## Educating the reflective GP: Schon revisited

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Donald Schon's writing has been very influential in the world of education, in particular his two landmark books from the 1980s, *The Reflective Practitioner* and *Educating the Reflective Practitioner*.[1,2] His ideas have become established in our view of learner-centred, self-directed education. It is interesting to read his work and reflect on what messages it has for us in 2004.

Schon speaks a lot about the idea of professionalism, and professional knowledge. He draws from coaching techniques, 'education for artistry', and his own model of 'reflection-in-action'. Reflection-in-action is defined by Schon as the ability of professionals to 'think what they are doing while they are doing it'. He regards this as a key skill. There is a lovely section near the beginning of the book where he describes the crisis he perceives in professional knowledge:

> In the varied topography of professional practice, there is a high, hard ground overlooking a swamp. On the high ground, manageable problems lend themselves to solution through the application of research-based theory and technique. In the swampy lowland, messy, confusing problems defy technical solutions. The irony of this situation is that the problems of the high ground tend to be relatively unimportant to individuals or society at large, however great their technical interest may be, while in the swamp lie the problems of greatest human concern. The practitioner must choose. Shall he remain on the high ground where he can solve relatively unimportant problems according to prevailing standards of rigor, or shall he descend to the swamp of important problems and non-rigorous enquiry?[2]

He asserts that the only way to manage the 'indeterminate zones of practice' is through the ability to think on your feet, and apply previous experience to new situations. This is the work of the professional, and requires the capability of reflection-in-action. Schon was writing before the evidence-based medicine revolution but, reading him again 'post-EBM', his words make a lot of sense to me, as I strive to be patient centred, compassionate, evidence based and cost effective all at the same time!

In *Educating the Reflective Practitioner*, Schon offers his thoughts on how this kind of professional is 'produced'. As a GP trainer, I find this very illuminating. He describes a number of key concepts, which are worth summarising.

- The 'reflective practicum': This is his term for the educational setting, or environment: 'A practicum is a setting designed for the task of learning a practice'. This is where students learn *by doing*, with the help of coaching. He tells us the practicum is 'reflective' in two senses: 'it is intended to help students become proficient in a kind of reflection-in-action; and, when it works well, it involves a dialogue of coach and student that takes the form of reciprocal reflection-in-action'.
- Tacit knowledge: This comes from the work of Michael Polanyi.[3] He describes, for example, the remarkable way we are able to pick out a familiar face in a crowd. This does not require thinking about or a systematic analysis of features. We cannot verbalise how this is done, and so the knowledge is 'unspoken' or 'tacit'.
- Knowing-in-action: This is another of Schon's concepts, and it derives from the idea of tacit knowledge. It refers to the kinds of knowledge we can only reveal in

the way we carry out tasks and approach problems. 'The knowing is *in* the action. It is revealed by the skilful execution of the performance – we are characteristically unable to make it verbally explicit.' This tacit knowledge is derived from research, and also from the practitioner's own reflections and experience.

- Reflection-in-action: This is the kind of reflection that occurs whilst a problem is being addressed, in what Schon calls the 'action-present'. It is a response to a surprise – where the expected outcome is outside of our knowing-in-action. The reflective process is at least to some degree conscious, but may not be verbalised. Reflection-in-action is about challenging our assumptions (because knowing-in-action forms the basis of assumption). It is about thinking again, in a new way, about a problem we have encountered.
- Reflection-on-action: This is reflection after the event. Consciously undertaken, and often documented.
- Willing suspension of disbelief: This phrase was coined by Samuel Taylor Coleridge to describe the stance essential to an understanding of poetry.[4] It describes the process of entering into an experience, without judgement, in order to learn from it. Schon uses the term in relation to the idea of learning by doing. One cannot will oneself to 'believe' until one understands. But understanding often will only arise from experience. So it is necessary first to allow the experience to happen.
- Operative attention: This is listening and absorbing information, in a state of readiness to apply and experiment with the new information. An everyday example would be when we listen to directions on how to find an obscure address. This participation is important in the learning process – a learner needs to be already engaged in activity for further information to have meaning. This in turn is partly derived from Wittgenstein's contention that the meaning of an operation can only be learned through its performance.[5] Hence mechanical or imperfect performance of an activity prepares the learner for new information (feedback) on that activity, in order to develop understanding.
- The ladder of reflection: Schon speaks of a vertical dimension of analysis that can happen in the dialogue between learner and teacher. To move up a rung on the ladder involves reflecting on an activity. To move down a rung is to move from reflection to experimentation. This ladder has more than two rungs – it is also possible to reflect on the process of reflection. The importance of this concept is in its potential for helping out with 'stuck' situations in learning. Being able to move to another level may assist coach and learner to achieve together what Schon refers to as 'convergence of meaning'.

As I digest all of these ideas, it seems they remain very relevant to medical and healthcare education, and in particular to GP training. To illustrate this, and to summarise Schon's ideas in his own words, here is a short paraphrased section of the book. I have inserted terms specific to GP training in place of Schon's original terms.[2]

> Through what sort of process, then, can a GP registrar begin to educate herself in the art and science of general practice medicine when, at the outset, she does not understand what general practice is, and can neither recognise nor perform it? What enables a GP trainer to help her to undertake such a process when, at the outset, he cannot communicate to her what she needs to learn?
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> Training practices are premised on a particular kind of learning by doing. The GPR is asked to start practising general practice medicine before she knows what this is. If she accepts this challenge and the perceived risks it entails, entering, tacitly or explicitly, into a contract with the trainer that carries with it a willing suspension of disbelief, she begins to have the sorts of experiences to which the trainer's language

refers. She puts herself into a mode of operative attention, intensifying the demands on the trainer's descriptions and demonstrations and on her own listening and observation. Her initial attempts at consulting provide the trainer with evidence from which to infer her difficulties and understandings and a basis for the framing of questions, criticisms and suggestions.

Within limits variable from person to person, the GPR comes to the practice with a capacity to follow instructions, so as to carry out technical operations whose meaning she does not yet fully understand. Similarly, she comes to the practice equipped with a capacity for imitation, an ability to do as she sees another person doing, so as to reproduce elements of an activity whose meaning she does not yet understand. Executing such performances, she experiences them, feeling what they are like and discovering in them, by reflection, meanings she had not previously suspected.

When trainer and GPR co-ordinate demonstrating and imitating, telling and listening, each component process fills gaps of meaning inherent in the other. The trainer's demonstrations and self-descriptions, the student's efforts at performance and self-descriptions, the comparisons of process and product, provide material for reciprocal reflection-in-action. Learning and GP training become experiments in the work of general practice and in communication about general practice.

When experimentation generates new problems, puzzles and confusions, these, too, can become material for reciprocal reflection. Communicative dead ends can yield to movement up or down the ladder of reflection.

For both GPR and trainer, effective search for convergence of meaning depends on learning to become proficient at the practice of the practicum. The trainer must learn ways of showing and telling matched to the peculiar qualities of the student before him; learn how to read her particular difficulties and potentials from her efforts at performance, and discover and test what she makes of his interventions. The GPR must learn operative listening, reflective imitation, reflection on her own knowing-in-action, and the trainer's meanings.

Does it not seem that she must be capable of reflecting-in-action in order to learn reflection-in-action? But the reflection-in-action essential to the practice of the practicum is not the same as the reflection-in-action essential to general practice. GPRs bring to the training year, in greater or lesser degree, generic competences for communication, experimentation and imitation on which they can build, in dialogue with the trainer, in order to learn to do the cognitive work of learning to be a GP.

So what practical messages are there for us in 21st-century primary care education? It is interesting to see how far these ideas have become integrated in the way we do things – have become part of our own tacit knowledge. To illustrate, here is a fictional vignette from a typical morning in a training practice.

A GP registrar finishes morning surgery, and has a couple of questions to ask the trainer at coffee time about a patient with a new presentation of hypothyroidism. How does the trainer respond? Often not with a simple answer, but with a dialogue. The learner is encouraged to think back over the consultation and her previous knowledge and experience, and work her way to at least part of the answer for herself. This, I think, demonstrates the way the training practice functions as a reflective practicum. The registrar had never managed a patient with hypothyroidism before, but had to deal with the

consultation anyway. Having done so, and having told the patient she would ring them back later in the day, the registrar is now in a prime state of operative attention. During the consultation, the registrar had to be able to consider in 'real time' what might be causing her patient's weight gain and tiredness, and arrange appropriate investigations. Perhaps her first thought was that the patient was suffering with depression, but the picture wouldn't quite fit. This is reflection-in-action.

Later the same week, in the tutorial, the trainer refers back to this case. He encourages the registrar to reflect on how the consultation had gone, what her feelings had been that led her to question her initial diagnosis of depression. How had she felt about needing to find out more about the management of hypothyroidism? This reflection-on-action involves a step up the ladder of reflection, and a lot of learning can be developed that will have application in a much wider field than hypothyroidism. The registrar is learning to be a GP.

Schon encourages us to feel proud to be in the swamp – because there is no one else who could find their way through it!

## References


1. Schon D (1983) *The Reflective Practitioner*. Basic Books: New York.
2. Schon D (1987) *Educating the Reflective Practitioner*. Jossey-Bass: San Francisco.
3. Polanyi M (1967) *The Tacit Dimension*. Doubleday: New York.
4. Taylor Coleridge S (1983) In: Engell J and Bates WJ (eds) *Biographia Literaria*. Princeton University Press: Princeton, NJ.
5. Wittgenstein L (1953) *Philosophical Investigations* (GEM Anscombe, translator). Macmillan: New York.


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