

IMPACT

No.22

Philosophical Perspectives on Education Policy

What training do teachers need?

Why theory is necessary
to good teaching

Janet Orchard and
Christopher Winch



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About IMPACT

Written by leading general philosophers and philosophers of education, IMPACT pamphlets bring philosophical perspectives to bear on current education policy in the UK. They are addressed directly to policy-makers, politicians and practitioners, though will be of interest also to researchers and students working on education policy.

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Editorial introduction

Twenty-five years ago, in a notorious pamphlet entitled *Teachers Mistaught*, Sheila Lawlor launched a blistering attack on the way teachers are trained in Britain:

At the basis of the present, bad system of teacher training, there lies a confusion between what can best be learnt by academic study and what can be learnt only through practice. Whereas the individual subjects which teachers will teach require academic study, the skills of teaching are essentially practical ones. They can be acquired only through experience, trial and error and careful, individual supervision. (Lawlor, 1990, p.8).

Lawlor proposed that there are two kinds of preparation teachers need. They need a deep and thorough academic grounding in their subject, of the kind one might acquire in a three year undergraduate degree programme. And they need closely supervised, on-the-job training in the practice of teaching, of the kind one might acquire serving an apprenticeship with an experienced teacher. What they emphatically do *not* need is educational theory, or any knowledge or understanding with which university education departments might be able to furnish them. And since this deprives university education departments of their *raison d'être*, they should be disbanded forthwith.

Mercifully, Lawlor's vision of teacher education has not yet come to pass. But the comprehensive programme of educational reform in England initiated by the Coalition government in 2010 has brought us perilously close to it. There has been, over the last five years, a major expansion of school-based initial teacher education and a corresponding decline in the number of entrants to the profession following the traditional, university-based PGCE and BA with QTS routes. For the time being, university education departments still have a role to play

in most school-based provision, but it is increasingly one of accreditation and quality assurance rather than substantive input to the training process. The government's dual commitment in the 2010 Schools White Paper to raising the academic bar for admission to teacher training programmes and focusing those programmes more narrowly on practical teaching skills is at first sight paradoxical; but it is precisely in line with the view that the only theory teachers need is advanced knowledge of their subject.

The place of educational theory in teacher education, and the institutional infrastructure that supports it, are in serious jeopardy. If there is a case to be made in their defence, it must be made now, and made compellingly. This is the challenge to which Janet Orchard and Christopher Winch rise in *What training do teachers need?*. Orchard and Winch argue for a conception of teachers as professionals who require a deep understanding of the conceptual, empirical and normative dimensions of educational practice. They explain why university education departments are better placed than schools to help beginning teachers acquire that understanding. And they propose a significant expansion of initial teacher education, with full licensure contingent on completion of both a preliminary teaching qualification and a higher grade apprenticeship in the first two years of employment.

Teachers need educational theory because they must understand what they are doing and why they are doing it, and must be able to think intelligently about how to do it better. At present, universities have the capacity and the expertise to meet this need. But they may not have it for much longer if the shift to school-based teacher education continues unabated.

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This is the twenty-second IMPACT pamphlet. Written by leading general philosophers and philosophers of education, the IMPACT series brings philosophical perspectives to bear on education policy in the UK. Pamphlets are addressed to policy-makers, politicians and practitioners, though will be of interest also to researchers and students whose work has a policy focus. IMPACT is an initiative of the Philosophy of Education Society of Great Britain.

Previous pamphlets have tackled issues across the spectrum of education policy. Pamphlets on the organisation, management and distribution of schooling include Harry Brighouse's on educational equality, Michael Luntley's on performance-related pay, Mary Warnock's on provision for pupils with special educational needs and Colin Richards' on school inspection. New perspectives on curriculum subjects

are set out in Kevin Williams' pamphlet on modern foreign languages, John Gingell's on the visual arts, Philip Barnes' on religious education and Andrew Davis' on the teaching of reading. And ways for schools to address challenging topics in the public eye are explored in Mary Midgley's pamphlet on intelligent design theory, David Archard's on sex education, Randall Curren's on sustainable development and Michael Hand's on patriotism. A full list of previous titles can be found at the end of this pamphlet.

Each IMPACT pamphlet is launched with a seminar or panel debate at which the issues it raises are further explored. Launches have been attended by government ministers, shadow ministers and other MPs, by representatives of government departments, non-departmental public bodies, professional associations, trade unions and think tanks, by education journalists and researchers, and by teachers and students.

IMPACT pamphlets express the ideas of their authors only. They do not represent the views of the Philosophy of Education Society of Great Britain. The Society has several hundred members whose ideas and political allegiances are widely disparate.

Michael Hand
IMPACT Editor

Overview

- Recent years have seen a concerted and systematic move towards a school-led system of initial teacher training in England. The role of universities, and particularly their part in engaging new teachers with theory, has been radically challenged.
- Behind these developments in teacher education lie reduced conceptions of teachers as *technicians* and *craft workers*. Teachers should instead be understood as *professionals*.
- In addition to subject knowledge and technical know-how, the theory teachers need includes (i) conceptual understanding, (ii) knowledge of empirical research, and (iii) a developed capacity for ethical deliberation.
- Teachers must understand key educational concepts and the major debates about aims, curriculum and pedagogy that have shaped practice in schools.
- They must engage with empirical educational research and be capable of assessing its quality and its relevance to their practice.
- And they must think through the ethics of teaching and the challenges of ethical decision-making in the classroom.
- Universities are better placed than schools to promote the three kinds of theoretical engagement necessary to good teaching.
- There should be two phases of initial teacher education, with universities playing a key role in both. New entrants to the profession should first complete a nine month PGCE or three year BA with QTS programme, resulting in *initial licensure*. They should then complete a two year, higher grade apprenticeship, employed in a school but following a university-based programme of study, resulting in *full licensure* at Masters level.

1. Introduction

This pamphlet examines how teachers might best be prepared for the difficult, demanding but ultimately rewarding work they undertake on society's behalf. It is written in the midst of major changes to education policy in England, including teacher training, introduced by the previous coalition government. Uncertainty about the form future provision will take remains, in the face of shortages of teachers.

Our central claim will be that current teacher training in England places too little emphasis on the theoretical and research background that is necessary for high quality teaching. The best teachers, we will argue, need a conceptual framework within which to think about education, as well as practical professional knowledge and skills, informed by relevant research findings, and an understanding of the ethical dimensions of their work. They need the best possible understanding of what they are doing to act wisely and well, based on independently made professional judgments.

We recognise that our insistence on this dimension of professional knowledge will mean a longer period of initial teacher education, in common with practice in other successful jurisdictions around the world. However, we believe that this is what the current crisis in teacher recruitment and retention in England demands. Moreover, we explain how the period can be lengthened in ways that address our demands without excessive disruption to established patterns of teacher training.

All teachers need professional education or training; that is to say, a planned intervention of some kind which prepares them for the demands of their chosen profession. Even those new to the role, who appear 'natural' or 'born to teach', need induction. In all maintained schools and all special schools in England, Qualified Teacher Status (QTS) is a requirement for teaching (NCTL, 2014). Regulation in Scottish state schools goes further still: it is a legal requirement for all teachers to be registered

with the General Teaching Council Scotland (www.gtcs.org.uk), and to be registered, teachers must be formally qualified.

Yet across the globe established methods of preparing teachers have been called into question, on the understanding that new kinds of training will be needed if teachers are to play their full part in improving the quality of schooling (Oancea and Orchard, 2012). In some countries, investment in teacher training continues, with particular reference to its academic dimension. Meanwhile in other countries, the academic dimension is being downsized and fragmented, in favour of new types of employment based learning.

In Scotland, the introduction of reform has been a relatively smooth and uncontentious process. The recommendations of the 2010 Donaldson report, *Teaching Scotland's Future* (Donaldson, 2010), have been widely accepted by policy-makers, practitioners and university providers. In England, however, the Schools White Paper, *The Importance of Teaching* (DfE, 2010), has raised fundamental questions about the future role of the university in teacher education, heralding the most radical reforms to the sector in several decades.

Myriad new routes into teaching have emerged in England as a result, creating a confusing picture and complex options to navigate for anyone considering entering the profession. More traditional, university-led approaches, including the nine-month Postgraduate Certificate in Education (PGCE) and the undergraduate Bachelor of Education (BEd) with QTS, are now in competition with other emerging and expanding models. These include Teach First, School Direct PGCE (salaried and unsalaried) and SCITT (PGCE, QTS only and assessment only).

It is the role that universities have traditionally played, particularly their part in engaging new teachers with theory, which has been the focus of the radical changes. A concerted and systematic move towards a school-led system of initial teacher training has been the result, with critics arguing that 'too little teacher training takes place on the job' (DfE, 2010, p.19). In its most radically revised form, the alternative sees universities providing little more than quality assurance and accreditation to the programme being followed. Two standard lines of criticism have been advanced against the theoretical components of teacher training traditionally associated with universities.

First, the *relevance* of the theoretical component of established teacher training practice to teaching has been questioned. Do teachers need to engage with educational scholarship? What's wrong with a purely practical route to qualified teacher status?

Second, the *quality* of university-based provision has been challenged. One vocal critic is teacher, author and director of researchED, Tom Ben-

We argue that theory has a necessary and unambiguous role to play in teachers' professional knowledge

nett, who identifies three 'great holes in ITT': behaviour management, subject knowledge and, most damaging to the university cause, research literacy (Bennett, 2015). Teachers, he maintains, 'frequently lack the ability to analyse and assess the veracity of the countless claims made on them in the name of research, and consequently find it hard to access research that is actually relevant to their needs' (*ibid.*). Similarly, Ben Goldacre (2013) expresses concern that established initial teacher training does not introduce new teachers sufficiently thoroughly to the principles of robust social scientific investigation. Without this, he maintains, they fail to distinguish independently between good and bad educational research.

We firmly reject the first line of criticism. We argue that theory has a necessary and unambiguous role to play in teachers' professional knowledge. We allow that some criticisms of the second kind may be warranted, but note that Ofsted inspections over time have been consistently positive in their assessment of university-based teacher training. For example, between 2008 and 2011, 49% of HEI-led partnerships, compared with 36% of school-centred initial teacher training partnerships and 18% of employment-based routes, were judged to be outstanding (Ofsted, 2011). Furthermore, an extensive independent review of teacher education in England led by Sir Andrew Carter has given university-based provision overall a clean bill of health (Carter, 2015).

A third concern with the state of teacher training in England has received rather less high profile attention from policy-makers. A House of Commons Select Committee report on the training of teachers (Children, Schools and Families Committee, 2010) draws attention to the *length* of conventional training, particularly the PGCE, arguing that it is too short and suggesting a possible connection between this and the high attrition rates in teaching. Up to 44% leave the profession within five years of qualifying (p.36).

Concern about the brevity of initial teacher training in England is not new. As far back as 1985 David Hopkins and Ken Reid argued:

If the Government is serious about quality in teacher training, then the time will come soon when it acknowledges that 36 week PGCE courses are far too short – irrespective of the financial implications involved in lengthening courses. (Hopkins and Reid, 1985, p.28)

This is further supported by a 2009 Demos report, 'Leading from the Front' (Demos, 2009) which argues that teachers, like other public sector workers, need a longer, more rigorous and personalised training period

to be adequately prepared. The report concludes that a minimum entitlement of three years should be offered to teachers, in line with doctors in England and with teachers in other high performing education systems, like Finland.

A longer period of funded training for teachers might seem unrealistic at a time of fiscal restraint. However, the failure to retain teachers, once trained, in the face of a looming recruitment crisis suggests there is a false economy embedded in current arrangements, as well as a considerable waste of precious public resources.

To date, not enough has been done to provide a defence of the positive role that universities ought to play in the preparation of teachers. Our aim is to address this gap. We will advocate a particular view of the kind of teaching that should result from adequate and effective teacher education. We call this *professional* teaching, contrasting it with the popular conceptions of teaching as a craft and teaching as a protocol-driven technique which dominate policy discussions. Our primary purpose is to defend this conception of teaching and the form of teacher preparation that should precede and accompany it.

At the outset, we want to make two points absolutely clear. First, we take it for granted that children and young people need and deserve excellent teachers, not just teachers who muddle through well enough. We will argue for a conception of teachers and teaching that allows us to develop excellent teachers for our publicly funded schools. Second, while we will argue that universities and their departments of education should take a central role in teacher education, we are also clear that substantial experience of teaching in realistic conditions in schools and colleges is an absolute prerequisite for the creation of such teachers.

The stakes for our education system are incredibly high. The Programme for International Student Assessment (PISA) survey of educational achievement, organised by the Organisation for Economic Co-operation and Development (OECD), reported in 2012 that although the UK's highest achieving pupils have impressive results, in all three subjects assessed (Maths, English and Science) England had a relatively large difference in the performance of lowest and highest achievers, greater than the OECD average (DfE, 2014). This disturbing gap cannot be attributed solely to the quality of teaching in British schools, since there is plenty of evidence that factors beyond the control of schools play a considerable role in affecting pupil progress. Nevertheless, there is widespread agreement that the quality of teachers has a significant role to play in determining the extent of the gap. The OECD has suggested that within-school variation in performance according to who is teaching is much more significant than between-school variation in affecting pupil progress

(Schleicher, 2014). If we can improve the quality of our teachers through better initial preparation and better support during the critical early years of a teaching career, the prize at stake is well worth aiming for; it will help us make significant progress in addressing these deep-seated problems.

This is a time of unprecedented change in teacher training in England, driven through Parliament hitherto with a minimum of formal consultation with key stakeholders. Decisions have been taken at the highest political level and matters arranged to make reforms happen as quickly as possible. There has been insufficient debate about what kind of teacher preparation the country needs as a result, and little serious consideration of the views of the universities which have traditionally played such a pivotal role as providers of initial teacher training. At the time of writing, no more than 52% of new entrants to the profession are following university-based training routes (UUK, 2014, p.5), and the number is set to decline further. We seek to stimulate the debate about the future of teacher preparation that has been largely absent to date. We seek to challenge the anti-intellectualism that bedevils conceptions of the good teacher promoted in England and to argue forcefully for the place of educational theory in teachers' professional development.

The task of identifying the optimum form of teacher education is a daunting one. Not only are the stakes high, but many and various potential factors could affect the outcome, ranging from the quality of candidates who apply for teacher training programmes to the quality of those programmes themselves. We think, however, that our case for professional teachers is a powerful one that would be vindicated in the fullness of time.

2. Teachers: technicians, craft workers or professionals?

We begin our case by arguing for a particular conception of the good teacher as a professional. We identify two particularly influential reasons for discounting theory as an essential part of the knowledge and understanding teachers need: that teachers' work is best understood in narrowly technical terms; and that teaching is a craft. We explain why both views are mistaken and potentially harmful to the future health of teacher education in England, before going on to sketch a third account of the good teacher – as a professional – requiring both theoretical and practical learning.

Teachers as technicians

Sometimes the work of teachers is cast as though they were 'executive technicians' (Winch, 2013), told prescriptively by others what to do, without needing to understand why they are being told to do it. This view makes sense if certain standard forms of classroom practice can be known to work more effectively than others, without question and regardless of context. This way of thinking about teachers is perhaps best illustrated with reference to the National Strategies for curriculum subjects introduced in England in 1996.

The National Strategies created detailed exemplification material of 'best' classroom practice, including schemes of work, teaching materials and assessment levels developed by expert practitioners. This comprehensive provision of 'off the peg' instructions for teachers was designed to support the implementation of the National Curriculum and RE (DfE, 2011). If these strategies were taken up by teachers and replicated reliably

and consistently across the nation's classrooms, it was assumed, educational standards would rise across the board.

We agree that teaching does require a degree of technical know-how if it is to be undertaken well (Winch et al, 2013). Teachers rely on technical knowledge to plan their lessons and schemes of work so that they differentiate appropriately for their pupils' needs. They acquire this knowledge, in part, by adhering to guidelines. However, rather than following guidelines and prescriptions slavishly, good teachers generally create bespoke lessons from these to suit the particular needs of their own classes. They think and make independent judgments for themselves, based on their reading of the context in which their work is situated.

Furthermore, teaching is challenging and difficult because it is hard to predict in lessons exactly what will happen next. No two lessons will ever be exactly the same. Even if they contain very similar elements, the time of day, the particular children or young people involved, the room in which the teaching takes place, will have subtle yet significant effects on the way in which they proceed.

Teachers must be free to respond to these changes, we believe, using their professional judgment as well as teaching techniques. We agree that teachers need technical know-how to teach well, but they must be more than executive technicians.

Teachers as craft workers

Another way in which the work of teachers is cast is to portray it as a craft, like pottery for example, or blacksmithing. Former Secretary of State for Education Michael Gove adopted this metaphor when he argued:

Teaching is a craft and it is best learnt as an apprentice observing a master craftsman or woman. Watching others, and being rigorously observed yourself as you develop, is the best route to acquiring mastery in the classroom (Gove, 2010)

Gove is not the first to think along these lines (e.g. Marland, 1975). Coldron and Smith (1999, p.722) identify particular craft skills fundamental to teaching. This ideal of the teacher has three key features.

First, mastery of one's subject is central to the craft conception of the teacher. Excellent subject knowledge is indeed hugely important to good teaching when, in the context of schooling in England, the curriculum is so firmly wedded to subjects.

The second significant characteristic of the teacher as craft worker is an emphasis on personal authority in the classroom. The good teacher

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on the craft worker account is someone who commands respect in the classroom by dint of the high regard in which they are held by their pupils. Note, though, that the emphasis on strong positive relationships between teacher and pupils is also a reason why the analogy between craftwork and teaching should not be pushed too far. Crafts typically involve working closely with materials, moulding and shaping inanimate objects like clay and metal, while the primary object of teachers' work is people, their actions, beliefs and attitudes (Winch, 2011).

The final significant element in the craft conception of teaching is the ability to make judgments suitable to the current circumstances in the classroom. This situated understanding enables teachers to take into account a range of factors that have a bearing on pupil behaviour and learning. We agree that all three of these craft elements are essential to good

teaching. We differ from the proponents of the craft-based account in thinking they are necessary but not sufficient.

We have argued that no two lessons are ever the same, even if they contain similar elements, and that teachers need to be able to respond freely to the circumstances in which they find themselves. We reject the suggestion that teachers make good professional judgments of this kind without reference to theory and technical know-how to guide them. On the craft worker view, teachers' judgments are made on the spot and spontaneously using 'common sense'. A strong tradition of teachers in England, described by Hoyle (1974) as 'restricted professionals', has questioned the relevance of theory to their work, understanding their practice to be based instead on experience and intuition.

We agree that experience is an important element of teachers' professional knowledge; but we also believe that what passes for intuition or common sense is an unreliable basis on which to make good decisions in the classroom. One teacher's common sense thinking may differ markedly from another's. Without transparent, clear and authoritative sources on which to base classroom decisions, teachers' conflicting common sense judgments are difficult if not impossible to resolve.

More seriously still, perhaps, teachers might share common sense judgments based on long-established but questionable popularisations, or on the unfiltered findings of theory or research of dubious quality. Take, for example, the idea of 'learning styles', which entered the

vocabulary of many classroom teachers in England in the early twenty-first century. This was rendered into homilies and maxims about best classroom practice for a decade. It is to the credit of teacher-led movements like researchED that they have begun to find ways of popularising critical engagement with research findings like this (e.g. Bennett, 2013) among teachers themselves.

This is not to deny that some common sense or intuitive judgments may turn out in the end to be well-founded. However, intuition should not be allowed to overshadow the value of more considered responses, where a teacher's understanding of a particular situation is grounded in other aspects of knowledge, like technical know-how and theory.

Teachers as professionals

Substantial experience of teaching in realistic conditions in schools and colleges is an absolute prerequisite for the creation of good teachers. However, the importance of situated understanding should not be over-emphasised at the expense of other kinds of teacher knowledge. Having identified limitations in two common accounts, we consider a third, more exacting account of the good teacher.

The teacher who is able to engage with theory and the findings of educational research shares with the craft worker teacher a capacity for self-direction. By contrast, though, the professional teacher is able to judge right action in various school and classroom contexts from a more reliable basis for judgment than intuition or common sense. A teacher who is able to make good situational judgments does not rely on hearsay or unreflective prejudice. She draws on a well-thought-through and coherent conceptual framework, on knowledge of well-substantiated empirical research, and on considered ethical principles, to arrive at decisions in the classroom context.

Following Gramsci (1971), we can call this 'good sense'. We believe every good teacher needs it. We see this as a robust and weighty alternative to the notion of 'common sense' underpinning the craft conception of teaching and celebrated by its proponents.

In other words, the best teaching practice combines elements of technical know-how with knowledge of research and theory, including a conceptual map of the educational field. Practical wisdom of this kind enables teachers to act in practically appropriate ways in a variety of complex settings.

A further attraction of practical wisdom in this sense is that it brings with it an additional emphasis on the importance of ethical as well as practically sound judgment in classroom work. An ethical dimension is introduced to teachers' work when they deliberately seek to bring

about certain outcomes rather than others, because they are concerned with doing the right thing for its own sake (Dunne, 1993, p.265). The 'right thing' in the case of teaching is the constant striving for all pupils to achieve the best that they can possibly achieve, taking full account of the needs of everyone in the school. This ought to be the overriding ethical principle which informs all the activities of teachers in their professional work.

The importance of teachers having a moral sense of what ought to be done is widely recognised. In the foreword to his review of teacher education, Andrew Carter notes the 'tremendous sense of moral purpose that is a distinguishing characteristic of this noble profession' (2015, p.4), although what he understands moral purpose to mean in teaching is not made clear. Yet the opportunity to develop professional reflection on the ethical dimensions of teaching does not feature prominently enough in current provision, with the constraints of time and competing priorities we have identified.

3. The theory teachers need

We've argued that good subject knowledge is necessary but not sufficient for good teaching. Teachers, like doctors, engineers and lawyers, also need a body of theory that supports their practical skill in such a way that it can be applied to their day-to-day professional decision-making and actions. We understand 'theory' to mean systematically organised knowledge, whether it is conceptual, empirical or normative, which can be used in teaching to inform professional judgment or action. Such knowledge is important in teaching because it provides a significant part of the rationale for teachers' thinking and judgment in planning bespoke lessons for particular classes.

To teach well requires more than technical know-how: good teachers judge how to adapt standard responses appropriately, based on their current reading of the specific context in which their work is situated. It is the opportunity (and responsibility) for independent, challenging and creative thinking of this kind which makes teaching an attractive and exciting career for graduates. We introduce each kind of knowledge briefly before explaining in greater depth why each is critical to good teaching.

Conceptual knowledge about education concerns the framework within which teachers live their professional lives. At one level, it consists in framing concepts that structure how we think about education, through values, aims, curricula, pedagogy, resources and assessment, together with the ways in which they are connected.

At another level teachers need to understand that particular interpretations of these concepts and their connections are very often contested, forming much of the substance of debates about policy in education. The aims of education are controversial, leading to different public and pro-

professional opinions about the kind of curriculum best suited to schooling in the twenty-first century. Pedagogic choices are affected by different understandings of the concepts of teaching and learning. And there is widespread disagreement and confusion about the nature and purpose of assessment.

Teachers need to be familiar with this terrain if they are to act independently and form and justify their own judgments. This is not to suggest that teachers must have all the answers to these questions, and they should certainly not have the sole say in how they are answered at the level of policy. But they do need to understand them and their implications, in order to make sense of, plan and evaluate their work; and they will inevitably have to make up their minds and contribute to debates about them.

While teachers' conceptual knowledge is important, there is no evidence to suggest that this on its own, combined with classroom experience, will guarantee teaching success. Teachers need other kinds of theoretical knowledge and understanding too, including an understanding of empirical research on teaching. For example, to

evaluate how well they have matched their lesson objectives to the needs of the children they teach, teachers need some insight into what pupil progression might look like in principle. This argument is supported by empirical evidence which suggests that effective teachers are able to identify and respond to pupils' difficulties in understanding the material presented (e.g. Hattie, 2009).

Empirical evidence is something that teachers inevitably encounter in their work, and they need to make informed judgments about both its quality and its relevance to

their own situations. To do this, independently and well, teachers must understand the principles underpinning good social scientific (including educational) research. This might include an introduction to the different kinds of methods that are used and why; the structure of argument, evidence and warrant in educational research; and the degree of support that may or may not exist for popular and influential theories in such areas as child development and the nature of learning.

A third form of knowledge that teachers need to understand is the ethical basis of their profession, so that they can make independent moral judgments about the right thing to do in the complicated workplace environment in which they find themselves. All professions need

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an agreed code of ethical conduct – and some fixed rules which members agree to observe – concerning what is absolutely unacceptable behaviour in the context of their workplace. The General Teaching Council for England was a professional, regulatory body which performed this function from 2000 until 2010, when it was scrapped. General Teaching Councils in Scotland, Wales and Northern Ireland continue with this brief and the proposed College for Teachers could do so in England were it to attract sufficient support (Burns, 2015).

However, such professional bodies also need to leave room for their members to make appropriate judgments in particular situations. Professionals do not require protocols setting out in detail what to do in every conceivable situation. Rather, a set of guiding principles is developed and agreed over time and the kinds of attitudes and dispositions that help teachers to reach the right decisions are fostered during their training. This process of professional formation involves teachers' own personal development to a considerable degree as well. Teachers need to learn how to align their own beliefs with the ethical code of their profession, taking into account policy initiatives for which they are responsible but with which they may, or may not, agree personally.

Teachers have to learn to balance different, and sometimes contrary, considerations before arriving at a decision that they believe is right. This complex and challenging aspect of teachers' work extends beyond the scope and scale of what can reasonably be covered during an initial teacher education programme of 36 weeks, even if there is time to make a start on it during the PGCE year.

4. Teaching and conceptual understanding

Classroom experience plays a critical role in the professional formation of teachers. But experiences are particular to the individuals who have them and the contexts in which they occur; they do not provide a reliable basis for making informed and reliable judgments about education in general. This is where theoretical frameworks comprising conceptual knowledge and understanding have a foundational role to play in preparing teachers for teaching.

To elaborate, education is found in every society but differs in the specific form it takes. Learning takes place through education, usually under the guidance of a teacher, so that children and young people are prepared for life. Moreover, education always has a purpose of some kind, whether this is stated explicitly or left implicit. Thus education comprises activities that are deemed worthwhile by the society in which it is situated and that endow learners with knowledge, understanding and skills. Furthermore, it is generally accepted that there are formal and informal criteria of success in education, to be determined by some form of assessment. This, arguably, is the concept of education at its most general.

However, there are differences in particular examples of educational practice, depending on the specific relationship between aims, content, teaching and learning on which it is built. These relationships will vary, according to beliefs about what makes something educationally worthwhile. Models of assessment that are adopted in education systems can vary hugely, for example, depending on complex and contested beliefs about aims, curriculum and pedagogy on one level and similarly complex questions about the accountability of educational institutions on another.

The value of teachers engaging with philosophical ideas extends beyond their personal practice in the classroom to their wider professional role in contributing to the development of national education policy

Teachers need to know and understand the principles that underpin these various practices in order to make sense of the specific education system for which they are being trained. They can then go on to exercise the professional judgment we have argued distinguishes good practitioners. They need to develop good sense in educational matters, having weighed up the relevant arguments carefully, and be able to explain and justify their judgments to pupils, parents and other stakeholders. If they do not understand at the level of principle why the subjects they teach are worthwhile or the methods they use are appropriate, they will be operating as mere technicians.

An understanding of the history of education in the particular system for which they are being trained will go some considerable way towards addressing this issue. Teachers need not know this history in great depth, but they should have a general and basic understanding of the educational arguments and disagreements which are embedded in the roots of common practices in schools and which have evolved over time. They should understand

why some potentially worthwhile educational activities never took hold while others became established and stood the test of time. This awareness will help teachers to discriminate between compelling and incoherent reasons for one action rather than another. Where changes to an established practice are being considered, understanding the rationale behind its existence and being able to judge whether continuing the practice is warranted is vital for teachers' independent action.

Through the history of general philosophy we find classic accounts of the possible relationship between aims, content, and learning and teaching in education articulated by different schools of thought, each with resonances in contemporary educational thinking. Whether this be the innatist epistemology of Plato's *Meno*, the empiricism of Locke, the constructivism of Rousseau, or Aristotle's account of the acquisition of virtues, the continuing relevance of philosophical thinking to contemporary practice is plain to see. Engaging with these classic accounts enables teachers to clarify their own understanding of the purposes of education and their reasons for favouring some educational activities and approaches over others.

The value of teachers engaging with philosophical ideas extends beyond their personal practice in the classroom to their wider professional

role in contributing to the development of national education policy. Questions about the goals and goods an education system should pursue, and about efficient and morally acceptable means of realising them, are ones with which teachers need to be able to engage seriously and confidently, so that they can participate actively in the political processes through which, in a democracy, such matters are resolved.

Good teacher education provision will not evade these questions of meaning and purpose in favour of purely technical accounts of effective teaching in the classroom. Unfortunately, much current provision does evade them. Discussions of teaching and learning tend to be dominated by empirical and quasi-empirical claims about 'how children learn', while philosophical questions about what learning *is* are sidelined or ignored. We are not asserting disciplinary superiority for philosophy here but claiming that teachers need to understand education at a conceptual level as well as an empirical one. Indeed, successful empirical enquiry requires that underlying questions of the conceptual structure of knowledge and value are properly addressed.

A major preoccupation of new and early career teachers is how to manage behaviour in the classroom, which raises important questions about forms and purposes of school discipline; yet few teacher training courses pursue these (Orchard and Heilbronn, 2014). Also neglected are fundamental questions about the kinds of knowledge that should have a place on the curriculum and the ways in which different areas of human activity and interest depend on them (McLaughlin, 2000; Williams, 2000). What philosophy provides here is not just one more disciplinary perspective on education, but an indispensable conceptual framework for thinking through educational problems.

5. Teaching and empirical research

Like good doctors, engineers and lawyers, good teachers need to engage with new knowledge in their field. Although this is an ongoing professional need, initial teacher training should equip teachers to engage actively with the findings of educational research.

A problem with research in any field is that it varies in quality. Moreover, in empirical educational research there is often no firm consensus on a topic. This is why teachers need to be discriminating and not take popular and influential educational theories at face value. They should be capable of assessing the quality of the arguments and evidence advanced in support of those theories.

Research may be defined as systematic investigation of an aspect of reality or a body of ideas. Two kinds of structured investigation in education have the potential to support teachers in the classroom. One kind of research teachers might use is conducted by expert researchers and the findings applied judiciously by teachers to their practice. The other kind, ‘action research’, involves teachers systematically investigating their own practice with a view to improving it.

With the first kind of research in mind, take the work of John Hattie, whose book *Visible Learning* (Hattie, 2009) has struck such a chord with large numbers of teachers worldwide. His research into classroom practice across a number of education systems, which involves meta-evaluation of hundreds of studies, focuses on the kinds of activity that lie at the heart of successful teaching, including classroom management and planning lessons and schemes of work.

On their own, his findings cannot direct teachers to adopt one course of action rather than another; nor can they be pre-packaged in ‘teacher-proof’ maxims for action by school leaders or policy makers. Where

such research can be useful is in suggesting some possible types of action that are likely to be warranted in a range of circumstances. In order to interpret how to make use of a particular approach in a particular situation, though, teachers need to know and understand the research in some detail.

Yet it is rare, as Goldacre suggests, to find new teachers being taught the basics of how research is done and the strengths and weaknesses of different approaches to different types of question (Goldacre, 2013, p.16). Goldacre contrasts this limited professional knowledge and understanding with the kind that is needed to progress in one's career in other parts of the world. He cites the example of teachers in Shanghai and

Singapore who participate in regular 'Journal Clubs', in which they discuss new research and consider how its findings might apply to their own practice.

Moreover, teachers need to understand that the kind of evidence generated by empirical educational research may provide *possible* answers but will rarely provide *definitive* ones. It can provide warrants for action in professional situations in the form of provisional corroboration, rather than statements of certainty (Bridges et al, 2009). Even where a large scale research project is school-based, the informa-

tion it generates may shed light on best practice for that context without telling us very much at all about how the same intervention would work in other contexts (Allen, 2013). Research always needs to be carefully interpreted before it can be applied to different situations.

The second kind of research – action research – usually involves collaboration between teachers and specialist researchers. Teachers and schools undertake systematic enquiry into their own practice and possibly school processes, focusing on issues identified by the school as worthy of investigation. It is important to emphasise that such research works best when it is in the form of a genuine partnership between schools and universities or research institutes, each drawing on the strengths of the other.

With teachers as researchers undertaking much of the work on their small scale practical investigations, they need to understand not only how research works but how to be researchers. However, current training programmes are so short that the development of teachers as researchers ends up being squeezed by other priorities in professional learning. This highlights the significant, potentially unrealistic, demands being made of

Teachers need to understand that the kind of evidence generated by empirical educational research may provide *possible* answers but will rarely provide *definitive* ones

early career teachers. Later in this pamphlet we indicate how the shortcomings of current provision in this respect may be overcome.

Doubts have been expressed in the past that research has much of a contribution to make to improving professional practice. For example, Wideen and colleagues argue that 'little research evidence exists to suggest that formal knowledge generated by outsiders can or will be applied readily by teachers' (Wideen et al, 1998, p.191); and Carr questions the relevance of the kind of educational theory generated by researchers to teachers' critical reflection (Carr, 2006). We disagree with this assessment, believing that research feeds clearly into teachers' practical judgment, both directly and indirectly. It works directly on practical judgment by challenging or corroborating teachers' 'unfolding understanding of the situation in which they find themselves' (Oancea and Furlong, 2007, p.210); and it works in the background of practical judgment by filtering into the conversations and expectations of teachers as a form of 'common sense'.

6. Teaching and ethical deliberation

An established and growing body of literature has attested to the importance of ethical deliberation in teacher education (e.g. Carr, 2006, Papastephanou, 2006; Campbell, 2008) and pointed to the numerous opportunities for such deliberation in training programmes in other professions (Davis, 1999; Russell, 2006). Teachers need education in ethical principles and theories and space in which to discuss and debate what these mean in the classroom.

Part Two of the Teachers' Standards for England concerns issues of personal and professional conduct. It requires that teachers 'maintain high standards of ethics' by 'showing tolerance of and respect for the rights of others' and by 'not undermining fundamental British values, including democracy, the rule of law, individual liberty, and mutual respect and tolerance of those with different faiths and beliefs' (DfE, 2011). These are weighty, complex and contested ideals. They must be discussed and considered in initial teacher education programmes, yet there is presently little scope to enable the serious and sustained reflection necessary for an adequate understanding of them.

Developing teachers' capacity for ethical deliberation requires both opportunities for discussion and specialist input from experts in educational ethics. Philosophy has an important role to play here. One experimental project, building on a collaboration between the University of Bristol, the Philosophy of Education Society of Great Britain (PESGB) and the Higher Education Academy (HEA), has promoted the idea of Philosophy for Teachers (P4T) as a way of encouraging teachers to deliberate ethically within a community of fellow enquirers (Orchard and Heilbronn, 2014). In a series of 24-hour workshops, student teachers were invited to think ethically about dilemmas they might face in the

classroom. Each workshop blended input on ethical and educational theory with reflection on concrete examples of complex and difficult classroom situations. There was a particular focus on the management of challenging behaviour in the classroom, as this is a common preoccupation of early career practitioners. The project offers an early indication of how the current gap in teachers' ethical thinking might be addressed, were there a commitment to making space for it in teacher education programmes.

7. The role of universities

Having argued for the place of theory in teachers' professional development, we now explain why universities are better placed than schools to promote the three kinds of theoretical engagement necessary to good teaching.

Our case is based on two main contentions. First, we will argue that universities are more likely than schools to employ staff in greater numbers with the necessary scholarly and pedagogical expertise to undertake this task. Our second point is that the environment of a university is more conducive to the kind of theoretical learning needed by new teachers, which often involves sustained discussion and the sharing of ideas away from the immediate pressures of the workplace.

The core function of a university, in contrast to a school, is to educate adults. There may be aspects of learning that are common to all, regardless of age, but the demands of teaching adults and children differ in significant ways. Universities employ staff on the basis that they possess the specific combination of professional and scholarly expertise necessary for teaching new teachers. Where staff appointed to universities lack teaching experience with adult learners, there are systems and training in place to support them and audit the quality of their teaching performance.

Successful and effective teachers in schools are not always able to mediate their professional knowledge, understanding and teaching technique in ways that enable trainees to become effective teachers themselves. Opportunities to watch these experts in action with their classes will clearly be a vitally important aspect of teacher education. But enabling beginning teachers to learn from their observations, to pick out what is important and to understand why experts make the choices they do, requires specialist support and guidance.

Former teachers working in universities as second-career academics and specialising in teacher education are particularly well-placed to support new teachers through the demands of on-the-job learning. They keep an eye on both practice in school and the latest developments in theory and research in education. They are uniquely well-placed to assist teachers in understanding educational theory and working out its implications for practice.

There may be a practical issue facing university-based teacher educators who find themselves under so much pressure to comply with statutory requirements and expectations that they struggle to find time to engage in cutting-edge research and scholarship (Ellis and McNicholl, 2015). If Bennett and Goldacre are right

to criticise the quality of university-based teacher education, this practical issue may have contributed to the problem. It is an issue universities will need to address if the full benefit of their involvement in teacher education is to be realised.

Universities give teachers access not only to considerable expertise in education but also to expertise in curriculum subjects (which can be mediated for schools and teachers by subject experts within education departments). It is strange that schools are being encouraged to take such an active and independent role in

subject knowledge enhancement for teachers at the expense of universities, for the depth and breadth of subject expertise is far more limited in schools, except in very unusual cases.

There are also material resources universities can offer teachers during their initial teacher education which are beyond the reach of most schools, including access to specialist study centres containing large collections of articles, teaching materials and books. Open access agreements may help to offset the problem of limited access to these materials in the longer term. However, valuable though open access may be, independent learning does not offer the specialist advice available to teachers through direct and extended contact with a university.

In future, universities could do more to make opportunities available to teachers to learn within their chosen subject specialisms, given the focus on subjects in the school curriculum. As well as supporting widening participation in Higher Education initiatives through direct links with a wider range of schools through their teachers, universities might give

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new and early career teachers greater access to taught Masters levels units in their subject specialisms.

Finally, universities provide space that is conducive to reflection, away from the business of everyday school life. Potentially they are a place of retreat for teachers, a place where teachers can recharge their intellectual batteries, if the time allocated to teacher education is right.

In short, universities (including but not limited to their departments of education) should continue to take a central role in the preparation and continuing education of teachers.

8. A vision for teacher education

The final challenge is to set out a vision for teacher education in England in the light of our arguments. Teacher education must equip trainees for the professional conception of teaching we have described. It needs to be attractive to people considering a career in teaching. And it needs to offer effective support in the critical years immediately after initial qualification, so more new teachers choose to stay on in the profession.

New entrants to the profession should already have a good command of the subjects they will teach. This may be gained through an undergraduate degree, through alternative forms of experiential learning ratified by training providers, or through formal subject knowledge enhancement programmes prior to teacher education. But beginning teachers should also have opportunities to develop and extend their subject knowledge as part of their initial and continuing teacher education.

Teacher education should integrate the three kinds of theory we have defended – conceptual understanding, empirical research and ethical deliberation – with practical observation, experience and reflection. Teachers must have a firm grasp of key educational concepts and, where these are contested, engage with the theoretical debates about them. They must know, understand and be able to apply the findings of high quality educational research as these become available. And they must explore and reflect on the values that underpin the practice of education and the school curriculum.

The practical side of training needs to provide a controlled introduction to exercising full responsibility within the classroom. This will begin from an early stage, with trainees spending progressively longer periods of time in schools and taking progressively greater responsibility for the

learning and behaviour of pupils. Practical experience in schools must be closely supervised and there must be sufficient time between placements for trainees to interrogate and reflect on their practice away from the classroom.

This may sound like an ambitious set of requirements, but we aspire to teacher education that does more than merely prepare teachers to survive their first year of teaching. These are things we believe every qualified teacher needs to know, if they are to make good sense of the environment in which they are working and to feel in control of their work. These elements also provide the basic preparation for more advanced areas of professional practice, including curriculum design, higher order teaching techniques, and the development of assessment processes – all of which are becoming more necessary at school level as schools become increasingly autonomous.

In terms of structure, we propose an expanded conception of initial teacher education with two distinct phases. The first phase would be a nine month PGCE or three year BA with QTS programme, with school placements undertaken as interns (i.e. supernumerary and unpaid members of staff), on the model of current provision. PGCE and BA with QTS programmes should be regulated by a common curriculum. Cru-

cially, the responsibilities and duties of interns on school placements should be commensurate with their status as supernumerary staff.

Beginning teachers on university-based PGCE programmes currently spend approximately 40% of their time on campus and 60% of their time in schools. We think this balance is about right. Interns should be supported by skilled practitioners, educated to Masters level

or equivalent, in their placement schools. Completion of the PGCE or BA with QTS should result in *initial licensure*, which would include entitlement to access the salary scale and defined responsibilities in a first employment.

The second phase would be a two year, higher grade apprenticeship, in which teachers as junior colleagues in schools would continue to follow a university-based programme of study closely integrated with their work in the school and classroom. Completion of this apprenticeship should result in *full licensure* at Masters level.

Apprentice teachers should be protected from the most severe operational pressures and should be closely and sympathetically mentored by senior teachers. Further subject specific support will be needed from lead practitioners, operating across clusters of schools, particularly in smaller

We aspire to teacher education that does more than merely prepare teachers to survive their first year of teaching

curriculum subjects. The apprenticeship period should involve approximately one day a week of academic study, leading to a full Masters qualification. All apprentices should have opportunities to observe and teach in schools other than the ones in which they are employed. Apprentice teachers will therefore require a reduced teaching timetable.

Teachers' capacity for autonomous professional judgment will have a chance to mature during this apprenticeship period. Growing professional experience, reflected upon in an environment that allows for discussion and interaction with colleagues working in a variety of school contexts, should enable beginning teachers to flourish as practitioners. Apprentices should be assessed both on their work in the classroom and on their ability to give an account of how they approach their work and improve their practice.

There is an alternative to this two phase model. Already a minority of beginning teachers are junior employees of schools from the outset of their training, including Teach First trainees and those on the School Direct PGCE (salaried) route. We have no principled objection to training routes in which entrants to the profession are apprentices from the start, *provided that there is the same level of university-based provision as in our two phase model*. Apprentices on these routes, in other words, should be released from teaching to engage in academic study for approximately two days a week in their first year and one day a week in their second and third years. Moreover, universities would need to play a significant role in the recruitment of trainees and programmes would need to be structured in such a way as to give trainees experience of working in at least two contrasting schools. If these conditions were met, we see no reason to oppose apprenticeship-only routes into teaching. Indeed, learning in controlled workplace conditions as a junior employee is known to be a highly effective mode of occupational induction (see Hanf (2011) on the German 'Dual System').

On either model, the quality of the academic programmes followed by apprentice teachers should be of the highest level. There is a clear correlation between the academic achievement of teachers and their subsequent classroom success (Darling-Hammond, 2000). We accept that it is possible to be a good academic and a poor teacher. However, a thorough academic preparation is a necessary condition for the formation of high quality teachers.

9. Conclusion

Our response to current and proposed changes in teacher training in England has been to challenge both their philosophical assumptions and their direction of travel. We have offered what we believe to be a preferable alternative, one that is feasible within the current structures.

We start from the assumption that everybody involved in education wants a teaching force that is highly able, knowledgeable and committed. We argue that, in addition to excellent subject knowledge and technical know-how, teachers need a conceptual framework within which to think about educational issues, a good grasp of what research implies for their practice, and a developed capacity for ethical deliberation. We contend that strong partnerships between schools and universities are essential for high quality teacher education. While the importance of on-the-job training in schools is well-understood, there is a real danger of losing sight of the critical and distinctive role that universities should play.

The Carter Review makes some welcome recommendations for theoretical elements in initial teacher education. We find it hard to see how these elements can be effectively embedded in training programmes without the involvement of universities in general and departments of education in particular.

First class support within school is also critical in teachers' early career development. If new teachers do not feel adequately supported in their first teaching posts they are likely to become disillusioned very quickly. Assuming reports on teacher attrition rates are accurate (ATL, 2015), more needs to be done to manage initiation into the full range of responsibilities of a teacher. There appear to be problems both with trainees choosing not to enter the profession at all and with new teachers choosing to leave within five years of qualifying. The data suggests that both aspects of the problem are getting worse. Our proposal for a higher grade apprenticeship following the award of QTS provides a realistic

and appropriate framework for supporting new teachers at the start of their careers and staunching the flow of talented young people from the profession.

An apprenticeship programme, with tightly woven practical and theoretical elements, would allow for the acquisition of the elements of knowledge and expertise that are necessary for the development of professional teachers. Such a programme could build on and adapt the experience of the short-lived Masters in Teaching and Learning in England, and of the Masters in Educational Practice currently offered to teachers in Wales.

Like other professional workers in complex and changing environments, teachers need a conceptual framework for their understanding and decision-making, an ethical orientation to their work, and an appreciation of how research bears on their practice. Both the brevity of current teacher education programmes and their meagre attention to educational theory are symptoms of a deeper malaise: a narrow and distorted popular conception of what it means to be a good teacher.

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What training do teachers need? Why theory is necessary to good teaching

Recent years have seen a concerted and systematic move towards a school-led system of initial teacher training in England. The role of universities, and particularly their part in engaging new teachers with educational theory, has been radically challenged. Only around half of new entrants to the profession now follow university-based training routes. These seismic changes to teacher education have been driven through with a minimum of formal consultation or public debate.

In this urgent and compelling pamphlet, Janet Orchard and Christopher Winch argue for a conception of teachers as professionals who require a deep understanding of the conceptual, empirical and normative dimensions of educational practice. They explain why university education departments are better placed than schools to help beginning teachers acquire that understanding. And they propose a significant expansion of initial teacher education, with full licensure contingent on completion of both a preliminary teaching qualification and a higher grade apprenticeship in the first two years of employment.

Teachers need educational theory because they must understand what they are doing and why they are doing it, and must be able to think intelligently about how to do it better. At present, universities have the capacity and the expertise to meet this need. But they may not have it for much longer if the shift to school-based teacher education continues unabated.



IMPACT

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