** EDUCATION SYMPOSIUM:**

**CREATING A WORLD CLASS TEACHING SYSTEM**

**Teacher Education Policy and Research**

Moira Hulme, Emilee Rauschenberger & Karen Meanwell

* Teacher education as a policy problem: problematising teacher quality
* What do we know about high quality teacher preparation? How do we know?
* What might we learn?

# Teacher education as a ‘policy problem’: problematising teacher quality

In the last fifteen years teacher education has assumed greater significance in global education policy. The quality of a nation’s education system is routinely associated with its competitiveness in the global knowledge economy. It is now widely accepted that high quality teaching is the most important within-school factor influencing pupil achievement, especially for less advantaged pupils (OECD, 2012). The shift in emphasis from structural reform to ‘teacher quality’ has once more placed the teacher workforce at the center of policy discourse, ‘at least as a policy focus if not as policy actors’ (Paine and Zeichner 2012: 573). Teacher education is firmly positioned as a ‘policy problem’ to be managed by central government (Cochran-Smith, 2005). Renewed attention to teacher/teaching quality – in response to concerns about school and student outcomes – has evoked scrutiny of the effectiveness of teacher preparation programmes, leading to national reviews of teacher education in the UK and internationally (figure 1). Recent years have seen an intense focus on impact and outcomes, and stronger engagement with empirical evidence about value addedness. In the US, Tatto and Plank (2007: 269) have described teacher education institutions as operating within an ‘environment of permanent educational crisis’. Darling-Hammond (2012: ix) describes ‘a tsunami of reform’ around an increasingly ‘limited menu of change’. In Australia, Louden (2008, 357) writes of a ‘teacher education policy epidemic’. Between 2010 and 2015 major reviews teacher education were conducted in each of the four nations of the UK.

Teaching is at a crossroads: a crossroads at the top of the world. Never before have teachers, teaching, and the future of teaching had such an elevated importance … there is a lot of argument and more than a little aggravation about what high-quality teaching looks like and what’s the best way to get it and keep it. The crossroads are shrouded in a fog of misunderstandings about teachers and teaching, and if we take the wrong road forward, precipices are looming on many sides. (Hargreaves & Fullan 2012, xii)

**National reviews of teacher education**

* Australia - *Action Now: Classroom Ready Teachers* (Craven et al. 2015)
* United States – *Our Future, Our Teachers* (US Department of Education, 2011)
* England – *Carter Review of Initial Teacher Training* (Department for Education, 2015)
* Scotland – *Teaching Scotland’s Future* (Donaldson, 2011)
* Northern Ireland - *Aspiring to Excellence*  (Sahlberg et al. 2014)
* Wales – *A Review of Initial Teacher Training in Wales* (Tabberer, 2013); *Teaching Tomorrow’s Teachers* (Furlong, 2015)
* Ireland – *Report of the International Review Panel on the Structure of Initial Teacher Education Provision in Ireland* (Sahlberg, Furlong and Munn, 2012)

Policy interest in teacher preparation is not new. Teachers are often positioned as a source of salvation and blame (Weisburg et al, 2009), as ‘heroes and villains’ (Robertson, 2013:78). In contemporary policy discourse, the problem of teacher quality is further entangled with enduring ‘wicked problems’ demanding urgent action. In the UK, this is evident in high profile multi-level strategies to tackle the ‘equity problem’ (closing the attainment gap between less advantaged school students and their more affluent peers e.g. within targeted ‘opportunity areas’), the ‘urban problem’, the ‘Northern problem’, the problem of social mobility, the problem of teacher supply. Recognition of a high degree of entanglement limits prospects for ‘fixing’ *the* problem, to the frustration of policy analysts and policy makers operating within an ascendant teacher effectiveness paradigm.

Through these dual discourses (the discourse of blame/derision and the discourse of the centrality of the teacher),teachers have been constructed as being deficient and simultaneously shouldered with the responsibility of fixing societal and school problems (Larsen 2010*:* 208)

**Policy deliberation**

Policy proposals give ‘shape’ to or ‘constitute problems’ (Bacchi, 2009:30). Policy interventions are not simply responses to self-evident problems but set the terms of reference for thinking about an issue. Policy texts work to build collective understandings of how things are and what really matters. An examination of international trends in policy talk and academic discourse reveals a series of recurring dichotomies that illustrate the various ways in which the teacher quality problem has been framed. These frames are underpinned by different notions of teacher expertise and give rise to different accountability mechanisms (Table 1).

Table 1 Policy logic

|  |  |
| --- | --- |
| **Professional project** | **New modernisers** |
| Regulation | Deregulation |
| University | Multiple sites |
| Pedagogy  | Subject knowledge |
| Diversification or representation | Selectivity |
|  | (Cochran-Smith, 2005) |
| Moral purpose | Professional behaviour (regulating conduct, evidence-based teaching) |
| Teacher education pedagogy (curriculum design) | Delivering ‘urgent’ content (audit/compliance) |
|  | (Mutton et al., 2017) |
|  **Strong equity perspective** (integrated social policy frame). “Inequality rooted in and sustained by longstandingsystemic societal inequities” |  **Thin equity perspective** (teacher centrality) Teacher-as-problem. “School factors, especially teachers, are the major sources of educational inequality”. |
|  | (Cochran-Smith et al., 2016:17) |
| **Professional capital**“Getting good teaching for all learners requires teachers to be highly committed, thoroughly prepared, continuously developed, properly paid, well networked with each other to maximise their own improvement, and able to make effective judgements using all their capabilities and experience” | **Business capital**“A teaching force that is young, flexible, temporary, inexpensive to train at the beginning, un-pensioned at the end (except by teachers’ self-investment), and replaceable where ever possible by technology. Finding and keeping good teachers then becomes seeking out and deploying (but not really developing or investing in) existing human capital – hunting for talented individuals, working them hard, and moving them on when they get restless or become spent. |
|  | (Hargreaves, 2013: 293-4). |
| Highly qualified | Differently qualified |
| Teaching as complex activity, career-long professional learning | Classroom ready |
| Prepared | Effective |
| Research literacy | Knowledge of ‘what works’ |
| Impact of ITE programmes on diversity & social justice goals | Evidence of impact on student achievement  |
|  | (Mayer, 2015) |

 A strong equity perspective assumes that teachers and schools alone cannot achieve equity; rather, it requires educators working with policymakers and others in larger social movements to challenge the intersecting systems of inequality in schools and society that produce and reproduce inequity. Working from a strong equity perspective also includes focusing directly on creating the conditions for high-quality teaching, such as supports for teachers and students, stable and supportive leadership, intensive interventions to close opportunity gaps for students in the early grades, and well-supported teacher induction programs (Cochran-Smith et al. 2016:4)

In the last decade, deliberation on teacher policy has centred on labour market needs i.e. raising learning outcomes among the future workforce by ‘attracting, developing & retaining’ (OECD, 2005) high calibre practitioners.Within this, various strands have attracted attention at different junctures influenced by the changing demographics of the teaching population and pupil population (e.g. loss of experienced teachers, recruitment challenges, attrition among new teachers, distribution of teachers in high needs subjects and hard to staff schools/regions, diverse learner needs).

Table 2

|  |  |
| --- | --- |
| **Problem**  | **Focus** |
| *ATTRACTING*Attracting the ‘right’ applicants | Recruitment to the profession, entry criteria‘letting the right one in’ (Davies et al, 2016) |
| *DEVELOPING*The ‘early career teacher problem’ (Mockler, 2018) | Induction & development pathways, registration, professional standards, professional learning and development (PLD) |
| *RETAINING*Career-long professional learning | Promote adaptive expertise (Timperley, 2011; Le Fevre et al., 2015), disciplined innovation (Hargreaves, 2003), collaborative professionalism (Fullan and Hargreaves, 2016), inquiry cycles (Timperley, Halbert & Kaser 2014) |

**What is the problem that schools-led ITE is designed to address?**

**What evidence is there that policy instruments have been effective?**

**How robust is the evidence base?**

Figure 1

# What do we know about high quality teacher preparation? How do we know?

The body of evaluative research to inform policy and programme development in teacher education is limited (Louden, 2008; Menter et al., 2010; Murray et al., 2008; Sleeter, 2014). At present, there are few large-scale quantitative studies with a longitudinal focus and little evidence of large-scale systematic research undertaken to inform the on-going development of teacher education programmes in the UK and beyond. Cochran-Smith and Zeichner, (2005:5) note, ‘this dearth of larger and longer studies is the case, at least in part, because teacher education has rarely been a research priority for funding agencies or a focus of well-supported programmatic research.’ A decade later, Mayer (2015:15) notes the field remains ‘under-developed, under-theorised, fragmentary and parochial, with little longitudinal, cumulative or meta-analytic work providing evidence of impact to inform policy and practice’. Notable exceptions include the *Becoming a Teacher* study (BaT) in England, 2003-2009 (Hobson et al., 2009), the *Studying the Effectiveness of Teacher Education* (SETE) project (four‐year longitudinal study that followed 5,000 graduates from initial teacher education in 2010-2011 in Victoria and Queensland, to their first teaching positions and subsequent career path; and Scotland’s *Measuring Quality in Initial Teacher Education* project (MQuITE) initiated in August 2017. The final report of the *BERA‐RSA Inquiry into the Role of Research in Teacher Education* highlighted the ‘need for more researchthat looks systematically at the effectiveness of different types of teacher education’ (BERA,2014, p.37). More research is needed to inform program design, delivery and assessment, in addition to a focus on the relative costs and benefits of different routes to Qualified Teacher Status (QTS) (Allen et al., 2016; NAO, 2016). It will not be possible to benchmark England’s diverse provision against other national systems without reliable and representative data on content, implementation and outcomes. The fragmentation of the system in England with a proliferation of providers is an additional challenge.

Reviews of teacher education that distil lessons from around the world (figure 1) typically use international assessment data as a proxy measure for educational standards. The appeal of policy borrowing is strong (Barber & Mourshed, 2007; Mourshed, Chijioke & Barber, 2010; Ingvarson et al., 2014; Darling-Hammond & Rothman 2015; Jensen et al., 2016). However, rapid evidence review can result in de-contextualised and de-politicised advocacy of global best practices if insufficient consideration is afforded to how the problem of teacher quality has been posed, and the limitations of equating pupil test scores with the efficacy of teacher preparation. International performance tables are constructed using single achievement measures (test scores in particular curriculum areas). Interpretation of results requires consideration of long-term development trends for the countries, in addition to appraisal of the reliability and validity of tests and sampling standards. A number of studies have challenged the validity of standardised testing and rank ordering of countries, drawing attention to cultural differences between nations, a failure to engage with issues of teacher quality or the range of student outcomes that might be valued (personal, social and academic), and the wider goals of education. Baumert et al. (2002:8) argue that the OECD’s Programme for International Student Assessment (PISA) offers little support for teacher policy as, ‘No account is taken of teachers’ professional background, declarative knowledge, belief systems or motivation, or indeed of their procedural knowledge and professional action’.

This approach allows the sorting of teachers and students into segments from highest to lowest performing, but it does not tell us anything about what effective teachers do, know or believe, nor does it tell us anything about how high-performing pupils learn or what resources they bring to school. Further, other school outcomes – such as students’ social and emotional development or their preparedness for civic participation in a democratic society – are ignored (Cochran-Smith, 2009:11)

Any interpretation of findings produced in other national jurisdictions should be treated with due care to context specificity. There is significant cross-national variation in terms of the governance and regulation of teacher education and the scale and context of provision. Across contexts, government, universities, and the teaching profession itself can play different roles and have varying levels of authority over ITE. There are at least three different dimensions of ITE governance: *funding* (i.e., amount, sources, and the basis and process of allocation), *regulations* (i.e., admissions criteria, certification, and accountability measures and processes), and *delivery of ITE* (i.e. site(s) of delivery, curriculum content and programme structure, and staffing recruitment, qualifications, and roles). Based upon these dimensions, the governance of each respective ITE sector may be predominantly politically-, institutionally-, or professionally-driven (Young, Hall and Clark, 2007). For example, when considering lessons from Finland’s educational context, few take into account the fact that its ITE sector is decentralised with the universities having full control over curriculum decisions to address local and institutional needs (Ceana and Margiotta, 2010). As a result of the contextual diversity in which ITE systems operate, there is no one ’proven’ way to measure quality in ITE. The idea of ‘quality’ – and how to measure it – are context-driven concepts shaped by competing interests and the governance structure of ITE in a particular locality. Consequently, any evaluation framework for ITE needs to be underpinned by a clear and shared articulation of ITE’s purpose and role in a given context.

Measuring the impact of teacher education programmes on teacher and then student learning is methodologically challenging. Attributing the learning gains of school students to the type of professional preparation programme attended by their teachers is technically complex. Numerous studies have pointed to an over-reliance on crude indicators and the production of inconsistent findings (Boyd, 2006; Chingos and Peterson, 2011; Goldhaber et al., 2013; Koedel et al., 2015). Stanford University’s *Teacher Pathways Project* (2003-2007), which investigated the impact of teacher preparation on student outcomes in the New York City Public School System, highlighted the broad range of intersecting influences on teacher quality and student achievement (figure 3).

Figure 2 **The Pathways Model - Teacher Preparation Paths and Outcomes for Teachers and Students**



Source: <https://cepa.stanford.edu/tpr-new/teacher-pathway-project> (accessed 16/02/2018)

Louden (2008:360) has argued that in order to measure programme effects researchers need to disaggregate the impact of three sets of forces:

1. *the characteristics of teacher education* ***students*** *on entry (such as their developed academic ability and personal dispositions);*
2. *the characteristics of their teacher education* ***programmes*** *(both structurally and in terms of the substantive knowledge growth they promoted); and*
3. *characteristics of the* ***schools*** *in which new graduates begin teaching (such as the quality of mentoring and the complexity of the school environment and student population).* Programmes effects are mediated by school context in the early years of teaching.

In an industry as large as teacher education, there is much that works well and little that has not been tried. There is no end of sound advice about what works … but the absence of convincing empirical research leaves the industry uncertain about its impact. (Louden, 2008:366)

Much recent attention has focused on the potential of value-added models[[1]](#footnote-1) (VAM) to measure and compare the effects of different ITE programmes (Gansle, Noell and Burns, 2012). Critics points to the limitations, inconsistencies, and risks of such evaluation approaches (Rockoff and Speroni, 2010; Mihaly et al., 2012; Goldhaber, Liddle and Theobald, 2013; Guarino et al., 2015; Walsh and Isenberg, 2015), especially for teachers and pupils located in disadvantaged communities (Mangiante, 2011). Studies using value-added measures to compare the effectiveness of graduates of various teacher preparation programmes (TPPs) have found much greater differences between teachers of the same programmes than between teachers from different programmes (Koedel et al., 2012, 2015). Von Hippel et al. (2016:32) identify a need to consider three further conditions when assessing ITE programmes:

1. How big are the teacher quality differences *between* teacher preparation programmes (TPP)?
2. How reliably can those differences be estimated?
3. How confidently can we single out individual teacher preparation programmes as different?

Teacher quality differences between TPPs are small, and estimates of those differences consist mostly of noise, even in large TPPs … Few if any TPPs can be confidently flagged as different from average after adjustments are made for multiple tests. These results suggest that TPP accountability systems have limited potential to improve student achievement. In addition, careless use of TPP estimates can lead policy makers to make decisions about TPPs that are both arbitrary and ineffective (Von Hippel et al. 2016: 32-33)

The use of value-added measures to assess teacher quality and the effectiveness of ITE programmes remains problematic. Despite the growing interest in these statistical measures among American policy makers, most U.S. ITE programmes and their graduates are not typically assessed in this way.

**Features of effective systems for teacher development**

While evidence of the impact of teacher education on teacher learning and student outcomes is contested, there is reasonable agreement in the international literature on the key features of highly regarded teacher development programmes. Darling Hammond (2006:276-77) identifies common elements of ‘exemplary’ programmes in the United States:

* ***Coherence****, a common, clear vision of good teaching grounded in an understanding of learning, permeates all coursework and clinical experiences.*
* ***A strong core curriculum****, taught in the context of practice, grounded in knowledge of child and adolescent development, learning in social and cultural contexts, curriculum, assessment and subject-matter pedagogy.*
* ***Extensive,******connected clinical experiences*** *that are carefully developed to support the ideas and practices presented in simultaneous, closely interwoven course work.*
* ***An inquiry approach that connects theory and practice,*** *including regular use of case methods, analyses of teaching, and learning, and teacher research applying learning to real problems of practice.*
* ***Strong school-university partnerships*** *that develop common knowledge and shared beliefs among school-and university-based faculty, allowing candidates to learn to teach in professional communities modelling state-of-the-art practice for diverse learners and collegial learning for adults.*

To this, we can add dimensions associated with development of professional policy for systemic change:

* ***Well-defined standards of professional knowledge and practice***that are used to guide and evaluate course work and classroom practice (Darling Hammond, 2012:232).
* ***Assessment based on professional standards*** that evaluates teaching through demonstration of critical skills and abilities using performance assessments and portfolios that support the development of ‘adaptive expertise’ (Le Fevre, Timperley and Ell, 2015).
* ***Selective recruitment*** It is often noted that high performing systems recruit future teachers from the top third of the age cohort (secondary school leavers) (top 30% Singapore and Canada; 10% in Finland, 5% South Korea) (Schleicher, 2012). It is assumed that higher attainment thresholds will raise the status of the profession and increase competition for places. However, this may be achieved at the risk of reducing diversity among the workforce. Moreover, as Ingersoll (2007) points out there is little point in lifting entry requirements for teacher education courses without ensuring that teachers’ salaries, working conditions and prospects for career development are commensurate to those of other professions competing for similar graduates. Without such measures, the recruitment and long-term retention of high-achieving graduates will likely remain problematic.
* High-achieving countries require and support a period of ***mentored induction*** prior to full registration (by ***trained mentors***) and the provision of targeted support throughout the early career phase. Continuing support for professional learning is associated with retention, reducing the ‘practice shock’ of the first years of teaching post-qualification. Effective school-based mentoring is best undertaken by colleagues who are not involved in formal assessment to promote developmental rather than ‘judgementoring’ (Hobson & Malderez, 2013; Hobson, 2016). The Toronto District School Board has improved retention by establishing a four-year structured model of induction that includes job-embedded learning for early career stage teachers and professional learning for mentors (Darling-Hammond, 2017).
* ***Employment conditions*** Two factors that greatly influence perceptions of preparedness and effectiveness are employment status and workplace context (SETE, 2015). It is unsurprising that early career teachers employed on a permanent basis feel better prepared and more effective in comparison to those in intermittent and fixed-term positions (Hulme and Menter, 2014); or that lack of a positive working environment is related to attrition, especially in disadvantaged schools with a higher proportion of less experienced teachers. A recent NfER study found that, ‘Teachers are not leaving [the profession] for higher-paid jobs, at least not in the short term. On average they experience a ten per cent fall in wages compared to similar teachers who remain in teaching’ (Lynch et al., 2016:4).
* ***Development*** High performing countries invest in high quality school-based ***continuing professional learning.*** In Finland, Shanghai, and some other high-performing countries, teachers spend less time in class contact, allowing time for ***collaborative*** and sustained professional learning (Wang, Coleman, Coley, & Phelps 2003:7). New Zealand and Australia have invested in system level approaches to developing professional capacity (Timperley et al., 2007). British Colombia, Shanghai, Hong Kong and Singapore prioritise opportunities for collaborative professional learning (Jensen et al., 2016).

# What might we learn?

**An Evaluation Framework for Teacher Education**

Recent research highlights the complexity of system improvement and cautions against naïve answerism: ‘the complexity of studying the effectiveness of teacher education … is contrary to the linear, cause‐and‐effect framing of teacher education and beginning teacher effectiveness often being sought by policy makers’ (SETE 2015:23). Providers in England working to the current inspection framework for ITT (Ofsted 2015) are judged on the basis of observations of trainees late in the training year and early in the NQT year. The two-stage inspections have made providers responsible for performance of former trainee teachers into their NQT year, but without funding for this phase or the ability to influence the progression happening at that stage. This assumes linear progression overlooking the complexity of the many contexts in which NQTs are employed and to which they must adapt, but fails to acknowledge the different impact of this on different providers with schools at times both the provider and employer. As a new framework is due in 2019 the opportunity presents itself to identify more nuanced, multidimensional measures of the effectiveness of initial teacher education. Evaluations of ITE quality must take into account more than one type of evidence (e.g. surveys, documentary analysis, observation) as well as the assessment of more than one programme aspect (e.g. programme structures, teacher educator quality, student teacher performance) to more clearly capture the quality and impact of ITE programmes (Rauschenberger, Adams and Kennedy, 2017).

**The Need for a Stable Policy Context**

Ingersoll et al. (2014: xiii) note, ‘High-achieving countries have *stable* and effective policies and mechanisms in place to assure the quality of initial teacher education entrants, programs and program graduates’. The ‘churn’ in ITE in England in recent years has not provided a stable context for robust evaluation. The ITE sector in England must respond to differing demands from different official bodies (NCTL, DfE, Ofsted) providing limited periods of stability. The impact of this on providers is one of needing to navigate a complex landscape in which change is a constant feature and in which evaluation and review of provision is less valuable when change is instigated with such regularity and such speed at policy level (Wright, 2012). Promotion of an increasingly diverse market, particularly in times of challenging recruitment, leaves providers vulnerable to financial non-viability. This is most dangerous for those university departments of education where teacher development is their core business. As HEIs provide the majority of training places, further de-stabilisation presents a particularly high-risk strategy.

**Teacher Recruitment for Teacher Quality**

Workforce planning and recruitment strategies have not proven effective in matching supply and demand. Incentives have produced ‘bursary tourism’, with insufficient evidence of longer-term effects on retention and effectiveness. Allocation mechanisms (before 2017) incentivised providers to recruit quickly (before national numbers were capped) rather than focus on a selection process to assure high quality entrants. The current allocation methodology of unlimited recruitment in all but one Secondary subject area alongside a 30% fall in applications (UCAS 2018) has led to a return to rapid recruitment as providers recognise the need to fill allocations and maintain financial viability from a shrinking pool of applicants.

Teacher shortages are likely to increase the number of teachers teaching out-of-field i.e. outside their area of qualification. Scotland registers teachers by curriculum area and stage, so out-of-field (non-specialist) work is reduced (although there are remaining subject and regional pressures). An example of this has been seen in 2017/18 in England with the introduction of a new route (PE with EBACC) designed to address teacher shortages in EBACC subjects which will see out-of-field teaching as a deliberate element of this as candidates need only have an A level in an EBACC subject to be considered qualified for the route.

Teacher supply should not be reduced to *getting* teachers (recruitment) but *developing* teachers of quality, including opportunities for lead practitioners to become mentors, curriculum specialists or school leaders. Countries with effective systems for teacher development view teaching as, ‘a long-term profession where people can grow into leadership positions and develop expertise over time’ (Darling-Hammond 2017: 292). Providers in England have often been judged on the basis of filling training places, incentivising the *getting* over the developing of teachers – the most recent example of this is a letter from the Schools Minister guiding providers toward a revision of recruitment in order to reject less often.

**Sustained and Embedded Professional Learning & Development**

Deregulation of teacher education providers is not *the* answer to the question of teacher quality – no high-achieving country is doing this. High-achieving countries are characterised by rigorous quality assurance arrangements across three key stages in the preparation of teachers: 1) recruitment and entry standards; 2) the accreditation of teacher education programmes; and 3) transition and full entry to the profession (Ingersoll et al., 2014: xvi), with an explicit focus on sustained teacher learning and development. As Gore et al. (2017: 99) note, ‘*evaluating* teaching quality will have limited impact on *improving* teaching quality unless linked to an effective approach to professional development’. This must also include prioritising the professional development of teacher educators (European Commission, 2013).

Providers in high-performing systems have extended the period of professional preparation with moves towards two-year qualifying programmes such as the Master of Teaching at Toronto and Melbourne, and the Professional Masters in Education introduced in Ireland in 2017. Comparable developments in the UK include the Masters in Professional Practice with PGDE at Glasgow University, and the cross-phase MSc in Transformative Learning and Teaching at Edinburgh University. Collective responsibility for system improvement is evidenced in the development of more immersive residency models such as the School Centres for Teaching Excellence (SCTE) in Victoria Australia, the clinical model of teacher education with associated partner ‘hub schools’ initiated in Glasgow West, and the University Schools Model, Manchester Metropolitan University.

**Quality Assurance in Context**

The large number of small providers increases pressure on systems monitoring the quality of provision. Countries such as Finland and Chinese Taipei concentrate teacher education in a smaller number of well-resourced universities. Changes to ITE in England have de-stabilised staffing in many university departments of education at a time of diminished funding for applied educational research (McNamara & Murray, 2013; Whitty, 2013). The increased diversity in size of providers in England – some SCITTs train less than 10 teachers a year, with large HEI providers training over 1,500 – creates a challenge in developing an inspection framework and process that adequately monitors quality in such a diverse landscape and that ensures a fair comparison between those inspected.

**Looking Beyond New Teachers for Improvement**

Accounting for the success of the change process in Ontario, Levin (2012: 101) (learning from his experience of the England’s national literacy and numeracy strategy) comments that, ‘a successful strategy has to engage educators, and especially the most skillful and energetic ones, so that they become local leaders rather than resistors’. The change process is not seen as being done to the profession. In Ontario, the theory of collective improvement focuses on schools and districts rather than individual teachers or ITE, maintaining that ‘schools will change new teachers far more than new teachers will change schools’ (p. 107). That is not to say that new entrants have no influence on professional culture (Hulme et al., 2008) but this is limited if new teachers do not stay. Developing expertise takes time and focus across the career course and across a range of employment settings. In England, much school improvement is seen through the lens of improving individual teachers (SLE, ITP and OTP programmes) driven by National Teaching Schools leaving engagement overly reliant on the geographical reach and relationships with those organisations.

**The role of Research in Teacher Education**

Teacher education programs in high-achieving countries are strongly research and evidence-based. Research engagement is likely to be strongest where the university connection in strong. Research policy can do more to support impactful close-to-practice research and build capacity in UK teacher education research. Teaching Schools have struggled to fulfil a research role (BERA RSA, 2014). Research Schools, and schools in ‘opportunity areas’, need to draw on a broader base of research to support professional growth and grow capacity rather than adopt a ‘thin version of evidence-based practice’ (Cochran-Smith, 2009). The guidance report, *Putting Evidence to Work: A School’s Guide to Implementation* (Sharples et al., 2018), goes some way to redress the pedagogical re-positioning (and marginalisation) of the profession in debates on evidence-based education in recent years. The Chartered College of Teaching has an important role here.

**Approaching Challenges with ‘Collaborative Professionalism’**

Rather than repeat the teacher-as-problem narratives of the past, consolidated by a ‘thin version’ of evidence-based teaching, policy deliberation might adopt a nuanced approach to evidence of impact. Outcomes-based approaches to educational evaluation need to attend closely to the question of impact *– Impact on what? For whom?* In their review of educators’ professional learning needs in Ontario, Campbell et al. (2017:9) call for ‘a new collaborative professionalism of respect and support connected to students’ learning, families’ engagement, and community development for educational equity, excellence, and well-being’. The creation of evaluation and competency frameworks can benefit from the input of multiple stakeholders with diverse experiences. Such discussions can foster shared understanding, awareness and dialogue among all stakeholders, and serve to emphasise that preparing competent new teachers goes beyond building their subject and pedagogical knowledge. Effective ITE also requires providers to foster professionalism, which includes developing teachers’ identity, commitment, learning, (self-) evaluation and reflection (Caena, 2014) - critical competencies that may help teachers remain in the profession long-term.

**References**

Allen, R., Belfield, C., Greaves, E., Sharp, C. and Walker, M. (2016) The Longer-Term Costs and Benefits of Different Initial Teacher Training Routes. <https://www.ifs.org.uk/uploads/publications/comms/R118.pdf>

Bacchi, C. (2009) *Analysing Policy: What’s the problem represented to be?* Frenchs Forest NSW: Pearson.

Bahr, J. (2016) *Building Quality in Teaching and Teacher Education*, Camberwell: ACER Press.

Barber, M. & Mourshed, M. (2007) How the World’s Best Performing School Systems Come Out On Top. New York, NY: McKinsey & Company.

Baumert, J., Blum, W. & Neubrand, M. (2002)Drawing the lessons from PISA 2000 – Long-term research implications: Gaining a better understanding of the relationship between system inputs and learning outcomes by assessing instructional and learning processes as mediating factors. Symposium on Assessing Policy Lessons from PISA, 18-20 November 2002, Berlin. <https://www.mpib-berlin.mpg.de/Pisa/DrawingTheLessons.pdf>

Boyd, D., Grossman,P., Lankford, H., Loeb, S. & Wyckoff, J. (2006) *Education Finance and Policy*, 1(2), 176-216.

British Educational Research Association-RSA (2014) Research and the Teaching Profession. <https://www.bera.ac.uk/wp-content/uploads/2013/12/BERA-RSA-Research-Teaching-Profession-FULL-REPORT-for-web.pdf>

Caena, F. (2014) Teacher Competence Frameworks in Europe: policy-as-discourse and policy-as-practice’, *European Journal of Education*, 49(3), 311–331.

Caena, F. & Margiotta, U. (2010) European Teacher Education: A Fractal Perspective Tackling Complexity, *European Educational Research Journal*, 9(3), 317–331.

Campbell, C., Osmond-Johnson, P., Faubert, B., Zeichner, K., & Hobbs-Johnson, A. (with Brown,S., DaCosta, P., Hales, A., Kuehn, L., Sohn, J., & Steffensen, K.). (2017) The state of educators’ professional learning in Canada: Final research report. Oxford, OH: Learning Forward.

Chingos, M.,& Peterson, P. (2011) It’s easier to pick a good teacher than to train one: Familiar and new results on the correlates of teacher effectiveness. *Economics of Education Review*, 30, 449–465.

Cochran-Smith, M. (2005) The New Teacher Education: For Better or for Worse? *Educational Researcher* 34 (7): 3–17.

Cochran-Smith, M. (2009) The new teacher education in the United States: directions forward. In Furling, J., Cochran-Smith, M. & Brennan, M. (Eds) *Policy and Politics in Teacher Education. International Perspectives*. London: Routledge, pp. 9-20.

Cochran-Smith, M. & Zeichner, K. M. (Eds.) (2005) Studying teacher education: The report of the AERA Panel on Research and Teacher Education. Mahwah, NJ: LEA Publishers.

Cochran-Smith. M. & Fries, K. (2008) Research on teacher education: changing times, changing paradigms. In: Cochran-Smith, M., Feiman-Nemser, S., McIntyre, D. J. and Demers, K. E. (Eds.) *Handbook of Research on Teacher Education*, London: Routledge (pp. 1050-1095).

Cochran-Smith, M. & Villegas, A.M. (2015) Framing Teacher Preparation Research: An Overview of the Field, Part 1. *Journal of Teacher Education*, 66(1), 7-20. <http://www.mofet.macam.ac.il/amitim/hashiva/Documents/Framing%20Teacher%20Preparation%20Research.pdf>

Cochran-Smith, M. & Villegas, A.M. (2015) Framing Teacher Preparation Research: An Overview of the Field, Part II, Journal of Teacher Education, 66(2), 109-121. <http://www.mofet.macam.ac.il/amitim/hashiva/Documents/Critiquing%20Teacher%20Preparation.pdf>

Cochran-Smith, M., Stern, R., Sánchez, J.G., Miller, A., Keefe, E.S., Fernández, M.B., Chang, W., Carney, M.C., Burton, S. & Baker, M. (2016) Holding Teacher Preparation Accountable: A Review of Claims and Evidence. Boulder, CO: National Education Policy Center.

Craven, G., K. Beswick, J. Fleming, T. Fletcher, M. Green, B. Jensen, E. Leinonen & F. Rickards (2015) Action Now: Classroom Ready Teachers. Canberra: Commonwealth Department of Education.

Darling-Hammond, L. (2006) *Powerful Teacher Education: Lessons from exemplary programs*. San Francisco: Jossey-Bass

Darling Hammond, L. (2012) Constructing 21st Century Teacher Education. In Hill-Jackson, V. & W. Lewis, C.W. (eds) *Transforming Teacher Education: What Went Wrong with Teacher Training, and How We Can Fix It*. Sterling, VA: Stylus.

Darling-Hammond, L. & Rothman, R. (2015) *Teaching in the Flat World: Learning from High Performing Systems*. New York, NY: Teachers College Press.

Darling-Hammond, L. (2017) Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education,* 40(3), 291-309.

Darling-Hammond, L., Chung Wei, R. & Alethea, A. (2010) How high achieving countries develop great teachers. <https://edpolicy.stanford.edu/sites/sefault/files/publications/how-high-achieving-countries-develop-great-teachers.pdf>

Darling-Hammond, L. & Leiberman, A. (eds) (2012) *Teacher Education Around The World*. London: Routledge.

Davies, P., Connolly, M., Nelson, J., Hulme, M., Kirkman, J. & Greenway, C. (2016) ‘Letting the right one in’: Provider contexts for recruitment to initial teacher education in the United Kingdom, *Teaching and Teacher Education*,60, 291-302.

Donaldson, G. (2011) Teaching Scotland’s future: A report of the review of teacher education in Scotland. Edinburgh: Scottish Government.

European Commission (2013) *Supporting Teacher Educators for Better Learning Outcomes*. European Commission: Brussels.

Fullan, M. & Hargreaves, A. (2016) Bringing the profession back in: Call to action. Oxford, OH: Learning Forward.

Furlong, J. (2015) Teaching Tomorrow’s Teachers. Oxford: University of Oxford.

Gansle, K. A., Noell, G. H. and Burns, J. M. (2012) Do Student Achievement Outcomes Differ Across Teacher Preparation Programs? An Analysis of Teacher Education in Louisiana, *Journal of Teacher Education*, 63(5), 304–317.

Goldhaber, D., Liddle, S., & Theobald, R. (2013) The gateway to the profession: assessing teacher preparation programs based on student achievement. *Economics of Education Review, 34*, 29–44

Guarino, C., Reckase, M., Stacy, B. & Woolridge, J. (2015) A Comparison of Student Growth Percentile and Value-Added Models of Teacher Performance, *Statistics and Public Policy*, 2(1), 1–11.

Guerriero, S. (eds) (2017) *Pedagogical Knowledge and the Changing Nature of the Teaching Profession*. OECD Publishing: Paris. <http://dx.doi.org/10.1787/9789264270695-en>

Halbert, J. & Kaser, L. (2013) *Spirals of Inquiry: For Equity and Quality*. Vancouver, BC: BCPVPA.

Hargreaves, A. (2013) ‘Professional capital and the future of teaching’, in T. Seddon and J.S. Levin (eds) *Educators, professionalism and politics. Global transitions, national spaces and professional projects*, London: Routledge, pp 290-310.

Hargreaves, A. & Fullan, M. (2012) *Professional Capital: Transforming Teaching in Every School.* New York, NY: Teachers College Press and Toronto, ON: Ontario Principals’ Council.

Hulme, M., Elliot, D., McPhee, A. & Patrick, F. (2008) Professional Culture among New Entrants to the Teaching Profession. Project Report. GTCS/Scottish Government, Edinburgh, UK.

Hulme, M. & Menter, I. (2014) New professionalism in austere times: the employment experiences of early career teachers in Scotland. *Teachers and Teaching: Theory and Practice*, 20(6), 672-687.

Hobson, A. J., Malderez, A., Tracey, L., Homer, M. S., Ashby, P., Mitchell, N., et al. (2009) Becoming a Teacher: Teachers' experiences of initial teacher training, Induction and early professional development (Final report). Nottingham: DCSF & Nottingham University.

Hobson, A. & Malderez, A. (2013) Judgementoring and other threats to realizing the potential of school‐based mentoring in teacher education, *International Journal of Mentoring and Coaching in Education*, 2(2) 89-108.

Hobson, A.J. (2016) Judgementoring and how to avert it: introducing ONSIDE Mentoring for beginning teachers. *International Journal of Mentoring and Coaching in Education*, 5(2): 87-110.

Ingersoll, R. (2007) A comparative study of teacher preparation and qualifications in 6 nations. Philadelphia: University of Pennsylvania, Consortium for Policy Research in Education

Ingvarson, L., Reid, K., Buckley, S., Kleinhenz, E., Masters, G., Rowley, G. (2014) Best Practice Teacher Education Programs and Australia’s Own Programs. Canberra: Department of Education.

Jensen, B., Sonnemann, J., Roberts-Hull K., & Hunter, A. (2016) Beyond PD: Teacher Professional Learning in High-Performing Systems. Washington, DC: National Center on Education and the Economy.

Kirby, S., McCombs, J., Barney, H. and Naftel, S. (2006) Reforming Teacher Education: Something Old, Something New. Santa Monica, CA: RAND Corporation.

Koedel, C. Ehlert. M., Parsons E. & Podgursky, M. (2012) *Selecting Growth Measures for School and Teacher Evaluations.* Working Paper 1210. Department of Economics, University of Missouri. <https://ideas.repec.org/p/umc/wpaper/1210.html>

Koedel, C., Parsons, E., Podgursky, M., & Ehlert, M. (2015) Teacher preparation programs and teacher quality: are there real differences across programs? *Education Finance and Policy, 10* (4), 508–534.

Larsen, M. (2010) Troubling the Discourse of Teacher Centrality: A Comparative Perspective. *Journal of Education Policy* 25 (2): 207–231.

Le Fevre, D., Timperley, H. & Ell, F. (2015) Curriculum & Pedagogy: The Future of Teacher Professional Learning and the Development of Adaptive Expertise. In Wyse, D., Hayward, L. & Pandya, J. (eds) *The Sage Handbook of Curriculum, Pedagogy & Assessment*. London: Sage, pp. 309-324.

Louden, W. (2008) 101 Damnations: The Persistence of Criticism and the Absence of Evidence about Teacher Education in Australia. *Teachers and Teaching*, 14 (4): 357–368.

Lynch, S., Worth, J., Bamford, S. and Wespieser, K. (2016) Engaging Teachers: NFER Analysis of Teacher Retention. Slough: NFER. <https://www.nfer.ac.uk/publications/LFSB01/LFSB01.pdf>

Mangiante, E. M. S. (2011) Teachers matter: Measures of teacher effectiveness in low-income minority schools, *Educational Assessment, Evaluation and Accountability*, 23(1), 41–63.

Mayer, D. (2015) An approach to the accreditation of initial teacher education programs based on evidence of the impact of learning teaching, Australian Institute for Teaching and School Leadership, Melbourne. <http://www.aitsl.edu.au/docs/default-source/initial-teacher-education-resources/ite-reform-stimulus-paper-1-mayer.pdf>

Mayer, D. (2015) Studying the effectiveness of teacher education – Final Report. Geelong, VIC: Deakin University.

Mihaly, K., McCaffrey, D., Sass, T.R., Lockwood, J.R. & Wooldridge, J. (2012) *Where You Come from or Where You Go? Distinguishing between School Quality and the Effectiveness of Teacher Preparation Program Graduates*. SSRN Scholarly Paper ID 2020722. Rochester, NY: Social Science Research Network. [https://papers.ssrn.com/abstract=2020722](https://papers.ssrn.com/abstract%3D2020722)

McNamara, O. & Murray, J. (2013) The School Direct programme and its implications for research-informed teacher education and teacher educators. In Florian, L.& Nataša Pantić (eds) Learning to Teach, York: Higher Education Academy, pp.10-19.

Menter, I., Hulme, M., Murray, J., Campbell, A., Hextall, I., Jones, M., Mahony, P., Procter, R. & Wall, K. (2010) Teacher education research in the UK: the state of the art. *Revue Suisse des sciences de l'education*, 32(1)121-142.

Menter, I. Hulme, M., Elliot, D. and Lewin, J. (2010) Literature Review on Teacher Education in the 21st Century, <http://www.gov.scot/resource/doc/325663/0105011.pdf>

Murray, S., Nuttall, J. & Mitchell, J. (2008). Research into initial teacher education in Australia: a survey of the literature 1995‐2004. *Teaching and Teacher Education*, 24(1), 225‐239.

Mutton, T., Burn, K. & Menter, I. (2017) Deconstructing the Carter Review: competing conceptions of quality in England’s ‘school-led’ system of initial teacher education, Journal of Education Policy, 32(1): 14-33,

Mockler, N. (2018) Early career teachers in Australia: a critical policy historiography, *Journal of Education Policy*, 33(2): 262-278,

Mourshed, M, Chijioke, C & Barber, M (2010). How the world’s most improved school systems come out on top. London: McKinsey and Company.

OECD (2005) Teachers Matter: Attracting, Developing and Retaining Effective Teachers, Paris: OECD Publishing.

OECD (2011) Teachers Matter: Attracting, Developing and Retaining Effective Teachers: Policy Pointers, Paris: OECD Publishing. <http://www.oecd.org/education/school/48627229.pdf>

OECD (2012) *Equity and Quality in Education: Supporting Disadvantaged Schools and Students*, Paris: OECD Publishing.

Sahlberg, P., Broadfoot, P., Coolahan, J., Furlong, J. & Kirk, G. (2014) Aspiring to Excellence. Final report of the international review panel on the structure of initial teacher education in Northern Ireland. Belfast: DEL.

National Audit Office (2016) Training New Teachers. <https://www.nao.org.uk/wpcontent/uploads/2016/02/Training-new-teachers.pdf>

Rauschenberger, E., Adams, P. & Kennedy, A. (2017). [*Measuring Quality in ITE: A literature review for Scotland’s MQuITE study*.](http://www.scde.ac.uk/wp-content/uploads/2017/10/MQuITE-Lit-Review-FINAL-Oct-2017.pdf) Edinburgh: Scottish Council of Deans of Education. Available at: [Measuring Quality in Initial Teacher Education (MQuITE) – Scottish Council of Deans of Education](http://www.scde.ac.uk/projects/measuring-quality-in-initial-teacher-education-mquite/) (Accessed 02/02/2018)

Rockoff, J. E. and Speroni, C. (2010) ‘Subjective and objective evaluations of teacher effectiveness’, *The American Economic Review*, 100(2), 261–266.

Sahlberg, P., Broadfoot, P., Coolahan, J., Furlong, J. & Kirk, G. (2014). Aspiring to Excellence. Final report of the international review panel on the structure of initial teacher education in Northern Ireland. Belfast: DEL

Schleicher, A. (2012) *Preparing Teachers and Developing School Leaders for the 21st Century: Lessons from around the world.* Paris: OECD Publishing. <http://www.oecd.org/site/eduistp2012/49850576.pdf>

Sharples, J., Albers, B. & Fraser, S. (2018) Putting Evidence to Work: A School’s Guide to Implementation. London: EEF. <https://educationendowmentfoundation.org.uk/public/files/Publications/Campaigns/Implementation/EEF-Implementation-Guidance-Report.pdf>

Slater, G.B. (2015) Education as recovery: neoliberalism, school reform, and the politics of crisis, *Journal of Education Policy*, 30:1, 1-20,

Tabberer, R. (2013) A Review of Initial Teacher Training in Wales. <http://wales.gov.uk/docs/dcells/publications/131007-review-of-initial-teacher-training-in-wales-en.pdf>

Timperley, H. (2011) Realising the Power of Professional Learning. Open University Press: Berkshire, England.

Timperley, H., Kaser, L., & Halbert, J. (2014) A framework for transforming learning in schools: Innovation and the spiral of inquiry. Seminar Series Paper No. 234. Melbourne: Centre for Strategic Education.

Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007) Teacher Professional Learning and Development: Best Evidence Synthesis. Wellington, New Zealand: Ministry of Education.

US Department of Education (2011) Our Future, Our Teachers: The Obama administration’s plan for teacher education reform and improvement. Washington, DC.

Walsh, E. and Isenberg, E. (2015) How Does Value Added Compare to Student Growth Percentiles?’ *Statistics and Public Policy*, 2(1), 1–13.

Wang, A., Coleman, A., Coley, E., & Phelps, R. (2003). Preparing teachers around the world (Policy Information Report). Princeton, NJ: Educational Testing Service

Whitty, G. (2013) Educational research and teacher education in higher education institutions in England, In Florian, L.& Nataša Pantić (eds) *Learning to Teach*, York: Higher Education Academy, pp.20-23.

Wright, A (2012) Fantasies of empowerment: mapping neoliberal discourse in the coalition government’s schools policy, Journal of Education Policy, 27(3) 279-294.

Young, J., Hall, C. and Clarke, T. (2007) ‘Challenges to university autonomy in initial teacher education programmes: The cases of England, Manitoba and British Columbia’, *Teaching and Teacher Education*, 23(1), 81–93.

1. Value-added measures work by linking teachers to their students’ standardised tests scores and then measuring teaching effectiveness through a statistical regression model. VAM attempts to control for student characteristics that are beyond the control of teachers or schools. [↑](#footnote-ref-1)