

Draft

Chapter 1:

The nature of practice-based knowledge and understanding

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1. Introduction: the context for teacher development

One preoccupation underlines most of the chapters in this book, as it does for most people starting to work in a professional practice. This concern is epistemological: what does the practice require to be learnt: what 'knowledge' underpins it? For teachers working in England, a simple answer might seem to be provided by the standards for the award of qualified teacher status (QTS), without which no teacher in England can be registered with the professional, regulatory body, the General Teaching Council.

The standards for the award of QTS have attempted to answer this question in such a way as to make it possible to understand the practice. Standards were introduced to regulate the awarding of QTS and were intended to ensure consistency over provision and to develop a national assessment mechanism. From September 1997 only those trainee teachers who successfully completed an accredited course and met all the QTS standards were awarded QTS (DfEE 1997). Currently, teachers in England and Wales are subject to standards-based assessment at all points in their career (TDA, 2007), moving from QTS, through statutory induction into continuing professional development (CPD) and annual performance management procedures (DfES, 2001; TDA, 2007) and this policy has been reflected in similar developments elsewhere.

The introduction of competencies and standards purported to be an attempt to describe good practice, but the attempts between 1997 and 2007 were problematic for a variety of reasons, and many critiques of earlier versions of the standards (and their forerunners, competencies) were made. (Carr 1993, p. 254). (Hyland 1994, Lum 1999 and 2003, Heilbronn 2008).

The 2007 standards are to some extent useful in enabling trainee teachers and their mentors to understand certain areas that need to be covered to create competent teachers. However, teaching is an extremely complex endeavour and standards cannot account completely for this complexity, nor encompass comprehensively what 'good teaching' might be. Any definitions of 'good teaching' are subject to contestation and are not as settled a matter as the standards might suggest.

In common language we created practical discourse that in its concepts, propositions, rules and principles encapsulates our practical experience of our world...practical principles are the outcome of successful practice, generalisations are valid only insofar as they capture what successful practice entails. The more complex the practice and the more it is connected with differences in human attributes and differences in contexts, then the less such generalisations can possibly hope to capture what the practice entails (Hirst 1996, p.171).

There appear then to be serious drawbacks as well as advantages in the attempt to describe good teaching in a series of standardised descriptors and to apply these descriptors across a variety of different contexts and circumstances. First, the endeavour is reductive: there is an implicit and underlying belief that 'good' teaching can be reduced to a set of uncontroversial, descriptors. Secondly, there is no acknowledgement of the variation in context in which the so-called 'standards' are to be attained and verified. In practice assessors use their own understanding of context specific factors in interpreting the standards. The standards cannot be applied in a technical-rational way if they are routinely open to interpretation, according to varying contexts. In using the standards, assessors must be applying rationality of another kind. (The term 'technical rationality' was used most famously by Donald Schön, building on the work of John Dewey. A further discussion follows in Chapter 3.)

The current set of standards (TDA 2007) refers to the knowledge and understanding required for qualification as a teacher. So, for example, for the Standard Q10 trainees need to:

have a knowledge and understanding of a range of teaching, learning and behaviour management strategies and know how to use and adapt them, including how to personalise learning and provide opportunities for all learners to achieve their potential.

To meet Standard Q20 they need to:

know and understand the roles of colleagues with specific responsibilities, including those with responsibility for learners with special educational needs and disabilities and other individual learning needs.

What precisely is the nature of teacher knowledge and understanding referred to in standards Q10 and Q20? It cannot be covered in a purely technical way by applying technical skills called 'skills in lesson planning'. Unpicking what is involved in planning lessons, for example, in order to learn how to 'meet' the standards Q10 and Q20, demonstrates that no amount of technical information, or knowledge of research and strategies, however useful, can quite account for the complexity of learning to be a teacher. The two standards require a wealth of understanding, experience and judgement in application which the simplicity of their sentence construction tends to mask.

What might passing the following standards involve? Student teachers must be able to:

Q30 establish a purposeful and safe learning environment conducive to learning and identify opportunities for learners to learn in out-of-school contexts,

Q31 establish a clear framework for classroom discipline to manage learners' behaviour constructively and promote their self-control and independence.

Behind the ability to evidence these 'skills' lies a great deal of 'knowledge and understanding'. The standard has to be looked at together with a number of

other standards, relating to all the other areas covered in other standards, as categorised under various headings, such as Q10, under the '*Assessment and Monitoring*' heading; Q11, 12 and 13, under '*Subjects and the curriculum*'; Q14 and 15, under '*Literacy, Numeracy and ICT*'; Q16 and 17, under '*Achievement and diversity*', and Q 18,19 and 20, under '*Health and well-being*'. Learning to manage a classroom is rooted in deep understanding of learning, of the particular group of learners and the particular individual learners who make up the group, among other things. Learning to manage a classroom depends on how beginning teachers are able to integrate their own experience with the newly evolving learning situation. It is not a simple matter. It is evident that the capturing of various aspects of teaching and learning is dispersed among many standards. This limits their usefulness as an assessment mechanism, and also as a tool in the 'training curriculum', as conceived by the Training and Development Agency (TDA) and ratified in the standards. .

2. Training, education or formation?

It is clear that learning to be a teacher is not just a matter of acquiring a number of technical skills and competencies, but needs to be more broadly conceived. The term 'teacher training' that is used in official education department texts tends to suggest a reductive view of learning to teach. The term 'teacher education' is preferred by many higher education institutions and writers on education (Smith 1992, Carr 2003, Moore 2004). The use of the word 'training' seems to imply that learning to teach is a matter of acquiring a number of skills and competencies, and this suggests that reading and critiquing educational theory and research plays little or no role. The term 'teacher education' is broader and encompasses the need for theoretical perspectives. Haynes suggests that using the term 'education' helps

to focus attention on the ends of the teaching act rather than on skill in performing the act. The point of the use of 'education' was to identify the problematic values, standards and purposes to which the teaching act could be put and to argue for a preferred set of those values, (Haynes, 2004).

In this book we use the term 'initial teacher training and education' (ITET) where relevant, but the term 'formation' used in some other countries gets over some of the difficulties of terminology and suggests more accurately the nature of theoretical and practical knowledge involved in teaching (Clarke and Winch, 2004; Winch 2004). Shirley Lawes in Chapter 4 returns to this theme in more detail. Formation relates to the idea of teaching as 'a deliberately conducted practice.' (Dewey 1916, p. 387).

Teaching and learning as a human practice...(involves) not merely a fluency in skills and strategies of communication but also something qualitatively different: a commitment to teaching and learning as a distinctive way of being human in a world that is now one with an unprecedented plurality of lifestyles, value orientations and careers (Hogan, 2003, p.209).

Teaching calls upon the resources and qualities of the teacher. **Chapter 8** on the Professional Development Portfolio is particularly relevant in bringing out the way in which learning to teach is a particular kind of learning journey, related in some sense to self identity. When embarking on a course of teacher

formation, a student teacher learns to relate to others within certain social practices, and this gives a structure and a particular form to their self development and hence self identity. Haynes has suggested that 'it is as a participant in the practice of teaching and other practices that I and others can construct the narrative structure of my life, my self identity'. (Haynes 2004). This claim makes sense in the context of the learning journey undertaken by each student teacher.

Essential to the conception of teaching as a practice is the understanding that experience is the foundation of the *knowledge and understanding* required when undertaking teaching. It is clear then that looking at teaching through the lens of standards and competencies alone cannot get at the requirement for the student teacher to make 'deep and connected understandings' (Davis 1998) of all the various elements that go into learning to be a teacher.

A significant factor in the idea of teaching as a practice is the moral significance of both teaching and education (see Carr 2003; MacIntyre and Dunne 2002; Dunne 2003). Noddings (2003) talks of teaching as an essentially relational practice, one in which a teacher can only be construed in relation to the learner(s). In any case it makes no logical sense to say that someone has taught something that no one has learnt (Hirst 1974). The relational nature of the practice of teaching carries responsibilities. Haynes (2004) has expressed this well:

teaching is to be conducted in a morally acceptable way if it is to count as education. The practices acceptable as part of education, whose ends are significant in shaping and judging the teaching acts, are also a limited set based on moral and other judgements. .

We return to the key discussion about values and education, that is to the essentially normative nature of teaching, in the section on practical judgement.

3. Sites and soundings

The previous section asked whether it mattered what we called the formation of teachers at initial (entry) level to the profession. Behind that question is the larger one about how we understand the practice of teaching and how we believe people learn to become teachers. Undoubtedly there is an element of theory involved, yet a significant element in making connections to enable an understanding of how to teach well is drawn out of practical experience. How is does the theory relate to the practice? Many trainees enter initial teacher training and education courses believing that the school is the site of practical experience and learning and the university is the site of learning about the relevant theory of education and pedagogy. But this perception entails a belief that the knowledge and understanding needed to be a teacher is somehow split into two sites. This is not the case however as the following chapter discusses in detail. Learning to teach and continuing to develop in the practice requires drawing on and applying what is read and discussed, and integrating this with personal experience.

If we watch a skilled teacher interacting with pupils, the expert management may seem easy, if we lack a deep understanding of the processes and practices of what we are viewing, until we try it ourselves in a similar context. Such teachers work in situations of complexity in which they need to interact with many variables in their daily practice. At any moment they may need to call on a number of elements, including applied theoretical knowledge, and to choose an appropriate mode of action, without the time to engage in lengthy or even brief deliberation. Practitioners acting expertly in such situations seem to be exercising some kind of 'practical judgement'.

4. Practical Judgement

Practical judgement might be characterised as a capacity 'to do the right thing at the right time', to respond flexibly and appropriately in particular situations, whose unique correlation of variables could not be known in advance. In sum the training curricula of any individual professional practice is designed to enable such expert acting. It is useful to unravel what lies behind this capacity for exercising practical judgement. In so doing we need to think about how the concept relates to the terms 'knowledge and understanding', as used in training curricula, such as the Standards for the Award of Qualified Teacher Status (TDA 2007). Once the nature of such 'knowledge and understanding' is clarified, it becomes possible to address the question of appropriate forms of training, relevant assignments and assessment practices. In this chapter, then, we outline the epistemological basis of the formation we advocate, and in the following two sections of the book we clarify and exemplify what this formation entails in more detail.

The concept of 'practical judgement' goes back to Aristotle's' concept of *phronesis*, although this rich and much discussed notion has been translated and interpreted in a variety of ways (Noel 1999). A relevant interpretation for teachers is found in Dunne's statement that *phronesis* is 'an eye for what is salient in concrete situations' (Dunne, 1993, p.368). Expert practitioners know what to do in specific situations. They have what seems to be 'an intuitive sense of the nature and texture of practical engagement' (Dunne, 1993, p.8).

Phronesis does not ascend to a level of abstraction or generality that leaves experience behind. It arises from experience *and returns into experience*. It is, we might say, the insightfulness – or using Aristotle's own metaphor, "the eye" – of a particular type of experience, and the insights it achieves are turned back into experience, which is in this way constantly reconstructed or enriched. And the more experience is reconstructed in this way, the more sensitive and insightful phronesis becomes (ibid., p. 293).

In the above quotation the key term is 'experience'. There can be no split between elements encountered in reading, research, university and schools, because these elements make no sense, have no meaning, bear no significance to the practitioner, until and unless they are integrated, able to be applied. Understanding develops through the practical situations in which novices are placed, and with which they grapple. This is true for many kinds of workplaces, where novices may be changed by experience into highly proficient practitioners (Hogan 2000).

It is possible to outline some characteristics of practical judgement in three main dimensions. First, there is an ethical dimension to 'the right' response. Professional practices have their codes of ethics and it is expected that practitioners follow these codes and uphold the values of the profession. If we try to think of an example of practitioner action that seems 'value free' we soon give up the attempt. Teaching, nursing, social work, are thoroughly relational practices. They have 'the other', the client, the student, the patient, whose welfare is inextricably linked to choices and actions. So the right action at any time needs to draw on ethical considerations: a good practitioner will be someone whose actions we can trust as 'wise' or 'judicious'. In acting seemingly spontaneously practitioners draw on their own values, qualities and dispositions, as well as on technical know-how and information based on previous, relevant experiences.

Having professional values and living by them in practice are an essential part of being a practitioner involved with others. The capacity for trustworthiness is fundamental to teaching. The practice of teaching involves the ability to see things from the learners' perspective, to show 'pedagogical thoughtfulness' (van Manen, 1991) and to make adjustments accordingly. Van Manen has described 'tactful' teaching, as that which 'locates practical knowledge not primarily in the intellect or the head but rather in the existential situation in which the person finds himself or herself' (van Manen, 1995, pp 45-6).

Practical judgement is connected to 'virtue', in the sense that such a practitioner exercises qualities of 'practical wisdom'. A good teacher could be said to be a wise person, someone who exercises an ethical sense of doing what is right, of acting for the good. An example would be a teacher who rejects a strategy for gaining order in the classroom which would involve humiliating pupils, in favour of another, involving more effort based on developing trusting relationships. As Smith (2003) has stated the importance of relationships between students, and between them and their teacher cannot be over-emphasised. Teaching is 'thoroughly relational' (Noddings, 2003, p. 249) and many of the virtues are exercised in relation to others in a pedagogical space of trust (van Manen, 1991).

A second dimension of practical judgement is its flexibility. Expert practitioners can respond flexibly to changing situations. We cannot know in advance what individual situations will throw up in the way of stimuli requiring response. Experts respond flexibly. Since there cannot be a definitive, right way to respond in every circumstance, it follows that any expert response might not be the best one for the circumstance. Therefore, reflecting on practice, interrogating aims, purposes and outcomes of particular choices in particular situations, can be a fruitful source of knowledge and understanding, and can support the development of practical judgement. (See chapter 3 for a discussion of reflective practice). It also follows that with the need for flexibility there can be no universally applicable, infallible theory or pedagogical intervention. This is significant in the current climate of government promoted pedagogical strategies and educational changes and control over the school curriculum.

A third feature of judgement is its rootedness within an individual person, with a particular character, dispositions and qualities. When a teacher decides what is to be done in any situation, for example with a recalcitrant pupil, even if her decisions seem intuitive they are informed by the teacher's prior experiences and values. There is always more than one available course of action and individual teachers make choices of what they consider the right action in the circumstances. These choices may be based on a number of different factors, involving practical and ethical considerations. A teacher's character, dispositions and capacities underlie the exercise of practical judgement.

Good teachers can be said to exercise sound practical judgement, which involves exercising virtues such as justice, tolerance and courage, and qualities such as patience and optimism. We think of good teachers as acting with integrity and trustworthiness, being open-minded and able to learn from experience. It is an interesting exercise to think of all the qualities required, desired and expected, an exercise fruitfully revisited at various points in a teaching career (Burbules 1997).

5. Working at masters level .

When undertaking work at masters level on an initial teacher education course, it might seem as if there is a kind of 'knowledge' related to theory and another related to practice. Some writers have drawn on a distinction made by Ryle (1963) between '*knowing-how*' as procedural knowledge which manifests itself in successful action such as bike riding, and '*knowing-that*' as propositional knowledge, such as found in a text book about bicycle mechanics. This is where it gets interesting, complex and possibly controversial because the relationship between 'knowing-how' and 'knowing-that' is complex. Take an example of a traditional skill, such as blacksmith. Apprentices in traditional medieval craft guilds were apprenticed for seven years, during which time they watched and copied the master craftsman and built up their 'know how' or procedural knowledge. In the case of the blacksmith this might involve knowing how to recognise the exact colour of the metal when it needed to be taken from the furnace and worked. The colour indicates the temperature of the metal and the knowledge of what to do and when to do it, is built up by watching the process many times and by trial and error in practising the procedure. Compare this with contemporary apprentices, who may be on a course involving a theoretical element. The propositional knowledge gained on the course may involve some chemistry and physics, to enable the students to understand the theory behind the practice. There are also thermometric devices to supply technical information about the temperature attained in the furnace. When these modern apprentices work in their practical learning placements, which are required sites of learning to become competent in their craft, they are able to use modern technology and applied technical knowledge, that is '*knowing-that*' certain processes depend on certain physical laws. The *procedural knowledge* (the 'knowing-that') is *demonstrated in the successful practice*.

The blacksmith trained with a theoretical understanding of the processes involved in the craft could articulate the theory behind the practice. However, when engaged in smelting metal the blacksmith works with fluent and tacit

understanding of what he is doing, the blacksmith demonstrates what Gerald Lum has called 'constitutive understandings' (Lum, 2003) (see also longer discussion in Heilbronn 2008, pp 70-112). There cannot be a 'split' between the theoretical elements and the practical elements: they need to be integrated within the fluent repertoire of practice. This is certainly the case in teaching. All the writers in this book understand teacher knowledge and understanding in this integrated way.

There may be different ways in which 'knowing-that', or propositional knowledge, is acquired. Some propositional knowledge is gained in evident and overt ways. For example, teachers could find information about individual pupils' attainment from school records; knowledge of statutory requirements can be gained from reading relevant documents; learning theory research can provide information about how pupils might learn. However, there is always the individual reader who is making sense, forging meaning for herself through interpretative processes. How individual teachers make sense of what they have read and are told is also influenced by their own personal experience, including their own observations and discussions with other teachers.

This is significant in discussing the issue of theory and practice, and the question of whether or not there are two kinds of 'knowledge', one to be gained from 'theory' and one from 'practice'. If the matter is conceived in this way it is inevitable that there will also be a belief that somehow there is a 'split' or a 'gulf' between these two kinds of 'knowledge' that needs to be bridged. But this is to misunderstand the nature of a practice such as teaching, and in this teaching is like blacksmithing described above.

Another way to put this is to think about the use of the word 'Theory'. Theory is often used as a term for a body of propositional knowledge. We do use the word 'theory' with a small 't' in a personal context, such as 'to suggest that someone may have well-warranted beliefs underpinning what is done. A teacher might talk about 'her theory about planning, or language acquisition' for example. This does not mean that there is something called '*Theory*' as such (see also Carr, 2006, pp. 142-3). When a teacher has read some of the relevant documents and heard about relevant research, she might well then be able to state some general principles that she believes underlie some of her practical teaching. So a teacher of a modern foreign language might say that she had read about language acquisition research and that this had influenced her lesson planning. It would then make sense for her to say '*Language acquisition research, and particularly the work of xxx on memory and vocabulary development is the theoretical basis on which I have planned my teaching*', or '*the theoretical basis of what I do*'. To talk about '*a theoretical basis of*', rather than '*Theory*' takes account of the essentially provisional and practice-related nature of the propositional knowledge (the '*knowing-that*', the theoretical element) that is *demonstrated in the practice*. This is to be advocated because it is necessary to maintain a critical perspective on any theory or research findings, to subject them to further substantiation in the light of further practice or new evidence. So to think of something called 'Theory' in the abstract, and divorced from practice or from practical experience, makes little sense in the context of teacher formation.

6. Research Literacy and criticality

The discussion so far about the 'craft' of practice and the nature of practical knowledge and understanding points to a notion of 'constitutive knowledge', a personal construct of knowledge and understanding which enables the practitioner to act autonomously, in the moment, drawing on a store of known responses in a fluent manner. Practical judgement as defined in this chapter is necessary for successful practice and constitutes the capacity and ability to make an informed choice of action or an informed decision in each individual circumstance and in addition, the ability to do so autonomously. This is how we generally understand a competent or an expert practitioner. A novice would be characterised by the need for help and support in reaching the decision or in engaging with the action.

Experts work within the bounds of their own 'community of practice' (Lave and Wenger 1991), relating to the norms and regulations of that practice. Experts are able to understand and apply those norms and practices in what seems to be an intuitive way, without submitting their actions to scrutiny in the moment. There is a rationality within the autonomous exercise of judgement. What factors help and support the development of practical judgement? One important factor is the ability to hold a professional dialogue on the developing practice with an expert 'other', in particular circumstances. A further factor central to the notion of a professional practitioner is the ability to understand and to articulate a critical stance on the relevant subject knowledge required by the practice. This requires a critical engagement with theory and research, the ability to become and remain in some sense 'research literate'.

Teachers routinely use research skills, when engaging in curriculum development and in preparing and evaluating lessons and resources. For example, lesson evaluation requires formulating a question, such as whether the pupils learnt what was intended. Then there needs to be some kind of data collection, such as evidence of achievement from tasks done in class or observations of pupil responses. The posited question needs to be assessed against the data collected and the findings applied to planning new activities. These steps represent a recognisable research-based methodology. The possession of these research skills is essential for successful teaching.

Teachers also need to be research literate since, without some understanding of the principles and practices of educational research they will be unable to evaluate theories, policies and strategies presented, in relation to the aims of their own teaching. In addition, some teachers may benefit from doing their own action research, as a means to understanding and improving their practice.

Educational research in the form of action research is a useful means to developing and improving practice and is undertaken in many initial teacher education courses and Masters courses in education.

The unique feature of the questions that prompt teacher research is that they emanate from neither theory or practice alone but from critical reflection of the two (Cochran-Smith and Lytle 1993, p 15).

Currently, there are many varieties of action research, referred to also as 'teacher research' or 'practitioner research' (Dick 2003; Newman 2003; Ewbank 2004; DSEA 2005). We find

... sharp differences between variants of action research in the way they theorise the relationship between research and social (or educational) change: some see it as a technical (or instrumental) connection, some see it as a version of what Aristotle, and Schwab (1969) after him, described as practical reasoning, and others see it in terms of critical social science (Kemmis 1993).

Whatever version of action research is followed there is a key difference between its primary aim, which is to improve practice, and the aim of research as normally understood, which is the production of new propositional knowledge. This does not mean that the findings or conclusion of a piece of action research are only valuable to the researcher who does it, and cannot be useful to others. As Pring points out:

although such a practical conclusion focuses on the particular, thereby not justifying generalisation, no one situation is unique in every respect and therefore the action research in one classroom or school can *illuminate* or be suggestive of practice elsewhere (Pring 2000 p. 131).

Providing sound research procedures and practices are followed, teachers researching their own practice may come to new understandings about teaching. In chapter 3 ways of working reflectively in teaching are suggested and the regular habit of reflection as part of building professional knowledge, lays down ways of working on which practitioner research can be subsequently built. The skills of reflecting on one's own practice systematically can be extended to include reflection on wider educational issues, including developing the skills of evaluating good educational research and distinguishing it from bad research. Embarking on Masters level study on an initial teacher education course helps student teachers to become critical thinkers and to rationally evaluate research for its rigour and validity.

Evidence informed practice: teachers as users of research

Both doing research and reading research require an understanding about what research is; how particular theories underpin what is researched; how research is carried out, and the relationship of aims and values to the interpretative process of elaborating research findings. It is important for teachers to become research literate, in the sense of being able to question and evaluate educational research, in order to become more informed practitioners, so as to improve teaching practice and also to develop an informed, independent stance when presented with policies and strategies promoted as research evidenced.

Teachers, as users of research rather than doers of research, need to be trained to understand good research from bad, in order to gauge the reliability of findings for their own practice. As Winch has stated, teachers need to develop

'critical rationality as a practical disposition and skill' (Winch 2006, p. 45)¹, and the nature of critical rationality is a 'settled disposition and set of abilities to subject authorities to evaluation' (ibid.). Courses of teacher education working at Masters level include work on becoming research literate in this sense.

Finally, undertaking a Masters level course of teacher education and training is to be 'in formation'. While studying and practising in a placement school, practical judgement is forming; practical experience is informing the development of practical judgement. In learning to teach students need to develop judgement based on a variety of sources, integrated in their own reflection. The following chapters expand and illustrate this conception of teacher education and training.

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¹ See the illuminating discussion Winch 2006, pp 32-71

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