Highlights

- Quality indicators for initial teacher educations tend to focus on standards rather than seeing quality as educational transformation.
- There is a quality conundrum for teacher educators: that indicators attempting to make quality better can make the transformational potential more challenging.
- University-based teacher educators work adaptively to make the quality conundrum work for their students.

The Quality Conundrum in initial teacher education

Clare Brooks

[a]*UCL Institute of Education, London, UK;*

c.brooks@ucl.ac.uk; ORCID ID: 0000-0001-6511-1404

The Quality Conundrum in initial teacher education

Despite attempts to define quality in initial teacher education (ITE), consensus remains elusive. Harvey (2007) highlights how, in higher education, there is confusion between quality, standards and quality assurance. Examination of the quality indicators in ITE reveals an over-emphasis on standards rather than its transformative potential. Original research into the ITE practice of five universities in different international settings analyses the quality discourses evident in stakeholder interviews, observations and documentation on the practice of teacher education; two examples are used as illustrative accounts. The analysis reveals how teacher educators adjust their practice to the different quality discourses. The discourses emerging from both universities and accountability mechanisms focus on measures of quality assurance, standards, or value for money, and underplay the transformational dimension of ITE. This presents a quality conundrum: indicators aimed at making ITE better actually make transformation more challenging. Without recognition of its transformative and educative potential, the contribution of university-based teacher education will likely remain under-recognised, under-valued and poorly understood.

Key Words: initial teacher education; quality; quality conundrum; standards; accountability; transformation

Concern over teacher education quality has grown since the publication of international comparison tables emerging from international testing (such as PISA and TIMSS), with many policy makers adopting the argument developed from the McKinsey and Company report (Barber & Mourshed, 2007) that high quality teachers are a key feature for a high quality education system. Despite the questioning of the evidence which underpins this argument (see Pachler, 2013), and of the data upon which the McKinsey report is based (see Jerrim, 2011), the preoccupation to define quality has been influential in both research and policy circles. However, there is still a lack of consensus as to what quality looks like, particularly in initial teacher education.

Drawing on research into university-based teacher education in five different countries, this paper analyses the various discourses of quality that influence the practice of initial teacher education (ITE), through Harvey's (2007) distinction between quality, standards and quality assurance. What emerges is a conundrum: the use of initiatives designed to make ITE "better" impede teacher educators from focusing on that which is likely to be truly transformative in the development of new teachers.

Different ways of understanding quality

In his exploration of quality within the higher education sector, Harvey (2007) distinguishes between quality, standards and quality assurance, arguing that quality assurance mechanisms do not (in themselves) enhance the provision of education, but perform functions around accountability, control, and compliance. He warns that quality assurance 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, rather than the learning itself (Bartell, Floden, & Richmond, 2018; Firestone & Donaldson, 2019; Gewirtz, Maguire, Neumann, & Towers, 2019; Skedsmo & Huber, 2019). Harvey distinguishes between definitions of quality and that of standards (see Table 1). Standards (as denoted forthwith uncapitalized) as defined by Harvey is distinct from the more specific Teacher Standards (capitalised). Certain definitions of quality (such as exceptionality or value for money) 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.

Table 1: Definitions of quality and standards. Source: Harvey, 2007

In ITE there is a lack of clarity about what is meant by "quality". For example, the provision of Teacher Standards, and student satisfaction surveys denote differing interpretations of what is valued rather than what is inherently "better". 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. Underpinning assumptions about why something is quality, is more important than 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)

A powerful counter-argument is 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 "core practices" that teachers need to master (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: when it is understood as a qualitative or fundamental change in form (Harvey & Knight, 1996). Seeing quality as transformation is more aligned with a critical-dialectic epistemology which are difficult to identify or "measure":

> 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)

However it is also important to note that 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 observable in initial teacher education. 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 in ITE are contextual.

Quality, measures, standards, and accountability

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)

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 2: Categories of "quality" measures used in ITE

The set of indicators around **Inputs** 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 **Outputs** are similarly flawed, but 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 cited 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 ITT 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). But to what extent do these indicators of quality affect the practice of ITE?

Quality at scale in initial teacher education: the research project

The research this paper draws upon focused on the question: *What are the features of high-quality, large-scale initial teacher education?* Data was collected on the ITE practice of five universities (see Table 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 (England, Canada, USA, Australia and New Zealand), 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.

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 3 Universities and the teacher education programmes

Different 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). Where possible 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. The incidence of the global pandemic coronavirus in 2020 mean that the data collection for OISE was conducted remotely. Ethical approval was granted by my home institution, and where necessary local ethical approval was sought by the host institution.

The data analysis focused on the different discourses around quality in each location. The analysis 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 cultural-discursive, material-economic and social-political arrangements, thus revealing the practice architectures (arrangements and set ups) which enable and constrain

action and interaction, as outlined in the theory of practice and practice architectures by Kemmis et al (2014).

Interviews were transcribed and analysed using systematic category-based qualitative content analysis in the form of deductive (top-down, theory-driven) and inductive (bottom-up, data-driven) coding (Kuckartz, 2014). The deductive categories were created in a coding scheme based on the analytical framework, and the inductive categories were arranged thematically. The categories were then combined using N-Vivo software, and the findings were checked with a key contact at each institution to ensure internal validity and rigour.

The Quality Conundrum

All ITE providers featured in this research sought to offer the best educational experience for their students. Whilst the barriers and challenges each university faced was somewhat unique to their situation, there was a similarity in how they were experienced: a similarity that I have called the Quality Conundrum. The Quality Conundrum describes the situation when an initiative which attempts to improve teacher education runs into competing definitions of quality: the end result of which is an impact on practice which is less than optimum. The Quality Conundrum occurs when there are competing definitions of quality, often when some views are orientated around standards or value for money and others are orientated around change for transformation or excellence. The competing priorities come from different stakeholders. These conundrums were evident in all the universities practices I explored, but here I detail two illustrative examples of how teacher educators respond to the conundrum.

Accommodating mandatory requirements

In teacher education, official definitions of quality are given formal expression through Teacher Standards, and mandatory programme requirements (often monitored through accreditation or inspection regimes). Teacher Standards are often introduced as a benchmark criterion for entry into the profession, designed to drive up standards and to provide challenging benchmarks. However, in the examples I saw, Teacher Standards were a benign influence on teacher education practice. Their use by teacher educators was predominantly summative as an assessment criterion but appeared to have little bearing on how the teacher education programme was designed or taught. For example, in England, the Teacher Standards are generated by the UK government's Department of Education, and their consistent and appropriate assessment by the ITE provider is subject to oversight and inspection by the government's inspectorate, Ofsted. However, the Standards did not form an extensive part of their discussion or practice of the teacher educators at the IOE. This is not to say that they were ignored or that they were not included as a significant part of the programmes, (indeed they featured significantly in all the programme documentation) but the IOE teacher educators appeared to share a belief that assessment of teaching, required a holistic view of practice: that compartmentalising practice into a set of distinct behaviours (or Standards) was not the best way to ensure that teachers developed a professional and critical understanding of practice. The programme emphasis is on developing a critical understanding of practice, as expressed here by one of the programme team:

> Students are constantly encouraged to think very critically, and I think it would be very dangerous, for new teachers to go into primary schools in the current climate and not

> have a good level of criticality. From the beginning of the year to the end, their ideas of what good practice is can change quite dramatically. This is what we focus on: their critical understanding of practice.

In this context the Standards were seen purely as a summative judgement, used at the end of the programme in order to fulfil the requirements to award Qualified Teacher Status, but not of much specific value formatively as a barometer of achievement. The Teacher Standards were sometimes used with school-based mentors or individual students to recalibrate their judgement if necessary but otherwise they appeared to have little significance on the practice of ITE as they did not correlate to the understanding of quality widely supported by the teacher educators. Their influence was therefore benign, used as required but not used to improve the programme. This approach was also reflected in the development of the ITE curriculum: the IOE's taught curriculum is structured similarly to that described as a spiral curriculum by Biesta (2019), but as the UK Department for Education had introduced compulsory requirements for ITE (such as the teaching of phonics) so adjustments had been made:

> We're having to do a session of phonics within the very first placement simply because of the statutory requirements, which means that we have to give our input on phonics very very early … and it doesn't really fit with the design of the rest of the programme … for the primary practitioner it is ludicrous. But they have to do it before they've had any actual teaching experience.

From the DfE perspective the importance of phonics is paramount and designed to improve the quality of teacher education, hence the stipulation of a minimum entitlement. But in order for the requirement to be accommodated, adjustment needed to be made which would disrupt the coherence of the programme design, providing input that due to the experience of the new teachers they were ill-equipped to make sense of. The conundrum is resolved by the teacher educators adjusting the programme, which in their view, has the potential to compromise the coherence and the quality of the learning experience.

Accommodating university requirements

Teacher education policy in New Zealand has a somewhat different tone to other places I studied, reflecting a high value to the bicultural nation status of New Zealand. This is evident in the New Zealand Code and Standards for Teachers, published following a review in 2017, where the values are not just articulated in the Māori language but also through emphasising Māori cultural perspective and priorities:

> WHAKAMANA: empowering all learners to reach their highest potential by providing high-quality teaching and leadership.
> MANAAKITANGA: creating a welcoming, caring and creative learning environment that treats everyone with respect and dignity.

> PONO: showing integrity by acting in ways that are fair, honest, ethical and just.
>
> WHANAUNGATANGA: engaging in positive and collaborative relationships with our learners, their families and whanau, our colleagues and the wider community.

These perspectives are reflected also in the Code of Professional Responsibility which echoes a commitment to Society, to the Teaching Profession , to Families and Whanau (a Māori term for extended family or community) and to learners: this is then broken down into a range of behaviours that go towards meeting that code. The Teacher Standards also reflect these perspectives.

The focus on equity and bicultural awareness is also enshrined in the teacher education programme at the University of Auckland, and reflected in the new programme accreditation procedures they were preparing for during my site visit. A key aspect of the new accreditation process was the requirement to have actively consulted with local community groups, which within the New Zealand context, specifically means local Māori iwi (tribal groupings) and Pacific peoples. This is encapsulated in ITE requirements which specifically require "authentic partnerships" with "*with mutual benefits that are explicit and interdependent, structured, and with a shared responsibility for success"* and that are "*strengthened and expanded over the following two to three years."* Authenticity is defined as:

> Authenticity in partnerships occurs through arrangements and negotiations to ensure all partners have a shared understanding of their respective roles and responsibilities … Such partnerships ultimately reflect an enduring relationship that takes into account the aspirations, wellbeing, and success of all learners. The notion of partnership is different from a consultation model, where in partnership mutual benefits are explicit and interdependent, structured, with a shared responsibility for success.

All the teacher educators I interviewed were supportive of this approach, although there were clearly some issues in meeting this requirement. The benefits of partnership for the ITE institution were clear at one level (to meet the requirements for accreditation), while the benefits for Māori were less clear. Seeking partnership just to meet requirements was felt to be inappropriate, and there were struggles to understand how to share power and decision making with iwi and community groups in a space that had traditionally been dominated by consultation with schools and early childhood centres only. This requirement opened a space for new practices in ITE that could benefit Māori student teachers and students in schools, but it seemed to be difficult for the institution to move forward and begin these partnerships.

The commitment to authentic partnerships was, for me, encapsulated by an initiative adopted by the team at the University of Auckland to focus on the development of an understanding of practice across different sites and partners, known as Mahi Tahi (working together as one) days. Mahi Tahi days brought student teachers with school- and university-based teacher educators to work together and to combine theory and practice in a meaningful way (and as an example of an authentic partnership). A Mahi Tahi day involved using a 360-degree recording of an expert teacher working with students along with copies of the lesson plan and paperwork, and targeted observation techniques for different groups of student teachers. Then the students, mentors and teacher

educators were brought together with the expert teacher to discuss the lesson, the reflections, the observations, examples of students work and what the next steps might be for that class.

From a pedagogical perspective, this approach offers many distinct advantages, including collaborative working across and between the university and school partners, on a specific teaching event and through authentic dialogue and feedback. The approach appeared to have the support and backing of the teacher educators and school partners and had been positively piloted. The plan was to expand this model into the new programme. This however ran into some logistical difficulties at the university level. These included concerns about the timetabling of these events (as they were not connected to a specific course or module), how they would be "counted" in the workload of teacher educators and seeking permission for what appeared to be taking a "day out" of the course. These constraints meant that the original plan for six Mahi Tahi days were reduced to three with concerns that they could be reduced further.

The teacher educators who discussed this initiative with me, saw the administrative barriers they encountered with the university as symptomatic of the challenges of working within a multi-faculty university where university-wide service standards (such as staff to student ratios, class sizes thresholds and workload calculations) did not take into account the specific requirements of ITE. In this situation the quality conundrum was differently orientated with alignment between ITE policy directives and the motivations of the teacher educators, that did not easily correspond with university process and procedures. Although the university policies are designed with equity between students, and service standards in mind, they present a conundrum for attempts to improve the ITE educational experience.

Resolving the Quality Conundrum

These two illustrative examples show the complexity of seeking to improve the quality of ITE with competing values from different stakeholders. Varying conceptions of quality and competing definitions of standards provide challenging contexts for teacher educators seeking to improve the transformative nature of their programmes. Accountability and accreditation regimes hold considerable power over the structure, shape and sometimes even content of the teacher education provision. Multi-faculty universities develop policies designed for the majority of their students. In addition, circumstances change: some communities are now drawing on career changers as new teachers, and the change in personal circumstances necessitates changes to the teacher education programme on offer. These all present quality conundrums for teacher educators who need to consider what adaptations are necessary for the best possible outcome.

Using Harvey's categorisation, service standards are particularly influential in ITE. Teacher Standards or successful completion of accreditation or revalidation by an external body have the capacity to influence the work of teacher educators. Additionally, in all university contexts, student satisfaction (a service standard) and popularity with local schools, are linked to standards of competency and service. Whilst alignment with these standards is important, they do not always form part of how teacher educators view the quality of the teacher education provision. Teacher educators remain concerned with the coherence of the programme and whether it offers students appropriate challenge to develop both their pedagogical understanding and their ability to practice competently. Teacher educators appear to be more driven by ways of transforming the educational experience, then the input, output or perspectival standard indicators.

This is not to suggest that the teacher educators were complacent or unaware of the concerns of both the policy makers and the university: many described their efforts to ensure adequate preparation for the transition of their students into teachers within that context. There were aspirations that their programme would result in transformation. There was little evidence, and even some scepticism from the teacher educators, that their programmes were exceptional or perfect. Indeed, there was much discussion about development priorities and changes that were needed. Teacher educators recognised that universities are under pressure to consider value for money, and ways in which service standards can be improved. When faced with restructuring and reductions in staffing, teacher educators responded by making up for any shortfalls in the student experience themselves by working out of hours or adapting their own practice, in other words they sought to solve the quality conundrum through adaptation of their practice, rather than display outright resistance.

Conclusion

Quality remains an elusive concept in teacher education, particularly as stakeholders continue to prioritise different ways in which quality is understood. University-based ITE practice becomes a key site for the sifting and sorting of these differing priorities. Analysis of practice suggests that it is unlikely that these different approaches will align, as stakeholders have variant concerns which are locally contingent. However, analysis also shows that whilst there may be disagreement about what quality looks like in teacher education, teacher educators have ways of working within these varied discourses to seek to improve the experience of learning even if this is at personal cost.

Teacher education is a fundamentally practical activity that takes place in universities, school classrooms, cafes and virtual spaces involving thousands of interactions between individuals and requiring new teachers to make sense of all these experiences in a coherent way. To become a teacher requires transformation enabled through the skilful deployment of a teacher education pedagogy which allows a flow of knowledges and ideas alongside making sense of practical experience. The complexity of enacting teacher education in this way is compounded by the accountability infrastructure around schools, teacher education and universities, and the different ways in which quality in these contexts is expressed and understood. However, an initiative developed to improve quality, and supported through an accountability infrastructure, can become a quality conundrum, standing in the way of transformative teacher education taking place. Whilst this paper has outlined two such quality conundrums, others can be observed around how programme elements such as the emphasis on knowledge, practice, and research can all become conundrums.

Bearing this in mind, universities are still able to navigate these conundrums and to enact effective teacher education often across a large scale and with multiple partners and across various governance contexts. Universities navigate a range of competing notions of quality (hence the quality conundrums) and the different ways they are expressed and made real (such as through standards, accountability structures and dominant discourses). As the illustrative examples show, university practices encounter different quality conundrums which reflect the local context. This is a paradox of simultaneously being both universal and unique.

The idea of transformation within education has its roots in higher education (L. Harvey & Knight, 1996). Transformation in teacher education occurs through the skilful deployment of teacher education pedagogy. Universities rely on teacher educators to navigate this complexity in order to

enable transformation to occur on their programmes. Acknowledging this expertise requires going beyond the idea that you can understand teacher education through a set of metrics or indicators that respond to an accountability agenda or a governance regime, but that it is based on a set of values and understandings about what high quality teaching looks like, the societal needs it serves and the role communities expect it to play. This vision of quality acts as a powerful reminder as to why universities, as part of civic society, are fundamental to teacher education.

It is likely that as university and school systems continue to adapt (even post COVID-19) this will affect how quality in teacher education is perceived. A key component for transformational quality rests with adaptive teacher education expertise: the extent to which teacher educators can use their repertoire of experiences, and reservoir of knowledge to ensure the best educational experience for those involved. If standards-based discussions dominate views of quality, the contribution of teacher educators is likely to remain under-recognised and under-valued. Greater understanding of the work of teacher educators could influence how we define teacher education quality within a more transformative frame.

References

Barber, M., & Mourshed, M. (2007). How the world's best-performing schools systems come out on top: London: McKinsey & Company.

Bartell, T., Floden, R., & Richmond, G. (2018). What Data and Measures Should Inform Teacher Preparation? Reclaiming Accountability. Journal of Teacher Education, 69(5), 426-428. doi:10.1177/0022487118797326

Biesta, G. (2019). Reclaiming Teaching for Teacher Education: Towards a Spiral Curriculum. Beijing International Review of Education, 1(2-3), 259-272. doi:10.1163/25902539-00102015

Cochran-Smith, M., Carney, M. C., Keefe, E. S., Burton, S., Chang, W.-C., Fernández, M. B., . . . Baker, M. (2018). Reclaiming accountability in teacher education. New York: Teachers College Press.

Cochran-Smith, M., Ell, F., Grudnoff, L., Haigh, M., Hill, M., & Ludlow, L. (2016). Initial teacher education: What does it take to put equity at the center? Teaching and Teacher Education, 57, 67-78. doi:10.1016/j.tate.2016.03.006

Cordingley, P. (2008). Research and evidence-informed practice: focusing on practice and practitioners. Cambridge Journal of Education, 38(1), 37-52. doi:10.1080/03057640801889964

Darling-Hammond, L. (2006). Powerful Teacher Education.: Lessons from Exemplary Programs. San Francisco: John Wiley & Sons.

Day, C. (2019a). Policy, teacher education and the quality of teachers and teaching. Teachers and Teaching, 25(5), 501-506. doi:10.1080/13540602.2019.1651100

Day, C. (2019b). What is teaching about? Professionalism and the limitations of standards and competences. European Journal of Education. doi:10.1111/ejed.12348

Ellis, V., Mansell, W., & Steadman, S. (2020). A new political economy of teacher development: England's Teaching and Leadership Innovation Fund. Journal of Education Policy, 1-19. doi:10.1080/02680939.2020.1717001

Ellis, V., & Spendlove, D. (2020). Mediating 'School Direct': The enactment of a reform policy by university-based teacher educators in England. British Educational Research Journal. doi:10.1002/berj.3607

Evans, L. (2011). The 'shape' of teacher professionalism in England: professional standards, performance management, professional development and the changes proposed in the 2010 White Paper. British Educational Research Journal, 37(5), 851-870. doi:10.1080/01411926.2011.607231

Firestone, W. A., & Donaldson, M. L. (2019). Teacher evaluation as data use: what recent research suggests. Educational Assessment, Evaluation and Accountability. doi:10.1007/s11092-019-09300-z

Francis, B., Hodgen, J., Craig, N., Taylor, B., Archer, L., Mazenod, A., . . . Connolly, P. (2019). Teacher 'quality' and attainment grouping: The role of within-school teacher deployment in social and educational inequality. Teaching and Teacher Education, 77, 183-192. doi:10.1016/j.tate.2018.10.001

Gaertner, H., & Brunner, M. (2018). Once good teaching, always good teaching? The differential stability of student perceptions of teaching quality. Educational Assessment, Evaluation and Accountability, 30(2), 159-182. doi:10.1007/s11092-018-9277-5

Gewirtz, S., Maguire, M., Neumann, E., & Towers, E. (2019). What's wrong with 'deliverology'? Performance measurement, accountability and quality improvement in English secondary education. Journal of Education Policy, 1-26. doi:10.1080/02680939.2019.1706103

Grossman, P. (2018). Teaching Core Practices in Teacher Education. Cambridge MA: Harvard Education Publishing Group.

Grossman, P., Kavanagh, S., & Dean, C. (2018). The turn to practice in teacher education. In (pp. 1-13). Cambridge, MA: Harvard Education Press

Grossman, P., & Pupik Dean, C. G. (2019). Negotiating a common language and shared understanding about core practices: The case of discussion. Teaching and Teacher Education, 80, 157-166. doi:10.1016/j.tate.2019.01.009

Halász, G., & Looney, J. (2019). Teacher professional competences and standards. Concepts and implementation. European Journal of Education. doi:10.1111/ejed.12351

Hammerness, K. (2013). Examining Features of Teacher Education in Norway. Scandinavian Journal of Educational Research, 57(4), 400-419. doi:10.1080/00313831.2012.656285

Hammerness, K., & Klette, K. (2015). Indicators of Quality in Teacher Education: Looking at Features of Teacher Education from an International Perspective. In G. K. LeTendre & A. W. Wiseman (Eds.), *Promoting and Sustaining a Quality Teacher Workforce* (pp. 239-277). Bingley: Emerald Publishing.

Harvey, L. (2007). The epistemology of quality. Perspectives in Education, 25(3), 1-13.

Harvey, L., & Knight, P. T. (1996). *Transforming Higher Education*. Bristol: Open University Press.

Ingvarson, L. (2019). Teaching standards and the promotion of quality teaching. European Journal of Education. doi:10.1111/ejed.12353

Jerrim, J. (2011). England's" plummeting" PISA test scores between 2000 and 2009: Is the performance of our secondary school pupils really in relative decline. Retrieved from: DoQSS Working Papers 11-09, Quantitative Social Science - UCL Social Research Institute, University College London.

Kemmis, S., Wilkinson, J., Edwards-Groves, C., Hardy, I., Grootenboer, P., & Bristol, L. (2014). Changing practices, changing education: Springer Science & Business Media.

Kuckartz, U. (2014). Qualitative text analysis: A guide to methods, practice and using software. London: Sage.

Mayer, D. (2017). Professionalizing Teacher Education. In Oxford Research Encyclopedia of Education (Vol. 1). Oxford: Oxford University Press.

McNamara, O., Murray, J., & Phillips, R. (2017). Policy and Research Evidence in the'reform'of Primary Initial Teacher Education in England: Cambridge: Cambridge Primary Review Trust.

Moore, A. (2004). The Good Teacher: Dominant discourses in teaching and teacher education. London: RoutledgeFalmer.

Noell, G. H., Burns, J. M., & Gansle, K. A. (2018). Linking Student Achievement to Teacher Preparation: Emergent Challenges in Implementing Value Added Assessment. Journal of Teacher Education, 70(2), 128-138. doi:10.1177/0022487118800708

Ofsted. (2018). Building great teachers? Initial teacher education curriculum research: phase 2. Retrieved from https://www.gov.uk/government/publications/initial-teacher-education-curriculum-research/building-great-teachers

Pachler, N. (2013). 'Interesting times' or Teacher education and professionalism in a 'brave new world'. In M. Evans (Ed.), Teacher Education and Pedagogy: Theory, Policy and Practice (pp. 23-40). Cambridge: Cambridge University Press.

Rauschenberger, E., Adams, P., & Kennedy, A. (2017). *Measuring Quality in Initial Teacher Education: A literature review for Scotland's MQuITE Study* (S. C. o. D. o. E. (scde.ac.uk) Ed.). Edinburgh: Scottish Council of Deans of Education (scde.ac.uk).

Sahlberg, P. (2019). Leading Together; how teacher leadership can be enhanced and supported. Paper presented at the Sammon om Ledelse, Undervisningssektoren, Christianborg.

Skedsmo, G., & Huber, S. G. (2019). Measuring teaching quality: some key issues. Educational Assessment, Evaluation and Accountability, 31(2), 151-153. doi:10.1007/s11092-019-09299-3

Sleeter, C. (2001). Preparing Teachers for Culturally Diverse Schools: Research and the Overwhelming Presence of Whiteness. Journal of Teacher Education, 52(2), 94-106. doi:10.1177/0022487101052002002

Sloat, E., Amrein-Beardsley, A., & Holloway, J. (2018). Different teacher-level effectiveness estimates, different results: inter-model concordance across six generalized value-added models (VAMs). Educational Assessment, Evaluation and Accountability, 30(4), 367-397. doi:10.1007/s11092-018-9283-7

Vagi, R., Pivovarova, M., & Barnard, W. (2019). Dynamics of preservice teacher quality. Teaching and Teacher Education, 85, 13-23. doi:10.1016/j.tate.2019.06.005

van der Lans, R. M. (2018). On the “association between two things”: the case of student surveys and classroom observations of teaching quality. Educational Assessment, Evaluation and Accountability, 30(4), 347-366. doi:10.1007/s11092-018-9285-5

Watson, C. (2018). From accountability to digital data: The rise and rise of educational governance. Review of Education, 7(2), 390-427. doi:10.1002/rev3.3125

Zhao, Y. (2018). The Changing Context of Teaching and Implications for Teacher Education. Peabody Journal of Education, 93(3), 295-308. doi:10.1080/0161956x.2018.1449896

Zumwalt, K., & Craig, E. (2005). Teachers' Characteristics: Research on the Indicators of Quality. In Studying teacher education: The report of the AERA Panel on Research and Teacher Education. (pp. 157-260). Washington, DC, US: American Educational Research Association.

Table 1: Definitions of quality and standards. Source: Harvey, 2007

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.

Table 2: Categories of “quality” measures used in ITE

Inputs	**Processes**	**Outputs**	**Perspectival**
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

Table 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 Secondary education	QS World University Rankings	Standards and Code for the profession (Teaching Council)	Teaching Council of Aotearoa New Zealand (TCANZ)
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,	USA	Post-graduate and undergraduate, Early Years, Primary and Secondary	US News rankings	Arizona State Standards	Arizona Department of Education. Schools are also accredited by

Tempe Arizona,		education: but with an emphasis on the new undergraduate programme			the Council for the Accreditation of Educator Preparation (CAEP)