Chapter 6
Teacher Education and the University: The Global Reform Imperative

Bob Moon

Abstract This chapter looks globally at the role of the university in teacher education. Over the last hundred years, it is suggested, universities have become the main provider and accreditor of teacher education programmes. This has significantly improved the professional standing of teachers. Yet, paradoxically, the analysis suggests, in many countries, public and political opinion has become highly critical of the quality of the education and training provided. The reasons for this are discussed, and it is suggested that this is a consequence of underlying social pressures that need to be understood if confidence in teacher education is to be regained. Five directions for change are proposed: making the research role of the university stronger and more explicit in teacher education, giving increased emphasis to the social mission of teaching, ensuring that the teacher educator is to the fore in monitoring the impact of social and economic change, radically reforming the content of teacher education and positioning the university to act as a hub around which a regenerated network model of teacher development can prosper.

Keywords Teacher education • Teacher professional development • University role in teacher education • Teacher social mission • Professional network • New communication technologies

In an important sense, the history of teacher education is a success story. Over the last three centuries, and especially in the twentieth century, institutions of teacher education, increasingly university based, expanded in all parts of the world. Recognition of the importance of educating teachers has become a part of the policy agenda for most national governments. The need to 'qualify' teachers is now widely recognised and is an unquestioned assumption in most countries.[1] Teachers have

[1] There are some exceptions. In England, for example, government policy to establish 'free' unregulated schools in the period 2010–2015 also embraced rhetoric of freeing teachers from the need for regulatory qualification.

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played an important role in the remarkable improvements in the range and quality of schooling in many countries, South Korea, Singapore and the Shanghai region of China providing three examples.[2]

Yet, despite the record over what the French would term 'la longue durée', teacher education in the first decades of the twenty-first century has experienced unrelenting criticism.

Arne Duncan, President Obama's long-serving Secretary of Education, one of the leading critics, has said:

> By almost any standard, many if not most of the nation's 1450 schools, colleges and departments of education are doing a mediocre job of preparing teachers for the realities of the 21st century classroom.

And *Time* magazine, one of the journals reporting the speech, was equally forthright:

> It was a damning but not unprecedented assessment of teacher colleges, which have long been the stepchildren of the American university system and a frequent target of education reformer's scorn over the last quarter of a century. (Time, October 23, 2009)

In England, similar, perhaps even more strident political attacks have characterised debate over the last two decades. In 1990, Conservative government proposals to give schools rather than universities the major say in teacher training were warmly supported in *The Times* (June 11th):

> Current teacher training courses lack rigour and are not up to university standards.

New regulations were put in place to require that four fifths of all teacher training courses took place in schools, a move that was strongly supported by some right wing think tanks (Lawler 1990). This debate has rumbled on for more than 20 years. In 2013 the current minister argued strongly that 'the best people to teach teachers are teachers', rather than, as he saw it, the prejudiced community of education professors (reported in The Telegraph March 21st).

Concern about the quality of teacher education, however, goes well beyond the developed world. Successive UNESCO global reports monitoring the progress to secure a school place for every child by 2015 have called for the reform of a teacher education and training system perceived as outdated, insufficiently practical and failing to prepare teachers who, in developing countries, can be effective in the classroom (UNESCO 2004, 2014).

In this chapter, I want to look more closely at the dichotomy between the world of university-based teacher education and the public and political scrutiny it has and is now undergoing. I want to suggest that we look beyond the politicisation of teacher education and examine the deeper social pressures that are often overlooked in the debates and controversies around teacher preparation and support. The teacher

[2] A major programme to raise the quality of London secondary schools, in the first decade of this century, developed a 'Chartered Teacher' programme to give greater legitimacy to improvement through professional development. Although successful in terms of the aims of the overall programme (Brighouse 2007), the Charter approach has not been sustained.

education community, now almost wholly based in universities, needs, I believe, to be responsive to these pressures and map out a reform strategy that takes account of social, political and professional unease. I will suggest the directions that these need to take.

In doing this, it is important to stress that I am not thinking of any one national system. There is now a strong global discourse around the education and training of teachers. There are many interesting, usually localised, examples of new and innovative practice that do address the issue of public confidence, and some of these I will refer to. My main concern is with systemic change and at scale. To achieve this, I think we need to rethink some of the ideas and assumptions that underpin present practice. I want to look at general concepts, and to do this, I need to look first in more detail at what I have termed the 'success story' of teacher education and the problems that have arisen subsequently.

Formal provision for educating teachers, in Europe, goes back some way. Jean-Baptiste de La Salle established the first French 'école normale' in Reims at the end of the seventeenth century (Johnson 1968) and the first German seminary for teachers was set up in Gotha in 1698 (Neather 1993). In England the first teacher training college was established in Southwark, London, in 1798. Nearly 40 years later, the first teacher training 'normal school' in the USA was set up by Cyrus Peirce in Lexington (Provenso 2011).

These institutions focused almost wholly on preparing teachers for the elementary or primary phases of schooling. As primary education expanded, becoming universal in most parts of Europe by the end of the nineteenth century, so the institutions of teacher education proliferated. These were single-purpose institutions with, in some countries, strong links to the church. By the early years of the twentieth century, such institutions were educating very large numbers of teachers for the rapidly newly created mass education systems.

The origins of teacher education are, therefore, unlike professions such as medicine or law, outside the academy or university. This was to change through the twentieth century. What one commentator (Neave 1992) has termed the 'universitisation' of teacher education began to take hold.

The incorporation of teacher training into the university sector proceeded at different rates from country to country. In the USA the move took place primarily in the 1930s, in England in the 1970s, in France in the 1990s and in South Africa in the first decade of the present century. Other countries moved at varied time scales, but in most parts of the world today, teacher education is either provided by universities or accredited by universities as primary teacher education became incorporated, so the pressure to provide teacher education for secondary teachers increased, and it became increasingly recognised that a subject degree was insufficient for entry into teaching. One, sometimes two, year of pedagogic preparation for pre-service courses quickly became the norm.

The involvement of the university in teacher education has had important consequences. The increasing number of primary teachers educated to degree level contributed to the rising status of the primary sector. The universities, for the most part, guarded closely an academic freedom and autonomy that, initially at least, protected

teacher education from government intervention or regulation. Good primary and secondary teachers could aspire to a university lectureship, something unheard of before.

Over the last 25 years, however, the role of the university and the practices of the university in teacher education and training have come under relentless scrutiny. I have referred to the concerns in the USA and England and in the developing world. The examples proliferate.

In France the Sarkozy government in the first decade of this century set about abolishing the equivalent of university departments of education (the Institut Universitaire de Formation des Maîtres-IUFM) and moving teacher education into the subject departments of the universities (Lapostelle and Chevaillier 2011). A study for UNESCO found that the vast majority of European countries had introduced regulatory or legislative reform to improve the quality of teachers (Moon 2003). In Australia there have been numerous governmental and state reviews of teacher education. The Ramsey Report for New South Wales (Ramsey 2000) pressed the need:

> To align teacher education with the needs of our times: in too many current instances this seemed not to be the case. (p.24)

And suggested that:

> The current way of conceptualising teacher education reflects a traditional adherence to discipline areas, and precludes the involvement of multi skilled educators in the school environment…the current paradigm for thinking about teacher preparation programs is outdated and has been over-taken by changes to work patterns and practices. (p.24)

The report looked at the position of teacher education within the university:

> Teacher education is less connected to the other disciplines in universities than it has ever been. In the very period when the university disciplines should have engaged with teacher education, they have distanced themselves from it as much as teacher education has from them. Equally, teacher education in the State's (New South Wales) universities does not generally operate within models that make strong connections with schools. (p. 25)

If we are to understand the situation of teacher education today and if we are to set out proposals for repositioning and reform, then it is necessary to examine the origins of this sort of disquiet. How did a system of teacher education that, for most of the twentieth century had gone unchallenged, gain such critical political attention and, in some countries, acquire such notoriety?

It is important to remember that criticism has come from across the political spectrum, Democrats as well as Republicans and Socialist as well as Conservative parties. The concern represents something more than party politics.

I believe that the worry about teacher education is part of a wider social unease about the quality and effectiveness of schools generally. In Europe, North America and Australasia, and increasingly in developing countries, concern about achievement in schools is a major political issue. It is not only a national achievement overall, as judged, for example, by international tables such as PISA but also the inequalities of achievement within countries that is creating unease. These doubts are expressed across the political spectrum.

I think that the concern about teacher education is, in no small measure, a consequence of the progress made in education. Over the last 50 years, larger proportions of the populations than ever before, in most developed countries, are achieving educational success. In the UK, over 40% of the population go on to higher education compared to less than 10% in the middle of the last century. In South Korea, the proportion of young people entering the university has just topped 80%. In France the same proportion pass the secondary school leaving baccalaureate.

These improvements have led to many more educated parents who, implicitly or explicitly, know the social and economic importance of education for their children. It is unsurprising, therefore, that a less deferential more abrasive approach to the quality of schooling has come to characterise our social institutions. Parents are prepared to be critical of schools and teachers. Where politicians take up the standards issue, they are plugging into a deep source of parental worry. This is not confined to the richer nations. A report by The Nelson Mandela Foundation in South Africa, aptly titled 'Emerging Voices' (Nelson Mandela Foundation 2005), provides vivid testimony of the disquiet of parents about the quality of teachers. And on YouTube, you can watch demonstrations by parents and children about the quality of their teachers in places as far apart as India and Mexico. Is it any wonder that teacher education becomes a central feature in this broader picture?

Political scrutiny and attacks on teacher education also reflect the ambiguous status of teacher education within the university. One perceptive commentator in England (Hencke 1978) has part of the explanation for this:

> Teacher training began in 1798 in Southwark, a slum district of London. That Southwark rather than Oxford or Cambridge was the home of teacher training explains many of the problems facing teacher educators' today…unlike theology, medicine or law it has no historic claim to a university tradition of academic excellence or respectability. It has more in common with medieval craft guilds, whose apprenticeship system preceded modern technical education. (p. 13)

I have already referred to Arne Duncan's views on teacher education and training in the USA. Critiques go back some way. The much quoted report of the Holmes Group (Holmes Group 1995) on Schools of Education in the USA presents a damning indictment of teacher educators who, in the unsuccessful quest for status and legitimacy in the academic community, became cut-off from their central mission, the world of schools and the work of teachers.

I think it is worth dwelling on the teacher educators' 'quest for legitimacy' because I believe this to be one of the major fault lines of the present structure of teacher education. As teacher education institutions became part of the universities, the staff who made the transition had to adjust to new systems of status and reward. Research and scholarship had much higher visibility than in the teacher training colleges or colleges of education that existed formerly. The 'practical' work of preparing teachers for the classroom sat uneasily with prevailing norms. Although doctors, lawyers and architects embraced 'the practical', there was less of a perception that this was necessary in teaching.

Given this context, teacher educator legitimacy was sought more easily in the social sciences, particularly sociology. The bourgeoning development of the sociology of education followed the influx of teacher educators into the universities. The social sciences, to which many teacher educators were drawn, were not primarily focused on practical and professional work. I say this with no criticism but it did mean that teacher education began to acquire a reputation for overly theoretical courses unrelated to the real world of teaching.

There are consequences from this. The quest for legitimacy has only been partially successful. Teacher education has remained the poor relation in many parts of higher education. The practice of teaching has struggled to gain legitimacy. In England tutoring on the Postgraduate Certificate of Education (PGCE) programmes is often outsourced to temporary lecturers on short-term contracts. In the USA, most of the Schools of Education in the leading universities do no teacher preparation. It is unsurprising, therefore that, as many teacher educators move away from the 'practical', so they expose themselves to the criticism of being out of touch or too concerned with theory. The practical component of teacher education has repeatedly come under criticism for lacking articulation with other course components (a situation unthinkable in medicine), and in many education courses across the world, the practicum takes up only a small component of time.

The gap between teacher educators and schools continues to be significant. In many countries, teacher educators, as the Australian review suggests, have failed to establish a support base either within the schools or within the wider university academic community. Into this vacuum, governments have been regulating and legislating independent of the teacher education community within the university. For the most part, these interventions have championed practical skills, competences and performance-orientated modes of teacher education and training. The universities, often outside this discourse, have been unable to establish an alternative capable of convincing political opinion.

In some contexts, it is true, the teacher educator community has sought to mediate between the governmental and university perception of the teacher education curriculum. In England,[3] for example, where the stand differences between government and teacher educator have been especially acute, some universities sought to anticipate concern with a more practically focused approach to education and training. As a young head teacher in Oxford, I was involved in the school-based model developed by Harry Judge and colleagues at the University Department of Education, the Oxford internship scheme, modelled, as the name implies, on approaches to medical education. Few universities followed this approach until required to do so by government regulation. And regulation in turn created an ideological battlefield between those advocating craft skills and competence (governments) and others (teacher educators) advocating a more rounded education embracing a grounding in theory as well as practice (and sometimes incongruously appearing to oppose the idea of competence).

[3] The UK has four education systems, England, Northern Ireland, Scotland and Wales. The fierce political debates about teacher education have been almost wholly confined to England.

Let me, therefore, summarise this discussion before moving to suggest how contemporary problems could be addressed.

First, the universities have played a pivotal role in raising the status and ambitions of teacher education. This has been especially true for primary teachers and for secondary teachers who had previously been trained outside the university (e.g., physical education teachers). In most countries, the university maintains a strong involvement in the teacher education process.

Many departments of education in universities have, however, become increasingly isolated from schools. And the links with other disciplines within the universities are weak. The curriculum of teacher education has been strongly influenced by ideas and concepts from the social sciences, and this has laid university departments open to the criticism of being overly theoretical and lacking in engagement with the practice of teachers. As a consequence, often quite instrumental skill-based and competence-/performance-orientated regulatory frameworks have been prescribed by governments and government agencies.

So what to do?

System change can be a slow process. More than one commentator has pointed to the conservatism around teacher education (Hargreaves 1990). In this chapter, I am seeking to identify directions for change at a systemic level where inbuilt resistance to change is often very apparent. I think in most, if not all, countries there is an urgent need for reform, but despite the setting up of interesting projects and experimentation, systems have been slow to evolve.

It follows from my analysis that, I believe, it is necessary to reform the attitudes and positioning of the teacher education community. The public concerns about teacher quality will not disappear. There is validity in these perceptions, present in many countries that cannot be ignored. Inequalities of learner achievement must be addressed and teacher educators have a key role in this. Overall levels of achievement, particularly in developing world countries, are a concern, and teacher education again ought to be in the forefront of meeting this challenge. Improving the quality of teaching through better education must be, in these contexts, a key strategic objective. I think the teacher educator community needs to be more cognisant of this.

In the UK, there is now an attempt at accommodation between the different, often competing, stakeholders led by the British Educational Research Association (BERA 2014). BERA launched a major inquiry into teacher education in 2012. The preliminary findings take a critical, but non-partisan approach:

> There is strong evidence that teachers and teacher educators need to engage with research, in the sense of keeping up to date with the latest development in their academic subjects and on effective instructional techniques to inform their pedagogical content knowledge… Looking across the UK, it is evident that although there are pockets of excellent practice in teacher education, there is as not yet a coherent and systematic approach from the beginning of teacher training (see footnotes) that is sustained throughout a teachers working lives… It follows that there is an urgent need for all stakeholders (Government, national agencies, schools, universities and teacher organisations) to work together to create a national strategy for teacher education and professional learning. (p 8)

There are many countries around the world where the rebuilding of trust will require processes such as this. That may take some time. Teacher educators within the university do, however, retain significant room for manoeuvre. I want to identify five areas where I believe a change of positioning could work in favour of building greater confidence in the teacher education process.

The first draws on ideas from the BERA inquiry. Teacher education needs to promote and profit from the findings of research. It is not clear to me that the public perception of teaching includes such a research dimension. It should. I think it is important to make evidence and research more explicit in teacher preparation and development programmes. And there is a need for research, which, whilst having strong foundations in conceptual and theoretical ideas, also has strong relevance to practice. Lawrence Stenhouses's concept of the teacher as researcher (Stenhouse 1983) remains powerful through action and activity-based research networks, but few teachers engage in these. If we think of the teacher, and trainee teacher, as the 'consumer' of research, with a much stronger role for the teacher educator as the mediator between research and practice, then I believe the relevance of research in professional life will become more apparent.

The idea of the teacher educator as 'research champion' could also help lengthen teacher and institutional memory around research findings. The teaching profession can too easily forget some rather important evidence. As I wrote this chapter, I heard on the radio a government minister talking about the problems of children transitioning from primary to secondary schools and falling back in some subjects. It was presented as a new finding. Nearly 40 years ago, Maurice Galton, to whom this book is dedicated, made this finding very clear through the ORACLE research programme (Galton and Hargreaves 2002). How has that been forgotten? Why does the research need to be carried out all over again? Is there not a need to develop a progression in research that is shared by teachers? It seems to me that medicine is much more cumulative in the way research moves forward. And in law 'case law' is a building block of professional practice.

The second direction of reform relates to values. I use the term values in a general sense wary of the scrutiny of the philosophers of education. A concern with values might be seen as something of a hostage to fortune, particularly in those countries where the polarisation of theory and practice has acquired a political dimension, but for me, this is arguably my most important point.

Teaching, from the earliest times, has been understood as a vocation with a strong sense of social mission. This was true in missionary schools, and it was equally true of the reformers who introduced universal primary education to Europe at the end of the nineteenth century. Today, however, in the developed and developing world, the sense of social mission is more muted. I have just been reading a fascinating and rigorous analysis of the role of teachers in South Africa (James 2014) that demonstrates just how ambiguously teachers perceive their role in relation to social purposes such as combating disadvantage.

Yet, by almost any definition of the purposes of education and schooling, the role of the teacher, the process of pedagogy, must be social as well as educational (Leach

and Moon 2008). Creating the means for children to learn is a process that enfranchises the individual within our complex social structures. Pedagogy is emancipatory. Those children, who for one reason or another are disadvantaged in being able to seek such capabilities and thus personal autonomy and freedoms, are even more dependent on the school and teacher's sense of social mission. In the large scale state education systems of the world and even in some small scale private ones, providing equitable teaching and learning opportunities is at the core of the teacher's task.

I would like to see a more public articulation of the social role of the teacher placed at the core of teacher education. This would have to be done fairly and with a sense of humble enquiry rather than ideological determinism. In fulfilling their social mission, teachers need to become expert in the learning process, they need to acquire the latest evidence about barriers to learning, and they need at all times to be seeking to change pedagogy (and all the systems that support good pedagogic practice) to better address the social challenges faced by most schools.

In 2013 Vicky Colbert won the World Innovation Summit for Education (WISE) prize for an outstanding contribution to education. She founded and directs the Escuela Nueva schools movement in Colombia. The schools that espouse child-centred active learning and educate five million children have spread across Latin America and other parts of the world. On receiving the award, in a question and answer session, she was asked about how Escuela Nueva teachers were educated, and what professional development they received? In a rather apologetic way, she said that in no country had they found the existing systems of teacher education able to respond to Escuela Nueva needs. They had, therefore, established their own independent structures for teacher education. The Escuela Nueva schools are clearly inspirational. They make up a school system that is built on the traditions of Montessori, Freire and others but is unable to source inspiration from the teacher education communities in which they work.

Economic and social structures in the developed and developing world appear to be creating fault lines that continue, sometimes in ways more extreme than previously, to render even more important the social mission of teaching. This ought to be at the core of teacher education and the university could have a vital role in establishing such a universal principle.

My third point follows from the first. If teachers are to engage with the notion of social mission, they will need to understand the processes of social change. The university is well placed to be monitoring the processes of social and economic change and mediating these to inform the work that teachers do. I suspect this rarely happens in current teacher education programmes.

Will Hutton a journalist and chairman of the Work Foundation sees technological change as having immediate and profound effects on work and social life:

> As the battle for the shape of society unfolds over the next five years, the work force will change irrevocably. The importance of hard and soft skills will become even more obvious, as will the rise of cognitive and geographic inequality. (for a fuller discussion see www.futurehistorynow.og)

A view that the Australian review (Ramsey 2000) gave some consideration to:

> Teacher education needs to equip future and current teachers with much greater awareness about and knowledge of the rapidly changing nature of work and the expectations which employers now have of education systems and schools…the traditional approach to teacher education no doubt provides teachers with the necessary skills to facilitate and manage the learning process in the classroom …however, it does little to provide teachers with any practical knowledge of the modern and changing society they are preparing students for. (p.21)

Teachers and schools always seem to be playing catch up to changes such as these. I am not sure it features on the agenda of teacher education. Teacher educators, for example, have been slow to embrace the new information and communication technologies (Bingimlas 2009). Positioning teacher education to be aware of, and monitoring, the sorts of changes Hutton refers to, especially the concept of cognitive inequality, would be part of the attitudinal change that needs to be brought to teacher education.

My fourth point relates to the content of teacher education programmes. Here I want to be rather bold in saying that too much of teacher education is, to put it frankly, far too boring. Educating someone to become a teacher, the noble profession as I recently heard it called by a Congolese educator in Kinshasa, is a fascinating and almost sacred task. How do we manage to make it so uninteresting? I recently sat in on a lecture on active learning where, for an hour, the only person talking was the lecturer. That might be rather extreme but it is not unique.

I think part of the problem is the way too much teacher education is separated from practice. I remember a teacher education upgrading programme at the University of Fort Hare in the eastern province of South Africa where the course director insisted that no content would be ‘admitted’ unless there was a clear and explicit link to show the relevance to practice. This seems a powerful strategy and one that could be used in all contexts. If the relevance to practice can be made explicit, then the political impatience with theory could be obviated. New teachers should be experts in learning theory but rarely are. New teachers should understand the latest ideas about brain science and be able to debunk some of the myths around intelligence that have pervaded teaching and learning cultures. The fascinating story of our minds and learning should be a lifetime interest for all teachers (Leach and Moon 2008).

Content also extends to teacher professional development. In most parts of the world, the university has a weak presence in this crucial area. In part this is because the structures and mechanisms to facilitate this are not in place (see my fifth point below), but it also reflects the attitudinal divide between schools and universities. In general terms, the evidence suggests that most programmes of teacher professional development are uncoordinated and lacking coherence and intellectual rigour. These findings are consistent across the developed and developing world (McCormick 2010a; Westbrook et al. 2012). Yet we also have good knowledge about what makes for good professional development (Cordingley 2013), namely:

- The deployment of specialist advisers and experts to support teachers.
- Ensuring peer support and a collaborative approach.
- Respecting the evidence of what works.
- Ensuring that prevailing assumptions and practices are challenged.
- The regular observation of practice in all aspects of professional development.

The university teacher educator should have expertise in respect of all these processes. If teacher educators could conceive of a role that embraces ongoing school improvement linked to professional development, then the status of teacher education would be enhanced within and outside the university. There are examples of this. The British Curriculum Association, for example, working with BERA gives an annual prize for university-school collaboration, which, in 2013, was won by The University of Glasgow and a cluster of local Scottish schools.

The university could also take a role, perhaps the lead role, in capturing teacher professional development experience through the application of portfolios or profiles. Other professions have been able to do this. Despite innumerable projects and pilots, it is difficult for teacher education to identify anywhere in the world such an approach has been sustained and adopted at system level.[4]

There is significant potential within the universities for enriching the content of teacher professional development. Most subject academics, for example, have little contact with schools. As more and more young people move from school to university, the links between teachers and subject academics need strengthening. Subject specialists in secondary schools or colleges could spend some time in a university academic as a visiting teacher. We make much of the need to ensure a smooth transition between primary and secondary schools but give little, if any, attention to the school to university transition.

The teacher educator could have an important role as the broker in such a process. There is now good evidence, I think of the influence of people like Lee Shulman in the USA, that good subject knowledge is crucial to effective teaching in all phases of education. We need teachers who are motivated or even 'fired up' by new understandings of subject knowledge and the ways this knowledge is transposed through pedagogy into effective learning and teaching (Shulman 2004).

My research team has explored the nature of teacher professional knowledge and the role of subject knowledge in some detail (Banks et al. 1999; Leach and Moon 2008)). In our work with teachers, in many different parts of the world, we have seen how motivated and engaged teachers become in making the links between subject knowledge and pedagogic practices.

[4] It is interesting in using the phrase 'teacher training' in the conclusions of the BERA report. The English language, unlike some other languages, makes this distinction, which has sometimes defined the debates around teacher preparation with the 'trainers' on one side and the 'educators', the other. The Conservative government in the early 1990s set up a Teacher Training Agency to oversee the universities much to the irritation of some teacher educators. However, the two words are defined it would seem to me that both have a role to play in developing programmes, as the BERA document recognises.

One leading primary school head addressed this issue more than 20 years ago. He asked the question 'how far we can trust teacher – trainers…. in the important task of managing change in pedagogical theory and practice?' And he went on to argue that the successful adoption of new methods would create trust and a 'growing professional status' for teachers (Winckley 1989). Twenty-five years on these assertions continues to be pertinent for teacher education.

My fifth direction for change would be in rethinking the relationship between the university, university departments of education and schools. In initial training, this would involve significantly extending the practicum and making it central to the education and training experience. In a few countries, Finland, for example, there is a long tradition of school involvement in the pre-service phase, but in many contexts, the practicum is a 'bolt on' to the curriculum of initial education and training. In recent years, I have spent a great deal of time working across sub-Saharan Africa where, in many countries, the undervaluing of the practical component in courses is particularly acute (UNESCO 2004, 2014), but this is a systemic issue in all parts of the world. It is inconceivable in other professions that trainee students would sit for years in lecture rooms without any observational and practical experience. Why should teacher education be any different?

The rethinking around the practicum of the pre-service phase should extend to teacher continuing professional development. The university today is hardly visible to the teacher in school or college. I think, as I suggested in my fourth point, that we should be forging much stronger links that legitimate the teacher's intimate relationship with the academy. We need to think about extending higher-level postgraduate qualifications to a much greater proportion of the teaching profession than is the case today. In many countries, the numbers of teachers enrolling on master level degrees are dropping (Ramsey 2000). It will be impossible to achieve this through the traditional route of seconding teachers out of the school 'to' the university. We need solutions at scale through new forms of school-based teacher education (Moon 2013). The communication technologies now available offer radical opportunities for creative and innovative approaches, and some universities are beginning to exploit the potential. The Harvard WIDE World is one example and can be viewed at www.learnweb.harvard.edu.

Most important for me in the rethinking process is, as I suggested above, the need to develop much stronger links between the wider academy and teachers. Networks bringing together university academics and teachers are few and far between. They should become the norm. There has been a growing interest in the power of networks in the research discourse around education (McCormick 2010b) with little practical applications to show for it. The university department of education has the position and potential to provide the brokerage to achieve this. It would be a significant way of ending teacher education isolation within the academy. We have the technology to link teachers to cutting edge work in all the subject disciplines and to those other disciplines that can inform educational practice.

The university, especially the Department of Education, should be the hub around which networks of cooperation and advancement could be built. Networks involve

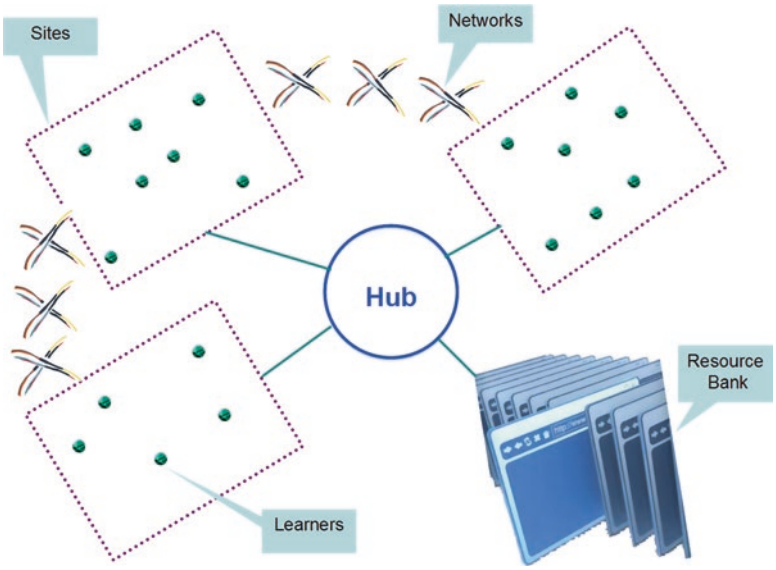

Fig. 6.1 The university as the hub of teacher education

two ways, multiway processes and the linkage of universities with teachers representing a fascinating structural and content challenge.

Figure 6.1 illustrates diagrammatically how this might look. In moving towards a more extensive, school-based programme of teacher education, I am not suggesting a diminution of the role of the university, rather the reverse. The university becomes the resource centre, the animator of a range of teacher education opportunities more varied, richer and relevant than anything teachers have had available before.

I would envisage clusters of local schools and teachers acting as sites, as I term it in the diagram, of professional learning. Each site would be networked within itself, with other sites and with the university, providing the hub through which the networks are sustained and nurtured. Some of these might be physical resources, experts, for example, but many would be sourced through the sorts of networks now afforded by communication technologies. Many people now know that in visiting a doctor or specialist, there might well be reference to online resources and advice. A few years back, I remember this as disconcerting. Surely he or she should have such knowledge at their fingertips? Today it is commonplace. Teachers now make extensive use of the web in their work, but usually in a private way. I think much would be gained by creating the networks that would make this a more public and collaborative experience. Such networks are beginning to appear although rarely with any part of the university at the centre of the activity.

The aim of this chapter has been to raise questions against which teacher educators, working in different countries and contexts, could examine their own policies

and practices. Let me, in conclusion, suggest and select just five that could be asked in any university.

To what extent does the research of this university, and our knowledge of research elsewhere, feature explicitly in our teacher preparation and teacher professional development programmes? Do we address the idea of the teacher's social mission through these programmes? Are we, as teacher educators, aware of the changing social and economic forces that are, and will, impacted on the task of the teachers we work alongside? How motivating is the content of our programmes, and are we inspiring a lifelong interest in this content amongst teachers? And finally, how networked into local schools are we and how accessible is the wider academic community of the university to teachers?

There are other questions that my analysis raises. I believe strongly that schools and colleges gain greatly by working closely with universities. But I also believe that the standing of teacher education within the university and in public and political perception will be greatly enhanced where deep-rooted forms of partnership and cooperation can be created.

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