educational purpose . Reflection in professional practice is a way of thinking about productive work, not a strategy or technique (5).

The importance of reflection for professional development

Reflection is an essential aspect of all of our lives. We have an experience, we think about why we reacted in a certain way and we then consider whether we need to take action and alter our response to similar experiences in the future. The human species has continued to survive across the millennia by effectively using this process. The obvious inference is that reflection could not only improve professional development but also ensure that there is an impact on patient care through improved judgement (6).

The importance of this apparently innate process of reflection for the development of professional expertise has been the focus of many educational theorists (table 1).   Donald Schon described how repeated exposure to a wide range of different experiences becomes progressively internalised so that intuitive responses can be quickly made when faced with the complex problems that are typical of professional practice (7). Schon proposed that reflection –on – action informed reflection-in – action. In other words, a deliberate process of thinking about a typical complex experience after the event has the potential to improve intuitive professional decision making.

John Dewey, a widely acknowledged educationalist, considered that reflection was a meaning-making process that could move superficial learning to deeper learning (8). He emphasised the importance of reflection as a "*conscious, active and deliberate*" thinking process that requires the relationships between present and previous experiences to be linked together. An essential aspect is that recurrent patterns of thinking can be identified, challenged and, if required, also modified. Thinking is influenced by a variety of personal beliefs and values that need to be made explicit so that they can be challenged. The stimulus for this thinking and reflection is particularly pertinent when there is uncertainty on the "best" course of action; for example, the clinician may be faced with an acutely wheezy child and feels uncertain about whether they should prescribe an antibiotic or not.

The work of Dewey has been expanded with the notion of "critical" reflection for professional development. Jack Mezirow, another educationalist, highlights the need to challenge the way that "taken for granted" assumptions can constrain the way that we perceive and understand our lives (9). It is only by reflection and questioning these assumptions that "transformative" learning can occur, with a change in perspective that produces a change in practice. Following on from the clinical presentation above, the clinician may reflect on their uncertainty associated with prescribing an antibiotic, and begin to realise that they are potentially being influenced by a previous experience, rather than following the "evidence-based" guideline. Chris Argyris, from the world of management science, and Donald Schon graphically summarised critical reflection as "single loop" and "double loop" learning, drawing on the analogy of a central heating thermostat (10). Single loop learning merely considers whether we are doing things right, such as making slight adjustments to the heat source to maintain a constant temperature, whereas double loop learning has a focus on the much more important deeper reflection on whether the right things are being done, such as why a particular room temperature has been chosen. In our wheezy child example, double loop learning and reflection would promote considering how the guidelines have been developed, and the influence of bias in conducting (or interpreting) the studies that informed these guidelines.

Effective reflection has the potential to change practice, through transforming research or evidence into action, and address the knowledge gap between "knowing" and "doing". This has been alternatively articulated as a "*Model of Generative Change*" striving to generate insight to facilitate change (11). Four stages of "Generativity" are described; reflection, introspection, critique and personal voice. Ball articulates that a conceptualisation of these stages allows individuals to engage with constructive reflection at different levels of development, based on one's individuality, commitment, own level of advocacy and level of current knowledge. This model intends that personal development is measured against progress, and utilisation of these four phases ensures

4

potential for change by increased performance, underpinned by a need to reflectively challenge assumptions to promote awareness, both at the cognitive level and also at the personal level (Table 2).

We consider that reflection is at the heart of professional practice and also professional development. However to achieve the potential of reflection for change in practice, it is essential that reflection has a prompt – a *"disorientating dilemma"* or a time of uncertainty in what should be done – that leads to exploration with a critical perspective, challenging underlying assumptions, beliefs, motives and values (9, 12). Practice is necessarily contextualised, and does not exist outside of a particular setting, within a cohort of professionals, a community of activity or a set of social and professional engagements. This raises questions about expectations and potential impact of solitary and individual reflection.

Current approaches to reflection for professional development –" rituals"?

There is currently great emphasis on ensuring that doctors can demonstrate that they are engaging in the process of reflection on professional practice. Doctors are expected to write about how they have identified a prompt for reflection, a so-called "learning need", from their usual encounters with a wide variety of patients and healthcare professionals. The type of identified learning need is not clearly specified, but could range from a simple lack of knowledge of a drug dose to making complex decisions about end-of-life care. This learning need is then subject to written reflection, with an expectation that the doctor will reveal their thoughts and values, as well as making suggestions as to how their personal initial learning need has been met. The purpose and approach to reflection may not be clearly stated, merely that it is expected of a "good doctor" and there is an intention that it will improve patient care. A permanent record of the process of reflection is required as evidence

that reflection has occurred. This record is then shown to an appraiser or trainer. These activities may or may not be effective in promoting reflection, but they have potential to turn reflection into a procedure contrary to the necessary individualistic approach and intended transformative notion of reflection (5, 13) .

Our anecdotal experience is that many doctors consider the above process as ritualistic and not having a tangible benefit on either professional development or improving patient care. A study in medical students also indicates similar lacklustre perceptions of the value of reflection for changing practice(14). A simplistic view of reflection, such as the lack of knowledge about a drug dose, is hardly challenging and leading to transformative learning and professional development. The more challenging prompt of, for example, caring for a dying patient reflects the complexity of professional practice, especially when underlying assumptions, values and motives are considered. However, identifying a prompt for reflection in such circumstances requires insight and awareness.   The process of reflection also requires thinking and developing meaning from the experience. As highlighted in the previous section, this is a highly personal process and disentangling the complexity of the various factors is challenging to both the personal and professional identity of the doctor. The doctor may be upset and this can lead to self-protective approaches, including hindsight bias, with inaccurate remembering of thoughts and feelings, but also to selective attention to aspects that may not be perceived as being relevant, especially if these aspects are highly personal. Finally, there is an expectation that this emotive reflection is made public through written or verbal articulation. This presentation will be influenced by how the individual wishes to portray themselves to others, both as a person and a professional. Figure 1 illustrates how this might work in professional practice.

A recent systematic review of reflection in health profession education highlighted the lack of convincing evidence that reflection enhanced competence through a change in clinical practice or improved patient care (15) . However, there was evidence that reflection was associated with a deeper approach to learning that allowed new learning to be integrated with existing knowledge and

skills. An important identified outcome was that diagnostic reasoning of complex and unusual cases could be improved by reflection. It is uncertain why reflection does not achieve its intended impact on healthcare but it is tempting to suggest that current practice results in little depth to the reflection, with avoidance of the challenge of the essential critical aspects, such as that which produces double loop learning. This may relate to a lack of intended action for the reflection and use of measures of reflection that mainly concentrate on self-report change in practice, or levels of reflection (2, 16). This view is additionally supported by extensive research into the determinants of effective organisational learning to produce organisation change (17).

Meaningful professional development from reflection?

We believe that reflection is an essential aspect of professional development and that it has the potential to achieve meaningful professional development that can improve patient care (6) . However, we also consider that these intended outcomes will only be achieved if there is careful attention to the process of reflection. The main components must relate to challenging practitioners in a supportive environment, recognising that effective reflection for transformative change, which will ultimately enhance clinical practice, requires personal and / or group motivation for reflection, the development of personal metacognitive "thinking about thinking" skills (including noticing, processing and action planning) (13,18) , the opportunity to have trained facilitation and a wider organisational system that recognises and supports these components (19,20, 21) .

Motivation for critical reflection requires an appreciation of its importance in professional development and also that different learners will have a variety of preferred approaches. Appreciating the importance of reflection is often a slow and prolonged personal and professional

journey. It is not simply related to single events but is an on-going and cyclical process of inquiry in which a personal and professional life-story can evolve through using insights gained from reflection about one experience informing subsequent experiences. Research with undergraduate students has highlighted the dislike of the use of written reflection but offering alternative approaches, such as the use of digital multi-media storytelling, has improved both the engagement and depth of reflection (22) . It seems likely that offering a wider use of different approaches to reflection may increase motivation in professional development. Provision of different stimuli , potentially as a choice of templates or questions to promote thinking, will appeal more to the variety of learner and facilitator preferences, and are more likely to promote enhanced engagement with transformative reflective practice. Two examples are given in tables 4 and 5 (23, 24) and many more are available through professional and educational resource repositories .

Reflection is a natural process, but like most processes, needs personal development of skills including recognition of a prompt that stimulates reflection. This prompt is likely to be at moments of uncertainty, especially when there is an associated feeling, such as frustration or anger (figure 1) . Awareness of emotions can be developed internally through mindfulness training and externally through feedback from others on observed behaviours (25) . Processing the information for reflection is essential for making meaning from experiences and, as highlighted above, this is likely to be developmental over time, especially for critical reflection. We have often found that making explicit the actions to be taken following thinking about the experience is rarely stated yet the value of reflection is the generation of new insights to inform practice.

The individualistic nature of the current personal practice reflection may also be criticised in a world of team working and cross professional collaboration. Reflection should be relocated in the many different contexts of practice (5). Identifying and addressing common concerns needs a different model of reflection. This may develop through critical incident review, for example mortality and morbidity meetings or team debriefs, but pose significant organisational and cultural challenges

from the recording of the process through to the safety of the participants. Key features of this so called "*productive reflection*" in professional practice illustrate this shift from individual reflective practice to embedding within a complex workplace (26) (Table 3). If organisations, and groups working within them, were able to predict with certainty where they were going, then productive reflection would not be needed!   Productive reflection approach is intended to consider matters that do not have ready solutions , are not clearly formulated and as such cannot be rigidly predicted or controlled, or even managed as a routine procedures. It embodies a number of features of awareness including contextualisation of practice, trans- and inter-disciplinary working, emotional engagement, and co-production within the challenges of power imbalances.

Dialectic reasoning is a key skill within clinical practice through which individuals and groups attempt to arrive at a conclusion by the exchange of logical arguments. In this way, one challenges practice and when utilised for reflection can effectively identify influences and challenge assumptions (Figure 1) . The work of Schon (7), Dewey (8) , and Brookfield (12) particularly highlights the importance of a systematic process of reflection that is guided by a trained facilitator or mentor. A facilitator, mentor, or as importantly a colleague or peer should both support and challenge either the individual learner, or the group, irrespective of seniority or experience , to ensure that not only are blind spots are opened for discussion but also that critical reflection occurs that questions underlying assumptions and beliefs. The identification and discussion of emotive aspects of personal and professional lives can easily expose the "inner person" and without appropriate support this essential aspect of critical reflection may not occur in the first place, or be blocked on subsequent occasions.   Training and supervision of facilitators and mentors is a high investment in resources, yet without this essential aspect it is unlikely that transformative learning will be developed that can produce the intended change in both professional behaviour and improved patient care (7, 9, 12, 16 , 20, 21). There is a greater reliance on trained and committed educational supervisors, who potentially can fulfil the role of facilitator of enhanced reflective practice, and this is indicated in the enhanced GMC requirements for training of identified 'Educational and Clinical Supervisors' (27).   A

single annual review may be pertinent for some areas of practice; however the development of insight through guided challenge has implications for frequency of meetings and observation of clinical practice, and for different methodologies for recording of outcomes. This may on some instances involve a shift of onus onto the mentor or appraiser to record that meaningful reflection has been undertaken, for example by recording of a work-based assessment, procedure or even simply the process of reflection without documentation of clinical detail.

The wider organisation within which reflection is expected to occur has a responsibility to ensure that facilitated critical reflection can take place, with appropriate allocation of resources, and that there are opportunities to implement the changes in professional behaviour to allow patient care to be improved. This requires cultural and organisational change to create a safe environment where challenge of existing policies and procedures are seen as an essential aspect of professional practice, and will not lead to disciplinary action.

Conclusion

Reflection is part of the art of medical practice, and "*demands the development of specific skills, the brain and the mind, requires attention to high quality feedback and is subject to scientific investigation and understanding*" (6). Concepts and frameworks are valuable, however their role in facilitating reflection is not for simple recall and regurgitation but to help prompt, challenge and make sense of the complexity of experiences. We need to rethink our engagement in reflective practice in situations that are rich and complex, as epitomised by paediatric clinical practice. The principle role of reflection i.e. to enhance perception and "*acquisition of wisdom*" (6) is going to require more than ritualistic completion of reflection requirements, as is becoming common practice within formal performance review procedures. Enhancement of clinical practice and organisational change through reflection is inherently grounded within the requirement to have assumptions

challenged; this will come through mentoring, and systems and policies that allow identification of

aspects to focus on, rather than a bland generic, individualistic, broad- brush stroke approach.

Table 1.

Reflection and Transformative learning; key points from educational theory

- Reflecting critically on source, nature and consequences of situation (7)
- identify underpinning "assumptions" and evidence for proposed response (8, 9)
- communicative learning; challenge beliefs through discourse and dialogue (with self and /or colleagues through probing literature or discussion) (9, 11)
- take action following transformed perspectives; make a decision and live with what has been decided until new evidence appears (9, 11)
- Develop a critically reflective disposition; challenge assumptions, seek validity of evidence or actions, review situations, be open to discourse, look for wider implications of learning experience (9, 10, 12)

Table 2

The process of development within the conceptual "Zone of Generativity" (generated from Ball 2012 [11])

Stages	Examples of Pertinent questions *	Purpose	Result / impact
Reflection	"am I aware of the evidence behind the practice", "who is or may be affected by my practice"	Enhanced cognitive awareness. Increased sense of personal awareness of 'knowing – doing gap'	Reflection leads to metacognitive awareness – "to know is not enough!"
Introspection	"what is my role in this", "what collaborations or other factors impinged upon the outcome", "what resources / evidence were used"	Determine own role within the activity. Enhances advocacy	Reconsidering roles, purpose of interventions , or application of knowledge
Critique	"how was the knowledge applied ", "is there a knowledge – doing gap, and how was this accessed , how did it influence actions, practice, policy, practice community…"	Critically review why and how knowledge or skills are not having maximal impact (individual and community level)	Results in knowledge integration, translation into practice and collaboration
Personal Voice	"how will I address the knowing-doing gap", "how can this influence practice and policy",	Identify individual and team approach to address level of practice	Knowledge becomes powerful, with influence

*in all of these stages, the questions can relate to either or both individual performance, at specific patient level, or at levels of implementation within the service , institution or wider policy guidelines

TABLE 3

Key features of "Productive Reflection" in professional health care workplaces (generated from Cressey and Boud [26])

Key feature of reflective process	Purpose
Organisational rather than individual intent	Focus on collective entity not individual interests. Emphasis on reflection that leads to action with and for others, and for the benefit of the work involved. Involves shared interest of the group, or wider organisation
Contextualised within work	Connects work and learning, providing a link between knowledge, outcome and is part of the change processes. Identifies interventions in work activity to change , individuals may act but organisational action the intended outcome.
Involves multiple stakeholders	Outcomes and processes of reflection not confined to one group within an organisation. Intent is to engage players and perspectives to establish common ground
Generative rather than instrumental focus	Intent to generate possibilities that can be appropriated, not to project manage a solution
Developmental character	Range of organisational practices designed to contribute to solving organisational problems; equip individuals to sustain effort and meet challenges. Includes confidence building and group nurturing
Dynamic and responsive	Open, unpredictable process with uncertain outcome. Potential for unintended consequences.

Table 4. An example of a Cumulative Reflective log template (23)

Activity	What …	So what …	Now what …
(the focus of your reflection)	*… is the situation?* *… am I trying to achieve?* *… actions did I take?* *… was the response of others?* *… were the consequences – for myself/for others?*	*… does this teach me?* *… was I thinking and feeling?* *… other knowledge can I bring to the situation?* *… is my new understanding of the situation?*	*… do I need to do to improve things?* *… broader issues need to be considered if this action is to be successful?* *… might I do differently in the future?* *… might be the consequences of this action?*

Table 5. An example of reflective record for single identified event (24)

Nature of the learning activity Date: *Briefly describe the learning activity: for example learning a relevant article, attending a course, observing practice:*   State how many hours this took:
DESCRIPTION OF THE LEARNING ACTIVITY *Describe why you chose the learning activity or how this opportunity came about; where, when and how you did the learning activity, the type of learning activity and what you hoped to gain from it.*
OUTCOME OF THE LEARNING ACTIVITY – how did the learning relate to your work? *What effect had this learning on the way you work, or intend to work in the future? Do you have any ideas or plans for any follow-up learning?*

References

1. Good Medical Practice. General Medical Council 2013.   http://www.gmc-uk.org/guidance/good_medical_practice.asp (accessed 29 May 2013).

2. Sandars J. The use of reflection in medical education: AMEE Guide No. 44. *Med Teach* 2009;31(8): 685-695.

3. The Good medical practice framework for appraisal and revalidation. General Medical Council. 2012. http://www.gmc-uk.org/doctors/revalidation.asp (accessed 29 May 2013)

4. http://www.rcpch.ac.uk/training-examinations-professional-development/postgraduate-training/postgraduate-training (accessed 31 May 2013)

5. Boud D. Relocating reflection in the context of practice. In: Bradbury H, Frost N, Kilminster S, Zukas M, eds. Beyond Reflective Practice. New approaches to professional lifelong learning. Routledge . Taylor & Francis Group. London and New York 2010:25-36.

6. Epstein RM. Reflection, perception and the acquisition of wisdom. Med Ed 2008;42:1048-1050

7. Schon D. A. The Reflective practitioner: how professionals think in action. Basic books: New York 1983

8. Dewey J. How We Think: a restatement of the relation of reflective thinking to the educative process. Lexington: Heath and Company. 1933.

9. Mezirow J. An overview on transformative learning. In: Ileris K, ed. Contemporary Theories of Learning. Routledge 2009: 90-105.

10.   Argyris C, Schon D. Organisational Learning: a theory of action perspective. Reading, MA: Addison Wesley. 1978

11.   Ball A F. To Know Is Not Enough. Knowledge, Power, and the Zone of Generativity. Educ Res 2012;41(8): 283-293.

12. Brookfield S. Helping others examine the assumptions underlying their thoughts and actions. In: Brookfield S. Developing Critical Thinkers. Challenging adults to explore alternative ways of thinking and acting. Jossey-Bass publishers, San Francisco.1987:89-132

13 Grant, A. M.. Rethinking psychological mindedness: Metacognition self-reflection andinsight. Behaviour Change 2001; 18(1), 8-17.

14 Vivekananda-Schmidt, P., Marshall, M., Stark, P., Mckendree, J., Sandars, J., & Smithson, S. Lessons from medical students' perceptions of learning reflective skills: A multi-institutional study. Med Teac 2001; 33(10): 846-850.

15. Mann K, Gordon J, MacLeod A. Reflection and reflective practice in health professions education: a systematic review. Adv Health Sci Educ 2009;14(4): 595-621.

16. Chaffey, L. J., de Leeuw, E. J., & Finnigan, G. A. Facilitating Students' Reflective Practice in a Medical Course: Literature Review. Education for Health 2012; 25(3): 198 – 202

17. Senge P. The Fifth Discipline. The art and practice of the learning organisation. New York: Currency Doubleday, 1990.

18. Carver, C. S., & Scheier, M. F. On the self-regulation of behavior. Cambridge, UK:Cambridge University Press. 1998.

19. Kilminster, S. M. and Jolly, B. C. Effective supervision in clinical practice settings: a literature review. Med Educ 2000; 34: 827–840.

20. Fowler J & Chevannes M. Evaluating the efficacy of reflective practice within the context of clinical supervision. J Adv Nurs 1998;27 (2):379 82.

21. Dahlgren LO, Eriksson BE, Gyllenhammar H, Korkeila M, Saaf-Rothoff A, Wernerson A, Seeberger A: To be and to have a critical friend in medical teaching. Medical Education 2006, 40(1):72-78

22. Sandars J, Murray C. Digital storytelling for reflection in undergraduate medical education: a pilot study. *Educ Prim Care* 2009;20: 441-44.

23. **http://www.excellencegateway.org.uk/node/13003 (accessed 1 July 2013)**

24. http://salfordgp-learninghub.org/index.php?id=168 **(accessed 1 July 2013)**

25. Bar O N, Parker J D A. The handbook of emotional intelligence: Theory development, assessment and application at home, school and in the workplace. San Francisco, CA: Jossey-Bass, 2000.

26. Cressey P, Boud D. The emergence of productive reflection. In: Boud D, Cressey P, and Docherty P, eds. Productive Reflection at Work: learning for changing organization. Oxon, UK: Routledge 2006:11-26.

27. http://www.gmc-uk.org/education/postgraduate/standards_and_guidance.asp (accessed July 1 2013)