

## The role of practical experience: toward an ITE signature pedagogy

---

**Daniel J. Ayres**

*University of East London, UK*

### Abstract

This paper explores implications for school- and university-based teacher educators, in light of Initial Teacher Education (ITE) policy developments in England. Shulman's (2005a, b) notion of professional signature pedagogy is presented and used as a framework with which to analyse the congruence between ITE policy and the needs of the teacher workforce. The analysis is presented using Schön's (1987) reflective practicum of professional knowledge and learning as a lens through which to establish the needs of new professionals. The paper highlights the crucial roles that school-based mentors will be required to undertake as pre-service teacher education becomes increasingly school-led and heavily reliant on practical experience.

**Keywords:** mentor development; professional knowledge; reflective practice; signature pedagogy; teacher training.

### Introduction

Since the formation of the UK's Coalition government in 2010, and the publication of the White Paper *The importance of teaching* (DfE 2010), the education system in England has been undergoing significant transformation. The systematic review and reform of education is underpinned by the need for 'raising standards' in schools (DfE 2010: 3). Changes have been wide-reaching, impacting school curriculum and assessment arrangements, funding and accountability structures, and Initial Teacher Education (ITE) systems.

The quality of ITE, and the form it takes, has a significant impact on the wider workforce (DfE 2010; BERA 2013). It is widely accepted that the quality of a country's teacher workforce is the most significant factor affecting pupil achievement (Good et al. 2006;

McKinsey 2007, 2010; DfE 2010, 2013; Musset 2010). As a consequence, ITE reform has been high on the political agenda, and the way teachers are recruited, trained and deployed is undergoing profound transformation (DfE 2010; Florian & Pantić 2013).

The secretary of state for education asserts that teaching is a craft, best learned through observing and through being observed, and that pre-service teachers should focus on practical skills learned 'on the job' (DfE 2010; *Today* 2010). The model employed by teaching hospitals, which prepare new doctors and nurses for the medical profession (DfE 2011a), has been identified for emulation. A highly practical, apprenticeship approach to ITE is therefore being developed.

### School-based training

The School Direct Training Programme is a school-led route to Qualified Teacher Status (QTS) first implemented in 2012 (DfE 2011b). The salaried option<sup>1</sup> is a non-academic, employment-based route, which aims to place pre-service teachers with outstanding mentors in outstanding schools. The option adds to an existing raft of routes into teaching in England, including School-Centred Initial Teacher Training (SCITT) and Teach First, a charitable organisation targeting high-achieving graduates.

The development of school-based routes, however, tends to contradict the assertion that England should replicate the successes of countries with high-performing training systems in place (DfE, 2010, 2011a, b), in two key ways. Firstly, each new provider of ITE must obtain accreditation by the National College for Teaching and Leadership (NCTL). ITE in England is therefore delivered by a multiplicity of providers, resulting in significant disparity between systems in each of the four nations of the UK, with England positioning itself as an ever-increasing outlier (BERA–RSA 2013). Secondly, many countries' ITE provision involves lengthened academic programmes

(eg as described by Hooley 2013), and few have systems that are considered comparable (NARIC 2012; Florian & Pantić 2013).

There consequently exists a lack of coherence in terms of ITE in England (eg Cuthbert, in SCETT 2011). This sustains a perception that pre-service teacher preparation is a contested field (Boyd et al. 2010) which remains pedagogically vague (Good et al. 2006).

### **Signature pedagogy**

Although the term 'pedagogy' has great significance for the teaching profession, its meaning is often diluted or misunderstood as, for example, teaching methods that might be learnt and employed by anyone (Kerry & Wilding 2004). Misunderstandings are likely to have been exacerbated by the complexities that result when pedagogy bridges theory and practice (Shulman 2005a). For the purposes of this paper, pedagogy is viewed as an all-encompassing study of educational practice. It includes subject-specific learning and teaching strategies, teachers' subject knowledge, their values and beliefs about their subjects and identities as teachers, and the theoretical foundations that underpin all interactions and events in the classroom (DfES 2007; Hansen 2011).

A profession's signature pedagogy serves to define these complex facets of practice in terms of initial professional development. It reflects the specific approaches utilised in the effective preparation of professionals in a field, by those entrusted with their development. All signature pedagogies possess three dimensions, or 'structures' (Shulman 2005a), which reflect different aspects of initial professional development programmes. These are:

- a *surface structure*, consisting of the teaching and learning strategies generally employed by tutors, lecturers or mentors
- a *deep structure*, formed by the assumptions about what effective training must involve
- an *implicit structure*, which incorporates beliefs about necessary moral characteristics, values and dispositions, and appropriate professional attitudes and behaviour. (Shulman 2005a: 54–5)

Each of these all-pervasive structures encompasses and dictates what constitutes knowledge in a field. They determine 'how things become known... analysed, criticized, accepted, or discarded' (Shulman 2005a: 54), including: the value placed on collaboration and experimentation; the modes employed to

communicate pertinent concepts; the ritualistic or routine approaches to exploring practice; the nature of teaching materials utilised; and the modes and methods of assessment. While the structures of each profession's signature pedagogy vary, commonalities also exist between different fields. The common characteristic features which have evolved to facilitate learning of professional understanding, skills and dispositions on professional training programmes include: public performance, accountability, and emotional investment (Shulman 2005a).

#### *Public performance*

Public student performance, observed or 'visible' aspects of training, is a common feature of preparation across the professions (Shulman 2005a), be it in teaching, medicine, law or the clergy. For example, law students are required to present arguments and counter-arguments in discussion of a case (Shulman 2005a), under the watchful eyes of their professors.

Public performance is expected of pre-service teachers while on their school placements. They will demonstrate their practical teaching skills to their tutors and mentors, to other teachers and, perhaps most significantly, to classes of pupils. This visibility – of both person and process – creates a risk-taking atmosphere. Such experiences generate excitement, anxiety and fear, especially given the unpredictable and uncertain context of the classroom environment.

#### *Accountability*

Students are accountable for their actions and their level of commitment. However, signature pedagogy determines that accountability during professional training is generated by interaction. In seminar sessions with peers, for example, accountability reveals itself in classroom encounters and interactive teaching strategies employed by tutors. Students must commit to active, relevant participation – 'accountable talk' (Shulman 2005b) – to sustain their professional development.

#### *Emotional investment*

Shulman (2005a) argues that emotional investment is a necessary feature of professional learning. Fear and foreboding help professionals to learn how to make decisions in unpredictable circumstances (so long as levels of anxiety fall short of immobilising terror). And whilst this is a rather radical claim, he asserts that intellectual development is not the only beneficiary of emotional investment.

*'When the emotional content of learning is well sustained, we have the real possibility of pedagogies of formation – experiences of teaching and learning that can influence the values, dispositions, and characters of those who learn. And when these experiences are interactive rather than individual, they embody the pervasive culture of learning within a field, they offer even more opportunity for character formation.'* (Shulman 2005a: 58)

Analysis of the characteristics and distinct structural features of a profession's signature pedagogy serves two key purposes. Firstly, it reveals the routine strategies that reflect both the agendas steering a profession, and the assumptions and ideology underpinning it (Shulman 2005a). Also, it allows for evaluation of the adequacy of current practices to provide professional neophytes with the ability to think and perform as professionals (Shulman 2005a). But before considering a signature pedagogy for ITE, this paper must first consider what pre-service teachers need to know.

### Professional knowledge

Many conceptions of professional knowledge and learning have been proposed (eg Argyris & Schön 1974; Lave & Wenger 1991; Wenger 1998). They include comprehensive multidisciplinary explorations of the relationships between professional understanding and action (eg Schön 1983), and polarised views of knowledge that is either tacit or explicit (Wilson 2013), practical or theoretical, or intuitive or analytical (Kerry & Wilding 2004).

Shulman's (1986, 1987) perspectives on professional knowledge growth in teaching form conceptual frameworks of interrelated categories and domains. His work contributes to this discussion by asserting the significance of a combination of specific, foundational knowledge sets for confident and competent teaching: a rich, profound knowledge of the subject matter combined with an understanding of learning theory – the principles underpinning learning, development, motivation and instruction (Shulman 2005b). While Shulman's work serves to deconstruct knowledge forms, it also highlights complexities in the development of professional knowledge. The relative brevity of a pre-service teacher's apprenticeship combined with the need to fully account for individuals' different needs (Shulman 1986) makes intricate the process of preparing the nation's teachers for the workplace.

In the early stages of training many pre-service teachers rely heavily on practical input and feedback from their mentor. Pre-service teachers engage their operative attention (Schön 1987) to develop a practical, propositional knowledge form (Shulman 1986). This process enables them to perform the skills they have seen, broadly in line with their mentors' expectations. Mentor demonstration of teaching strategies can enable pre-service teachers to master practical solutions to well-defined problems (Musset 2010). Learning to simply replicate the behaviour of 'the master' (Schön 1987) removes the need for cognitive investment in predictable events. This 'apprenticeship of observation' (Shulman 2005a: 57) allows pre-service teachers to employ tested strategies which, in the broadly unchanging local political context of a classroom, may serve them well (Argyris & Schön 1974; Schön 1987).

However, understanding teaching as sets of expert procedures to be imitated has distinct limitations. Firstly, there is the likelihood that pre-service teachers may be turned unquestioningly toward a particular 'overlearned' rule, or course of action (Shulman 1986; Schön 1987). They can become prisoners of their programmes (Argyris & Schön 1974), perpetuating their habits and unchallenged assumptions. They may rely more on intuitive action than deep understanding, which can become unhelpful, if not harmful (Shulman 2005a).

Also, pre-service teachers may develop 'closed-system vocabulary' (Schön 1987: 155). This occurs when they perform in a manner incongruent with their mentor's principles, and remain unaware of the fact. Even if they are aware of the contradictions inherent in their actions, the judgements they make about their mentor's espoused theories-in-use dictate what they learn (Argyris & Schön 1974), and how they will go on to apply their knowledge. It may be that they believe they can 'undo' the initial imposition of practical approaches taught to them (Schön 1987: 123), but such a shift depends on multiple perspectives and a 'disciplined freedom' which pre-service teachers are unlikely to be able to access (Schön 1987: 125).

Finally, practical, propositional knowledge insufficiently prepares professionals to tackle incompatibilities within contradictory situations 'where principles collide and no simple solution is possible<sup>2</sup>' (Shulman 1986: 13). The judgements that pre-service teachers make under such circumstances are most often informed by context-specific tacit knowledge, and result in reactive decisions (Schön 1983; Wilson 2013).

Clearly, pre-service teachers must develop beyond practical performance, subject knowledge, and even knowledge of learning theory. They require an holistic, 'substantive understanding' (Schön 1987) which allows for the integration of principles and actions, and independence when learning from the consequences of professional action. Pre-service teachers therefore need opportunities to transform their knowledge-in-use (Shulman 2005b), through experiential and reflective realisation, into a deeper understanding which Shulman (1986, 1987) labels pedagogical content knowledge. This necessary process of professional growth relies on teacher educators a great deal.

### **Implications for teacher educators**

As this discussion of a skills-focused, apprenticeship approach to teacher education suggests, pre-service teachers need more than practical experience alone. They must be engaged in academic exploration of understanding *about* practices and processes (SCETT 2011), and in reflective dialogue capable of developing their pedagogical content knowledge.

So, the initial task for teacher educators is to promote the value of reflection and the benefit of a professional relationship that engages in critical, exploratory dialogue. This will reduce the chance that pre-service teachers will perceive their training process as puerile, limiting to freedom and independence, and thus become reluctant to effect reflective imitation (Schön 1987: 120–121).

Both pre-service teacher and teacher educator must commit to the formation of a learning 'stance' (Schön 1987), which is effectively a commitment and willingness to reflect on their interpersonal theories-in-use. If teacher educators are not inclined to promote and engage in reflective dialogue then they are not in a position to support pre-service teachers to do the same.

Teacher educators must also be willing and able to articulate their professional principles and theories in such a way that pre-service teachers can reframe their imitation and (re)formulate theories-in-use (Schön 1987). However, such a dialogue requires a capacity for 'cognitive risk-taking' (Schön 1987: 139), a significant level of trust, and the ability and willingness (of both pre-service teacher and their mentor) to reconstruct beliefs about good practice.

### **Towards an ITE signature pedagogy**

The discussion of pre-service teachers' knowledge development, and implications for teacher educators, can now be considered in terms of an ITE signature pedagogy. Shulman's pedagogical structures will be used to consider the adequacy of current policy developments in England, and point to approaches which will allow theory and subject knowledge to be transformed into effective professional understanding – connecting professional thought and action as pedagogical content knowledge (Shulman 2005b).

#### *Surface structure*

The operational aspect of an ITE signature pedagogy reflects the strategies employed in the training of pre-service teachers. The discussion in this paper points to the need for teacher educators to (1) provide a range of personalised, practical and cognitive opportunities for pre-service teachers to learn from, and (2) engage pre-service teachers in reflective dialogue which includes articulating values and beliefs about good practice.

A barrier to the success of this may be that many school-based mentors see themselves as a model of practice, simply demonstrating effective strategies for trainees to observe. While opportunities afforded by such an approach are essential, pre-service teachers may be left without substantive understanding of their experiences if they are not guided to critically explore them.

#### *Deep structure*

This aspect of an ITE signature pedagogy is formed by the assumptions about what pre-service teachers need in order to develop. It is a subject for ongoing debate since effective teaching entails such highly complex performance, involving observation, analysis, interpretation, intervention and deliberation. Professional routines are born from 'dauntingly complex challenges of professional education' (Shulman 2005a: 56) that pre-service teachers must learn to manage. And such routines of performance embed, since they serve to lighten the burden on teachers (Shulman 2005a).

Pre-service teachers left to their own programmes (Argyris & Schön 1974) may find themselves without the ability to respond and adapt to the uncertainties and shifting demands of professional practice. Therefore teacher educators must ensure pre-service teachers have the intellectual ingredients to 'formulate and articulate *practical theories* to guide [their] own and others' practice' (BERA–RSA 2013).

### *Implicit structure*

A professional code of conduct – the attitudes and behaviour expected of teachers – is outlined explicitly by the Teachers' Standards (DfE 2012). The document represents the governing professional principles to which qualified teachers must adhere. They highlight, for example, the need for teachers to forge positive professional relationships and to take responsibility to improve teaching. However, during school-based training, the local context and policies will distort the implicit structure of an ITE signature pedagogy.

The ways of working at a particular school, possibly driven purely by practicalities, will dictate the attitudes and behaviour of pre-service teachers. The emphasis for professional preparation must therefore remain on encouraging deliberate reflective analysis. Pre-service teachers must be prepared to justify their actions, and to utilise reliably sound judgement in ambiguous situations.

### Conclusions

During what Shulman describes as a relatively brief 'capstone apprenticeship' (2005a: 55), pre-service teachers need to develop as independent, critical-thinking, reflective learners (Boyd et al. 2010: 7) with an appropriately secure 'knowledge base and theoretical framework for teaching and learning' (SCETT 2011: 13). An ITE signature pedagogy must therefore reflect a balance of the intellectual, practical and moral dimensions of practice (Shulman 2005b) to ensure pre-service teachers develop a command of their subjects (DfE 2010, 2011a) and effective pedagogical content knowledge.

Achieving this balance, though, on a national scale, is unlikely while approaches to early professional development become increasingly diverse. As conceptions about what works best are reformulated by each accredited training provider the experiences of pre-service teachers will become increasingly distinct. Particularly on school-based routes to QTS, as more teachers are expected to mentor pre-service teachers, teacher preparation is likely to align more closely with teachers' existing duties. But it must not be reduced to simply observing (and being observed by) more experienced colleagues, and engagement in shared planning and preparation (DfE 2010).

The role of teacher educators during school-based training will be increasingly crucial. The observation phase of training should involve carefully selected cases, enabling discussion of the inevitable conflict between theoretical and practical understandings

(Shulman 1986). The reflective dialogue in which pre-service teachers are engaged must encourage the construction and awareness of their professional 'frames' and their awareness of the various contextual factors that create the uniqueness of each lesson, in each classroom, in each school. This will enable pre-service teachers to meet the varied curriculum and practice needs that afford them the flexibility to move from school to school (McNamara et al. 2014).

Fortunately, given the current political agenda, there remains a strong argument for plentiful practical experience. Learning specific skill sets through guided practical experience still has its place in the development of pre-service teachers (SCETT 2011). However, reducing teacher education to a set of habitual behaviours, or 'technical rationalist tasks' (Furlong et al. 2006: 41), undermines the complexity of professional education. Narrow provision of training, relying solely on practical experience, will create 'fragile professionals' (SCETT 2011: 12) unable to draw on theory or formulate personal theories, and without the breadth of experience with which one might manage one's own professional development effectively. This will jeopardise the long-term health of the profession. The future of England's teacher workforce, therefore, depends on the capacity and capability of school-based teacher educators.

### Notes

<sup>1</sup> The School Direct (training) option is also available, enabling pre-service teachers to follow higher education institution (HEI)-based ITE providers' graduate training programmes. Academic credit is therefore a feature.

<sup>2</sup> As an example, Shulman (1986: 13) shares the contradictory 'principles' of longer wait times, providing pupils with opportunities to formulate their thinking, contrasting with the necessity to teach with a pace which reduces the chance of disruption and wastes less learning time.

### References

Argyris, C. & Schön, D. (1974) *Theory in practice: increasing professional effectiveness*. London: Jossey-Bass.

British Educational Research Association (BERA) (2013) *Research and teacher education: the BERA Inquiry*. Online: <http://www.bera.ac.uk/system/files/BERA%20Research%20%20Teacher%20Education%20Inquiry%20%20-%20Outline%20%20initial%20briefing%20paper.pdf> [accessed: 13 February 2014]

BERA–Royal Society of Arts (BERA–RSA) (2013) 'Research and teacher education: the BERA–RSA Inquiry'. Presentation to the Universities' Council for the Education of Teachers (UCET), 15 October.

## The role of practical experience: toward an ITE signature pedagogy

- Boyd, P., Allan, S. & Reale, P. (2010) 'Being a teacher educator: pedagogy, scholarship and identity of lecturers in teacher education in further education workplace contexts'. BERA. Online: <http://www.cumbria.ac.uk/Public/Education/Documents/Research/EducatorsStorehouse/TeachereducatorsinFEColleges.pdf> [accessed: 19 October 2013]
- Department for Education (DfE) (2010) *The importance of teaching – The Schools White Paper 2010*. Online: <https://www.education.gov.uk/publications/standard/publicationdetail/page1/CM%207980> [accessed: 13 February 2014]
- DfE (2011a) *Training our next generation of outstanding teachers: an improvement strategy for discussion*. London: The Stationery Office.
- DfE (2011b) *Training our next generation of outstanding teachers: implementation plan*. London: The Stationery Office.
- DfE (2012) *Teachers' Standards*. (Revised June 2013) Online: [www.education.gov.uk](http://www.education.gov.uk). [accessed: 2 November 2013]
- DfE (2013) *Improving the quality of teaching and leadership*. Online: <https://www.gov.uk/government/policies/improving-the-quality-of-teaching-and-leadership> [accessed: 23 November 2013]
- Department for Education and Schools (DfES) (2007) *Pedagogy and personalisation*. DfES Publications (00126-2007DOM-EN).
- Florian, L. & Pantić, N. (eds.) (2013) *Learning to teach. Part 1: Exploring the history and role of higher education in teacher education*. York: The Higher Education Academy.
- Furlong, J., Campbell, A., Howson, J., Lewis, S. & McNamara, O. (2006) *Partnership in English Initial Teacher Education: changing definitions – evidence from the Teacher Training Agency National Partnership Project*, pp. 32–45. Online: <http://ser.stir.ac.uk/pdf/224.pdf> [accessed: 1 November 2013]
- Good, T., McCaslin, M., Tsang, H., Zhang, J., Wiley, C., Rabidue Bozack, A. & Hester, W. (2006) 'How well do 1st year teachers teach? Does type of preparation make a difference?' *Journal of Teacher Education*, 57(4), 410–30.
- Hansen, A. (2011) *Primary professional studies*. Exeter: Learning Matters.
- Hooley, N. (2013) 'Exposing the intricacies of pre-service teacher education: incorporating the insights of Freire and Bourdieu'. *Review of Education*, 1(2), 125–58.
- Kerry, T. & Wilding, M. (2004) *Effective classroom teacher*. Harlow: Pearson.
- Lave, J. & Wenger, E. (1991) *Situated learning: legitimate peripheral participation*. Cambridge: Cambridge University Press.
- McKinsey (2007) 'How the world's best performing school systems come out on top' McKinsey and Company. Online: [http://mckinseysociety.com/downloads/reports/Education/Worlds\\_School\\_Systems\\_Final.pdf](http://mckinseysociety.com/downloads/reports/Education/Worlds_School_Systems_Final.pdf) [accessed: 20 March 2014]
- McKinsey (2010) 'How the world's most improved school systems keep getting better'. McKinsey and Company. Online: [http://mckinseysociety.com/downloads/reports/Education/Education\\_Intro\\_Standalone\\_Nov%2026.pdf](http://mckinseysociety.com/downloads/reports/Education/Education_Intro_Standalone_Nov%2026.pdf) [accessed: 20 March 2014]
- McNamara, O., Murray, J. & Jones, M. (eds.) (2014) *Workplace learning in pre-service teacher education*. London: Springer.
- Musset, P. (2010) 'Initial Teacher Education and continuing training policies in a comparative perspective: current practices in OECD countries and a literature review on potential effects'. *OECD Education Working Papers*, No. 48. OECD Publishing. doi:10.1787/5kmbpnh7s47h-en
- NARIC (2012) *An assessment of international teacher training systems: equivalence for England*. DfE. Online: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/183456/DFE-RR243\\_main\\_report.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/183456/DFE-RR243_main_report.pdf) [accessed: 23 November 2013]
- SCETT (2011) *In defence of teacher education: a response to the Coalition government's White Paper for Schools (November 2010)*. SCETT. Online: [http://www.scett.org.uk/media/3583/in\\_defence\\_of\\_teacher\\_education\\_scett\\_march\\_2011.pdf](http://www.scett.org.uk/media/3583/in_defence_of_teacher_education_scett_march_2011.pdf) [accessed: 1 November 2013]
- Schön, D. A. (1983) *The reflective practitioner: how professionals think in action*. New York: Basic Books.
- Schön, D. A. (1987) *Educating the reflective practitioner*. San Francisco, CA: Jossey-Bass.
- Shulman, L. S. (1986) 'Those who understand: knowledge growth in teaching'. *Educational Researcher*, 15(2), 4–14.
- Shulman, L. S. (1987) 'Knowledge and teaching: foundations of the new reform'. *Harvard Educational Review*, 57(1), 1–22.
- Shulman, L. S. (2005a) 'Signature pedagogies in the professions'. *Daedalus*, 134(3), 52–9.
- Shulman, L. S. (2005b) *The signature pedagogies of the professions of law, medicine, engineering, and the clergy: potential lessons for the education of teachers*. Irvine, CA: National Research Council Center for Education. Online: [http://www.taylorprograms.com/images/Shulman\\_Signature\\_Pedagogies.pdf](http://www.taylorprograms.com/images/Shulman_Signature_Pedagogies.pdf) [accessed: 6 February 2014]
- Today (2010) BBC Radio 4, 24 November. Online: [http://news.bbc.co.uk/1/hi/today/hi/today/newsid\\_9222000/9222832.stm](http://news.bbc.co.uk/1/hi/today/hi/today/newsid_9222000/9222832.stm) [accessed: 19 October 2013]

## RESEARCH IN TEACHER EDUCATION

Vol.4, No.1. April 2014.

Wenger (1998) *Communities of Practice: learning, meaning, and identity*. New York Cambridge University Press.

Wilson, E. (2013) 'Case study 1 Scholarly-informed teacher education: the University of Cambridge–schools partnership'. In Florian, L. & Pantić, N. (eds.) *Learning to teach. Part 2: Exploring the history and role of higher education in teacher education*, pp. 12–17. York: The Higher Education Academy.

**Contact:** D.J.Ayres@uel.ac.uk