

Chapter 7

Towards a Principled Approach for School-Based Teacher Educators: Lessons from Research

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This chapter has its origins in our attempt to provide a summary of key insights into teacher education, written for teachers in school who are increasingly taking responsibility for designing (and not merely implementing) curricula for beginning teachers' school-based professional learning. Although the distinctive roles of particular partners and the precise designs of course structures vary significantly between and within different countries, the 'practicum turn' (Mattsson et al. 2011) taken by initial teacher education (ITE) in recent years is an international phenomenon.

As teacher educators within one of the earliest ITE partnership models—the Oxford Internship Scheme—we fully endorse the principle that teachers should assume significant responsibility for the education of new entrants to the profession. Such responsibility means providing far more than real classrooms in which to practise: accomplished practitioners have a wealth of professional expertise, underpinned by richly contextualised understandings of specific learners. This is knowledge that academic outsiders, however substantial their research-base, simply cannot replicate and it is essential to find ways of making it accessible to beginners.

We are aware, however, that despite a research focus on the use of specific mentoring *strategies*, rather less attention has been paid to mentors' understanding of beginning teachers as learners and to the broader challenge of constructing a curriculum for their school-based learning. Rapid increases in the numbers entering teaching through employment-based routes with a limited or non-existent role for higher education have increasingly focused our attention on making research into

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the nature of beginning teachers' learning accessible to teachers in school who are taking on new, or more extensive, mentoring roles.

In light of that concern, this chapter reports the decisions that we took in seeking to distil and make available to school-based teacher educators the range of research findings that we believed would prove most useful to them. The guide that we produced (Burn et al. 2015) drew extensively on insights from our own empirical work, particularly the Developing Expertise of Beginning Teachers (DEBT) Project. This was a longitudinal study of the learning of 24 beginning teachers whom we tracked for 3 years, interviewing them at least once a term (following an observed lesson) to explore their accounts of the thinking that underpinned their planning and teaching decisions and their reflections on their ongoing learning. But our selection of references also ranged more widely as we sought to identify those research insights (some new and some long established) that would provide the strongest foundations for mentors' own professional learning.

Teacher education reform, driven more often by policy imperatives than by research, tends to be focused on structural or regulatory issues (such as partnership arrangements), on the specific content of ITE programmes and on meeting statutory national teaching standards. It is our contention, however, that it is only by paying serious attention to the nature of teaching itself and to the ways in which beginning teachers engage in the process of learning to teach that school-based teacher educators can enable novices to capitalise on the main source from which they expect to learn: their classroom experience.

7.1 Understanding the Challenges of Learning to Teach

Our first priority was to help mentors to understand the challenges that beginners face in learning to teach. In distilling wider research evidence as well as the findings of the DEBT project we suggested that these challenges derive from three sources:

- the nature of teachers' knowledge and expertise
- the ways in which learning to teach differs from other kinds of learning
- the tensions inherent in sustaining a dual identity as teacher and learner.

7.1.1 The Nature of Teachers' Knowledge and Expertise

Although the framework of knowledge, skills and dispositions that teachers need can be categorised in relation to three basic dimensions (Bransford et al. 2005)—knowledge of learners and learning; knowledge of subject matter and curriculum goals; and knowledge of teaching—the range of different aspects that each encompasses make getting to grips with them a formidable undertaking.

Knowledge of how young people learn within the social context of the classroom requires an understanding both of general developmental progression and of individual differences in learning, shaped by pupils' increasingly diverse cultural backgrounds. This calls for highly developed diagnostic abilities, informed by an appreciation of what young people have learned previously (and are continuing to learn outside school).

Content knowledge—an understanding of what is to be taught—is obviously essential, but insufficient. Teachers also require a developed awareness of the underlying concepts and organisational structures within a particular subject domain, and of the most effective steps by which knowledge within that domain may be built. Such pedagogical content knowledge encompasses not only clearly framed, well-justified goals and models of progression, but also familiarity with those misconceptions that often prevent pupils from developing more powerful ideas.

The range of teaching strategies that beginners need to master are concerned with the processes of 'motivating and organizing students' work in settings that provide access to challenging content and frequent assessments of their progress, coupled with feedback and opportunities to revise and improve (Bransford et al. 2005, p. 35). Effective classroom management is obviously essential, but this extends far beyond rules for classroom conduct and procedures to deal with misbehaviour; it draws, for example, on motivation theory and the management of groups to create a psychologically safe and productive learning environment. Beyond this general repertoire of strategies, teachers need a storehouse of representations and analogies for teaching specific topics. To judge their effectiveness, they need a similar range of formative assessment strategies, allowing them to tap into pupils' current thinking and levels of understanding, and to adapt their teaching accordingly.

Moreover, the fact that teaching and learning are social processes involving a diverse range of individuals means there is a constant interplay between the different knowledge bases on which teachers need to draw. Teachers have to juggle the immediate and longer term needs of up to 30 individuals who are interacting (with the teacher and with each other) in complex ways. Doyle famously summarised these challenges in terms of beginning teachers' encounters with the 'multi-dimensionality, simultaneity and unpredictability' of the classroom. It is not just the need to deal with numerous things at once; the range of different purposes being served and the variety of events and processes are 'not all necessarily related or even compatible' (Doyle 1977, p. 52). Indeed, Kennedy (2005), examining experienced teachers' ways of thinking, concludes that teachers are actually trying to address no fewer than six different, competing concerns, often simultaneously:

- covering desirable content;
- fostering student learning;
- increasing students' willingness to participate;
- maintaining lesson momentum;
- creating a civil classroom community; and
- attending to their own cognitive and emotional needs.

This complex picture is consistent with our own examination of the planning and teaching decisions reported by beginning teachers within the DEBT project. Explaining their practice in particular lessons, trainees referred to six different types of goal: four related to the pupils (determining their existing knowledge, promoting their achievement and influencing their affective state or their actions/behaviour) and two related to their own learning or performance. In seeking to achieve these objectives or to arbitrate between them, they also reported taking into account up to 12 different kinds of factor: most obviously the pupils and the content (often with reference to examination or curricular requirements) but also a wide variety of contextual factors (concerned with the timing and the sequence of learning, the resources available, particular material conditions and established routines) as well as specific factors derived from their own position as trainees.

Once this complexity is acknowledged, it also becomes clear why teaching cannot be reduced to a set of prescriptions. It depends fundamentally on a process of selection (determining which features of the situation are most pertinent in deciding what to do), interpretation and judgment.

The first challenge for teacher educators in supporting trainees' school-based learning is thus to ensure that they are aware of the demands that they face, without being overwhelmed by them. Designing an effective programme depends on finding ways of managing that complexity so that trainees remain confident that they can succeed, without distorting or denying its reality in ways that ultimately inhibit their learning.

7.1.2 The Ways in Which Learning to Teach Differs from Other Kinds of Learning

At the heart of that learning is experience. Of all the specific instances of their own learning to which trainees within the DEBT project attributed a source, 72% were ascribed to direct engagement in the processes of planning and teaching. While other sources undoubtedly inform what they do, it is only in action that those ideas come together and acquire meaning. The fact that trainees are seeking both to learn from experience (from others' practice as well as their own) and to demonstrate their learning in action presents significant challenges. Successful graduates, used to high achievement, may be unprepared for the degree of difficulty they encounter in the public arena of the classroom.

While the expertise of practising teachers offers a rich resource from which to learn, it is not easily accessed. As Kennedy (2006, p. 206) has observed, experienced teachers tend to handle the complexity of teaching by devising collections of ready-made responses to events—habits or 'rules of thumb'—that reduce the need for extensive thought about each event as it unfolds. Unfortunately, if the 'rule of thumb' is all that is articulated, the novice will lack essential knowledge of the underlying principles on which it is based. Ignorance of those principles, and of the

nature and strength of the evidence that underpins them, deprives beginners of any warrant for the practice and of the capacity to diagnose why it may not prove effective in particular circumstances or how it could be adapted to accommodate them. Rules of thumb promise ‘efficiency’, but they cannot address the other essential dimension of ‘adaptive expertise’, which is ‘innovation’—the capacity to ‘move beyond existing routines... to rethink key ideas, practices, and even values in order to respond to novel situations’ (Hammerness et al. 2005, pp. 358–359).

‘Rules of thumb’ can also obscure the nature and foundations of the experts’ own expertise. What they now do so efficiently can seem so obvious and uncomplicated to them that they struggle to identify what it is they could usefully share. This helps to explain why experienced practitioners, when they *do* talk about their practice, often discuss it in terms of ‘espoused-theories’ (the principles that they believe they are following or assume will give credibility to their practice) rather than the nuanced, highly contextualised ‘theories-in-use’ on which they actually rely (Eraut 2000). While research shows that trainees can overcome these problems by asking specific questions about what they observe, seeking detailed explanations of the teachers’ interpretation of the situation and the rationale for their decisions (Hagger and McIntyre 2006), it is difficult for beginners to frame such questions positively and sensitively.

The second challenge for skilful professionals is thus to find ways of making their expertise accessible to beginners, not simply as practices to be replicated nor as espoused theories, but as a process of well-informed analytical reasoning.

7.1.3 The Tensions Inherent in Sustaining a Dual Identity as Teacher and Learner

Even this is not enough, however, unless beginning teachers *remain* committed to learning from that expertise. Trainees who have achieved a basic level of competence are often reluctant to go on engaging in activities that mark them out as novices. The need to demonstrate competence, a requirement of *all* teachers within a ‘culture of performativity’ (Ball 2003), makes it unsurprising that beginners should focus on demonstrating what they believe is currently required of them, rather than engaging in observation or in critical evaluation of the impact of their own actions. While this may enable them to develop ‘an initial level of teaching competence’ sufficient for them to practise in that particular context, it tends to impede development of the capacities needed ‘for continued professional development enabling them to go on learning as a teacher in new contexts, and for critical engagement with suggested innovations in classroom practice’ (Hagger and McIntyre 2006, p. 37).

The third challenge for mentors is thus to find ways of validating trainees’ emerging identity as teachers that do not impede their ongoing learning. Asking specific questions of experienced teachers’ practice, planning collaboratively with

them, continuing to be observed and discussing those observations with experienced colleagues are the best ways both of gaining access to the professional knowledge of experienced teachers, and of learning to ask critical questions about their own teaching. Sustaining such practices is only possible if school-based teacher educators can help trainees to reconcile the tension between being seen as a teacher and continuing to act as a learner.

7.2 Understanding Beginning Teachers as Learners

Having established the complex nature both of teaching and of learning to teach, we considered what is known about beginning teachers themselves *as learners*. We wanted school-based teacher educators to be aware that beginning teachers may not necessarily follow common stages of development. While extensive research has revealed a number of typical features in trainees' development over time, exemplified in Fuller and Bown's (1975) model—suggesting that trainees move from an initial preoccupation with themselves, through a concern with managing the class to an eventual focus on the impact of their actions on pupils' learning—others have expressed a cautionary note. Findings from the DEBT project suggest that while these issues may all feature at some point in an individual's learning trajectory, few trainees actually work through them in a neatly ordered sequence. A distinctive feature of trainees' learning was the complexity of their thinking, indicated by the range of issues with which they were grappling at any one point. Although the proportion of the trainees' aims concerned with pupil progress did increase over time, it was also true that more than half of their aims were, from the very beginning, concerned with pupil progress or achievement.

Rather than assuming that all trainees would go through a series of sequential stages, we concluded that it would be more helpful for mentors to focus on two significant facets of beginning teachers' learning (drawn from the research) and on the interactions between them:

- the preconceptions that trainees bring with them;
- their particular orientations towards learning from experience.

7.2.1 *The Preconceptions that Trainees Bring with Them*

Personal classroom experience over many years as a pupil gives many beginning teachers a firmly rooted sense of their ability to judge the nature of effective teaching. Such experience can generate many positive images, but may also give rise to deeply entrenched, negative images—models of teaching that are passionately rejected. Experience gained in previous teaching roles, assumed formally or informally, will also influence trainees' subsequent assumptions, shaping the lens

through which they view not only the nature of teaching and the value of specific pedagogical strategies but also the pupils that they encounter.

Most common among trainees in the DEBT project was a tendency to conceive of ‘good teaching’ in terms of teachers’ personal characteristics (such as enthusiasm or compassion) and to talk about teachers’ practices in terms of an undifferentiated ‘teaching style’—demonstrating little awareness of the need for a flexible repertoire of teaching strategies or careful judgment about when and how to apply them. Some trainees rejected certain teaching strategies outright in light of particular individual experiences.

The idea that we need to take account of beginning teachers’ preconceptions is by no means new, but it is of vital importance. Unless mentors engage appropriately with their trainees’ initial understandings then any advice or guidance they give is likely to be less effective. Trainees may appear to acquiesce when offered suggestions for practice, but if those suggestions do not resonate with their own assumptions, they are much less likely to understand or adopt them with any conviction.

Beginning teachers often hold strong ideas about the most effective ways of *learning* to teach and these assumptions also need to be explicitly acknowledged and examined. The notion of learning from experience is a particularly powerful (and well-justified) preconception, but it can have quite particular meanings and not all of the different ways in which it is understood prove equally helpful.

7.2.2 Trainees’ Orientations Towards Learning from Experience

Within the DEBT project, trainees’ references to ‘learning from experience’ actually encompassed a wide variety of learning processes. Analysis revealed that their approaches to those processes could be helpfully categorised in relation to five key dimensions, or opposable orientations, each representing different aspects of the trainees’ approach. These dimensions are summarised in Table 7.1. In using the term ‘orientations’, we do not mean to suggest that these are fixed characteristics, rather that they reflect the current disposition of the particular trainee at a particular point in time.

In identifying and mapping the attitudes revealed in each interview over the course of the training year (and over the subsequent two years), we were able to discern both specific differences on particular occasions and, in certain cases, clear trends over time. It is precisely because of this potential for change that teacher educators need to be able to identify their trainees’ current dispositions towards learning from experience, and, where necessary, seek to promote more positive orientations.

We have discussed these dimensions in greater detail elsewhere (see for example Hagger et al. 2008) but wish to emphasise here their importance in determining the

Table 7.1 Learning from experience: five dimensions according to which trainees' orientations may differ

Dimension	Orientation			
Aspiration <i>The extent of the trainee's aspirations for their own and their pupils' learning</i>	Satisfaction with current level of achievement	←	→	Aspirational both as learners and teachers
Intentionality <i>The extent to which the trainees' learning is planned</i>	Reactive	←	→	Deliberative
Frame of reference <i>The value that the trainee ascribes to looking beyond their experience in order to make sense of it.</i>	Exclusive reliance on the experience of classroom teaching	←	→	Drawing on a range of sources to shape and make sense of experience
Response to feedback <i>The trainee's disposition towards receiving feedback and the value that they attribute to it</i>	Tendency to be disabled by critical feedback	←	→	Effective use of feedback to further learning
Attitude to context <i>Attitude to the positions in which trainees find themselves and the approaches that they take to the school context</i>	Tendency to regard the context as constraining	←	→	Acceptance of the context and ability to capitalise on it

Table adapted from Hagger et al. (2008)

ways in which teacher educators both understand and respond to particular aspects of their trainees' learning. It is particularly important for mentors to understand their trainees' aspirations and to recognise that the relationship between aspiration and action is not entirely straightforward. While there is often an inevitable gap (in the early stages, especially) between an aspiration to achieve things in certain ways and the level of competence needed to realise that aspiration, what really matters is that the ambition and desire to improve are accompanied by 'intentionality': the capacity and commitment of the trainee to plan systematically for their own learning. While it may be useful for mentors to continue to provide feedback and establish new targets, it is also important to look beyond simply supplying the trainees with what the mentors can see that they need next. The real challenge is to enable the trainees to identify and begin to address those developmental needs themselves. This may also depend on broadening the trainees' frame of reference—alerting them to the other resources on which they can draw, which includes seeing their *pupils* as valuable sources from which they could potentially learn.

While the nature of feedback on trainees' teaching and the way in which it is given will obviously have an important impact on the way in which it is received, there are also marked differences in beginning teachers' dispositions towards feedback, regardless of its quality. For many, the process is a highly emotive one that serves to highlight their vulnerability. Perceptions of success and failure, when

faced with the challenges of establishing a new identity as a teacher and building productive relationships with both pupils and colleagues, tend to be powerfully amplified. What is important is the trainees' capacity to *make use* of the feedback in developing their practice, which may, in turn, be determined by their attitude to the particular context in which they are placed.

In considering the different orientations of beginning teachers towards their current context, we define that context quite broadly to include the nature of the school, the subject department and the particular classes and pupils that they are teaching, as well the role and status of the trainees themselves. A trainee's acceptance of the given context, notwithstanding the particular challenges that it presents, and a desire to exploit its particular features to promote their professional learning, is clearly linked to the other dimensions; it is likely to depend on the extent of the trainee's aspiration and their capacity to identify the first steps towards its realisation, again revealing the interconnections between each of the different dimensions.

7.3 Developing Research-Informed and Practice-Sensitive Principles

Taking account of what research has revealed about teaching, learning to teach and beginning teachers as learners, we sought to formulate a series of key principles to underpin the practice of school-based teacher educators. These principles are concerned with

- eliciting trainees' preconceptions
- structuring trainees' access to the curriculum of ITE
- sustaining the trainees' dual identity as teacher and learner
- promoting a deliberative orientation towards learning from experience
- expanding trainees' frame of reference.

Principle 1: Trainees need to be given the opportunity to articulate their preconceptions and so acknowledge their influence and begin to subject them to critical scrutiny

Given the power that they exercise over beginning teachers' development, it is essential for mentors to elicit their trainees' preconceptions, enabling the trainees to acknowledge their influence and so begin to subject them to critical scrutiny. The trainees' prior experiences serve not only to provide them with models of teaching to which they aspire (or perhaps emphatically reject), but also to shape the lens through which they view their subsequent experience and the advice and suggestions for practice offered to them. Eliciting these roots through careful questioning will help teacher educators both to appreciate the emotional attachment that trainees might have to those ideas and enable them to support trainees in evaluating their relevance and meaning in the new context in which they are now learning to teach.

Being able subsequently to link any advice given to images that they already hold, or to explicitly acknowledge the fact that what is being suggested might seem counter-intuitive in light of their ideals, means that trainees will be helped to connect those new insights to their existing ideas, thereby making the prospect of critical evaluation and subsequent development much more likely.

Principle 2: Careful attention needs to be given to the way in which the curriculum for ITE is structured, given that the competing demands of teaching are encountered simultaneously, not in a carefully staged sequence

The trainees' need to learn to draw flexibly on a wide range of knowledge bases as they are confronted by the complexity of the classroom, coupled with the fact that beginners do not all follow neatly ordered trajectories means that any attempt to structure their learning into a coherent programme faces a number of challenges. Mentors need to prevent trainees from feeling overwhelmed by all that they need to learn, but the very nature of what they are trying to learn means that it cannot be neatly packaged into a series of discrete units. Such packages risk diverting them from their current priorities and the realities of working life in a school.

In thinking about how to structure trainees' learning in school, it quickly becomes clear that most of the curriculum that they need is, in fact, already laid out in the realities of teachers' practice and pupils' learning as they happen in classrooms. Rather than focusing on constructing a curriculum' for trainees' school-based learning, the emphasis needs to be on organising or structuring trainees' access to that curriculum. While observation and learning by doing both have a critical role to play neither of them are straightforward or guaranteed to prove effective: prior experience as a pupil can obscure rather than help beginners to interpret experienced teachers' classroom decision-making; simple imitation of others' practice will never give rise to the sort of expertise that teachers actually need. A number of processes can be used to maximise the learning opportunities presented to trainees during the practicum experience, including:

- designing a timetable which reflects the fact that they need time to learn as well as to teach;
- creating opportunities for collaborative planning and teaching;
- ensuring within lesson feedback that trainees assume increasing responsibility for leading the evaluation of their teaching;
- providing opportunities *throughout* the programme for focussed observation of experienced teachers and subsequent discussion with them; and
- encouraging trainees to consult pupils, eliciting feedback on their experience of learning.

Consulting pupils about their learning is, of course, only likely to be embraced by trainees if they think that experienced teachers also regard it as an important source for their own learning. If pupils' views are not recognised as important and valued by qualified practitioners, then trainees, anxious to establish their professional credibility, are unlikely to want to distinguish themselves as novices by drawing pupils' attention to their interest in learning from them. This focuses

attention on our third essential principle—sustaining the trainee’s dual identity as both teacher and learner.

Principle 3: Trainees need support to help them to embrace and sustain a dual identity as both teacher and learner, thereby establishing a sustainable commitment to continued professional learning

The most effective way of doing this, as already suggested, is for mentors to demonstrate their own commitment to continued professional learning, embodying precisely those orientations towards learning from experience that play such a crucial role in trainees’ development. If trainees are aware of the professional development priorities of experienced teachers, and of the steps that those teachers have identified to enable them to work towards their achievement, they are much more likely to regard the process of target-setting not simply as a requirement of their training programme but as an essential component of a deliberative approach to future development. Given its potential impact on the formation of trainees’ professional identity, we should not under-estimate the value of experienced teachers clearly modelling to beginners their own engagement in enquiry-oriented practice (BERA-RSA 2014).

Principle 4: Trainees need to be encouraged to adopt a deliberative approach towards their own learning, enabling them to take increasing responsibility for directing their own development

The notion of engaging in ‘enquiry-oriented practice’ is essentially an extension of what we have described among beginners as a deliberative orientation towards learning from experience, with both terms implying an explicit commitment to the process of continuing professional development, and to the kinds of action necessary to bring this about. Modelling such an orientation and alerting trainees to ways in which it may be embodied in specific professional development initiatives within a school offers one way of promoting it. Another effective strategy is to invite trainees to contribute *first* whenever they are given feedback on their teaching. Persisting with such a strategy, even if some trainees find it difficult to begin with, will encourage them to recognise their responsibility to make their own professional judgements and to identify the implications of those judgements for their future development, rather than simply relying on experienced teachers for affirmation and direction.

It is also important to ensure that any discussion of observed teaching concludes not simply with a number of points for future development but with the identification of particular ways in which the trainee can begin to address them. This range of suggestions, some of which are clearly focused within the trainee’s own classroom while others direct them to look beyond it, serves to demonstrate the importance of our final principle: the importance of expanding the frame of reference on which trainees draw.

Principle 5: Trainees need to be supported in drawing on a range of sources in order to make sense of their experience, equipping them to learn effectively from the full range of learning opportunities available to them within school and beyond.

Professional learning needs to happen in both directions—reaching deep *within* the trainees’ classroom teaching to ensure, for example, that they recognise the range of insights that they can gain from the pupils themselves, as well as looking *beyond* that particular context to draw on ideas and practices developed and refined by experienced colleagues or more systematically analysed and evaluated through different kinds of research. Again the most important contribution probably derives from the way in which mentors model an open-minded and enquiring disposition. Mentors should also identify *other* colleagues who may be particularly able to help with specific developmental needs. Observing and asking questions of a range of different teachers will give trainees a much more developed appreciation of the role of interpretation and judgement in teachers’ decision-making. Particular course demands (especially where courses are offered in partnership with universities) may also direct trainees to certain literature or require systematic investigation of specific issues. Although these demands can sometimes appear as distractions from the ‘real’ business of teaching, the way in which mentors respond to them is crucial in ensuring that those wider sources of learning are actually brought to bear on the issues that confront their trainees.

7.4 Framing the Future Research Agenda

Our concern to elaborate the research-informed and practice-sensitive principles that we believe should underpin the practice of school-based teacher educators, was rooted in our long engagement in an established ITE partnership. It derived its sense of urgency, however, from two important stimuli. One is the ‘practicum turn’ in ITE, examined by Mattsson et al. (2011). The other, which preceded and, in many ways, drove the trend towards school-based and school-led provision, was the international policy turn, to which Cochran-Smith has drawn attention: the way in which teacher education is now defined as a ‘policy problem’ rather than the learning problem that it was previously conceived to be. Instead of trying to understand ‘how prospective teachers learn the ‘knowledge, skills and dispositions needed to function as school professionals’ (Cochran-Smith 2005, p. 4), the focus of the ‘new teacher education’ emphasises those parameters that can be controlled by policy-makers—the ‘broad structural arrangements and teacher education regulations’. It is in seeking to redress this balance that we have highlighted research insights into the learning of beginning teachers, informed by detailed analysis of what it is they are trying to learn.

This is not to claim that the ‘new teacher education’ has no place for research. As Cochran-Smith has pointed out, the appeal to research and evidence is, in fact, another of its most salient features, although the focus of that research is almost exclusively on outcomes as measured by pupils’ attainment in standardised tests. Thus, while policy-makers’ reduction or rejection of a role for universities in ITE

does not necessarily imply a rejection of research itself, the research that is promoted tends to be narrowly conceived as identifying ‘what works’ in producing teachers who raise pupils’ test scores.

In concluding with reflections on the implications of our work for future research, we are therefore compelled to consider two fundamental questions: not merely ‘What kind of research is needed to strengthen the quality of beginning teachers’ school-based learning?’ but also ‘Who should conduct that research?’ While our answer to the second question—that teachers should play a prominent role in conducting the research that is needed—is not at odds with the views of policy-makers, our conception of the purpose and nature of that research is much wider and more complex than the ‘new teacher education’ would admit.

In setting out that research agenda, we begin with the central preoccupation of this chapter—the beginning teachers themselves—but we also believe that there are important questions to be asked about the kinds of changes that are required of schools, or that might arise in schools, if they were to take engagement in school-based teacher education as seriously as we have suggested. There are also questions to be asked about the impact on the mentors who work most closely with beginning teachers in the ways in which we have described.

7.4.1 How Do Beginning Teachers Solve the Dilemmas and Deal with the Dichotomies They Face?

As we have explored, beginning teachers face two particular kinds of challenges: the range of simultaneous and essentially competing demands that teaching itself presents and the particular tensions inherent in establishing and sustaining a dual identity as teacher and learner. While stage theories of development have been shown to be of limited value in conceptualising the ways in which their concerns shift over time, much more needs to be known about how beginners learn to prioritise, both in their planning and interactive decision-making and in apportioning their time and energy, and about how they learn to manage the emotional demands inherent in making the conscious compromises that are always necessary. We have argued that one of the most effective ways of helping beginners to embrace continued learning as part of their teacher identity is for those supporting and guiding them to adopt precisely that orientation themselves. A sustained commitment of that kind could play a fundamental role in the transformation of schools as learning environments.

7.4.2 How Might Schools Be Transformed as Learning Environments for Teachers?

There is much more to learn about the nature of the attitudes and practices that could emerge in schools that take teachers' learning seriously as a core part of their professional identity and invest significantly in it. To what extent, and in what ways, is it possible to develop an ethos within schools that acknowledges the full complexity of teaching and is prepared to problematize the development of practice rather than seeking to identify and implement apparently simple solutions? Consideration, of course, also needs to be given to pupil outcomes, but these should be defined more widely than test scores, encompassing even the nature of pupils' attitudes to teachers' learning and the kinds of responsibility that they might assume for helping beginners (and more experienced practitioners) to learn from pupils' perspectives.

7.4.3 How Does Acting as School-Based Educator Impact on the Practice of Experienced Teachers?

The transformation of schools will, of course, depend on and be driven by the transformation of those leading the schools' engagement with ITE. While there is considerable anecdotal evidence about the benefits for mentors arising from their engagement with beginners—not least the stimulus it provides for them to articulate and reflect in some detail on their interactive decision-making—it is important that research goes beyond mentors' self-reporting, to examine whether and in what ways their thinking and practice actually change. This raises questions about how such changes can be effectively identified and tracked over time. If mentors are themselves committed to their own professional learning, new questions also arise about the use that they themselves make of research, as teachers and as teacher-educators.

7.4.4 What Role Should School-Based Teacher Educators Play in Further Research?

As we have already suggested, school-based teacher educators' engagement with research should certainly not be confined to the critical use of others' research findings. Just as effective ITE depends on accessing the distinctive knowledge bases to which expert teachers have unique access, so effective ITE research also depends on an appreciation of the distinctive insights to be gained from practitioners' own research. That is not to suggest that *all* such research should be practitioner-led, nor is it to overlook either the practical challenges associated with adding further to the agendas of school-based teacher educators or the acknowledged limitations of the inevitably small-scale studies that would be feasible for them. It is, however, an

argument for multi-method research-designs that are at least co-constructed with school-based teacher educators, and allow for the accumulated insights that can be generated through multiple cases, drawn from different contexts.

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Hazel Hagger was Director of Professional Programmes at the University of Oxford and co-director of the Developing Expertise of Beginning Teachers project. She has researched and written extensively about beginning teachers' learning with a particular interest in ways of making practising teachers' expertise accessible to beginners.