Chapter One - Quality conundrums in initial teacher education

During March 2020, after returning from a site visit to a university in Arizona to my London home, in the middle of the coronavirus pandemic, the country went into lockdown. Confined to my home, surrounded by swathes of data I had collected on my site visits, I reflected on the role of universities in teacher education before the pandemic struck and even more so after. In England, two-thirds through the academic year, student teachers were withdrawn from their placements. Teacher educators got together to consider what this meant for those student teachers, for their progress, qualification and future careers. How would this affect their studies, their learning, and how could we support them and our partner schools? In times like this core values become important: what could we do that would be the best possible outcomes for all involved? Parts of the teacher education infrastructure, such as inspections and regulations around minimum periods of school experience were rapidly disregarded. It felt, at the time, like universities with their specialist expertise were taking a lead. This was empowering, but it was also striking in how working in such an independent way felt unusual.

As a former Head of Initial Teacher Education (ITE), and having been involved in teacher education in a number of ways for 28 years, I have seen the recognition of the expertise of teacher educators change, particularly in the light of government policy changes, changes in schooling, and variations in how teachers are viewed and how their work is defined. In particular, the growing culture of compliance, accountability and governance has affected what teacher educators have been able to do. Commentators such as Connell (2009), Sachs (2015), and Mayer (2017) have criticised how accountability emphasises technical approaches to teaching. They advocate forms of professionalisation which elevate teachers beyond a narrow craft definition but as informed and autonomous professionals. Nevertheless, such accountability forces persist, and arguably it is becoming more and more difficult to counter, as many teacher educators take up the accountability mantra themselves: showing off their labels of achievement, adhering without question and adding additional internal checks to ensure compliance. Undergirding these trends are questions about quality: what does quality teacher education look like? How can it be achieved, monitored, recognised and how can teacher educators be held accountable, and to whom does their accountability lie? Who are the best teacher educators to make it happen?

The research upon which this book is based examined teacher education programmes in five different countries. Through exploring the university-based teacher education provision in each

place, I have seen how the answers to these quality questions vary from place to place (as the chapters in this book will reveal). Common to all, is a strong message that university involvement in initial teacher education is crucial, but complex. It is particularly crucial when educational environments require teachers to do more than perform a set of routines or behaviours, but are looking for teachers who are able to act with integrity, autonomy and to make situational judgements; in these cases teachers require preparation which is profoundly *educational*: This distinction elevates teacher education beyond the notion of teacher *training,* a term often used in the English policy context, and teacher *preparation*, a term common in the United States. Both of these terms emphasise the technical and practical dimension of teaching. Without doubt the development of practical skills is important for new teachers. However, training and preparation emphasise skill development at the exclusion of the understanding and judicious application of those skills. In that sense they align with Biesta's critique of "learnification" (2010), that it lacks a sense of the educational purpose. Teacher education that equips teachers with the range of knowledges they need to make good situational judgements is an educational and therefore moral enterprise.

This is not a new argument, and one that unsurprisingly is often made by teacher educators based in universities. It is not my intention to repeat that argument, but to augment it by demonstrating how the changing contexts of educating teachers today, internationally, makes this more and more important. The rise of accountability regimes in all aspects of the education sector, in the diversification of teacher education providers, and the increase in education stakeholders (sometimes with commercial interests) means that it has never been more important for universities to take an *educational* stance in their engagement with teachers.

Undoubtedly, I have a self-interest in this view: I am a university-based teacher educator. The research upon which this book is based is exclusively focused on university-based teacher education. It may be the case that non-university-based teacher educators may be able to make similar claims, and I am certainly not seeking to downplay the crucial role that schools play in the education of teachers. The argument presented here is orientated specifically to what goes on in universities. Universities are special and unique places. Their specific status as a civic enterprise, makes them a key site equipped to provide teacher *education*: an education which can stand up in the face of the challenges facing teaching today, particularly those that stem from neoliberal education policies around accountability, governance, and performativity. This is not to say that universities are not without influence from neoliberal policies (indeed this constitutes a theme throughout the book), but that other organisations without a commitment to academic freedom and civic responsibility are

more susceptible to these forces. Universities have the capacity to provide a context for educational possibilities.

The professionalisation narrative

There has been a lot of interest recently in teacher education quality which originates from the argument that teachers are important because they are the single most influential variable in student's achievement. This point stems from the OECD pronouncement that 'teachers matter' following their report on the determinants of student learning which concluded that the largest variation in outcomes is attributable to social background and the students themselves, but the most important influence "potentially open to policy influence" is teaching, and especially 'teacher quality" (OECD, 2005, p 26). Connell (2009) highlights that it is significant that the OECD do not consider social factors to be within policy influence. But the idea that teachers are the most important factor has been widely taken up by commentators from across the political spectrum.

The focus on teacher education in this book deliberately does not adopt that argument. Teachers are undoubtedly important, because they make up a significant part of the educational infrastructure. But teachers are often not alone in deciding how they undertake their work. Teaching is subject to a range of influences and controls: inspection regimes, testing, reward structures, managerial interventions. Intentionally or not, these affect teachers' work. Saying that teachers are the most influential factor focusses the attention on discussions about improving education, and educational disadvantage firmly onto teachers, making them the 'subject of reform' (Ball, 2008). To focus the attention onto teachers ignores the role that the infrastructure, society and wider influences around teachers can play in creating the conditions in which they undertake their work.

The idea that quality teacher education will further professionalise teaching is related to a professionalisation narrative, which needs to be thoroughly questioned. Whitty (2008) highlights that to qualify as a profession, occupations usually require specialist theoretical knowledge, certification, a code of professional conduct orientated towards the 'public good'; and a powerful professional organisation. Whitty also notes that as teachers have never fully achieved this status, there are aspirations to professionalise teaching through what he calls the 'professional project'. However, occupational professionalisation does not occur just because of the introduction of professionalisation strategies: an emphasis on research, a focus on academic knowledge, contextualising practice within a theoretical frame; or because qualification takes place in a university, overseen by a teacher educator who holds a doctorate. Professionalisation is part of a wider and dynamic set of influences and relationships: hence why, together with Wisby , Whitty refers to a four-fold typology of teacher professionalisms: tradition, managerialist, collaborative and

democratic (2006). Where teacher professionalism falls within this typology is related to the context in which it occurs, the affordances and autonomy teachers are given, in the same way that teacher quality can also be enabled or constrained by the contexts in which it occurs.

The spatial importance of context

To understand how educational contexts vary, it is important to start by recognising the role that education plays in the production and reproduction of inequalities. Research in teacher education often refers to the importance of context, but rarely examines that context conceptually, often seeing context as an interactional or representational problem (Dourish, 2004). This is despite a growing body of work that recognises the importance of space and place in uneven development, and in particular in the production and reproduction of inequalities (Smith, 2010). Expressed simply: some places are more affluent than others, and so some places afford more opportunities than others. Geographers, such as David Harvey, have written extensively about the "geography of it all", showing how the flow of capital requires space, and how the arrangement of space is fundamental to flows of capital, and by extension the equitable distribution of opportunity (2010). Education contributes to these flows through supporting access to social capital, cultural capital, and intellectual capital.

But capital is not free-flowing: the movement of capital is controlled often by the elite in society who seek to affect how and where it flows in order to retain their advantage. The implication for education is that affluent populations have better schools, with better teachers, and more funding, thereby students that go through this system (often the sons and daughters of the elite) are better prepared to take up roles as the elite and powerful when it is their turn. Less affluent populations have schools with less funding, and teachers who are perceived as poorer quality, and their students will end up being less prepared to take up similar powerful and influential roles. These patterns are borne out by empirical research: evidence from the US and the UK have highlighted how more disadvantaged communities tend to have less well-prepared teachers (Allen & Sims, 2018; Burgess, 2016; Hanushek & Rivkin, 2012), although degree of preparation does not necessarily mean teachers are of a poorer quality.

It would seem logical then to conclude that the provision and availability of high-quality teachers are important in opening up educational opportunities. But teachers alone are unable to change the infrastructure which affects the flow of capital. Recognising the influence of such flows is central to understanding the accountability infrastructure around teaching, and teacher education: in other words, the conditions which make up how teachers can do their "work". In order to understand

teacher education, we need to understand the wider context within which teaching and teacher education operates.

Teachers are not solely responsible for "equalising" society or for counteracting the material, social and cultural deprivation experienced by some communities. The availability of high-quality teachers is just one factor in the production and reproduction of inequalities. However, recognising this broader context helps to highlight a range of factors that affect the availability of high-quality teacher education: these include locational factors (such as the local employment market) as well as policy changes which can influence the distribution of teacher education. For example, factors such as the inequitable (public) funding of teacher education in universities versus alternative programmes such as Teach First (part of the Teach for All movement) will affect the provision of teacher education in some places; accountability regimes can penalise large scale providers with wide geographical reach (and universities tend to have a wider geographical reach than other providers), debates which privilege local or practical knowledge over that discussed on university programmes, will all emphasise quality for some providers over others. These are more than contextual factors but are spatially orientated factors which can create a hostile climate for universities involved in teacher education, thereby disrupting their role in supporting a more equitable flow of capital.

Context is therefore incredibly important to understand teacher education. However, context should not just be seen as a container, within which teacher education sits, but as a series of significant and pervasive influences that can affect teacher education practice in a particular place. This is more than the accountability regimes alluded to above, but also includes other aspects of education more broadly: that which Kemmis and colleagues have called the Education Complex (2014). To fully understand teacher education, it is important to recognise the range of social, political, cultural and geographical factors which influence education, schools and all their inter-related components. In doing so, we need to ask what are our communities like? What needs do they have? What demands does this place on schooling? And what do teachers need in order to be effective in these contexts? In addition, there are questions specific to teacher education: what are the dominant ideas of being a good teacher? What debates are happening about education, qualifications, employability, and how do these influence what happens in our schools? And how are these influences affecting the experiences of individuals, the local community, regions, nations and global discourses? In other words, in order to understand teacher education, we also need to understand more than the context but the complex spatial factors occurring in the locations where it is taking place. It is this ambitious goal that this work seeks to undertake, to emphasise and highlight the spatially orientated factors which impede and support how teacher education is understood, and how it is judged as being "high

quality". Through examining the education and preparation of teachers within specific locations, so it is possible to understand the barriers and constraints to providing high quality teachers to all, and to highlight the spatially orientated factors that impede or encourage the flow of high-quality teachers.

Current trends affecting university based initial teacher education

One could be forgiven for thinking that the odds are stacked against university-based teacher education, particularly in the light of its criticisms highlighted below from international commentators. These criticisms, particularly when made at a public and policy level, have an impact on funding and oversight arrangements, and skew merging "markets" of teacher education provision, privileging non-university-based providers.

The role of universities in ITE has never been uncontested. In most systems, ITE has been a fairly recent introduction to the university system, and as Labaree notes, it has never really sat comfortably within the academy (2006). Internationally, moving teacher education into universities from Teachers Colleges and Normal Schools was intended to professionalise teaching and raise its status. This promise was partly to do with aligning teacher education with educational research but has not yielded the promised results. This has been exacerbated in the US, by critics who argue that university-based teacher education produces inadequate teachers, that it is disconnected from practice, and is overly theoretical (as outlined in the Holmes Group report, 1986). Whilst the debate cites evidence from newly qualified teachers who feel ill-prepared, or concerns from parents and school principals, the criticism became public with the involvement of significant figures such as Arthur Levine (from Teachers College) and Arne Duncan (education advisor to President Obama). Their concerns, similar to those raised in the Holmes Group report which was critical of teacher education for the reasons cited above, have been staunchly defended by Zeichner (2017) and are widely regarded as politically motivated and subject to what he has described as the misquoting of evidence, echo chambers and knowledge ventriloquism. However, Zeichner acknowledges that there are wide variations in the quality of teacher education provision across universities, and Goldhaber (2018) acknowledges that there may be some empirical evidence to the criticisms raised. However, as Zeichner highlights, this is not an even playing field: non-university-based providers can gain access to private and public monies, such as those raised from venture philanthropy, which are not matched by public funding and which are not available to universities. Zeichner argues that the focus of the criticisms, and the hostile funding environment privileges alternative providers across the US.

Although the situation is more advanced in the US, similar trends can be seen elsewhere. The 1998 Hillage Report noted similar concerns with university-based teacher education in England, which was

also seen as being over-theorised, fragmented and unhelpful for teacher's professional practice. Traditionally, in England, the defence of university-based teacher education has been formulated around its proximity to research. However, the Carter Review in 2015, highlighted that even in research-intensive universities, researchers were not fully engaged in teacher education programmes. It is also true to note, as Pring (2017) does, that the research that has had substantial impact on teaching (he uses the examples of the impact of social disadvantage, quantitative analysis and the uses of IQ tests) have often come from other faculties outside (teacher) education. In England, hostility towards university-based teacher education has taken a particular shape and form as the former Secretary of State for Education, Michael Gove described such teacher educators as the Blob and the enemies of promise, contributing to what Furlong refers to (using a phrase from Ball, 1990) as the 'discourse of derision' (Furlong, 2019). Successive education policies have deliberately sought to foreground school-led teacher education designed to destabilise and decentre universities from teacher education (Department for Education, 2010). However, again, internally, there is a recognition that universities have been somewhat passive in their response, leaving some to call for a reinvigorated approach to teacher education (Ellis, Souto-Manning, & Turvey, 2018; Teacher Education Exchange, 2017). These concerns are echoed elsewhere. Sachs (2015), Ling (2017) and Connell (2009) have highlighted the same trends across Australia, and policy papers make reference to similar concerns in New Zealand[i]. Back in 2008, Grossman warned that if teacher educators failed to take these criticisms seriously, other organisations would seek to replace the universities' monopoly on the preparation of teachers. Such trends are symptomatic with marketisation and centralisation which Mayer has described as neoliberal education policies (2017). The language of neo-liberalism ties up such approaches by using seemingly benign terms: marketisation, choice, deregulation and accountability. But these policies are not benign: they add to the hostile climate for universities who are often ill-prepared to respond.

The trends are international too: part of what Sahlberg referred to as the Global Education Reform Movement (GERM) (Sahlberg, 2010), and which results in a limited repertoire of policy interventions which have been widely adopted (Mayer, 2017). The policy interventions include: the introduction and dominance of Teacher Standards, accreditation procedures for teacher education providers, and the provision of inspection regimes to monitor their compliance. These make up what Ball (2008) describes as technologies of performativity that lead to patterns of governance rather than government. For example, the deregulation of teacher education combined with a centralisation of accreditation opens up teacher education to new and alternative providers, as long as the criteria for accreditation is met (as has been seen in several international contexts). Subsequently globally there has been a growth of alternative providers such as those aligned with the Teach for All network, and

the new Graduate Schools Education (Cochran-Smith et al., 2020). These trends are in line with the "turn to practice" (Furlong, (2013) which has dramatically changed the landscape for teacher education. For example, despite the well documented move to a school-led teacher education system in England (since the 2010 White Paper *The Importance of Teaching*), Ofsted report that four fifths of "trainees" (the UK government's preferred term for new teachers) in 2018/19 were trained through partnerships with a higher education institution (2018). And yet, the power and influence of universities in driving teacher education has diminished substantially (McIntyre, Youens, & Stevenson, 2017). For example, some Russell Group universities have moved their teacher education provision away from the more research-intensive Faculty or Department of Education and changed the staffing structure to preclude academics in ITE from the responsibility to undertake research. Other university providers have teamed up with other local providers such as the Yorkshire First initiative led by Sheffield Hallam University: as a way of trying to even out regional pockets of over and under-supply of teachers. Other providers have had to dramatically change or restructure their provision in the light of increased competition. The impact is that whilst universities are still involved in teacher education, the ways in which that involvement is situated has changed dramatically: and more importantly, the ability of universities to influence teacher education has reduced even more so.

At the same time, the influence and number of stakeholders who now have a vested interest in teacher education provision has increased, a situation that Ling, in relation to Australia has described as one of supercomplexity (2017). Schools have been long-standing partners with universities in teacher education. Teacher education is now often overseen by various regulatory bodies: sometimes government departments for education at a state or national level. Teacher standards and accreditation processes may be "owned" by these bodies or certification councils, bodies or professional associations. These organisations have wide-ranging powers influencing the content, approach, assessment and formation of a teacher education programme. In addition, there is increasing complexity in accrediting who becomes a provider of teacher education, who condones and awards the qualification for individual teacher candidates, and who inspects and regulates the provision.

These complex webs of stakeholders make up policy technologies, to use Ball's term, which have made teacher education the "subject for reform", and so have destabilised the financial, intellectual and authoritative base of the university involved in teacher education. This is a particular issue for universities as they also have their own internal processes of programme validation, accreditation and governance. University based providers have to ensure their programmes meet the internal benchmarks of quality and quality assurance within the university governance structure, but also

adheres to (often external) requirements. In Australia, there are national standards, and state-based interpretations which operate alongside the university system of award assessment. In England, there is the Department for Education mandated content for teacher education (the Core Content Framework), statutory requirements around recruitment and programme parameters. The Teacher Standards, which have to be met in order for the award of Qualified Teacher Status, sit alongside a rigid and prescriptive inspection regime (though the government inspection agency, Ofsted). However, for university programmes, the award (such as the Post Graduate Certification of Education) belongs to the university. In practical terms, questions about who judges or assesses the teacher's progress in practical teaching can lead to questions of the ability of universities to control and oversee their academic awards as well as to take ownership of the consistency and rigour of assessment. This can put the university structures in tension with other accountability frameworks which, in the case of England, privilege partnership working and the shared ownership of judgements between schools and universities. As Moon comments: teacher education is unrivalled in political interference arguing that :"Ideas about academic freedom and university autonomy seem to stop at the door of the education faculty." (2016; 253)

All of these infrastructural and governance concerns are tied up with ideological and political pressures which promote particular views of teacher education, and which permeate not just the public discourse about teacher education, but also the ways in which teacher education has been subjected to reform. Accountability regimes that have now become a ubiquitous part of the teacher education landscape which underplay important values around democracy, equity and social justice, and focus on narrow outcomes measures described as "attainment". In the light of these reforms, the role that universities play in teacher education is changing, and in order to understand teacher education, these influences, along with their resultant effects needs to be re-evaluated and reassessed. It is this changing landscape and how it affects initial teacher education, and how universities respond, that is the focus of this book.

Different ways of understanding quality

With this increasingly hostile landscape in mind, asking the question of what high quality teacher education looks like becomes critical, along with an examination of how that definition of high quality is changing. Unsurprisingly, this question has been asked and answered in a number of ways, by various groups, but with little consensus. This lack of consensus I argue is due to the different ways in which quality, and its associated concepts of standards and quality assurance are understood by different stakeholders. This argument stems from Harvey's work (2007), in his exploration of quality within the higher education sector, where he distinguishes between quality,

standards and quality assurance. Harvey argues that quality assurance mechanisms do not (in themselves) enhance the provision of education, but perform functions around accountability, control, and compliance.

Quality assurance is a process of governance and compliance and so should not be confused with quality itself:

> It should be noted that the processes of quality assurance are quite separate from the concept of quality. Quality is to quality assurance what intelligence is to IQ tests. Quality, in higher education is, for example, about the nature of learning. Quality assurance is about convincing others about the adequacy of that processes of learning. (ibid, p.5)

This distinction is often absent in discussions about education and teacher education, where the focus on quality orientates around discussions of the most appropriate metrics, and indicators used to judge quality, rather than the learning itself (Bartell, Floden, & Richmond, 2018; Firestone & Donaldson, 2019; Gewirtz, Maguire, Neumann, & Towers, 2019; Skedsmo & Huber, 2019). In a similar vein, Harvey distinguishes between definitions of quality and that of standards (see Table 1.1). Standards (as denoted forthwith uncapitalised) as defined by Harvey is distinct from the more specific Teacher Standards (capitalised) which are dominant in the field.

<TABLE 1.1 HERE>

Table 1.1: Definitions of quality and standards.

Quality	Definition
Exceptional	A traditional concept linked to the idea of 'excellence', usually operationalised as exceptionally high standards of academic achievement. Quality is achieved if the standards are surpassed.
Perfection or consistency	Focuses on process and sets specifications that it aims to meet. Quality in this sense is summed up by the interrelated ideas of zero defects and getting things right first time.
Fitness for purpose	Judges quality in terms of the extent to which a product or service meets its stated purpose. The purpose may be customer-defined to meet requirements or (in education) institution-defined to reflect institutional mission (or course objectives). *NB: There are some who suggest that 'fitness of purpose' is a definition of quality but it is a specification of parameters of fitness and not itself a definition of the quality concept.*
Value for money	Assesses quality in terms of return on investment or expenditure. At the heart of the value-for-money approach in education is the notion of accountability. Public

	services, including education, are expected to be accountable to the funders. Increasingly, students are also considering their own investment in higher education in value-for-money terms.
Transformation	Sees quality as a process of change, which in higher education adds value to students through their learning experience. Education is not a service for a customer but an ongoing process of transformation of the participant. This leads to two notions of transformative quality in education: enhancing the consumer and empowering the consumer.
Standards	
Academic standards	The demonstrated ability to meet specified level of academic attainment. For pedagogy, the ability of students to be able to do those things designated as appropriate at a given level of education. Usually, the measured competence of an individual in attaining specified (or implied) course aims and objectives, operationalised via performance on assessed pieces of work. For research, the ability to undertake effective scholarship or produce new knowledge, which is assessed via peer recognition.
Standards of competence	Demonstration that a specified level of ability on a range of competencies has been achieved. Competencies may include general transferable skills required by employers; academic ('higher level') skills implicit or explicit in the attainment of degree status or in a post-graduation academic apprenticeship; particular abilities congruent with induction into a profession.
Service standards	Are measures devised to assess identified elements of the service provided against specified benchmarks? Elements assessed include activities of service providers and facilities within which the service takes place. Benchmarks specified in 'contracts' such as student charters tend to be quantified and restricted to measurable items. *Post hoc* measurement of customer opinions (satisfaction) is used as indicators of service provision. Thus, service standards in higher education parallel consumer standards.
Organisational standards	Attainment of formal recognition of systems to ensure effective management of organisational processes and clear dissemination of organisational practices.

Source: adapted from Harvey, 1995m © Lee Harvey, 2007

With high levels of governance and oversight, teacher education is prone to certain definitions of quality which are easier to define in terms of quality assurance (or standards), as they lead to metrics, measures and indicators more readily. Other dimensions of quality, such as transformation, are more difficult to quantify as they are less observable, less immediate in terms of impact, and more personal to the individual (Evans, 2011; Halász & Looney, 2019). Harvey argues that this difficulty in measurement should not mean that they get forgotten.

And yet, discussions about quality in ITE are not always clear on how quality is being defined. For example, the provision of Teacher Standards, and student satisfaction surveys denote differing interpretations of what is valued rather than being based on empirical evidence that some Standards

are inherently "better" than others. Notions of exceptional or excellence may refer to exclusivity and reputation (such as being associated with a prestigious institution) and may be more related to perceptions and access to social networks rather than the transformational nature of the learning experience.

So there is a need to explore the underpinning assumptions about why something is considered to be "quality", as that reveals assumptions about how it is defined. To suggest that quality can be determined by achieving a range of (professional) Standards suggests a cause and effect relationship: that those Standards are in themselves an authoritative account of better quality, which reveals:

> an explicit view that complying with requirements will result in competent graduates, a process that can be checked through measurable, observable variables. (Harvey, 2007, p13)

This claim can of course be challenged. Sleeter (2019) notes how definitions of quality are likely to be defined by those that have power. Others have argued that teacher educators should "reclaim accountability" and foreground alternative values such as democracy and social justice (Cochran-Smith et al., 2018), or to focus on the "core practices" that teachers need (Grossman, 2018; Grossman, Kavanagh, & Dean, 2018; Grossman & Pupik Dean, 2019). These arguments whilst avoiding the limiting conception of standards, are still unable to fully describe the transformative element of teacher education.

Transformation: the key to teacher education

Transformation has often been used in relation to learning, particularly adult learning in higher education, see for example, Meizrow's ideas of transformational learning (2000) and Netolicky (2019)'s conception of transformational professional learning. A view of education as transformation requires an assessment and re-evaluation of currently held beliefs and actions, and through an educative process those beliefs and actions undertake a change in form. It is this change in form that Harvey and Knight argue is distinctively *educational* (1996). The idea of transformation has been widely taken up in some part of the higher education community, and used in ITE as a way of supporting an activist orientation (as outlined by Kennedy (2018), drawing on Sachs (2003)'s idea of the activist professional). Kennedy highlights that this approach enables new teachers to engage in a professionally authentic experience where they are supported in taking responsibility for their own learning, working as part of both university and school communities throughout the programme, enabling genuine integration of theory and practice. In this vein, transformation is about changing the form of someone who is not a teacher, into that of being a teacher.

Such an approach to education is difficult to measure because, as Harvey argues, it is more aligned with a critical-dialectic epistemology:

> One aspect of quality assurance is improvement of the learning process. When this is informed by a transformation view of quality with radical views of learner-focused or autonomous learning, then the role and nature of the teacher and the privileged position of discipline knowledge starts to be deconstructed. This also moves to the hazy hinterland of quality assurance processes as none of the existing systems does more than nod in the direction of transformative learning. Not surprisingly, quality assurance processes are uncomfortable with this fundamentally critical-dialectical approach because there are no simple indicators, no self-evident or taken-for-granted and easily assimilated criteria for judging how students are empowered as critical reflective learners. (Harvey, 2007 p 10)

A focus on quality as accountability leads to a compliance culture which detracts from processes of transformation: it is, in effect, anti-educational. However, in the same way that ice changes form into water or steam, education as transformation requires a qualitative change, which Harvey and Knight align with cognitive transcendence. This, they argue, requires enhancing and empowering the participant. The legislative and regulatory structure that surrounds ITE makes such an empowerment extremely challenging.

Seeing learning as transformation is not itself neutral, but influenced by visions of what the outcome of that transformation should look like. Moore (2004) recognises that discussions about the "good teacher" are underpinned by dominant discourses prevalent in popular media representations, as well as policy texts. Although Moore's work is now over twenty years old, the discourses he identified (the Charismatic subject, Competent craftsperson and the Reflective practitioner) are still relevant in initial teacher education. Connell (2009) has argued that auditability has become a dominant feature of being a teacher, whilst Cordingley (2008) has suggested a further discourse around collaborative practice, and Sahlberg (2019) argues that the most recent phase of education is dominated by discourses of wellbeing and equity. The influence of these discourses is likely to relate to local concerns and priorities. For example, in New Zealand where there is a national concern about distribution of educational achievement after being described by the OECD as a "high-achievement, local equity" nation, there is a growing emphasis on teachers who can address issues of equity in the classroom (Cochran-Smith et al., 2016). In England, there is a dominant discourse of crisis particularly in teacher recruitment and retention, which is then reflected in policies that encourage diversification of routes into teaching, educational privatisation, allowing un-qualified teachers to teach in state schools, and an emphasis on teachers who are subject specialists over

expert pedagogues, although the logic of this argument has been contested (Ellis, Mansell, & Steadman, 2020; Ellis & Spendlove, 2020). In other words, conceptions of quality, even around transformation, in ITE are highly contextual.

Quality, measures, standards, and accountability

Even if, as I have suggested above, teacher educators see teacher education as being about transformation, this does not change the way that ITE is dominated by accountability regimes, indicators, metrics and measures of quality, (Bartell et al., 2018; Sloat, Amrein-Beardsley, & Holloway, 2018; Watson, 2018). Cochran-Smith and colleagues (2018) highlight the rise in such metrics as part of the "era of accountability" which they attribute to five broad developments:

(1) unprecedented global attention to teacher quality, tied to neoliberal economics;

(2) a continuous public narrative asserting that "traditional" university-sponsored teacher education was failing to produce effective teachers who were prepared to respond to the demands of contemporary classrooms;

(3) the conceptualization of teacher education as a public policy problem wherein it was assumed that getting the right policies in place would boost teacher quality and the national economy;

(4) the teacher education establishment's turn toward accountability, which was consistent with a conception of teacher quality defined as effectiveness and linked to the human capital paradigm; and

(5) the belief that the reform of public education, rather than other social policies, was the major tool for redressing inequality and eradicating poverty in the United States. (ibid, p. 17).

No doubt these accountability regimes have an enormous impact on the ability of teacher educators to effect transformation in their work, indeed this makes up the production of spatial inequalities outlined above. It is key however to understand the discourses that underpin these indicators, so that their influence on teacher education can be understood.

Suzanne Wilson, in her lecture at AERA in 2018 seeking to make sense of the various accountability frameworks across the US, made a list of all the quality measures she had encountered in teacher education. These quality measures share similar features, and so have been categorised here into the following groups:

<TABLE 1.2 HERE>

Table 1.2: Categories of "quality" measures used in ITE

Input measures	Process measures	Output measures	Perspectival measures
Quality of entrants Degree class Undergraduate institution Graduate diversity	Placements Programme Cohesion	Attainment against Standards (criteria) Employment rates Measures of content knowledge Graduates using "high leverage practices" Graduates' ethical behaviour	School ratings of graduates Graduates' self-report Graduates' evaluation Student ratings

The set of indicators around **Input measures** assumes that the quality of a teacher is related to the pre-programme experience and prior educational achievement of the candidates. These characteristics do not directly correlate to the categories of either quality or standards. The idea that these characteristics are an indication of quality is flawed but popular (see for example Francis et al. (2019) who use the metric of qualifications despite acknowledging its flaw as an indicator of teacher quality), as there is no direct correlation between prior attainment and quality of teaching (Day, 2019a; McNamara, Murray, & Phillips, 2017; Vagi, Pivovarova, & Barnard, 2019; Zhao, 2018; Zumwalt & Craig, 2005). The outlier in this group, Graduate diversity, points to a different conception of teacher quality: one that suggest that representativeness of a diverse community is an important feature in the perceived quality of a teacher candidate. Whilst there is some research evidence that concurs that teacher diversity can have a positive influence on student outcomes (Sleeter, 2001), this variable suggests that quality is determined by the characteristics of teacher candidates (or applicants) rather than what happens during the process of ITE itself. This assumption downplays the educative or transformative potential of ITE.

The list of indicators under the heading of **Output measures** are similarly flawed, and are characterised by a range of cause and effect assumptions: for example, that (Teacher) Standards are adequate and accurate descriptions of teacher (or teaching) quality; that measures of content knowledge correlate to high quality teaching, or that only the best teachers are recruited into employment. There is some research and anecdotal evidence for these indicators, but they are not

conclusive (Day, 2019b; Ingvarson, 2019). Using employment rates as an indicator of quality is severely compromised in times of teacher shortage, when the demand for teachers outstrips the supply. Indeed, the English government's inspectorate Ofsted cite this as a reason for moving away from output indicators of quality in their revision of the ITE inspection framework (Ofsted, 2018). Even in times of a more selective employment market, it would not be accurate to assume that teachers are employed based on a rigorous analysis of the quality of their teaching. In addition, these metrics are short-term: employment, or assessment against a set of Standards relate to a specific point in time. They do not record the impact on teachers in the long term.

A fairly recent addition in the Outputs category is the introduction of value-added metrics: where the quality of teacher education is directly linked with the attainment of their pupils. Despite the political attractiveness of this idea, it has been widely criticised for its lack of awareness of other factors to affect pupil attainment and simplistic linear logic, and validity (Noell, Burns, & Gansle, 2018; Sloat et al., 2018). The Output indicators are more convincing however than the input indicators as they do have a (case and effect) logic to them, even though they are mainly focused on standards rather than quality.

In some systems, the awareness of the weaknesses of output data, has led to supplementing them with what I have called **Perspectival data**: data drawn from the perspectives of student teachers themselves (evaluating their programme or their own efficacy and competence), or from employers, partners or pupils. There are questions about the reliability of this information: its accuracy and consistency (van der Lans, 2018). Gaertner and Brunner (2018) show that student perceptions of teaching quality are influenced by situational factors such as context and timing. Some school systems promote coherent identities (such as Multiple Academy Trusts in England, or Charter School Chains in the US) which feature strong narratives about quality; as such judgements may be more driven by conformity and coherence to a prescribed set of values, then a more rounded, holistic (and even critical) notion of a quality teacher or quality teaching. Rauschenberger, Adams and Kennedy's (2017) literature review on quality measurements in ITE notes that quality indicators are driven by values, which in turn drives practices: in other words, perspectival data reveals what responders think is important, and are not reliable indicators of either quality or standards.

The smallest list in the categorisations, that of programme features or **Processes,** is perhaps the least common and well-developed, although becoming increasingly popular as policy makers seek to prescribe ITE curriculum content (see for example the new Core Content Framework in England, and the inclusion of Key Tasks in the New Zealand teacher education accreditation requirements). Here the work of Darling Hammond and colleagues (2006) on the characteristics of teacher education in

well-regarded programmes has been influential, along with the further distillation into three points by Hammerness (2013):

1) Promotion of a clear vision of teachers and teaching

2) Programme coherence, both conceptually and structurally, 'reflecting a shared understanding of teaching and learning among faculty and students' (linked to formation of professional identity)

3) A strong core curriculum that is closely linked to opportunities for learning that are grounded in teaching practice

However, even these characteristics are vague (Rauschenberger, Adams and Kennedy (2017)). Hammerness and Klette (2015) have produced indicators for each category but highlight that their data does not reveal the quality of the opportunity afforded but the likelihood that it exists. In other words, they represent opportunities to learn, but not the transformative potential of the experience.

Drawing on Harvey's categorisation, ITE metrics, measures and indicators are predominantly quality assurance standards. They are proxies for quality, rather than being representative of quality itself. Moreover, the focus on indicators detracts from an understanding that quality in a learning context is about transformation and as such is a descriptive, relative concept – not an absolute entity, and not one that can easily transfer to other contexts. However, they are endemic and part of the limited range of policies around teacher education which seem to influence international and national debates (Mayer, 2017).

Transformation and pedagogy

For teacher education to be regarded as *educational*, it needs to be understood within how it seeks to change the form of someone who is yet to be a teacher to become one. This requires both an understanding of what is meant by being a teacher, and also the processes of change required. In education, a change in form happens through pedagogy.

Loughran (2006) argues that whilst pedagogy is sometimes used as a synonym for teaching, it is much more than that as it requires a detailed understanding of the relationship between learning and teaching. Alexander differentiates between "…teaching is an *act* while pedagogy is both act and *discourse*." (2000):

> Pedagogy encompasses the performance of teaching together with the theories, beliefs, policies and controversies that inform and shape it. (ibid, p 540)

Alexander goes on to argue that pedagogy can be seen as an expression of the context in which teaching and learning takes place, as well as the decisions that frame both. Linklater (2010, cited in Warwick, Warwick, Linklater & Coltman, 2013) developed a spectrum of pedagogical thinking to reflect the complexity of this practice so it can be seen as a layered process: where individual acts of teaching and learning are contextualised within both philosophical and actual contexts.

Pedagogy on a programme of teacher education encourages a change in form through the movement of ideas. These ideas may stem from a variety of sources: they may come through the experience of practice, through knowledge shared by a teacher educator, through engagement in readings, research or discussion. For the change in form to occur, the movement of ideas needs to elicit a change in the person itself: so through their engagement in the pedagogical activities, they undergo some form of change: perhaps through adopting a different viewpoint, understanding or engaging in a practice differently.

This is not to suggest that pedagogy necessarily determines changes in identity. The movement of ideas which may change, say a classroom practice, may not result in a wholescale identity shift. For someone to become a teacher, however, they do need to make changes in how they undertake teaching as they move from a novice to becoming more accomplished. For those changes to occur, a shift must take place which is prompted through the movement of an idea. Pedagogy provides the context for that movement of ideas to take place.

This view of teacher education pedagogy is broad. The ideas which necessitate the changes to occur can come from a variety of sources, and as such this view of teacher education pedagogy includes learning which can stem from practice, as well as from other sources. It is the pedagogical intervention which enables the idea to affect the would-be teacher. It is common for teacher educators to refer to this shift as occurring through reflection: but the reflection itself needs to be stimulated by the movement of an idea.

The movement of ideas then, can be seen as a form of intellectual capital, which is mobilised through teacher education pedagogy. This movement can be enabled or constrained by the way that the teacher education is organised, described by Kemmis and colleagues (2014) as the practice architecture. The teacher education practice architecture comprises of the programme infrastructure, as well as the political and discursive aspects and the accountability measures: referred to as the material-economic, cultural-discursive and social-political arrangements (ibid). These arrangements can enable or constrain the practice of teacher education, or to use the language adopted here, the flow of ideas within a programme of teacher education.

Conceptualising teacher education pedagogy as a flow of ideas, deliberately focusses attention onto the knowledge that teachers have as a form of intellectual capital. This framing is intended to recognise the specialist status of that knowledge, but also to recognise how important it is for teachers to have access to it. For example, in 2020, the English government education inspectorate, Ofsted, introduced a new framework for the inspection of initial teacher education. It was stated in this framework that new teachers should be taught the reading strategy of synthetic phonics, at the exclusion of other strategies. When this was announced under consultation, there was a great deal of concern that this proscribed teacher educators from introducing new teachers to other, alternative forms of ways of learning to read. In other words, this framework was seeking to deny new teachers access to intellectual capital: knowledges of other ways of learning to read. This argument can be used for other important knowledges for teachers: theories of learning, findings from cognitive science, or community knowledges. All of which are aspects of the intellectual capital that teachers might need.

An important consideration is how the flow of intellectual capital, the movement of knowledge and ideas, gets played out in space. In their articulation of their theory of practice and practice architecture, Kemmis and colleagues (ibid) draw upon Schatzki's notion of 'site-ontologies': to emphasise that education happens in particular locations. In the case of teacher education, those site ontologies are particularly important and complex, as teacher education tends to occur in both universities, and schools, and in addition, those organisations are situated in specific places. These geographical contexts have unique features, such as access to certain groups, types of schools, or arrangements of populations, which may enable or constrain the flow of knowledge. For example, the demand for teachers is not the same everywhere: in areas where teacher demand is high, the emphasis on practical skills and being classroom-ready is more prominent that in areas where there may be a surplus of teachers, and more emphasis is given to the knowledgeable, and research orientated teacher. As outlined above to understand teacher education, understanding this broader context is vital.

I am suggesting then that there is a relationship between the factors which influence the movement of ideas and the space in which it occurs, and that these factors can influence teacher education pedagogy. This argument goes further than other teacher education research which seeks to tell a single story promoting a particular pedagogical approach, by suggesting that the types of pedagogical approaches that teacher educators use will be related to the myriad of contextual factors they need to take into account. This is one of the reasons why the indicators of quality outlined above cannot be applied to a wide variety of contexts and situations. It also goes some way to explaining why, even though the trends affecting teacher education may be international, the

ways those trends are experienced and enacted locally can vary, and are often misunderstood. It is these misunderstandings around quality that I have called quality conundrums.

Quality conundrums

A quality conundrum is an idea that is intended to raise or enhance quality, but has the potential to do the opposite: to damage its transformative potential. In my exploration of teacher education provision, I found that there were a number of quality conundrums that worked across a range of universities: these were ideas with an inherent logic when simply expressed, but often, when incorporated into a narrative of quality get taken to an extreme and can damage teacher education. The damage occurs because when over-emphasised the quality conundrum limits the flow or movement of ideas. Chapters Two through to Six explore some of these conundrums in turn, through an example of how a university has sought to navigate the conundrum and situate its practice in relation to it. Each conundrum is different but they share similar features:

- A quality conundrum is aligned to an idea, with an internal logic that seeks to make teacher education "better" in some way;
- As such, it is based on an assumption or presumption about a flaw in current provision;
- It is often aligned to a narrative about quality that stems from what Jones and Ellis (2019) have called a "simple" view of teacher development;
- And is given extra power and emphasis when it becomes part of the accountability and governance structure;
- However, when enacted, the quality conundrum can limit the flow of alternative forms of knowledge, ideas or intellectual capital, which a teacher may need.

These quality conundrums are part of the hostile environment for universities involved in teacher education as they create the dominant narratives about how practice should be. When combined with accountability structures they affect the flow of capital. Universities have to navigate these structures in order to "do" teacher education – and this study set out to find out how.

Quality at scale in initial teacher education: the research project

In 2017, I took up the position of Head of Initial Teacher Education (ITE) at the UCL Institute of Education, an institution I had worked in (predominantly in teacher education roles) since 2001. At the time I was also Head of a large department, many of the faculty of which were involved, in some way in teacher education. My rationale was that as Head of ITE I could be more effective as a Head of Department. The ITE provision, however, was at a breath-taking scale: working with around 2000

new teachers every year, across a range of phases from Early Years to Post Compulsory. Immediately I became aware that as part of a research-intensive university, and an institution which had been ranked as Number 1 in the world for Education in the QS World Rankings consistently since 2014, and rated as Outstanding by the government's inspectorate (Ofsted), the main issue was how to ensure that we were consistently providing high quality teacher education at scale, and across a range of programmes whilst also contributing to the university's vision, mission and research expectations. Including schools in the Teach First partnership (at the time of the data collection the IOE was Teach First's largest partner, making up over a third of their overall provision), we were working with 700 schools across London. The variety of schools, the different priorities, identities and approaches to education embedded in these 700 schools, alongside the desire for a coherent, vision of teacher education amongst our large and varied team of teacher educators seemed overwhelming. As I started to understand more about our provision, so I began to recognise that my team had developed a range of strategies, approaches and principles which made quality at scale possible, that enabled them to work with and around different interpretations of quality from both the field, the university and the ITE accountability infrastructure. This exploration became the first site for this research. After my three-year term as Head of ITE, my desire to understand quality at scale in ITE took me to explore the practices at a number of other large-scale but highly regarded institutions. In doing so, I began to draw upon my background in geography education in particular, to view teacher education as a spatial practice. Adopting a spatial lens offered a unique perspective on how these universities were undertaking the practice of teacher education in the light of their spatial context.

The research focused on the question: *What are the features of high-quality, large-scale initial teacher education?* Data were collected on the ITE practice of five universities (see Table 1.3). Each university was chosen as a (relatively) large ITE provider in their jurisdiction (in terms of teachers graduated and in comparison, to other local providers) and as part of an institution renowned for its quality (according to local or international league tables). Inclusion was limited to predominantly English-speaking nations (Australia, England, Canada, New Zealand, and USA), due to the advantages of exploring practices from a shared linguistic tradition. Many of the terms used in teacher education can be variously interpreted even within one linguistic environment and translation would add a further complication. However, this inclusion criteria skews the research to a relatively narrow, anglicised and post-colonial hub of countries. Whilst this dilutes the diversity of the contexts included, it does also illustrate the diversity inherent in teacher education in a group of countries with some shared cultural heritages.

The incidence of the global pandemic coronavirus in 2020 halted the data collection, so the data collection for OISE was conducted remotely, and plans to include two further universities, one in France and the other in China had to be abandoned.

For the purposes of sampling, scale (high volume) was determined by the numbers of enrolled students relative to other providers in the region. For some areas, such as England and New Zealand the region was identified as nationally. In USA, Canada and Australia, the region was defined as the States, or Provinces to which governance of teacher education was devolved. Scale was determined by publicly available data. The measures of quality are outlined in the table below.

<TABLE 1.3 HERE>

Table 1.3 Universities and the teacher education programmes

University	Location	Type of Teacher Education	Quality measure used	Teacher Standards	Accreditation authority
Queensland University of Technology	Australia	Post-graduate and undergraduate, Early Years, Primary and Secondary education.	Australian Good Universities Guide	Australian Professional Standards for Teachers (APST) developed by the Australian Institute for Teaching and School Leadership (AITSL)	Queensland College of Teachers (QCT)
Ontario Institute for Studies of Education (OISE), University of Toronto,	Canada	Masters of Teaching (post-graduate 2 year programme)	Macleans and Times Higher Education ranking	Ontario College of Teachers	Ontario College of Teachers
University of Auckland	New Zealand	Graduate and under-graduate programmes in Early Childhood Education, Primary and	QS World University Rankings	Standards and Code for the profession (Teaching Council)	Teaching Council of Aotearoa New Zealand (TCANZ)

		Secondary education			
UCL Institute of Education, University College London, London	UK	Post-graduate programme in EY, Primary, Secondary and Post-Compulsory education. Also partner with Teach First.	QS World University Rankings	National Teacher Standards (defined by UK government Department for Education)	Department for Education regulations and designation of "providers"; Ofsted inspection
Mary Lou Fulton Teachers College, Arizona State University, Tempe Arizona,	USA	Post-graduate and undergraduate, Early Years, Primary and Secondary education: but with an emphasis on the new undergraduate programme	US News rankings	Arizona State Standards	Arizona Department of Education. Schools are also accredited by the Council for the Accreditation of Educator Preparation (CAEP)

Different university ranking systems draw upon different criteria, and many of the ranking systems around university quality do not relate directly to the quality of the teaching, or to teacher education. For example, the US News ranking methodology includes assessments from peers and educational professionals, as well as the qualities of enrolled students, the faculty resources and the research activity. The QS World Rankings focus on both academic and employer reputation, numbers of international faculty and students as well as the faculty to student ratio and citations ration. In other words, there are no metrics directly related to the transformative effect of teaching. University ranking is therefore not taken as a proxy for quality in teacher education but indicates universities that have a reputation for high quality generally. Such universities are likely to be concerned with maintaining status and ensuring their reputation for quality continues, which will influence how a university may value teacher education and the levels of trust and autonomy it affords to its teacher educators.

Data were collected through interviews with teacher educators, and where possible school partners and student teachers (or teacher candidates), around fifty in total. Where feasible taught sessions were observed, and I participated in other related activities (such as meetings, seminars and related conferences). Relevant documentation was also included, such as programme handbooks, media

announcements and review documents. Both the data collection and the analysis were checked and verified by a local representative acting as gate-keeper who also supported access as necessary and acted as a critical friend to ensure my reading of the data was not influenced by my own ethnocentric gaze. Ethical approval was granted by my home institution, and where necessary local ethical approval was sought by the host institution.

The data were analysed to reveal the pertinent discourses around quality, as well as the difference between "universal" understandings of quality in teacher education at scale, and those which are localised. The research adopted a framework influenced by three conceptual approaches:

- A perspective on quality debates that views it as a way of knowing about practice and policy rather than as a discrete entity in and of itself (taken from Harvey, 2007) and explored earlier in this chapter;
- A theory of practice and practice architectures (taken from Kemmis et al, 2014) that enables the laying out of a practice and the influences which affect it (more on this in Chapter Seven);
- Ideas about scale, space and the reproduction of space (taken from Lefebvre, 1991, and Harvey, 2004) and outlined in detail in Chapter Eight.

The data analysis focused on the different discourses around quality in each location, and looked specifically at how quality was being articulated and the relationship between quality and quality assurance from different influences on practice drawing on Harvey's categorisation.

In addition, the analysis involved a "laying out" of the practices of teacher education and how they have been shaped by the various practice arrangements and traditions as outlined in the theory of practice and practice architectures by Kemmis et al (2014) and discussed in more detail in Chapter Seven. Kemmis and colleagues recognise that practices occur in particular sites which have their own traditions and practices, which in turn make up the arrangements of practice. Practices can be understood by exploring the cultural-discursive (the *sayings* of a practice), material-economic (the *doings*) and social-political arrangements (the *relatings*). Taken together these arrangements reveal the practice architectures which can enable and constrain action and interaction. The theory of practice and practice architectures was used in the analysis as a way of laying out the practice in each site, and the approach provided a way of understanding the practice in each location, and how it was beholden to different factors (such as governance and accountability arrangements) as well as different partnerships and practice traditions. The findings of this laying out were then analysed

further using the ideas of scale, relative and reproduction of space adopted from Lefebvre (1991) and Harvey (2004).

A spatial lens does more than just identify that location matters or that context plays a role in defining practices. Several disciplines have adopted a spatial turn in order to enrich their understanding of the different ways in which context and location can influence practice (Schatzki, Cetina, & Von Savigny, 2005). A spatial lens has been a key approach to reveal trends which contribute to uneven development (Smith, 2010). In education, it has been argued that schools in some of the poorest areas attract the lowest "quality" teachers (although the definition of quality in this context requires some careful handling). This is not due merely to location, but also to the ways in some places are situated in relation to each other in both terms of significance as well as geographical location (known as relative space). For example, schools located in certain areas adjacent to other more attractive areas will find their comparative location as a disadvantage. Additionally, the representational space, how places (and in this case teaching) are represented has a spatial expression. Spatial theory, therefore, offers three rich conceptual lenses (location in space, relative space, and representational space) that were used to interrogate the practice architectures in order to understand the particular influences on each practice (see Chapter Eight). This becomes important when policy makers evoke ideas that become parts of the quality conundrum: as they assume that their policy will be enacted in a uniform way, and fail to recognise the distinct ways in which practices vary across space, and the complex array of reasons which can affect how those practices respond to trends and influences. In this sense, policy assumes conformity: that all schools need the same thing, in the same way, at the same time, which belies individual (and I would argue spatial) patterns and trends. The unique situation of each provider produces different challenges and problems: each of which has a spatial expression. Each provider is also beholden to a different infrastructure or architecture of quality measures, indicators and priorities some of which may be sourced locally, others may come from regional, national and global debates. The working-through or practice of teacher education is contingent upon these factors, whilst also influenced by the location of the practice of learning to teach itself: the site of the university, school or other learning spaces. In each of the cases featured in this research, as the chapters will show, this triad of spatial practices come together to form the unique experience of learning to teach within these institutions.

The counterpoint of this argument is that we focus too much on the individual or local, and this is problematic too as it can hide important wider trends. I would argue that much current research in teacher education is guilty of this, adopting an overly individualised account can ignore some of the social, cultural, economic and political trends which affect education. The use of a spatial lens allows us to see the site of the individual situated within these wider scales.

Book outline

This chapter has outlined three of the key ideas that underpin this book: that quality in teacher education should be seen as a process of transformation rather than standards or indicators of quality assurance; that transformation occurs through the flow of ideas enacted through teacher education pedagogy; and that when ideas about quality get taken up they can turn into quality conundrums which will affect practices. The next five chapters take each of these quality conundrums in turn, exploring how that conundrum gets manifest and how one of the universities studied works in and around that conundrum.

- Chapter Two explores the practice quality conundrum, through a comparison of the practices of a post-graduate teacher education programme and the Teach First employment-based programme both located at the UCL Institute of Education in London, UK;

- Chapter Three looks at the research quality conundrum through the lens of the research-orienated programmes at Ontario Institute for Studies in Education (OISE), of the University of Toronto, Canada;

- Chapter Four explores the knowledge quality conundrum and in particular how it is addressed at Queensland University of Technology, Brisbane, Australia;

- Chapter Five asks the question as to who are the best people to work with new teachers: the teacher educator quality conundrum, looking at Mary Lou Fulton Teachers College, Arizona State University, in the US;

- Chapter Six look at how to deal with the accountability quality conundrum, using the example of the University of Auckland, New Zealand.

The experiences across these five universities and across the five identified quality conundrums, are then brought together in two further chapters. Chapter Seven explores the practice architectures and the practice arrangements pertinent to teacher education and how these arrangements enable and constrain university-based teacher educators' practices. In effect, these factors influence what practices are possible and which are not. Chapter Eight then uses the spatial lens to look at how the location, relative and representational nature of teacher education gets played out through these practices. Finally, these themes are drawn together in Chapter Nine which posits a model of ITE practice: a diagrammatic representation of how universities are able to "do" teacher education within the highly complex, stratified and challenging environments they find themselves in. The model is intended to illustrate the opportunities and responsibilities available to universities, to help them navigate the complex landscapes in which teacher education takes place. The model is also intended to be a useful way for universities to reconsider their role in teacher education: how they

can leverage their influence, exercise their expertise and ensure that as new quality conundrums appear the transformational potential of teacher education is not lost.

A note on terminology

Terminology about initial teacher education varies enormously around the globe, reflecting the different views on, and status of teacher education provision. For this reason alone adopting a unified terminology to describe stakeholders, and programme structures can be challenging. The choice of terminology is political in itself.

In England, the term "initial teacher education" is the phrase preferred by university providers, in contrast to the narrower and more technical phrase of "initial teacher training" as preferred by the Department for Education. In the US, the phrase "teacher preparation" is more commonly used. As this research is set in universities, I have adopted the phrase initial teacher education, teacher education (or the abbreviation ITE) throughout to reflect the *educational* nature and the distinctive component that universities provide which goes beyond technical or skill-based training or generating classroom-ready teachers. Similarly, I will refer to "universities" instead of using the term "providers", unless making specific reference to alternative providers outside of the university sector. On the whole, the use of "teacher educator" is reserved for those working in the university sector many of whom will have different designations such as lecturer, tutor, sessional tutor, academic etc. Where differentiation is needed between teacher educators, such as between tenure-track, adjunct or sessional these will be clearly signposted. School based colleagues involved in ITE will be referred to as "mentors" or the specific name given by their university (such as "lead teacher) where it denotes a different role or responsibility. I appreciate that many would argue that school-based mentors are also teacher educators, however, I agree with White (2018), that for this study, a distinctive term is needed to differentiate their work from those employed at a university with specific expertise, roles and responsibilities around teacher education. When necessary, reference will be made to university-based teacher educators or school-based teacher educators. The research predominantly deals with pre-service programmes, although Teach First is an in-service or employment based route into teaching, hence participants on those programmes will be referred to as "student teachers", this also denotes their enrolment on a university programme, and differentiates them from both "students", qualified "teachers" and from pupils. Finally, universities use a variety of names for their teaching programmes and how they are differentiated, for ease of comparability, I will refer to "programmes" and "modules". Where local terminology varies (such as describing courses or units instead of modules) this will be made clear to enable understanding.

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[i] https://teachingcouncil.nz/content/teacher-registration-and-certification-policy-review