What professional development makes the most difference to teachers?

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Abbreviations

CPD   Continuing professional development

HEI   Higher education institution

IT   Information technology

ITE   Initial teacher education

LEA   Local education authority

NGO   Non-governmental organisation

NQT   Newly qualified teacher

PGCE   Postgraduate Certificate in Education

ST   Student teacher

Y1   Year 1 of primary school

Executive summary

This report analyses the results of 35 evidence-based studies of teacher professional development, mostly conducted over the past decade. These studies show that effective teaching makes a difference to learning. Crucially, they also provide evidence about what kind of teacher development makes a difference to teachers' skills and learners' learning.

The professional development that makes the most difference to teachers

1. is concrete and classroom-based
2. brings in expertise from outside the school
3. involves teachers in the choice of areas to develop and activities to undertake
4. enables teachers to work collaboratively with peers
5. provides opportunities for mentoring and coaching
6. is sustained over time
7. is supported by effective school leadership

Search strategy and inclusion/exclusion criteria

(You can skip this section if you are not interested in how we found and analysed the data)

We searched the British Education Index, Australian Education Index and International Bibliography of the Social Sciences databases for the terms 'teacher education' and 'teacher development' from the year 2000 to the present. Other related search terms did not yield more references. We also consulted with colleagues in the Education Department (Professors Furlong and Sammons); and followed up references from some of the articles that our database search yielded.

Inclusion criteria

An article or book chapter has been included in this analysis
- *either* because it reports an evidence-based study,
- *or* because it reviews rigorously a group of evidence-based studies
  AND
- *either* because it provides evidence regarding the effects of teaching on learner performance
- *or* because it provides evidence regarding the effects of given teacher development methodologies on teacher effectiveness or attitude

Each included study is briefly summarised in *Appendix 1: Studies discussed in this report* (p. 6)*.

Exclusion criteria

We have excluded publications from the analysis
- *either* because they do not report empirical work (but, for example, discuss theoretical issues in the field or provide a history of the field or compare programmes in different countries)
- *or* because they investigate how to teach specific subject knowledge in a given discipline
- *or* because they do not deal with effective teaching or effective teacher professional development, but for example with effects of curriculum changes or with educational research methodology
- *or* because we were unable to obtain copies of the studies in a timely fashion (but note that no abstracts of the studies excluded for this reason indicates that these would have contributed usefully to the analysis except for one, noted below (Bertram, 2003)). New versions of this document will be produced as new relevant documents are sourced.

Most of the excluded studies revealed by our search are listed and very briefly described in *Appendix 2: Related studies not directly addressing the research question or unavailable for analysis* (p. 12), so that readers can decide whether they would like to follow any of these up.

Resulting list of studies for analysis

The inclusion and exclusion criteria yielded a list of 35 studies whose results are taken into account in the analysis. These include empirical investigations of teacher professional development in thirteen countries, and three synthetic studies: one comparing educational effectiveness in twenty-five countries (Barber & Mourshed (2007), one comparing maths education in 854 classrooms in four countries (van de Grift, 2007), and one systematically reviewing 17 studies of collaborative continuing professional development in the UK (Cordingley *et al.*, 2005). Most studies are from the UK, the USA, and Australia, but there are also studies from a range of European countries as well as from Canada, Israel, South Africa, Malaysia and Papua New Guinea. Studies vary in size of sample populations, but some are quite large (e.g. Evans *et al.*, 2006: 742 schools; Hobson *et al.*, 2006: 4,790 student teachers; Sammons *et al.*, 2,500 pupils).

Some studies that have not been taken into account in the analysis offer interesting discussions of issues and concepts in the field; brief descriptions of three of these are included in *Appendix 1*. Imig and Imig (2007) is a thoughtful overview of issues and concepts in the field of teaching quality and

quality in teacher education. Phelan (2001) argues for teacher agency in decisions about education generally. A more critical point of view is offered by Phelan and Sumison (2008b).

Results of the analysis

Good teaching makes a difference to learning

Evidence for the importance of good teaching is provided by Sammons *et al.* (2008), who found in their study of more than 2500 children aged 3-11 in the UK that teachers' classroom practice make a significant difference to children's academic and social/behavioural progress after other factors such as family, home and prior attainment have been controlled for. Likewise, van de Grift (2007), in a study of 854 classrooms in four European countries, found that quality maths teaching was significantly related to pupil attainment, involvement, attitude and behaviour. These are large-scale rigorous studies whose results can be safely generalised.

Barber and Mourshed's (2007) study investigated twenty-five national school systems, including the top ten performers according to the OECD's PISA criteria and a group of countries lower down in the PISA rankings, to investigate what makes for effectiveness in a school system. Barber and Mourshed concluded that three variables made the most difference to improved student outcomes:

- getting the right people to become teachers,
- developing those people's ability to teach well; and
- ensuring that the system is able to deliver the best possible instruction for every child (Barber & Mourshed, 2007:2)

It is the second variable, developing the ability to teach well, that is the subject of this report.

The 7 aspects of professional development that make the most difference to teachers

For teachers to become more effective, Barber and Mourshed (2007) provide compelling evidence of the value of teacher development that is **concrete and classroom-based**. When development takes place in the classroom, teachers build practical skills both during initial teacher education (ITE) and in the course of continuing professional development (CPD) (Fleer & Robbins, 2003; White, Lim & Chiew, 2006; Meeus, Van Petegem & Meijer, 2008; Andrews, 2006; Bryant *et al.*, 2001). Student teachers value their school-based experience more highly than any other aspect of their training (Hobson *et al.*, 2006, 2007). At one remove from the classroom, teachers may be able to benefit from engaging in other activities that help bridge the gap between theory and practice. Effective changes have been recorded for teachers who write role plays based on their classroom experiences (Darvin, 2011); engage in case study-based methodology (Tinker-Sachs & Ho, 2011) or work in a guided manner on minor inter-ethnic conflicts in multicultural teacher education classrooms (Elbaz-Luwisch, 2009).

Collaborative CPD is another methodology that has been shown to be effective. Cordingley *et al*. (2005) carried out a rigorous systematic review of seventeen studies of collaborative and/or sustained continuing professional development (CPD) in various contexts. They found that when teachers engage in collaborative CPD, defined as 'teachers working with at least one other related professional on a sustained basis', there was improvement in pupils' learning and behaviour, and in teacher's practices, attitudes and beliefs. Similar populations of teachers engaged in individually-oriented CPD did not achieve the same outcomes: there was only weak evidence of change. Similar results were found by Evans *et al.* (2006). Collaboration between teachers does not necessarily happen unbidden: Fuys, Van Keer and Aelterman (2010) found that Belgian primary student teachers did not spontaneously engage in collaborative activities, even though they put a high value on collaborative learning for their pupils. This suggests that guidance for collaborative practices may be needed.

Cordingley and colleagues (2005) also found that collaborative CPD worked best when **outside expertise** was brought in to the teaching context, and when outside providers developed fruitful and respectful partnerships with teachers. These findings are also supported by Kirkwood, 2001; Harwell *et al.*, 2001; Bryant *et al.*, 2001; and Evans *et al.*, 2006.

There is evidence that the more **teachers are involved in selecting their own professional development activities**, the more they report improvements in their subject knowledge, their commitment to teaching, their teaching practice, and the learning of their students (Moor *et al.*, 2005; Cordingley *et al.*, 2005; White, Lim & Chiew, 2006). However, as has been observed for collaboration, teachers may not become involved in these choices without prompting: *Teachers TV* in the UK was not embraced in the way that policy makers had expected, and there is evidence that this was in part because teachers did not take initiatives in choosing routes into its CPD resources (Counterpoint Research, 2008).

Studies indicate that when teachers engage in **mentoring and coaching**, they become more focused in their aims and versatile in their approaches (Harvey, 1999; Kohler, Ezell & Paluselli, 1999; Andrews, 2006); they benefit from modelling (Kimmel *et al.*, 1999) and become more confident and enthusiastic (Wilkins, 1997, Hobson *et al.*, 2006, 2007). Note that benefits accrue to the mentor as well as to the mentee (Ganser, 1996; Furlong & Maynard, 1995). The commitment and resilience that both collaborative CPD and mentoring/coaching develop in teachers were identified in Day *et al.*'s (2006) investigation of 300 UK primary and secondary teachers as variables that correlated with the their schools' national value-added ratings.

Another important feature of good teacher development identified in the systematic review by Cordingley *et al.* (2005) is the **sustaining of CPD over time**, which allows teachers to embed effective practices into their classrooms. This is confirmed by Bryant *et al.* (2001).

The last major theme that recurs in the literature is the importance of **pedagogical leadership** in supporting teachers' development. Barber & Mourshed (2007) underline the importance of principals' provision of pedagogical leadership in the best-performing countries, and evidence is also provided by White, Lim & Chiew (2006), Hustler *et al.* (2003), Hobson *et al.* (2007) and Bryant *et al.* (2001). This is obviously not a factor that can be built into externally provided teacher development programmes, but it is worth thinking about buy-in by school leaders when planning and implementing these programmes.

Other issues

What works less well? Furlong and Salisbury's (2005) study of the UK Best Practice Research Scholarships suggests that, these teachers' research projects were more effective as CPD than as research that could be disseminated to a wider audience of teachers: the effects tended to be quite local. Questions therefore arise about whether using teacher research projects for teacher development is cost-effective, in comparison with other CPD approaches.

Other issues that may arise in some international markets include
- the training of student teachers who are not nationals of the country where they are training to teach, and are not native speakers of the mainstream language (evoked by Dlamini & Martinovic, 2007)
- the massification of teacher education (Bertram, 2003).

It is notable that our search yielded few studies on the use of information technology (IT) in teacher education. However, this is not surprising; an exhaustive and rigorous systematic review of the use of IT in primary and secondary language teaching sponsored by OUP (Handley, Macaro & Walter, 2012) found little empirical work in pedagogy in IT; what exists tends to be small-scale and not rigorous.

Conclusion

The research findings on the aspects of teacher development that make the most difference to teachers' effectiveness, resourcefulness and enthusiasm are clear. The seven elements identified in this report are corroborated in study after study as contributors to the quality of teaching and to teachers' attitudes towards what they do. This quality and these attitudes have in turn been shown clearly to have a quantifiable impact on classroom learning.

Appendix 1: Studies discussed in this report

Author(s)	Year	Initial Teacher Ed / CPD	Synthesis or Primary Research	Empirical?	Country	Summary
Andrews	2006	ITE	Primary	Empirical	Canada	Partnership between university staff and specialists art teachers in delivering an integrated arts component of primary ST education promoted ST confidence and conceptual understanding.
Barber & Mourshed	2007	ITE	Primary	Empirical	25 countries	25 national school systems, including 10 PISA top performers: what makes for effectiveness? → concrete skills *in situ*, outside coaches, pedagogical leadership in school, peer collaboration
Bertram	2003	CPE	Primary	Empirical	South Africa	Massification of in-service BEd programme → distinction between access and success, questions re depth of learning
Blunden	1995	ITE	Primary	Empirical (descriptive)	Australia	A study of the practicum in technical and further education: one challenge is to provide training that is flexible and that prepares teachers for contextual diversity. Educating teachers for competency-based teaching, which emphasises self-paced learning for students, poses challenges, as it is very individualised.
Brooker	1999	ITE	Primary	Empirical	Australia	Interviews with nine STs were analysed using Critical Incident Technique to ascertain their perceptions of what helps or hinders learning in ITE→ not very enlightening.
Bryant *et al.*	2001	CPD	Primary	Empirical	USA	10 sixth-grade teachers participated in a 4-month professional development programme on inclusive practices in teaching reading, led by a university team. Teachers requested more in-class modelling. School support was perceived as vital. Students with learning difficulties made progress in reading.
Cordingley *et al.*	2005	CPD	Synthesis	Empirical	UK	Systematic review of 17 studies of collaborative and/or sustained CPD → concrete training, teacher choice, collaboration, outside expertise, sustaining CPD over time

Author(s)	Year	Initial Teacher Ed / CPD	Synthesis or Primary Research	Empirical?	Country	Summary
Counterpoint Research	2007, 2008	CPE	Primary	Empirical	UK	A qualitative investigation of the impact of Teachers TV (TTV) on classroom teachers, schools leaders, classroom assistants, STs and intermediaries→ Programmes that had been discussed in groups were more likely to be evaluated and implemented. Barriers to use were lack of understanding of how to use it and unsuccessful searching for programmes or support. Easier to use on digital TV than on internet streaming. Teachers who began using TTV early used it more. Different user profiles.
Dadds	1997	CPD	Primary	Mostly theoretical	UK	A few case studies in UK: teachers undergo changes of understanding as a result of enquiry-based CPD
Darvin	2011	CPE	Primary	Empirical	USA	Impact of Cultural and Political Vignettes in ITE to practise decision-making skills in diverse classroom situations. 44 STs surveyed. Creating and exchanging their own vignettes and engaging in role play were seen as the most effective activities.
Day *et al.*	2006	-	Primary	Empirical	UK	300 Key Stage 1, 2 & 3 English & maths teachers. Effects of teacher variables on national value-added scores→ teacher commitment and resilience significant
Dlamini and Martinovic	2007	ITE	Primary	Descriptive	Canada	A description of a programme for STs who are not nationals of the country where they are training to teach, and are not native speakers of the mainstream language. Issues of language and power in the classroom are examined.
Elbaz-Luwisch	2009	ITE	Primary	Empirical	Israel	Positive outcomes from examining 'small but passionate dramas' in classrooms of Jewish and Arab-Israeli STs
Evans *et al.*	2006	-	Primary	Empirical	Papua New Guinea	Evaluation of the Curriculum Reform Implementation Project (1504 teachers, 742 schools): 'Teachers' attitudes towards, and perceptions of, the syllabus documents become more positive if teachers have received in-service training, if the school has an established Curriculum Committee, and if the school is of a size that affords formal and informal meetings and discussions with other teachers' (p. 3). Implementation is perceived to lead to better learning and better participation by pupils. A lack of follow-up was felt to hinder implementation. Peers help one another.

Author(s)	Year	ITE / CPD	Synthesis or Primary Research	Empirical?	Country	Summary
Fleer & Robbins	2003	ITE	Primary	Empirical	Australia	75 final-year STs. Problems of dissonance between HEI theories and some mentors' practices: a call for more partnership.
Furlong & Maynard	1995	ITE	Synthesis	Empirical	UK	A book reviewing research and practice in mentoring STs. Mentoring has positive effects for both mentee and mentor.
Furlong & Salisbury	2005	CPD	Primary	Empirical	UK	Best Practice Research Scholarships for teachers, stratified random sample of 100 + 20 case studies. Suggests local impact on CPD, teaching practice, pupils, parents & colleagues, but minimal dissemination
Fuys, Van Keer & Aelterman	2010	ITE	Primary	Empirical	Belgium	120 teacher educators and 369 primary school STs surveyed on general educational beliefs, mental models and concepts related to collaborative learning (CL). CL is valued as a tool, but STs do not prefer to collaborate themselves.
Ganser	1996	CPD	Primary	Empirical	USA	24 teachers (primary, secondary, special education) serving as mentors for 1-8 beginning teachers each → benefits for both mentees and mentors; mentors' benefits included reflection and introspection about teaching
Harvey	1999	CPD	Primary	Empirical	South Africa	Primary science teachers: no CPD, workshops only (WO), coaching + workshops (C+O): WO = control, C+O →substantial changes in practice: focus, versatility, practicality, activity-based learning, more complex activities, more suited to learner level and interests
Harwell *et al.*	2001	CPD	Primary	Empirical	USA	A regional university & a group of 4 middle school teachers of maths, language arts, science and social studies collaborated to monitor classroom activities for analysis → teachers' understandings evolved and they planned changes
Hobson *et al.*	2006	ITE	Primary	Empirical	UK	National phone survey of student teachers (STs) (N=4,790; 74 providers)+ interviews with 85 STs→ school-based experience most valued; would have liked more specific elements of classroom practice; mentoring & peer dialogues important; learning class management and differentiation important

Author(s)	Year	ITE / CPD	Synthesis or Primary Research	Empirical?	Country	Summary
Hobson *et al.*	2007	ITE	Primary	Empirical	UK	Phone survey of 2,446 Newly Qualified Teachers (NQTs) in their first year, plus interviews with NQTs and their tutors and NQT ejournals→ peer support, choice, mentor, head of department important
Hustler *et al.*	2003	CPD	Primary	Empirical	UK	Teachers' perceptions of CPD, 2,500 returned questionnaires plus case study visits to 22 schools → classroom-relevant CPD appreciated; CPD decided on basis of school rather than teacher needs disliked
Imig & Imig	2007	ITE	Review	Empirical	USA	A well-informed and wide-ranging discussion of issues and concepts in the field of teaching quality and quality in teacher education.
Kirkwood	2001	CPD	Primary	Empirical	Scotland	Computing teachers from Scottish middle schools participated in a 4-year curriculum development programme → teachers' development enhanced, but teachers are not usually involved in curriculum development in this way
Kohler, Ezell & Paluselli	1999	CPD	Primary	Empirical	USA	Reciprocal peer coaching of teachers of SEN kindergarten children, 2 case studies, positive outcomes which lasted
Meeus, Van Petegem & Meijer	2008	ITE	Primary	Empirical	Netherlands	A quasi-experimental study of the usefulness of the portfolio as a means of promoting autonomous learning for STs. As their final project, 81 pre-school and primary STs did a portfolio study involving a cycle of action and reflection and a variety of media; and 93 primary STs did a literature review with a practical application (a more conventional dissertation). The portfolio study students acquired greater metacognitive skills, especially when supervisors had the courage to allow them more autonomy.
Moor *et al.*	2005	CPD (early)	Primary	Empirical	UK	Early CPD useful when teachers involved in selecting areas, when there is school, mentor and LEA support

Author(s)	Year	ITE / CPD	Synthesis or Primary Research	Empirical?	Country	Summary
Phelan	2011	-	Primary	Reflective	Canada	Argues for the need 'to emphasise and illustrate the complexity of what teachers do and to reassert the value of teacher education' and to 'enable educators to deliberate about what is to count as education'.
Phelan & Sumison	2008b	ITE & CPE	Synthesis	Reflective	International	Introduction to a volume of critical articles on teacher education worldwide.
Rots & Aelterman	2008	ITE	Primary	Empirical	Belgium	Regression analysis investigated the factors influencing graduates' intended and actual entrance into teaching. STs who followed an integrated model where subject matter and pedagogical education was distributed throughout the course were more likely to enter teaching than STs who became subject specialists first and then had teacher training.
Sammons *et al.*	2008	-	Primary	Empirical	UK	The impact of preschool, primary school and the family on a range of outcomes for a national sample of 2500+ young children in England between the ages of 3 and 11 years →teachers' classroom practice make a significant difference to children's academic and social/behavioural progress after controlling for other factors.
Tinker-Sachs & Ho	2011	ITE & CPD	Primary	Empirical	USA	Case-study-based methodology for ITE and CPD in English as a second/foreign language →reflective practice, bridging of gap between theory and practice.
van de Grift	2007	-	Synthesis	Empirical	England, Belgium, Germany, Netherlands	Comparison of quality of teaching in primary maths lessons in 4 European countries (854 classrooms) via application of an assessment instrument→ 5 aspects of quality of teaching are correlated with pupil involvement, attitude, behaviour & attainment: class management, safe & stimulating learning climate, clear instruction, adaptation of teaching, & 'teaching-learning strategies' (scaffolding)
White, Lim & Chiew	2006	CPD	Primary	Empirical	Australia & Malaysia	School-based teacher professional learning through observation or artefacts & case studies: a Japanese framework successfully implemented in Australia & Malaysia.

Author(s)	Year	Initial Teacher Ed / CPD	Synthesis or Primary Research	Empirical?	Country	Summary
Wilkins	1997	CPD	Primary	Empirical	USA	Cascade model of mentoring mathematics teachers increased middle school students' performance and interest.
Xu, Gelfer & Filler	2003	ITE	Primary	Descriptive	USA	Evaluation of an ITE programme that included activity-based programming, functional skills, collaborative work and portfolios for self-assessment → higher retention rate, higher motivation and a better understanding of teaching a diverse student body.

Appendix 2: Related studies not directly addressing the research question or unavailable for analysis

Author	Year	ITE or CPD	Synthesis or Primary Research	Empirical?	Country	Comments
Abramovich	2005	-	Primary	How-to	USA	A suggestion about how to teach certain mathematical concepts.
Atkinson	2004	ITE	Primary	Empirical	UK	Theorising how student teachers form their identity in initial teacher education
Bates	2007	ITE	Review	Reflective	-	A reflection on globalisation in education and its implications for teacher education.
Bertrand	2003	CPD	Primary	Empirical	South Africa	Massification of CPD in a BEd programme for practising teachers
Brisard, Menter & Smith	2007	ITE	Primary	Empirical	UK	A comparison of teacher education in Scotland and England
Calander	20004	ITE	Primary	Empirical	Sweden	A study of the effects of reform in the Swedish teacher education framework on educators' perceptions of the identities and knowledge bases of new teachers. Reforms are seen to weaken the community of practice as well as weakening STs' core knowledge.
Chowdhury	2003	-	Primary	Empirical (descriptive)	India	Implementation of a communicative language teaching syllabus
de Wolf & Janssens	2007	-	Review	Empirical		A study of the effects and side effects of inspections and accountability in education
Edwards & Mutton	2007	ITE	Primary	Empirical	UK	Investigation of the collaboration of higher education institutions and schools in the UK one-year PGCE course
Hanushek	1999	-	Primary	Empirical	USA	Investigates class size reduction: 'considerable uncertainty about the magnitude of any … effects' unless classes are v. small and in kindergarten or Y1.
Harris	2008	-	Primary	Empirical	USA	Cost-effectiveness ratio analysis of class-size reductions
Hill & McDonald	2008	ITE	Primary	Empirical	Australia	Trial of a pre-induction programme to clarify expectations of STs in a one-year postgraduate programme

Author	Year	ITE or CPD	Synthesis or Primary Research	Empirical?	Country	Comments
Imig, Wiseman & Imig	2011	ITE	Primary	Descriptive	USA	Description of teacher education in the USA and current controversial issues.
Indigenous Studies Working Party	2005	-	Primary	Descriptive	Australia	A description of teacher preparation for indigenous education in Australia and recommendations for practice.
Irizarry	2009	CPE	Primary	Descriptive	USA	Description of the use of 'Representin'', a hip-hop concept, as a disposition to be used by teachers of urban youth.
Jasman	2002	ITE	Review	Descriptive/ Reflective	Australia	Review of current situation and recommendations for change
Khalid	2003	ITE	Primary	Empirical	USA	An examination of science ST subject knowledge. This is about the lack of fit between the way science is taught in higher education and the knowledge needed for secondary school science teaching.
Kimmel *et al.*	1999		Primary & middle school		USA	University team working with 84 teachers (3 cohorts) of science, maths and technology to promote better teaching of learners with disabilities. Embedded practicums brought about change in teacher beliefs & practices (Ts saw effects). Subject support also important.
Kirkpatrick	2007	-	Primary	Somewhat empirical	Hong Kong, Indonesia	English language teachers: skills and understandings they should have re culture, methodology, technology, materials, pedagogy
Kolesnikova	2005	ITE	Primary	Reflective	Russia	Proposal of a combination of the two current models of English language teacher training in Russia (state supported training, delivered in Russian; NGO supported training, delivered in English)
Levin	2002	-	Primary	Empirical		Investigation of methodologies for whole-school reforms

Author	Year	ITE or CPD	Synthesis or Primary Research	Empirical?	Country	Comments
Maxwell	2004	ITE	Primary	Empirical	UK	A study of the knowledge of STs in the Learning and Skills sector based on analysis into knowledge resource types (subject/vocational knowledge; knowledge about generic teaching and learning processes; knowledge about specific learners and groups of learners).
Mayer	2011	ITE	Primary	Descriptive	Australia	Professional standards in Australian teaching
McLeod	2002	ITE	Primary	No; how-to	Australia	Integrating social work / social activism and teaching.
Menter	2011	ITE	Primary	Empirical (descriptive)	Scotland	A study of the different groups of educators who for historical reasons working in teacher education in Scotland and their identities.
Menter, Brisard & Smith	2006	ITE	Primary	Empirical	UK	A comparison of teacher education in Scotland and England
Mevorach & Ezer	2010	ITE	Primary	Empirical	Israel	Teacher educators in Israel were surveyed on their aspirations and their perceptions of the reality of teacher education.
Mottart *et al.*	2009	ITE	Primary	Descriptive	Belgium	Description of the use of fictional narratives as didactic tools in ITE
Munthe, Malmo & Rogne	2011	ITE	Primary	Descriptive	Norway	Description of teacher education in Norway and current controversial issues.
O'Meara	2011	-	Review	Descriptive	Australia	Description of national quality initiatives to standardise quality of teacher education across Australia. A policy document.
Perera	2003	ITE	Primary	Empirical	Sri Lanka	Primary teachers' and other stakeholders' beliefs about competencies for primary teaching were examined and a set of teacher competencies for use in Sri Lanka proposed.
Power & Berlach	2005	ITE	Primary	Empirical (descriptive)	Australia	A case study of one ST intern's experience of an Outcomes-Based Curriculum
Pring	2008	ITE	Primary	Descriptive / Reflective	UK and Pakistan	History of teacher education at the University of Oxford and its influence on the model now used at Aga Khan University in Karachi.

Author	Year	ITE or CPD	Synthesis or Primary Research	Empirical?	Country	Comments
Rauch	1998	ITE	Primary	Empirical	Austria	Evaluation of a project to develop materials for environmental education in teacher training
Sammons & Ko	2008	-	Primary	Empirical	UK	Investigates effective teaching in primary schools: 81 teachers, 2 groups, more/less effective teachers.
Sayer	2006	-	Primary	Empirical	Europe	A study of the barriers to teacher mobility in Europe and suggestions for change
Seddon	1991	-	Primary	Position paper	Australia	Discussion of the status of teachers in Australia; a policy document about organisation of labour rather than pedagogy or teacher education.
Showers & Joyce	1996	CPD	Synthesis	No: how-to	UK	A history and set of recommendations for peer coaching.
Stephens, Tønnessen & Kyriacou	2004	ITE	Primary	Descriptive	England and Norway	Comparison of ITE in the two countries
Stephenson & Harold	2007	-	Primary	Empirical (descriptive)	Emirates	Leadership skills programme: Not about teacher education.
Stephenson & Harold	2007	-	Primary	Empirical (descriptive)	Emirates	Leadership skills programme: Not about teacher education.
Van Nuland	2011	ITE	Primary	Descriptive	Canada	Description of teacher education in Canada and current controversial issues.
White *et al.*	2008	ITE	Primary	Descriptive	Australia	Argues that STs who will be teaching in rural communities need specific preparation, which is best carried out in regional universities.
Yip	2005	ITE	Primary	Empirical	Hong Kong	Empirically developed Music Information Technology teacher education program.
Yu, Su and Liu	2011	ITE	Primary	Descriptive	China	Inclusive education in China: The situation is described and solutions proposed, including teacher education solutions. Policy document.

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