

# MODULE 6

## Assessment and Accreditation of ITT and NQTs

### CONTENT:

- M6 Workshop module - Assessment and Accreditation of ITT and NQTs
- M6 Assessment and Accreditation Pre-sessional task 1
- M6 Assessment and Accreditation Pre-sessional task 2
- M6 Assessment and Accreditation Presentation
- M6 Flashcards - Teachers Standards Diamond 9
- M6 Academic-year-planner-2016-2017
- M6 Assessment and accreditation - descriptors for plenary
- M6 Assessment and Accreditation - room layout for plenary
- M6 Evaluation Sheet

Workshop Module	Workshop Objectives	Activities and resources	Resources	Outcomes
<b>Module 6 Assessment and Accreditation</b>	<p>Participants will consider the following questions</p> <p><b>Why do we assess Trainees and Newly Qualified Teachers?</b></p> <p><b>What do we assess? What's important?</b></p> <p><b>How do we capture it?</b></p> <p><b>How do we accredit it?</b></p>	<p><b>Pre-session task 1</b> - participants will read the article called "Assessment and Accreditation: Pre-session task."</p> <p><b>Pre-session task 2</b> - participants will have followed the various web links to research the assessment and accreditation arrangements in other EU countries.</p> <p><b>Introduction</b> Facilitator to explain the objectives of the session (5 minutes)</p> <p>Facilitator to invite the participants to discuss the "Pre-session task 1" and be prepared to share evidence in 3 points - one which is a <b>Positive</b>, one which is a <b>Negative</b> and one which they found <b>Interesting</b>. (PMI feedback)</p> <p>Facilitator to invite participants to write any questions they want answering on post-its and put them on the flip chart. Questions are grouped by type. Facilitator returns to the questions and answers them throughout the day.</p>	<p>Assessment and Accreditation Pre-session task 1 Assessment and Accreditation Pre-session task 2</p> <p>Objectives on PowerPoint or written on flip chart.</p> <p>Facilitator should be prepared for some which may not have read the "Pre-session task." Do not give extra time for participants to read during the session - they can read it later.</p> <p>Post-It notes</p>	<p>Participants will be able to answer the following questions and develop in school approaches to implementing change in the assessment and accreditation of trainees and Newly-Qualified teachers—</p> <p><b>Why do we assess Trainees and Newly Qualified Teachers?</b></p> <p><b>What do we assess? What's important?</b></p> <p><b>How do we capture it?</b></p> <p><b>How do we accredit it?</b></p>

Workshop Module	Workshop Objectives	Activities and resources	Resources	Outcomes
Module 6 Assessment and Accreditation	Why do we assess trainees and Newly-Qualified Teachers?	<p><b>Development 1</b></p> <p><b>Brainstorm activity in groups of 3-4 participants.</b> Complete the task without discussion – the aim is to record ideas quickly onto flip chart paper, not to question or debate at this stage. No more than 5 minutes on this task.</p> <p>Facilitator to offer suggestions only if participants struggle e.g. we assess trainees and newly-qualified teachers to</p> <ul style="list-style-type: none"> <li>• know their previous skills, knowledge and understanding</li> <li>• plan for what they need next</li> <li>• offer support</li> <li>• challenge them to improve</li> <li>• decide whether they have met the required standard to become a teacher / continue teaching</li> <li>• write a reference</li> <li>• identify future potential</li> </ul> <p>Each group displays their flip chart responses on a wall. Group by group, the participants are able to ask questions of the responses they see e.g.</p> <ul style="list-style-type: none"> <li>• What do you mean by...</li> <li>• Why have you written...</li> <li>• Can you tell me more about...</li> </ul> <p>This activity can take up to 5 minutes per flipchart, facilitator needs to keep this moving.</p>	Flipchart paper and pens available for presentation.	

Workshop Module	Workshop Objectives	Activities and resources	Resources	Outcomes
Module 6 Assessment and Accreditation	What do we assess? What's important? How do we capture it?	<p><b>Development 2</b></p> <p><i>If there are no teaching standards in the country, this session should start by identifying what is important to be assessed -</i></p> <p><i>Working in pairs, the participants should Diamond 9, the following statements, to identify a rank order. This will be difficult and should provoke lots of discussion. It may help to ask for their top 6 to work with for the rest of the training module. (10-15 min)</i></p> <p><b>For all participants -</b> Using the standards agreed in the previous activity, or using the existing standards of the host country, identify the best way of capturing evidence for each of the standards. This activity should be completed in pairs and the facilitator should expect responses such as <i>application forms, observation, discussion, academic research etc.</i> You would also expect that some participants would mention <i>self-assessment</i> and <i>peer-assessment</i> too. (10 minutes)</p> <p>Pairs now join up to make groups of 4 and facilitator asks them to develop an <i>assessment calendar</i>. What would happen when? What would the participants expect to see from trainees and newly qualified teachers at these points? Annotate on year planner/calendar. (15 minutes)</p> <p>One person stays with their year planner/calendar whilst the rest of the group visits other groups to find out what they have done. (15 minutes)</p> <p>Participants then return to their own groups and make any necessary changes / improvements. (5 minutes)</p> <p>Facilitator makes link to the <u><a href="#">Erasmus+ VEO project</a></u> as an electronic means of recording skills demonstrated during observations. Potential opportunity for a demonstration here?</p>	<p><b>Diamond 9 flash-cards</b></p> <p><b>Year planner-calendar</b></p>	

Workshop Module	Workshop Objectives	Activities and resources	Resources	Outcomes
Module 6 Assessment and Accreditation	How do we accredit it?	<p><b>Plenary</b></p> <p>Facilitator summarises last activity and introduces the descriptors: FORMATIVE and SUMMATIVE</p> <p>Facilitator remind participants of the research via <b>Pre-session Task 2</b> which looks at the various teacher education systems across partner countries. Facilitator then introduces the descriptors – EXTERNAL and INTERNAL to categorise the characteristics of various national systems.</p> <p>Facilitator asks participants to stand where they believe their teacher education system currently is. Facilitator to ask some participants “<i>Why have you chosen to stand there?</i>” Facilitator to then ask them to move to where they would like to be. This time facilitator asks “What needs to change in order to achieve this?”</p> <p>Participants to develop an action plan to support the changes. Facilitator to draw attention to suggestions such as – talk to the university about ways to complement the university assessment and accreditation; trainees/newly qualified teachers encouraged to develop a <b>portfolio of evidence</b>; schools provide a <b>reference/testimonial/certificate</b> at the end of a trainees/newly qualified teacher’s placement; schools develop <b>annual programme</b> to assess teachers’ performance etc.</p> <p><b>Post-session task</b> could be to complete the action plan. Even better if participants could report back on progress at a later date.</p>	<p>Descriptors for plenary</p> <p>See Room Layout for plenary to arrange room for this activity.</p>	



## **REVIEW**

**August 2003**

# **What is known about successful models of formative assessment for trainee teachers during school experiences and what constitutes effective practice?**

**This review is supported by the Teacher Training  
Agency (TTA) to promote the use of research  
and evidence to improve teaching and learning**

*Review conducted by the Assessment of ITT Students Review Group*

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## LIST OF ABBREVIATIONS

APU	Anglia Polytechnic University
B. Ed	Bachelor of Education
BEI	British Education Index
BIDS	Bath Information and Data Services
CEP	Career Entry Profile
CERUK	Current Educational Research in the United Kingdom
DfES	Department for Education and Skills
EPPI-Centre	Evidence for Policy and Practice Information and Co-ordinating Centre
ERIC	Educational Resources Information Centre
ESRC	Economic and Social Research Council
GTP	Graduate Teacher Programme
HE	Higher Education
HEI	Higher Education Institution
ICT	Information and Communication Technology
IT	Information Technology
ITT	Initial Teacher Training
NQT	Newly Qualified Teacher
NUT	National Union of Teachers
OfSTED	Office for Standards in Education
PDP	Professional Development Profile
QCA	Qualifications and Curriculum Authority
QTS	Qualified Teacher Status
RTP	Registered Teacher Programme
SCITT	School Centred Initial Teacher Training
SCRE	Scottish Centre for Research in Education
SOSIG	Social Science Information Gateway
TTA	Teacher Training Agency
UK	United Kingdom
URT	User Review Team
US	United States
USA	United States of America



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# SUMMARY

## Background

The focus underpinning this systematic review is the assessment of student teachers on Initial Teacher Training (ITT) courses. The background to the review is complex. Assessment has been the subject of much scholarly debate in recent years, the emphasis being on the processes, aims and outcomes of assessment. Comparative studies have been undertaken and have offered up alternative models for assessment, creating a new level of awareness and self-consciousness in the United Kingdom (UK). A number of issues dominate the subject and are central to this review. They include gender (Moyle and Cavendish, 2002), the emphasis on fair testing (Martin, 1997), the new idea of multiple assessments (Willis and Davies, 2002), the tension between standardisation and individualisation (Reyes and Isele, 1990), the demands for replicability (Hartsough 1998) and for non-discriminatory practice (Chambers and Roper, 2000), and so forth. A division, often awkward to uphold, between formative assessment and summative assessment has been drawn, the former being championed as a fairer, more personalised form of assessment than the latter (Adams, 1995).

## Aims and review question

The aim of this review is to explore and examine models for formatively assessing student teachers within the context of school-based experience, focusing on specific locations within the English-speaking international community and isolating studies published between 1987 and 2002. One of the aims of the review is to identify components of effective practice as well as effective models for formatively assessing student teachers. 'Effective' is defined in the review as pertaining to 'validity' (assessing the right criteria) and 'reliability' (assessing in a transparent, consistent and replicable way). A number of outcomes were expected: a systematic review and synthesis of existing research in the topic area; a database of evidence extracted from existing research; a descriptive map offering an orientation on the topic area; a small body of trustworthy and relevant studies; and, an indication of the gaps in research in the topic area.

## Review question

- What is known about successful models of formative assessment for trainee teachers during school experience and what constitutes effective practice?

## Results

The portfolio is identified as the most successful and effective formative assessment tool currently available that has been analysed and evaluated. Having followed the stages of the EPPI-Centre process, two studies, both focusing on portfolios, were

data-extracted and synthesised (Berg and Curry, 1997; Willis and Davies, 2002). Although the content and trustworthiness of the two studies was generally low, and indicative of the general lack of good research in this area of assessment, there were some useful findings. Portfolios were found to increase personal and professional growth and development, allow teachers to express themselves creatively, provide an unprecedented insight into the mind of the student teacher, create a strong bond between the assessed and the assessor, as well as to increase the confidence, reflective capacity and self-awareness of the trainee.

Whilst the review confirms the need for further investigation of, and experimentation with, portfolios, a few problem areas were identified. Firstly, excessive use of the portfolio may cause the education community to lose sight of pedagogical ability and focus attention overly on cognitive ability and clarity, as well as reflective capacity. Secondly, there is a tension between the time the portfolio takes to undertake properly and its ultimate worth (Reis and Villaume, 2002). This time-versus-worth dynamic may have been best explored using a controlled trial. Neither study, however, uses one. In conclusion, the review emphasises the general lack of quality research in the field and highlights the need for more focused research to be undertaken.

# 1. BACKGROUND

This chapter outlines the theoretical, policy, practice, and research background to the systematic review, including details of the authors and other users of the review, and the development and aims of the review question.

The focus underpinning this review is the assessment of initial teacher trainees on ITT courses. A definition of academic assessment that both reflects the understanding of the User Review Team (URT) and has been a useful working definition is 'the process of identifying collective aims for cumulative learning in terms of knowledge, skills, abilities, values, and/or attitudes and determining whether those aims have been met' (San Francisco State University, retrieved on 13 February 2003). Specifically, the review concentrates on how forms of assessment are devised and applied to trainee teachers<sup>1</sup> in the school-based element of ITT courses.

As a concept, assessment in education has been problematised in the UK. The excess of United States (US) literature on assessment suggests that this is also the case across the Atlantic (see section 3.2). Discourse about assessment, its processes, aims, and outcomes, has become increasingly prevalent (Fairbrother, 2000). Comparative studies of educational models have heightened awareness in the UK, offered up alternatives, and led to the UK system being brought into question, why it exists as it does and why it has its own particular characteristics (Bitner and Kratzner, 1995). A main intention of the review has, therefore, been to examine different models of assessment as applied to trainee teachers.

Some structuralist theories have also affected the way that assessment in general is perceived, offering, for example, the understanding of assessment where the female typically favours the *process* of instruction whilst the male favours the actual *product* of the final assessment (Stobart and Gipps, 1997). Theories such as this have contributed to a climate in which the fairness and effectiveness of different forms of assessment have been questioned and fed a growing belief that assessment should be more personalised, negotiable and adapted to the needs of individual students. With this process-versus-product/female-versus-male structuralist model in mind, the URT became interested in assessment models that emphasised both the *process* and the *product* of learning and evaluating. This was one of many interests that led the URT to its eventual focus on formative assessment.

Not all the theories and beliefs of recent years reflect the reality of assessment within education. If, as some structuralist theories propose, males do in general favour summative to formative assessment, one would expect attainment levels to be higher amongst boys than they are in light of the summative nature of most national examinations. As it stands, Higher Education Institutions (HEIs) are having problems with male recruitment and evidence suggests that this is due to under-achievement and the failure of males to strive (Chambers and Roper, 2000; Moyles and Cavendish, 2002). This may not necessarily be the result of changes in assessment

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<sup>1</sup> 'Trainee teachers' is the term used by the TTA. However, in many studies, the term 'student teacher' is used. In this review, the two terms are used synonymously except where specific to individual studies.

models. However, the increase in emphasis placed on coursework and the high standard of performance of females in recent years may go some way to proving the validity of the process-versus-product/female-versus-male structuralist model.

Summative assessment has been criticised for its lack of flexibility, its inability to cover the whole course of instruction and for its standardised nature, potentially favouring one particular type of trainee teacher (Moyle and Cavendish, 2002).<sup>2</sup> Minority pressure, gender equity and political correctness have combined, resulting in an emphasis on fair testing. Fair testing has tended to be interpreted as opposing discrimination; of being non-discriminatory. Assessment is, however, by nature a system devised for the purpose of discriminating between people. Moreover, if assessment is to treat all candidates fairly and position all candidates at an equal advantage, it cannot treat everyone as though they were equal, if equal is used synonymously with 'the same' (i.e. from the same cultural, religious and social background, of one gender and of one age). Different people have different expectations of assessment.

The National Foundation for Educational Research (NFER) website, for example, features a definition of 'fair testing' that is flawed. The NFER concede that assessment is designed for the purpose of discriminating. However, the claim is made that 'the test should not discriminate between sub-groups on any basis unrelated to the purpose of the test' (retrieved on 16 January 2003). This is the contradiction. Teachers, like all professionals, are not generic. Trainee teachers from different cultures, religions and backgrounds, of different ages and of different sexes, are not all the same. A single fixed test cannot fairly assess such a varied body of participants. The NFER assert that 'there should be no unfair advantage to any sub-group based on attributes such as gender or ethnic group,' but an unfair advantage is extended to a particular type of candidate because of the failure of most assessment to distinguish between ages, genders and ethnicities.

Formative assessment promises a more personalised, tailored and negotiated form of assessment (Adams, 1995). This continual, fashioning form of assessment during ITT courses, which notes the ability of the candidate to absorb instruction and to measure vocational and professional suitability, ranks as an area worthy of inquiry. Summative assessment perceives the trainee teacher as a generic type; formative assessment, if applied effectively, favours the trainee teacher as an individual, assessing potential by way of individual merit, albeit currently against set criteria (TTA Standards for ITT: TTA, 2002). The interest of the URT lay essentially in formative assessment insofar as this could be isolated from other forms. This interest, in turn, meant that the focus of the review centred on the school experience of trainee teachers, for it is during their practice placements that trainee teachers mainly experience the continual, formative processes of assessment and evaluation, as opposed to those towards the end of an ITT course.

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<sup>2</sup> For a systematic review on summative rather than formative assessment, see Harlen W and Crick RD (2002) A systematic review of the impact of summative assessment and test on students' motivation for learning. In: *Research Evidence in Education Library*. London: EPPI-Centre, Social Science Research Unit, Institute of Education.

The main interests of the URT at the start of the review could be qualified as:

- formative assessment as a way of emphasising the *process* as well as the *product* of learning, teaching and evaluating
- the notion of ‘multiple assessments’ and the reality of achieving it
- the notion of ‘fair testing’

## 1.1 Aims and rationale for current review

### 1.1.1 Aims

The aim of this review is to explore and examine models for formative assessment of trainee teachers within the context of school-based experience. It focuses on specific locations within the English-speaking international community and studies published between 1987 and 2002. The period of 15 years, whilst not looking back so far that the studies describe an outdated system, offered a manageable timeframe. Though it is not a specific aim of the review to recommend models of assessment, we attempted to identify components and patterns of effective practice. In preferring evaluative studies to descriptive ones, certain models of assessment were deemed more ‘effective’ than others. ‘Effective’, in the context of assessment models, can be understood as double-pronged and defined as (i) the ‘validity’ of that which is being assessed and (ii) the ‘reliability’ of the assessment model in measuring the student teacher (Martin, 1997).

The review question was influenced by the concept of reflection (Schön 1983) and developed in the wake of the Career Entry Profile (CEP), a portfolio-style document that monitors professional development, identifies competencies, and supports Newly Qualified Teachers (NQTs) towards Statutory Induction. Unlike the UK, most of the US education systems depend heavily upon portfolios. The UK Government has now committed itself to their use, but research is still needed into whether they have been operationalised effectively.

We expected the following outcomes from our literature review:

- a systematic review of existing research on formative assessment of trainees in ITT
- a database of evidence extracted from existing studies reporting empirical research
- a descriptive map offering an orientation on assessment in ITT with specific reference to trainees’ school-based experiences and formative models
- a range of studies targeted at different audiences, such as practitioners and policy-makers

- An indication of gaps in the literature and research evidence in the areas of formative assessment of ITT trainees which require further examination.

At the end of the two-and-a-half month, truncated EPPI-Centre review process, the URT aimed to have an informed and informative literature review, bringing tried and tested models of assessment to the fore and, in the process, noting areas of inquiry that have so far eluded research. The studies the URT sought tended, therefore, towards the evaluative rather than the descriptive. Hence the URT's interest in effective practice, how it is defined and what its components are.

### 1.1.2 Rationale

Before undertaking any new research, policy or practice, it is advisable first to be informed about the research, policies and practices that already exist in relation to the topic. Such information may be known by experts in the field or may have already been summarised within a literature review, but these have not traditionally been based upon systematic methods to ensure substantial and unbiased searching and processing of potentially relevant studies. The URT, therefore, was committed to using a systematic approach. For this reason, this review was allied to the EPPI-Centre review procedures. Systematic reviews are also in alignment with the general move in the UK towards evidence-informed policy and practice. In systematising the review, the URT synthesised the results of primary research and used explicit and transparent methods. The review presents research that is accountable, replicable, and updateable, and involves users.

## 1.2 Definitional and conceptual issues

There are theoretical issues about assessment that informed the conceptual framework of the in-depth review. A number of studies expounded theories and ideas that were characteristic of a general move towards 'authentic assessment' (Willis and Davies, 2002; p 18). Criteria for assessing trainee teachers are often expressed as standards or competencies. However, checklists that define good teaching in behaviourist terms have come under continual criticism (Martin, 1997). Checklists invariably include high-inference as well as low-inference criteria. High-inference criteria are often subject to the 'halo effect', in which assessors mark according to personal likes (Reyes and Isele, 1990). To avoid this, competencies need to be expressed in behaviourist terms. Developing reliable and valid low-inference criteria for assessing teaching has therefore become something of a priority, as has the need to discover an assessment procedure that assesses a 'replicable finding' (Hartsough *et al.*, 1998).

Implicit within this area of assessment, therefore, is the friction between (i) the development of low-inference criteria that express competence in behaviourist terms because they allow an objective and replicable assessment, and (ii) the development of high-inference items that are liable to make the assessment more subjective and untraceable, but at the same time do not consign the art of teaching to a few simple behaviours.



Two models of assessment come to the fore: the scientific measurement model and the judgmental model (Martin, 1997). Martin raises a question that the User Review Team approach implicitly in the review question: should assessment influence as well as reflect instruction and learning? Formative assessment individualises the assessment programme to the extent that it offers the opportunity for the different degrees of help that are necessary in raising all trainee teachers to the same level of competence to be realised. The intention of the URT was to identify any 'best' models for achieving this, whilst at the same time identifying a means of assessing trainees that is itself more negotiable and personalised.

The ultimate reason for all assessment theorising and development is to 'minimise the number of wrong classifications' (Martin, 1997; p 339). Another issue is again outlined by Martin: the problem of 'MacNamara's Fallacy'. This refers to the common shortcoming of many assessment models, namely their failure to make the important *measurable* rather than the measurable *important*.

A number of different types of assessment exist. Ipsative assessment is a type of assessment to some degree borne of the current climate. 'Ipsative' refers to a way of assessing in which achievement is measured according to past reference and performance. It is cumulative and developmental. It is the academic equivalent of the 'personal best' of an athlete. Ipsative assessment, in the early stages of the review at least, was an additional interest of the URT.

Assessment has many different functions: selection and grading, diagnosis and remediation, motivation, and recording and reporting (Mahoney and Knox, 2000). In this in-depth review, the URT aimed to identify a formative assessment model or instrument that made all of these functions concurrently possible.

## 1.3 Policy and practice background

The current backdrop for ITT assessment comprises a number of agents. There are the Skills Tests that must be passed in order for the DfES to grant Qualified Teacher Status (QTS) to the trainee. There is the Career Entry Profile (CEP: TTA, 2002), which has been developed mainly for the purpose of integration and continuous professional development during Statutory Induction of trainee teachers (arrangements for which were introduced in 1999 and are now subject to Into Induction 2002: TTA, 2002). There is Qualifying to Teach (TTA, 2002), a document that contains standards that are essential to the assessment of trainees. There are also the recommended, though not compulsory, Professional Development Profiles (PDPs), which are part of a general move towards portfolio-based assessment.

At APU, for example, the PDP is used 'as a reflective journal in which [trainees] can record professional progress and set targets for future development' (APU, 2003 Undergraduate Prospectus; p.94). This profile contributes to the CEP and, to an extent, utilises a formative model of assessment. The URT sought to establish whether other such profiles or portfolios have proven successful, and, if so, identify successful formats and benefits. The URT also wanted evidence as to whether a hybrid model that comprised national standards and a portfolio component had been tried and tested in other countries. In recent years, QTS has been awarded for the

ability to meet a set of competencies or standards (for example, the DfES Circulars 9/92, 14/93, and 4/98). The URT was curious as to whether there existed within current research a way that could perhaps, through portfolios, communicate more creatively the abilities that these checklists assess.

## 1.4 Research background

The research background to formative assessment is particularly limited in relation to the review question, hence the poor yield of studies in terms of number and quality. Chapter 3 describes the field of assessment in ITT.

## 1.5 Authors, funders and other users of the review

The URT comprised and represented a cross-section of the community involved in ITT, covering almost all the potential user groups. Some potential users, such as students, NQTs, Local Education Authority (LEA) representatives, school governors, and parents, were not included due to the limited time available to assemble the URT. Ironically, students were unavailable at the time the review began owing to the pressures of their work placements. Those involved in the review and the nature of their involvement in ITT are listed below. With this constitution, the ultimate intention was to create an interface useful to all possible user groups. None was under-represented in the construction of the question and everyone participated in the discussions to formulate the review question.

The review was funded by the Teacher Training Agency (TTA).

The User Review Team (URT) comprised the following members:

- Alan Bradwell, Education Librarian and academic liaison between ITT students and the library at Anglia Polytechnic University (APU)
- Tim Cooper, a Research Administrator at APU
- Alison Feist, a supervising teacher for ITT students at a local maintained secondary school
- Ann Lahiff, the learning and teaching advisor in the School of Education at APU, concerned with the professional development of teachers and trainers across the entire age range, from pre-school and early years to post-compulsory education and training
- Jenny Lansdell, Deputy Dean of the School of Education at APU, responsible for both primary and secondary ITT and the assessment of it
- Jill Martin, Deputy Head of a local maintained secondary school, in charge of ITT partnerships with higher education institutions (HEIs)

- Professor Janet Moyles, Director of Research in the School of Education at APU
- Andy Scott-Evans, Deputy Head of a local Church of England (Voluntary Aided) junior school, in charge of ITT partnerships with HEIs
- Alison Shilela, Associate Dean of the School of Education at APU
- Douglas Stuart, a Researcher at APU
- Richard Yates, a Researcher at APU

Advisory members to the URT were as follows:

- Professor Diana Elbourne from the EPPI-Centre
- Dr Nicholas Houghton from the EPPI-Centre
- Paul Moses from the TTA

## 1.6 Review questions

The review question agreed by the URT is:

- What is known about successful models of formative assessment for trainee teachers during school experiences and what constitutes effective practice?

In effect, the question is two-tiered. The intention was first to identify all those studies that focused on models of formative assessment and secondly, during the in-depth review, to determine which of them was replicable, valid and reliable, and indicated effective practices. Objectives that are implicit in the question are explored in section 4.3.

### 1.6.1 Definitions

The definitions of the four key components of the question are outlined below.

#### **Models**

By this, we refer to the form taken by the type of assessment related in the reviewed study. 'Models' in this context has *no* connection with any form of representation (e.g. 'modelling' or 'model-making'). In many ways, it covers everything about how the assessment is *carried out*, including its variables, its physical manifestations (e.g. portfolios) and particularly its characteristics. A model is a *system* or a *process*.

#### **Formative assessment**

By this, we refer to the diagnostic use of assessment, the continual process of application and alteration, of feedback between student teachers, teachers and

tutors over the course of instruction as opposed to after the period of instruction, requiring no overall or retrospective judgement. It refers to assessment that both *forms* and *informs* the progress of the student.

### ***Trainee teachers***

This term is intended to be a synonym for *student teachers*; its usage is mostly for the sake of parity and alignment with the TTA and the term used in some ITT courses. It is also favoured because it implies the onsite *training* of the student teacher rather than their HEI-based *education*. Whether these two terms can be comfortably separated is a topic for extended discussion beyond the scope of this review.

### ***School-based experience***

By this, we refer to the practice of school placement experience, field experience (US), or practicum (Australia), that is, the sustained period in which the trainee attends a school to perform actual or simulated teaching.

## 2. METHODS USED IN THE REVIEW

This chapter details each stage of the review to ensure that it is accountable, replicable and updateable.

### 2.1 User involvement

#### 2.1.1 Approach and rationale

The User Review Team was involved in the process for a number of reasons. Firstly, it was crucial to the success of the review that it raised questions that users wanted answering rather than questions that may have had more limited practical application or relevance. Secondly, in undertaking a process in which the review question is (at least in the early stages of research) continually changing and is informed and refined by the research itself, it was important to have valid interest groups contributing to the character of the question. User involvement, therefore, was one form of quality assurance.

#### 2.1.2 Methods used

User involvement was operationalised in the following ways. First, the screening stage when the inclusion and exclusion criteria were applied to full texts took place in URT face-to-face meetings. These meetings were arranged so that as many members of the URT as possible were present. The meetings were conducted weekly, for the sole purpose of screening texts. Studies that were not screened during these meetings were sent by post to paired reviewers. Second, users were also involved in the keywording and data-extraction stages of the review. During keywording, much of the data, whilst they originated from and were generated by members of the URT, had to be input into the EPPI-Centre website by the Administrator because of lack of time for URT members to be familiarised with accessing the website. That said, all but two members of the URT received training in inputting keywording data and data-extraction using the EPPI-Centre website facilities directly and would have been able to input data had more time been available. Prior to submission to the Teacher Training Agency (TTA), the draft review was distributed to all members of the URT for preliminary quality assurance.

### 2.2 Identifying and describing studies

#### 2.2.1 Defining relevant studies: inclusion and exclusion criteria

To ensure that only papers focusing on the review question were selected for mapping, an explicit list of inclusion and exclusion criteria were developed to exclude inappropriate papers.

- *Included (1)*: Papers that were published after 1987. *Rationale*: The period of 15 years, whilst not looking back so far that the papers described an outdated system, promised a manageable timeframe within the short period available for this review.
- *Included (2)*: Papers that were conducted within Europe, the US, Australia and English-speaking Canada. *Rationale*: Achieving consistency in ideology, culture and practice (i.e. comparing like with like) was one of the foremost concerns of the URT. The URT determined that those from other English-speaking areas of the world, e.g. Hong Kong, would be too culturally and educationally different to be either informative or comparative.
- *Included (3)*: Papers written in English. *Rationale*: The timescale was limited and the first (and main) language within the URT was English.
- *Excluded (4)*: Papers that focused on the CEP. *Rationale*: The URT was encouraged by the TTA to exclude these.
- *Excluded (5)*: Papers that focused on the assessment of students or teachers but not student teachers. *Rationale*: The population focus of the review was student teachers or 'trainee teachers' (the TTA's term for student teachers).
- *Excluded (6)*: Papers that focused on an 'evaluation' or 'assessment' of the ITT system rather than the forms of assessment used by ITT courses to assess trainees. *Rationale*: The search terms ASSESS\* and EVALUAT\* are neither synonymous nor consistent, especially in American usage, therefore papers that did not deal with the assessment process were excluded.
- *Excluded (7)*: Papers that focused on the school experience of the student teachers but not the assessment of it. *Rationale*: There was a genus of papers in which the school experience was the educational setting, but this did not presuppose any focus on assessment. These papers were excluded.
- *Excluded (8)*: Papers that focused more on mentoring and supervising than assessment. *Rationale*: There was a whole corpus of papers that took these two areas as their main focus. This did not presuppose any focus on assessment. The TTA had also encouraged the URT not to concentrate on mentoring. These papers were excluded.
- *Excluded (9)*: Papers that focused on pre-student rather than pre-service teachers. *Rationale*: The population of the review was student teachers or 'trainees'.
- *Excluded (10)*: Papers that focused on portfolios, but not as assessment tools. *Rationale*: Although portfolios, coming under the rubric of self-assessment, are a tool for formative assessment, some portfolio-focused papers did not explore them as assessment instruments. These papers were excluded.
- *Excluded (11)*: Papers that dealt with reflective practice but not the assessment of it. *Rationale*: There was a whole corpus of papers that took reflection as their

main focus, but this did not presuppose any focus on the assessment of reflection. These papers were excluded.

- *Excluded (12):* Papers that were digests from the ERIC database. *Rationale:* Firstly, these texts were generally reviews and were therefore secondary research. Secondly, regarding the length of the review process and the financial constraints, these texts were deemed unobtainable. These papers were excluded.
- *Excluded (13):* Papers that were duplicates. *Rationale:* Allowance had to be made for human error during the searching, screening and data-entry stages of the review process. Identifying duplicates early on was one way in which the budget could be more effectively utilised. These papers were excluded.

### 2.2.2 Identification of potential studies: search strategy

Initially relevant sources were searched using a controlled vocabulary which placed our searches firmly within the topic area of assessment. Due to the time constraints, electronic databases were used for initial searches. Handsearching was not undertaken. The databases, Ask ERIC, ERIC and BEI via BIDS Education, and Education Line, were searched. Government organisations and agencies, the TTA, QCA and DfES, supplemented these sites, but from them no extra relevant papers were uncovered on assessment in ITT.

A controlled vocabulary was employed to attempt an initial search that was as far-reaching and comprehensive as possible, using variations on different search terms (which were often truncated) such as STUDENT TEACH\*, PRESERVICE TEACH\*, BEGINNING TEACH\*, and TESTING, EVALUATION and ASSESSMENT. The more complex and numbered the combination of search terms, the smaller the yield of the search. The two largest searches, which between them covered all of the studies yielded from the earlier, smaller searches, became the basis for the literature review.

The two large searches were as follows: (1) An Ask ERIC search using the search terms STUDENT TEACHER EVALUATION and specifying post-1987 publications. This search deliberately used an Americanism because ERIC is an American database; the term EVALUATION was therefore preferential to ASSESSMENT. (2) The second large search was through BEI using the same search term STUDENT TEACHER EVALUATION, because the result of supplanting the search term EVALUATION with ASSESSMENT was a very low yield. These yields suggest that the bulk of papers on assessment are American rather than British. The searches were then extended to allow for the possibility that vital papers had been overlooked. This was achieved through smaller additional searches. These searches included two through Ask ERIC, the first comprising the search terms PORTFOLIO, ASSESSMENT and STUDENT TEACHER, the second comprising TEST, STUDENT TEACHER, TRAINING and ASSESSMENT. One more search was assimilated into the total of searches, this time using the Education Line database, the search term being ASSESSMENT.

Following initial searches, the URT determined that it would be a worthwhile measure to take the precaution of formulating a comprehensive search strategy that

would highlight any missing key papers. This was completed by breaking the question into four sections. Using ERIC via BIDS, all the conceptual synonyms that are used to describe each particular field or 'family' within UK, US, Australian and Canadian education were determined. These were entered and combined using BIDS within their families (using the Boolean operator OR) and then combined together (using the Boolean operator AND), so that each paper, were it to show up in this particular yield, would feature a conceptual synonym from each of the four families that the question is composed of. Appendix 2.1 shows this search strategy.

Other internet sites were searched with similar intentions in mind. These sites comprised CERUK, Regard, SOSIG, SCRE, ESRC, Child Data, SARA, Zetoc, OPAC and COPAC.

### **2.2.3 Screening studies: applying inclusion and exclusion criteria**

Following searching citations were screened on the basis of abstracts and titles and included or excluded according to inclusion and exclusion criteria 1 to 11. These papers were then put onto a database (DB1). A second stage of screening was then carried out on all papers in database 1. This process involved scanning papers again and including or excluding them according to inclusion and exclusion criteria 1 to 13. The final two criteria were devised at the stage in the process when full texts were to be acquired.

### **2.2.4 Characterising included studies**

For articles meeting the inclusion and exclusion criteria the full text articles were obtained and keyworded using the *EPPI-Centre Core Keywording Strategy* (version 0.9.6: EPPI-Centre, 2003). The EPPI-centre Core Keywording strategy included the following categories:

- the origin of the report
- the publication status of the report
- other linked reports
- the language of the report
- the country of the report
- the main topic focus of the study
- the programme name related to the study
- the population focus of the study
- the educational setting of the study
- the type of study the report describes

Additional keywords were developed to create an APU Assessment review-specific keywording sheet. On this sheet, it was necessary to gauge how much the study concentrated on a number of aspects:

- the school experience
- assessment rather than the assessors and assessed



- the degree to which it focused on formative rather than summative assessment

Keyword categories included the following:

- the type of assessment on which the study focuses
- the main aspect within assessment on which the study focuses
- the type of learner on which the study focuses
- the type of teaching staff on which the study focuses
- the phase of ITT on which the study focuses
- the type of research described in the report

Further inclusion criteria 14 to 18 were developed before the process of keywording and applied during keywording. These also informed the APU Assessment review-specific keywording sheet. A Criterion 19, being the cut-off point time limit for obtaining full copies of papers for keywording, was applied after criteria 14 to 18.

Inclusion and exclusion criteria 14 to 18 are as follows:

- Criterion 14: *Included*: Only papers that reported an empirical study (see section 3.2). *Rationale*: On account of the nature of the review question and the evidence-based approach of the EPPI-Centre, only empirical studies were judged to be suitable in terms of trustworthiness and in answering the review question (see APU Assessment review-specific keywording sheet, section 10c).
- Criterion 15: *Included*: Only studies that focus on the assessment model. *Rationale*: This was applied because the URT agreed that assessment in its broadest sense could be divided into three aspects, comprising the actual assessment itself and the model used (*the process*), the assessors (*the subject*) and the *assessed* (*the object of the assessment conducted by the assessors*). The URT intended to look at formative assessment models. The other two aspects were therefore rejected (see APU Assessment review-specific keywording sheet, section 6c).
- Criterion 16: *Included*: Only studies that took place at the post-developmental stage of assessment. *Rationale*: The review question demanded that an assessment instrument, if it were to be examined through data-extraction, must be tested, not at the developmental/experimental stage of its life (see *EPPI-Centre Core Keywording Strategy* (version 0.9.6: 2003), section 10a. Unwanted studies were excluded via the 'Development of Methodology' keyword).
- Criterion 17: *Included*: Only studies that focus on the assessment of the school-based experience. *Rationale*: The review question focuses on only this phase of ITT because this was where issues about 'authentic assessment' (Willis and Davies, 2002) and teaching rather than academic ability come into sharpest focus (see APU Assessment review-specific keywording sheet, section 9b).
- Criterion 18: *Included*: Only studies that focused on formative not summative assessment. *Rationale*: The review question demanded that only formative,

fashioning forms of assessment were of interest (see APU Assessment review-specific keywording Sheet, section 6b).

## **2.2.5 Identifying and describing studies: quality assurance process**

### ***Application of inclusion and exclusion criteria***

First, during the application of the inclusion and exclusion criteria, the first ten abstracts were screened by the URT to ensure parity of approach. Second, 20 abstracts then had the inclusion and exclusion criteria applied by independent members of the URT and were then compared with other URT members' results. Finally, 20 abstracts then had the inclusion and exclusion criteria applied by EPPI-Centre personnel, who then compared results with the URT.

### ***Keywording***

First, during keywording the first two papers were worked on with the URT to ensure parity of approach. Second, the rest of the papers were keyworded by independent members of the URT, and then compared with other URT members' results. Finally, ten papers were keyworded by EPPI-Centre personnel who then compared results with the URT.

## **2.3 In-depth review**

### **2.3.1 Moving from broad characterisation (mapping) to in-depth review**

Following the keywording process and the development of the systematic map, the URT could have:

- gone straight to the 'in-depth review'
- undertaken a two-stage process in which narrower inclusion criteria were first applied, followed then by an 'in-depth review'

The second choice was chosen because the studies included in the descriptive map were not all deemed of high relevance, and so their inclusion in the in-depth review would not have been worthwhile.

Moving from the broad characterisation of the field to the in-depth review involved devising a series of searches using keywords that would identify relevant studies for data-extraction and inclusion in the in-depth review. Having combined these searches and therefore having identified the studies most likely to answer the review question, a further screening stage was included for the purpose of assessing the relevance of each of these studies. Having determined this, further inclusion and exclusion criteria were applied. Studies that met all of the criteria and were deemed of high relevance, though not necessarily of high trustworthiness, were identified and data-extracted.

### **2.3.2 Detailed description of studies in the in-depth review**

The studies identified for possible inclusion in the in-depth review were data-extracted using the *EPPI-Centre Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research* (version 0.9.5: EPPI-Centre, 2002).

### **2.3.3 Assessing quality of studies and weight of evidence for the review question**

In light of the data-extraction outcomes, the quality and weight of evidence for the studies were assessed. To do this, they were rated according to three dimensions: (A) soundness of the study (i.e. internal coherence and implementation of design), (B) relevance of research design and analysis employed to the review question, and (C) external relevance. On the basis of how a study was rated on each of these three, an overall weighting (D) was given (see section 4.3).

### **2.3.4 Synthesis of evidence**

The relevant information for this section was identified during data-extraction. In section 4.3, the studies included in the in-depth review are assessed and synthesised with reference to the weight of evidence they were awarded during their data-extractions.

### **2.3.5 In-depth review: quality assurance process**

Of the data-extraction, 100 percent was carried out by the URT and two reports were data-extracted by an EPPI-Centre representative who then compared results with the URT.

### 3. IDENTIFYING AND DESCRIBING STUDIES: RESULTS

This chapter outlines the search strategy employed to identify studies for the systematic review and describes the nature and extent of research within the field.

#### 3.1 Studies included from searching and screening

The number of studies identified by the search process and included in different stages of the process of the review are shown in Figure 3.1. Table 3.1 illustrates the process of identifying, obtaining and describing papers for the review. Incorporating all of the searches, the total number of papers prior to the next stage of screening (which involved scanning the abstracts and titles and excluding those outside of the geographic area and not in English) was 668.

**Table 3.1:** Flow of papers from searching to inclusion in map

Number of prospective studies in the field	?
Number of 'hits' using a controlled vocabulary	668
Reports that met criteria 1 to 11 on basis of abstract	233
Reports excluded because they were duplicates	9
Reports not received or unobtainable	21
Reports excluded because they were ERIC digests	109
Reports excluded through reapplication of criteria 1 to 11	12
Total full reports excluded	151
Total full reports keyworded	82

**Note:** The figure for the first row is not known as it is the sum of every paper on the ERIC, BEI, and Education Line databases.

The total number of papers included after the application of inclusion and exclusion criteria 1 to 11 was 233. Of these, 109 papers were then excluded because they were digests, seven because the abstract or full citation had not indicated that they were outside of the timeframe, one because it was not actually about trainee teachers, and nine because they were duplicates. The papers from Education Line (N=4) were not deemed relevant for further inclusion once they had been exposed to criteria 1 to 11. Unfortunately, 21 papers were either not received by the deadline (10 March 2003) or were unobtainable.

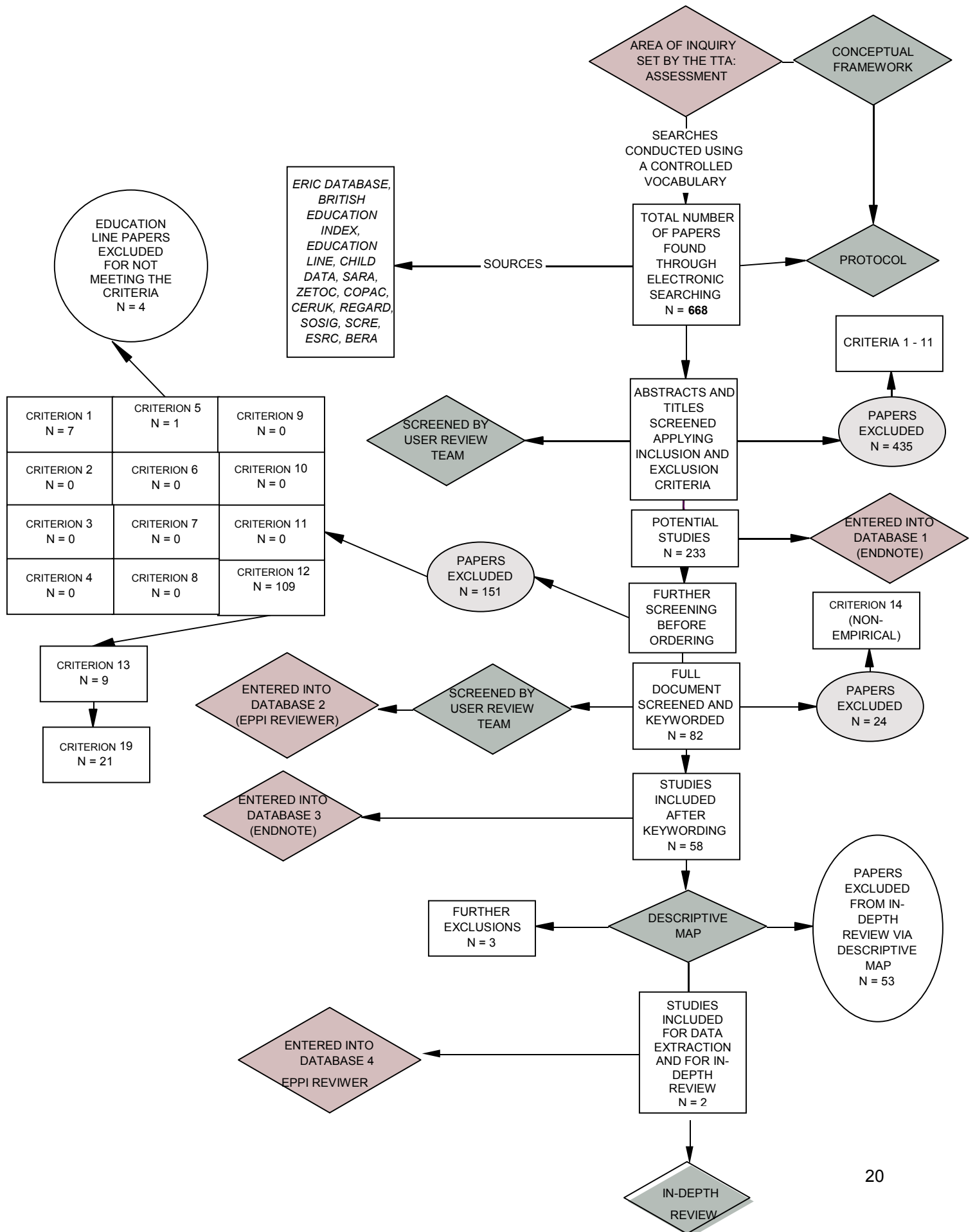
Table 3.2 presents the origin, by database, of all the papers.

**Table 3.2:** Origin of papers by electronic database

<b>Database</b>	<b>Found</b>	<b>Checked</b>	<b>Keyworded</b>	<b>Empirical</b>
ERIC	573	204	60	42
British Education Index	66	25	22	16
Education Line	29	4	0	0
<b>Total (mutually exclusive)</b>	<b>668</b>	<b>233</b>	<b>82</b>	<b>58</b>

No additional studies were found through the searches of CERUK, Regard, SOSIG, SCRE, ESRC, Child Data, SARA, Zetoc, OPAC and COPAC.

**Figure 3.1: Filtering of studies from searching to map**



## 3.2 Characteristics of the included studies

Eighty-two included papers were keyworded using the *EPPI-Centre Core Keywording Strategy* (version 0.9.6: EPPI-Centre, 2003). Whilst the *EPPI-Centre Core Keywording Strategy* (version 0.9.6: EPPI-Centre, 2003) was designed for characterising only papers based on empirical research (i.e. *reports* of actual *studies*), the URT uncovered a number of papers that had no empirical foundation, and were instead conjectural, philosophical or positional. This may have been symptomatic of the subject area, which often appears to feature large numbers of proposals and suggestions for models for assessment purposes without an empirical base. Of the 82 keyworded papers, 58 (71%) were empirical and 24 (29%) non-empirical. Only 58 papers, therefore, qualified as 'reports' according to the working definition used by EPPI-Centre (see *EPPI-Centre Core Keywording Strategy*, version 0.9.6, 2003; section 7). Although all 82 items were left on EPPI-Reviewer, only 58 could reasonably be keyworded under section 10 of the EPPI-Centre Educational Keywording Sheet; these feature in the descriptive map. All studies included in the map were written in English and of published status.

*For full bibliographic details and keywords for the 58 included studies, see Appendix 3.1.*

Table 3.3 shows the number and proportion of studies according to the country in which they were conducted. Most studies were conducted in the US (35: 60.3%). The second largest exponent of studies was the UK (13: 23.4%). Three studies fell outside of the geographic area (two from China, one from Nigeria). This was because the country of origin was not indicated on either the abstract or full citation, and so the full text was ordered and read. Keywording was completed on all full texts that were obtained within the timeframe; this included the three studies that would normally have been excluded by Criterion 2. These figures may reflect bias within the bibliographic database sources searched towards reports published within the US and the UK.

**Table 3.3:** Frequency report: In which country/countries was the study carried out? (Coding was mutually exclusive.)

Country	Number	Percentage (%)
United States	35	60
United Kingdom	13	23
Australia	2	3
Canada	2	3
China	2	3
US, Luxembourg, Germany and Austria	1	2
United Kingdom and Germany	1	2
Ireland	1	2
Nigeria	1	2
<b>Total (number of studies = 58)</b>	<b>58</b>	<b>100</b>

Table 3.4 describes the educational settings of the 58 studies. A study could be conducted in more than one setting, and in most studies that focused on the school

experience of trainees both sectors were featured. This is reflected by 22 studies focusing on both the primary and secondary school settings.

**Table 3.4:** Frequency report: What is/are the educational setting(s) of the study? (Coding was not mutually exclusive.)

Attribute	Number	Percentage of studies (%)	Percentage of all coding (%)
Higher education institution	39	67	43
Primary school	22	38	24
Secondary school	22	38	24
Special needs school	3	5	3
Home	2	5	3
Nursery school	2	5	3
<b>Total (number of studies = 58)</b>	<b>90</b>	<b>158 (100/58)</b>	<b>100 (100/90)</b>

Table 3.5 shows the population focus of the studies, whilst Table 3.6 shows the sex of the learners, being as they were the overwhelming population focus of the 58 studies (55: 74.3%). A number of these studies also focused on teaching staff (14: 18.9%). The majority of the studies focusing on learners reported mixed sex participants (50: 90.9%). A small number of studies were undertaken using only female trainees (5: 9.0%), whilst none was undertaken involving only males.

**Table 3.5:** Frequency report: What is/are the population focus/foci of the study? (Coding was not mutually exclusive.)

Attribute	Number	Percentage of studies (%)	Percentage of all coding (%)
Learners	55	95	74
Teaching staff	14	24	19
Other population focus	4	7	5
Senior management	1	2	1
<b>Total (number of studies = 58)</b>	<b>74</b>	<b>127 (100/58)</b>	<b>99 (100/74)</b>

**Table 3.6:** Frequency report: Sex of learners (Coding was mutually exclusive and depended upon the population focus of the study.)

Attribute	Number	Percentage of studies (%)	Percentage of all coding (%)
Female only	5	9	9
Male only	0	0	0
Females and males	50	86	91
<b>Total (number of studies = 58)</b>	<b>55</b>	<b>95 (100/58)</b>	<b>100 (100/55)</b>

The loading of gender in these studies may be an indication of dated research in the field, for the absence of studies using exclusively male participants is perhaps surprising in light of the attention males have received in recent years regarding assessment and attainment (Stobart and Gipps, 1997). On the other hand, with only



14 percent of primary schoolteachers reported to be male, and only a few more males reported to be secondary teachers, it is perhaps *not* surprising that five studies deal exclusively with females and none with males. The gender loading may reflect the average loading of an ITT course, or may simply have been accidental, i.e. no males happened to be on the ITT courses selected for investigation.

Table 3.7 shows how the studies were weighted when assessment was conceptualised as a system involving three aspects. In this system, the assessment was the *process*, the assessors were the *subject* and the assessed were the *object*. The majority of the studies (32: 51.6%) focused on the assessment process and would therefore be included within Criterion 15.

**Table 3.7:** Frequency report: Main agent within assessment on which the study focuses (Coding was not mutually exclusive.)

Attribute	Number	Percentage of studies (%)	Percentage of all coding (%)
Assessors	5	9	8
Assessment	32	55	52
Assessed	25	43	40
<b>Total (number of studies = 58)</b>	<b>62</b>	<b>107 (100/58)</b>	<b>100 (100/62)</b>

Table 3.8 shows the overall distribution of reports according to study type. Many of the studies were evaluative and therefore more suited to answering the review question than the other types of study. Development of methodology (6:10.3%) described studies in which the principal focus was on the development of the assessment instrument, drawing on empirical research to construct a model of assessment. These six studies did not meet Inclusion Criterion 16.

**Table 3.8:** Frequency report: Which type(s) of study does this report describe? (Coding was not mutually exclusive.)

Attribute	Number	Percentage of studies (%)	Percentage of all coding (%)
Evaluation: Researcher-manipulated	17	29	29
Evaluation: Naturally occurring	16	28	28
Description	13	22	22
Development of methodology	6	10	10
Exploration of relationships	5	9	9
Review: Other review	1	2	2
<b>Total (number of studies = 58)</b>	<b>58</b>	<b>100 (100/58)</b>	<b>100 (100/58)</b>

Table 3.9 cross-tabulates types of assessment with the phase of the ITT course. These phases were not intended to be comprehensive; their selection was deliberate. 'Initial pre-student recruitment' was included because a genus of studies focusing on predicting trainee teacher success was identified during previous screening stages. 'School-based experience' was a key component within the review question; in order to be included beyond the descriptive mapping stage the study would have to be focused on this and take a formative model as its particular

interest. The phrases 'Exit practices', 'Career Entry Profile' and 'Statutory Induction' all related to the request of the TTA to avoid studies that focused on the CEP. Thirty-five studies of the 58 would therefore be included under Inclusion Criterion 17.

**Table 3.9:** Cross-tabulation (x-axis: phase of ITT that is the focus of the study; y-axis: type(s) of assessment on which the study focuses)  
(Total number of studies = 58. Coding was not mutually exclusive.)

Type of assessment / phases of ITT	Initial pre-student recruitment	School-based experience	Exit practices	Career entry profile	Statutory induction
Formative assessment	0	35	2	0	3
Summative assessment	0	12	3	0	2
Ipsative assessment	0	4	1	0	0
Self-assessment	0	13	1	0	0
Portfolio assessment	0	8	2	0	0

### 3.3 Identifying and describing studies: quality assurance results

#### 3.3.1 Application of inclusion and exclusion criteria

The first ten titles and/or abstracts were completed with the URT to ensure parity of approach. In addition, 20 titles and/or abstracts then had the inclusion and exclusion criteria applied by independent members of the URT and were then compared with other URT members' results. Finally, 20 titles and/or abstracts, having been screened by members of the URT, then had the inclusion and exclusion criteria applied by EPPI-Centre personnel, who compared results with the URT. The quality assurance result was that the EPPI-Centre representative was more exclusive. Of the 20 abstracts screened by the EPPI-Centre, ten of which the URT had included and ten excluded, 14 were excluded. The ten URT exclusions were included in this figure. Whilst the URT had an exclusion rate of 50 percent, the EPPI-Centre applied a 70 percent exclusion rate. This satisfied the URT's aim to be over-inclusive.

#### 3.3.2 Keywording

The first two papers were keyworded with the URT to ensure parity of approach. The rest of the papers were then keyworded by independent members of the URT and compared with another URT member's result. Finally, ten papers were keyworded by EPPI-Centre personnel who then compared results with the URT. The quality assurance result was that section 10a of the EPPI-Centre Educational Keywording Sheet (version 0.9.6) was the only area where EPPI-Centre and the URT differed. As a result, section 10a on all papers was re-keyworded by the research members of the URT in close contact with EPPI-Centre personnel to ensure agreement.

## 4. IN-DEPTH REVIEW: RESULTS

This chapter details the studies included in the systematic review, drawing on the data-extracted using *EPPI-Centre Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research* (version 0.9.5: EPPI-Centre, 2002).

### 4.1 Selecting studies for in-depth review

Table 4.1 is a representation of the combined search strategy used by the User Review Team to exclude studies. This strategy was devised combining keywords from both the EPPI-Centre Educational Keywording Sheet (version 0.9.6) and the APU Assessment review-specific keywording sheet. The third column refers to the sections on these two sheets, which must be viewed together. The review-specific keywords were devised specifically for the purpose of identifying reports that would answer the review question. The strategy was a means by which 58 reports were reduced to a number manageable in a systematic review lasting less than three months.

**Table 4.1:** Search strategy

Search	Keyword	Section	Number of hits
1	Assessment	6	50
2	Formative assessment	6b	43
3	Assessment	6c	32
4	Learners	8	53
5	Mixed sex	8b	50
6	Undergraduate trainees OR Post-graduate trainees	8c	48
7	Primary school OR Secondary school	9	34
8	School-based experience	9b	47
9	Evaluation OR Evaluation: naturally occurring OR Evaluation: researcher-manipulated	10a	33
10	Empirical	10c	58
11	1 AND 2 AND 3 AND 4 AND 5 AND 6 AND 7 AND 8 AND 9 AND 10		5

Search 1 identified all the studies in which the main topic was assessment. Search 2, using the review-specific keywords, determined those studies that focused on formative assessment more than any other from, such as summative or ipsative. Search 3 pooled all the studies that concentrated on assessment models rather than the assessors and/or the assessed. Search 4 ensured that the main population focus of the studies included was student teachers; Search 5 that the sample used was of mixed gender; and Search 6 that the trainee teachers were undergraduates

or post-graduates. Searches 7 and 8 both ensured that the studies retrieved focused on the school-based experience and therefore concentrated on performance-based assessment studies with a formative slant. Search 9 ensured that only evaluative studies were included. Search 10 was to double-check that only empirical studies had been included.

The *five* studies remaining after the descriptive map are as follows:

- Berg M and J Curry (1997) Portfolios: what can they tell us about student teacher performance? *Social Studies Review* **36**: 78-84.
- Brucklacher B (1998) Cooperating teachers' evaluations of student teachers: all 'A's'? *Journal of Instructional Psychology* **25**: 67-72.
- Fishman AR and EJ Raver (1989) 'Maybe I'm just NOT teacher material': dialogue journals in the student teaching experience. *English Education* **21**: 92-102.
- Fitzgibbon A (1994) Self-evaluative exercises in Initial Teacher Education. *Irish Educational Studies* **13**: 145-164.
- Willis EM and MA Davies (2002) Promise and practice of professional portfolios. *Action in Teacher Education* **23**: 18-27.

The five studies that seemed to meet the inclusion criteria for the in-depth review according to the keyword codings were then re-examined in detail. Three of the studies were then judged not to meet the second set of inclusion criteria (criteria 14 to 18). It was necessary to reconsider the studies that were included using a keyword search because some of the review-specific keywords required a high level of inference. Three of the studies could have been differently and perhaps more suitably keyworded.

The keywords that affected the keyword search in the way described above were all review-specific. This is not therefore an admission of inaccurate keywording of keywords from the *EPPI-Centre Core Keywording Strategy*, version 0.9.6 (2003).

The *two* included studies were as follows:

- Berg M and J Curry (1997) Portfolios: what can they tell us about student teacher performance? *Social Studies Review* **36**: 78-84.
- Willis EM and MA Davies (2002) Promise and practice of professional portfolios. *Action in Teacher Education* **23**: 18-27.

The *three* excluded studies were as follows:

- Brucklacher B (1998) Cooperating teachers' evaluations of student teachers: all 'A's'? *Journal of Instructional Psychology* **25**: 67-72.

- Fishman AR and EJ Raver (1989) 'Maybe I'm just NOT teacher material': dialogue journals in the student teaching experience. *English Education* **21**: 92-102.
- Fitzgibbon A (1994) Self-evaluative exercises in Initial Teacher Education. *Irish Educational Studies* **13**: 145-164.

Details of these three excluded studies are given in Appendix 4.1.

To summarise, having developed a map that describes the field of assessment of trainees during their initial teacher training (ITT), a combined search was undertaken using EPPI-Reviewer. The result of this combination search was five reports. On further inspection, three of the number were judged to be unfit for data-extraction. Two reports remained. Prior to data-extraction, therefore, the paucity of studies that took as their main focus formative assessment, trainee teachers and school-based experiences, was palpable. Only two studies were identified that were closely relevant. Assessment in ITT, therefore, falls into an obvious gap in assessment research.

## 4.2 Further details of studies included in the in-depth review

For detailed descriptions and analysis of the studies, see Appendix 4.1.

The Berg and Curry (1997) study investigated portfolios as tools for increasing professional and personal development whilst at the same time providing a means for assessment of trainee teachers. It focused on 30 trainees, monitoring and assessing their portfolios at three times during one year. The portfolio structure was devised by a team of professors, supervisors and cooperating teachers. Four headings were identified, within which questions were asked of the portfolio contents and answers assessed. Ratings were given according to three categories.

The Willis and Davies (2002) study similarly investigated portfolios as tools for increasing professional development, whilst at the same time providing a means for trainee teacher assessment. It focused on 93 trainees and, instead of determining the effectiveness of the portfolio through interventions, the study drew upon data from a questionnaire requiring trainee teachers to reflect on the portfolio component of their ITT courses in retrospect.

## 4.3 Synthesis of evidence

To determine how the evidence in the two studies relates to the question and the aims of the review, it is necessary to examine the five objectives that are implicit in the review question:

1. To DESCRIBE the best studies that focus on formative models for assessing trainees

2. To evaluate only studies that make POSITIVE claims about the models they examine
3. To evaluate a number of DIFFERENT models to compare and contrast
4. To determine what the different models actually ASSESS
5. To evaluate how good teaching is CONCEPTUALISED

Objectives 1 and 2 were achieved. Objectives 3, 4 and 5 proved to be more problematic.

Using EPPI-Centre questions for review-specific weight of evidence, a number of questions were asked of the data-extracted studies. Table 4.2 summarises the outcomes of these questions, following which is a more extensive explanation of these questions.

**Table 4.2:** Weight of evidence

Study	A	B	C	D
Berg and Curry (1997)	Low	Medium	Low	Low
Willis and Davies (2002)	Medium	Medium	High	Medium

### 4.3.1 Weight of evidence A

*Weight of evidence A: The trustworthiness of the findings of the studies in answering the study questions, taking account of all quality assessment issues*

The Berg and Curry (1997) study would have been difficult to undertake differently. If one wishes to research the use of portfolios in trainee teacher development and growth, then getting trainees to keep a portfolio and assessing it is the obvious choice of method. No information, however, is given about why the particular contents of the portfolios were appropriate nor why they were used. Without significantly more information about the subjective nature of the analysis, bias is inherent in this study. Furthermore, the results are not generalisable without much more contextual information. In US and San Diego terms, one feels certain that there is the basis of a good study. However, the evidence provided is scant both conceptually and empirically, making the findings of the study of low trustworthiness. Results, discussion, conclusions and implications all flow into one another and have to be interpreted.

There is an element within this study that the 'desired' outcomes, which are only implicitly stated, were achieved. There is, however, no argument presented as to whether or why some students were less effective in their portfolios, for example. It is hard to agree or disagree with the findings and conclusions without further information or evidence.

In the Willis and Davies (2002) study there is a loose connection between the climate described in the introduction and the actual study, but no sound justification,

reasoning or apologetic is discernible. Decisions are rarely made explicit, nor are they given a rationale. The questionnaire seems to have been the best, perhaps only way, to have drawn data retrospectively on the portfolio component of the ITT course. Interviews would have been an alternative, for better or worse.

There is no deliberation on the possible shortcomings and flaws of the questionnaire and the collection of it in the Willis and Davies (2002) study. One major shortcoming may be that the Likert scale is four-pronged, instead of the more common five-pronged scale. One school of thought advocates that there is no room for indifference on a four-pronged scale, as everything is either agreeable or disagreeable, to different degrees, and there is no middle ground. Another school of thought, however, advocates that the four-pronged Likert scale is better than the five-pronged one, because it forces participants off the fence. With middle ground, as well, there is the potential for drawing conclusions either way, and seeing them as positive or negative. Use of the four-pronged scale is not given a rationale.

The data-extractor (the questionnaire) used in the Willis and Davies study is based mainly on a set of former survey questions. To some degree, it builds on a tried and tested base. This could be a minor validity assurance measure if the reasoning behind this appropriation was explained.

Although the findings of the study are for the most part reported in the section 'Survey Results', there are obvious omissions. Table 1, for example, does not present all the questions and therefore omits a lot of the data. Because the entire process is not adequately described, the research method and design is not easy to follow; therefore the chance that bias and error have distorted the findings is quite high.

Regarding the generalisability of the findings of the Willis and Davies study, there is nothing to suggest that the sample would seriously differ from any other taken from an average ITT course. The findings, therefore, could safely be applied to other courses, especially within the US.

Although the research design and method is not made explicit, and this naturally raises questions about the reliability and validity of the findings, the data and the assertions in the Willis and Davies study made from the data were fairly trustworthy, insofar as the study is a simple one, without a huge margin of error.

Regarding the data, therefore, the Willis and Davies study is fairly sound. Quantitative data without complex statistical analysis applied cannot really be interpreted in too many ways, so this is fairly trustworthy. The qualitative data is the untrustworthy component of the report. As we cannot see the original questionnaire in its entirety, we cannot fairly assess the validity of the questions, but the report does draw a clear distinction between the findings and the conclusions drawn from them. Formulating a conclusion independently from the conclusion in the report is therefore possible.

Since the study is not completely traceable, high trustworthiness for the findings of the study cannot be awarded, but because it presents most of the data before it interprets it and draws conclusions based on common sense, it can be awarded

medium trustworthiness. The Willis and Davies study, therefore, scores a higher level of trustworthiness regarding findings than the Berg and Curry (1997) study.

The concluding section of the Willis and Davies (2002) study, more than anything, synthesises the findings rather than interprets them. The section on page 25, which offers possible implications and recommendations, is the most interpretative part. No real justification is offered, however, for the concluding section, but the conclusions are, at the same time, not implausible. The conclusions drawn from the findings are the same as those the reviewer would make.

### 4.3.2 Weight of evidence B

*Weight of evidence B: The appropriateness of the research design and the analysis of the studies for addressing the review question*

The Berg and Curry (1997) study addresses one particular model of formative assessment, that of portfolios. The development and use of these portfolios is described within the study in some detail. How the research was conducted is also outlined with reasonable clarity. The research design, however, is vague in terms of the sample and the context of the research, as well as in terms of how the data were analysed. The findings and conclusions of the study concentrate mainly on what the trainees said in their portfolios, using their statements and comments as indicative of professional and personal development. A better means of data-collection for the purpose of this review would have been interviews after completion of the portfolios to determine how the trainees evaluated the use of portfolios as a means of formative assessment of their skills and understandings. Owing to the limited appropriateness of the research design and analysis for addressing the question for this systematic review, the study was of limited trustworthiness. However, the study does describe a formative model of assessment (Objective 1) and does give it a positive evaluation (Objective 2). The Berg and Curry (1997) study, therefore, scores a medium level of trustworthiness.

Similarly, the Willis and Davies (2002) study offers the portfolio as a model for assessing trainees formatively during their school experience and the rest of the course. The study focuses on the presentation or 'exhibition' of portfolios, although in this context portfolios could be seen as summative, because the presentation of them takes place at the end of the course. That they are deemed formative by the authors is discernible from the fact that key concepts and actions are incorporated within the formative sphere. Examples of these are reflection, self-evaluation, professional development, self-confidence and communication skills. This particular study also describes an assessment model (Objective 1) and makes a positive evaluation of the portfolio, so it does describe a 'successful model' of formative assessment (Objective 2).

The research design and analysis of the Willis and Davies (2002) study are suited to the review question because they combine qualitative and quantitative data, and they also establish from the trainees directly their views on portfolios as a means of formative assessment. Transcribed interviews might have been a better option, if the data were reported satisfactorily, but a questionnaire is a suitable method, and from what is deducible from the findings, the questions asked were ones that the User



Review Team (URT) thought worth answering. The Berg and Curry (1997) study is perhaps less informative because of its failure to collect data relating to portfolios *per se*, although neither of the studies draws conclusions that are completely free from bias.

The URT wanted to determine what is known about formative models, and in the Willis and Davies (2002) study, possible benefits and shortcomings are suggested. The second part of the review question, 'what constitutes effective practice...' is not answerable using this study, however, because it does not focus on an exact model for assessing but explores an assessment tool. The Berg and Curry (1997) study does use a more exact model, but fails to report in sufficient detail. The criteria used for assessing portfolios in the Willis and Davies study are not presented in sufficient detail for the URT to determine how that particular college personnel conceptualise good teaching or to answer the question 'What constitutes good teaching?' What the college personnel in the Berg and Curry (1997) conceptualise as good teaching is easier to determine (p 80). For example, regarding portfolios, a good teacher should have the...

- ability to reflect clearly on own growth and change
- ability to discuss strengths and weaknesses of performance
- ability to address cross-cultural and language development infusion.

Both studies employ appropriate research designs to a degree, and both draw conclusions that make positive evaluations of portfolios as a formative assessment model. Both studies, therefore, satisfy the first two objectives of the review question. It is, however, the quality of the reporting of the research designs and analyses that are problematic. If everything that had been learned by the researchers had been reported, then it would be possible to answer more comprehensively 'what is known...' and 'what constitutes effective practice', but unfortunately what is reported is limited.

In the Willis and Davies (2002) study, the questionnaire used to collect the data is not represented in its entirety. In the Berg and Curry (1997) study, the methods of data analysis used are not stated and the 'reflective questions' that the assessors asked of the portfolios are only represented by four broad 'areas' (p 80). General conclusions can be drawn about portfolios from both studies, but no exact models for either (i) the portfolios, (ii) the assessment of them, or (iii) acquiring feedback about them are offered that are trustworthy, with adequate validity and reliability measures taken. Both studies score a medium level of trustworthiness in this area.

### 4.3.3 Weight of evidence C

*Weight of evidence C: The relevance of the particular focuses of the studies, including their conceptual focus, context, sample and measures for addressing the review question*

In the Berg and Curry (1997) study, the portfolio is relevant to the research question, but the conceptual basis of portfolios is only minimally revealed and the context is not described or explained. The authors do not give information on the sample although we know there were 30 students involved. The stage in their training is

unknown, as is the duration or level of their course. We do know that the portfolios were kept for one academic year and that they were monitored through three stages (initial, medial and towards the end of the year) but we are not told much more. It is frustrating that a study that potentially has direct relevance to the research question is so poorly reported and fails to collect feedback from the trainees.

The relevance of the Willis and Davies (2002) study to the review question is high because it focuses on undergraduate trainee teachers on a course that balances theory and practice (p 19) whilst seeking to investigate an instrument that may eventually lead to a more 'authentic assessment' (p 18). The context, sample and conceptual focus, therefore, are perfectly suited to the review question. The problem is that the means by which the teacher educators and peers evaluated the portfolios is not revealed, which may have helped the URT more readily to conceptualise what the college personnel perceived good teaching to be. The report reveals that the portfolios and the presentation of them were examined 'on the rubric of professionalism, organisation of presentation, delivery, and responses to questions', but no more detail is given.

#### 4.3.4 Weight of evidence D

*Weight of evidence D: Taking into account the quality of the execution, the appropriateness of the design and the relevance of the focuses of the studies in answering the review question...*

Overall, both studies would have been highly relevant had the reporting of research design and methodology been better. The Berg and Curry (1997) study, in US and San Diego terms, is probably a good study because interested parties there would understand the various aspects of portfolio use in that context. However, the evidence provided is scant in both conceptual and empirical terms, meaning that it can have only low trustworthiness for the purposes of answering the review question, satisfying only two of the five objectives. The findings need considerable interpretation in order to answer the review question, as there is little depth to exploring how the outcomes were reached and how the conclusions drawn relate to summative assessment specifically. Many of the findings have to be interpreted and conclusions drawn by the reader.

The Willis and Davies (2002) study is relevant and the research design and methodology is generally appropriate. However, the validity of the conclusions is questionable as the analysis is sometimes vague and there are gaps in the reporting.

It is arguable whether either study is in any way replicable. It is also regrettable that neither study used controlled trials to determine whether the portfolios either enhanced professional development or merely recorded natural development over the course of the training.

With regard to the background to this review (Chapter 1), both studies offer models of assessment that emphasise the equal weighting of process and product in learning, teaching and evaluation (Stobart and Gipps, 1997). However, neither study offers a standardised form nor individual items for the portfolio that are subject to validity and reliability measures. Neither study engages in the current debate about

fair testing nor the notion of multiple assessments, although both imply that the need for authentic assessment motivated the studies. The Willis and Davies (2002) study refers directly to 'authentic assessment' (p 18), whilst the Berg and Curry (1997) study states that the portfolio would 'also embody an attitude that assessment is dynamic and that the best representations of student teacher performance are based on multiple sources of assessment collected over time in authentic settings' (p 78).

In regard to the aims of this review (section 1.1.1), neither the validity nor the reliability of the assessment models are adequately explored (Martin, 1997). Owing to the lack of reliability measures, a way of making an assessment that is a 'replicable finding' is not forthcoming (Hartsough, 1998). As a result, 'minimising the number of wrong classifications' is not possible from the results of the studies either (Martin, 1997). Both studies do, however, support the belief that portfolios can be used for the purpose of selection and grading, diagnosis and remediation, motivation, and recording and reporting (Mahoney and Knox, 2000).

## 4.4 In-depth review: quality assurance results

Each study was data-extracted using the *EPPI-Centre Guidelines for Extracting Data and Quality Assessing Primary Studies in Educational Research* (version 0.9.5: EPPI-Centre, 2002) by two separate reviewers in isolation from one another. The extractions were then compared, discrepancies were discussed and changes were negotiated. A third version of the data-extraction was then amended to reflect the agreement of both reviewers. Both studies registered an excellent inter-rater reliability score. The Berg and Curry (1997) study was 0.85 whilst the Willis and Davies (2002) study was 0.91. The double-reviewed data-extractions were then quality assured by an independent member of the User Review Team. The agreed ('triple-reviewed') data-extractions were then quality assessed by an EPPI-Centre team representative. There were again few discrepancies. The Willis and Davies (2002) study had an inter-rater reliability score of 0.92, as did the Berg and Curry (1997) study. To work out the degree of correlation between the coding of the two raters, we used Cohen's Kappa. Table 4.3 represents these scores.

**Table 4.3:** Inter-rater reliability

<b>Study</b>	<b><i>Internal kappa score (between URT personnel)</i></b>	<b><i>External kappa score (between APU and EPPI- Centre personnel)</i></b>
Berg and Curry 1997	0.85	0.91
Willis and Davies 2002	0.92	0.92

## 4.5 Nature of actual involvement of users in the review and its impact

The User Review Team was involved in the review at all stages: the screening of abstracts, the screening of full texts, keywording, and data-extraction. They brought

to the review their expertise and ensured that the questions asked and the consequent findings were of use. Some challenges were experienced by the teachers and tutors within the team because of the speed with which all the processes had to occur in the review period (less than three months). For this reason, the majority of the inputting of the studies into EPPI-Reviewer were undertaken by the URT Administrator to save time and inconvenience for the teacher and tutor members of the team. All team members, however, checked their data inputs for accuracy.

## 5. FINDINGS AND IMPLICATIONS

This chapter details the findings and implications of the in-depth review and the descriptive map.

### 5.1 Summary of principal findings

In this section, findings are drawn from the three studies that were excluded prior to data-extraction, as well as the two that were included.

On account of the limited trustworthiness of all studies, mainly due to missing details in the report and failure to detail the methods for data gathering and analysis (see section 4.2), the benefits and problems below must be treated with caution.

The two data-extracted studies focused on portfolios.

#### 5.1.1 Benefits of the excluded studies

Portfolios are distinct from *profiles* in that they represent a collection of work and reflections based on a loose, interpretative structure rather than checklists of responses to competencies and statements related to teaching. They offer a more constructivist approach to assessment.

It is also argued by the authors of the two studies that the portfolios are a successful means of assessing teacher trainees during school experience insofar as they:

- are generally perceived to be 'worthwhile' by trainee teachers (Willis and Davies, 2002, p 20; cf. Reis and Villaume, 2002, in which the 'time versus worth' problem is explored in relation to portfolio assessment)
- perpetuate professional growth and development (Berg and Curry, 1997, p 82)
- allow trainee teachers to express themselves creatively as teachers (Willis and Davies, 2002, p 20). The majority of trainee teachers felt that their portfolio 'uniquely represented themselves' (Willis and Davies, 2002, p 22).
- provide insight into teaching and the impact it has on pupil learning (Berg and Curry, 1997, p 82; Willis and Davies, 2002, p 20)
- help trainee teachers to work towards making meaning comprehensible for all pupils (Berg and Curry, 1997, p 82)
- allow trainee teachers to reflect on what is 'fun' and 'motivating' to pupils (Berg and Curry, 1997, p 82)
- allow trainee teachers to reflect on their practice *per se* (Willis and Davies, 2002, p 20)
- create a 'strong bond' between the assessors and the assessed (Berg and Curry, 1997, p 84)
- encourage all involved in the assessment process to 'join as collaborators in learning' (Berg and Curry, 1997, p 84)

- are more popular with trainee teachers when they have 'ownership and decision making about the portfolio categories' (Willis and Davies, 2002, p 20)
- create awareness of personal and professional growth (Willis and Davies, 2002, p 20)
- increase self-confidence in terms of presentation (Willis and Davies, 2002, p 22) and improve trainee teachers' speaking and interviewing skills (Willis and Davies, 2002, p 24)
- prepare trainee teachers for their 'job search' (Willis and Davies, 2002, p 22)
- help trainee teachers, when used in relation to National Standards, to reflect on those Standards and how they could be incorporated and represented in the portfolio (Willis and Davies, 2002, p 22)
- encourage self-perception as lifelong learners (Willis and Davies, 2002, p 24)

### **5.1.2 Problems with the excluded studies**

According to the authors of the studies, portfolios are problematic insofar as they:

- create problems for trainee teachers regarding format, selection and design (Willis and Davies, 2002, p 24)

### **5.1.3 Findings drawn from the excluded studies**

- Dialogue journals – in which both the assessor and the assessed keep journals – enrich the experience of both the trainee teacher and the cooperating teacher (Fishman and Raver, 1989).
- As stated by Willis and Davies (2002), the majority of trainee teachers find portfolios useful and claim their use increases reflection and self-awareness (Fitzgibbon, 1994).

### **5.1.4 Gaps in research**

During the course of the review, and especially after producing the descriptive map, what was most revealing was what the systematic review did not find, rather than what it did. As can be seen in section 3.2, the bulk of the studies were of US origin, with only 13 loosely relevant studies undertaken in the UK. Whilst the majority of the studies did focus loosely on formative assessment (40 in total), only ten of them involved portfolios. Moreover, whilst seven studies in the UK featured formative assessment to some degree, no UK studies focused on portfolio assessment. A likely explanation for this is the recent introduction of the CEP (arrangements for which were made only in 1999).

The User Review Team stands by the statement made in their original bid (and reiterated in section 1.1.1) therefore, that whilst the UK system has only recently started to explore the possibilities of portfolios, profiles, reflective journals and dialogic journals for purposes of assessment and professional development, the US systems have been dependent upon them for some time. That the two data-extracted studies were both conducted in the US suggests a real lack of good UK studies.

An unfortunate absence is that of the controlled trial. Whilst only 17 studies involved a controlled trial, neither of the data-extracted studies featured this type of research. It would have been useful to have had a study that started off with two groups together, with one exposed to a portfolio component or similar, and the other not.

### 5.1.5 Findings drawn from the map

Most studies of at least loose relevance to the review question were conducted in the US (35: 60.3%). The second largest exponent of studies was the UK (13: 23.4%). These figures may, however, reflect bias within the bibliographic database sources searched towards reports published within both of these countries. The exact physical settings of these studies were evenly conducted at primary and secondary schools (22: 24.4% for each).

Learners of various types were the overwhelming population focus of the 58 studies. With inclusion Criterion 5 specifying trainee teachers, it comes as no surprise that a number of these studies also focused on teaching staff. The majority of the studies reported on mixed sex participants (50: 90.9%) but a small number were undertaken using only female trainees (5: 9%), whilst none were undertaken involving only males.

The loading of gender in these studies may be an indication of dated research in the field, for the absence of studies using exclusively male participants is perhaps surprising in light of the attention males have received in recent years regarding assessment and attainment (Stobart and Gipps, 1997). On the other hand, with only 14% of primary school teachers reported to be male, and only a slightly larger percentage of males reported to be secondary teachers, it is perhaps not surprising that five studies deal exclusively with females and none with males. The gender loading may reflect the average loading of an ITT course, or may simply have been accidental (i.e. no males happened to be on the ITT courses selected for investigation).

The majority of studies were evaluative (33: 56.8%) and therefore more suited than other types to answering the review question. Development of methodology studies, which might also have been useful, were relatively few (6: 10.3%). These studies focused principally on the development of the assessment instrument, drawing on empirical research to construct a model of assessment.

## 5.2 Strengths and limitations of this systematic review

### 5.2.1 Strengths of this systematic review

The main strength of this review is that it identifies a number of factors affecting the use of portfolios as a formative assessment tool. However, it also reveals the need for significant further research into an area that has already received much recent attention, namely formative assessment. The general conclusions it draws from the data-extracted studies are informative in relation to portfolios, if not of high

trustworthiness. More reliable and carefully conceived studies need to be conducted, however, to inform the UK education system better about the use of portfolios and other means of formative assessment of trainee teachers.

### **5.2.2 Limitations of this review**

The main limitation of this review is that it cannot confidently recommend, without further research being undertaken, any successful models of formative assessment, nor can it offer any further insight into the debate of what constitutes effective formative assessment practices. Problems may stem from the review question itself, as well as from the research field. A systematic EPPI-Centre education review typically takes twelve months to complete; this particular review was undertaken in less than three months with a relatively small URT. Time to explore and change the question under review was, therefore, equally limited. Had more time been spent on exploring the various studies on formative assessment initially uncovered, it might have been possible to generate a different question with the potential to offer a richer outcome.

No research was uncovered that engaged in the debate about 'gendered' assessments, nor were any studies unearthed that contribute to the debate about structuralist models of learning (see Chapter 1).

A further limitation was that the map of research reported in Chapter 3 included three studies beyond the geographical inclusion criteria.

## **5.3 Implications**

### **5.3.1 Policy**

Evidence suggests that what appears to be a general move in the UK towards the incorporation of US-style reflective journals within ITT courses is potentially an advantageous move. They appear to increase professional and personal growth and allow teacher educators further insight into the depth of their trainee teachers' pedagogical knowledge. The decision of many higher education institutions (HEIs), such as Anglia Polytechnic University, to introduce a portfolio component to their ITT course, is supported by encouraging (but contestable) evidence that they may provide a suitable way forward. In the current push for 'authentic assessment', portfolios may offer 'the promise of identifying both a broader and more in-depth picture of an emerging teacher's thinking and behaviour than other, more traditional forms of assessment' (Berg and Curry, 1997, p 84).

### **5.3.2 Practice**

A corollary of the increased use of portfolios appears to be heightened confidence, metacognition and reflection, as well as professional and personal development in trainees. The introduction of portfolios may have positive implications with regard to the transition from good studentship to good practice in the classroom. 'In today's rapidly expanding field of hires, an assessment model that can shape professional



growth is very useful in creating the seamless fabric between preservice training and practice into the classroom' (Berg and Curry 1997:84).

### 5.3.3 Research

The absence of trustworthy research in all areas of ITT assessment, especially formative and portfolio assessment, is palpable. If portfolios are to become increasingly widespread for assessment purposes, their validity and reliability, and their ability to satisfy a more 'authentic assessment', must first be proven. There is also a noticeable absence of research that engages either the debate about 'gendered' assessments or the debate about structuralist models of learning.

## 5.4 Additional points

An EPPI-Centre systematic review would normally be scheduled as a twelve-month project. Because there are no dispensable stages in the process, this particular review had to condense twelve months work into three months. No stage could be bypassed. Putting this into operation was difficult and generated a large amount of work. One of the options available to the User Review Team in order to make the review more manageable was disengagement from the EPPI-Centre process.

Indeed, following the EPPI-Centre process resulted in a relatively small yield of usable studies. One of the available options was to take a step back and depart from the process at the descriptive mapping stage prior to data-extraction. This would have meant the presentation of more findings and a larger review, drawing on more studies. In order to address this issue and reach agreement, the URT scheduled a meeting at which they agreed to continue in alignment with the EPPI-Centre. Some of the reasons for this included the following:

- *The impossibility of making the review exhaustive:* Because of the limited timeframe, performing an exhaustive review was not possible. The need for a systematic review, therefore, was great. If the review was neither exhaustive nor fully systematic, it could not be informative. If the review was not exhaustive but was replicable and reliable, at least a large surface area of the field of research would be covered. Furthermore, what had and had not been synthesised would be explicit.
- *The need for evidence-informed policy and practice:* Policy and practice in education should ideally be informed by research that is not just empirical but also rigorous and trustworthy. By disengaging from the EPPI-Centre process, the URT would have perpetuated the view that was emerging of weak research in the field of assessment.
- *The need for transparency:* The team resolved that there would be no justification for making only part of the process transparent, and leaving the latter, perhaps most important stages of the review process, obscure or potentially subjective.

- *The need for standardised quality assessment:* To follow the EPPI-Centre process to the descriptive mapping stage and then depart from it would have denied the URT the opportunity to weigh the evidence in the studies in a standardised way. The weight of evidence stage of the EPPI-Centre process allows transparent and replicable judgements to be made about the quality of the studies, the appropriateness of their research design, and the relevance of their focus. An overall weight is then awarded. It is on this basis that recommendations are made.
- *Not wishing to distort the field and undermine keywording:* The URT were confident that the retrieval system they had created with keywords could accurately describe the field and a search using it would include only relevant studies. Ignoring the keywording could have distorted the nature and extent of the field and resulted in weak research being perpetuated.
- *The need for synthesising primary research:* At the end of the EPPI-Centre review process, the evidence is synthesised. If the data had not been extracted in a systematic way, ensuring consistent extraction across the board, the synthesis of evidence might have been less reliable.
- *The need for detailed characterisation of studies:* The difference between keywording and data-extraction is that the former employs limited coding, describing the characteristics of the studies. Data-extraction, however, describes in more depth, assessing findings and methodological quality.
- *The need for consensus judgements:* In continuing the systematic process throughout, the URT made use of the utility of 'double reviewing' at the data-extraction stage. Moreover, aligning with the EPPI-Centre during the latter stages of the review opened the extraction of data up to another stage of peer reference for the purposes of quality assurance.

In short, had the User Review Team departed from the EPPI-Centre process, the review may indeed have synthesised more studies, but it might also have been misleading and would certainly not have had the same level of accountability and replicability.

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## APPENDIX 2.1: Search strategy for electronic databases

MODELS		FORMATIVE ASSESSMENT		STUDENT TEACHERS		SCHOOL EXPERIENCE
OR Lesson Observation Criteria	AND	OR Student Teacher Evaluation	AND	OR Preservice Teachers	AND	OR Student Teaching
OR Measures (individuals)		OR Assessment		OR Student Teachers		OR Practice Teaching
OR Tests		NOT Summative Assessment		OR Beginning Teachers		OR Microteaching
OR Standards		OR Appraisal		OR Education Majors		OR Practicums
		OR Grading				OR Teaching Experience
		OR Formative Assessment				OR School Experience
		NOT Holistic Assessment				
		OR Informal Assessment				
		OR Peer Evaluation				
		OR Performance-Based Assessment				
		OR Measurement				
		OR Portfolio Assessment				
		OR Self-Evaluation (individuals)				
		NOT Student Evaluation				
		OR Vocational Evaluation				
		OR Testing				
		OR Evaluation				
		OR Teacher Competency Testing				

ERIC Yield = 27

ERIC Yield post 1987 = 21



## APPENDIX 2.2: APU Assessment review-specific keywording sheet

<p><b>6b. Type(s) of assessment on which the study focuses</b> (Apply only if you have circled 'assessment' in Section 6) <b>Circle more than one if necessary</b></p> <p>Formative assessment Summative assessment Ipsative assessment Self-assessment Portfolio assessment</p> <p><b>6c. Main agent within assessment on which the study focuses</b> (Apply only if you have circled 'assessment' in section 6) <b>Circle only one</b></p> <p>Assessors (subject of assessment) Assessment (process of assessment) Assessed (object of assessment)</p>	<p><b>8c. Type of learner</b> (Apply only if you have circled 'learners' in Section 8) <b>Circle more than one if necessary</b></p> <p>Undergraduate trainees Post-graduate trainees <b>SCITT trainees</b> GTP trainees RTP trainees</p> <p><b>8d. Type of teaching staff</b> (Apply only if you have circled 'teaching staff' in Section 8) <b>Circle more than one if necessary</b></p> <p>University tutor Supervising teacher</p>	<p><b>9b. Phase of ITT that is the focus of the study</b> <b>Circle only one</b></p> <p>Initial pre-student recruitment School-based experience Exit practices Career Entry Profile Statutory Induction</p> <p><b>10c. Type of research</b> <b>Circle only one</b></p> <p>Empirical Non-empirical</p> <p>Definition of empirical research: empirical – <i>adj.</i> 1 based or acting on observation or experiment, not on theory (<i>The Concise Oxford Dictionary</i>); i.e. being or including a report based on data gathered first-hand</p>
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## APPENDIX 3.1: Keywords of studies included in the in-depth review

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>ABEI 003, Klenowski V (2000) Portfolios: promoting teaching</i>	Details <i>Hong Kong</i>	Assessment	Learners	21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Primary school  Secondary school	Evaluation: Naturally occurring	Summative assessment	Assessment			School-based experience
<i>ABEI 004, Goos M, Moni K (2001) Modelling professional practice: a collaborative approach to developing criteria and standards-based assessment in pre-service education courses</i>	Details <i>Australia</i>	Assessment  Organisation and management  Teaching and learning	Learners	17-20 <i>deduced</i> 21 and over <i>deduced</i>	Mixed sex <i>deduced</i>	Higher education institution	Description	Formative assessment	Assessment	Under-graduate trainees		

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>ABEI 006, Everton TC (1999) Student teachers in primary schools: the views of pupils</i>	Details UK: England	Assessment  Other topic focus <i>students assessed by the pupils they teach</i>	Learners	17-20 <i>deduced</i> 21 and over <i>deduced</i>	Mixed sex <i>deduced</i>	Higher education institution <i>Homerton Primary school</i>	Evaluation: Naturally occurring	Formative assessment  Self-assessment	Assessed	Under-graduate trainees  Post-graduate trainees		School-based experience
<i>ABEI 008, Hayes D (1999) A matter of being willing? Mentors' expectations of student primary teachers</i>	Details UK: England	Teacher careers	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Primary school	Evaluation: Naturally occurring					School-based experience
<i>ABEI 009, Brooker R (1998) Improving the assessment of practice teaching: a criteria and standards framework</i>	Details Australia	Assessment	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Secondary school	Evaluation: Researcher-manipulated	Formative assessment	Assessed	Under-graduate trainees		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>ABEI 011, Martin S (1997) Two models of educational assessment: a response from Initial Teacher Education: if the cap fits...</i>	<i>Details UK: England</i>	Assessment	Learners	21 and over	Mixed sex <i>Assumed</i>	Secondary school	Review: Other review	Formative assessment	Assessed	Post-graduate trainees		
<i>ABEI 012, Sharp S (1997) A factorial study of student performance in Initial Teacher Education</i>	<i>Details UK: England</i>	Assessment	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution	Evaluation: Naturally occurring	Formative assessment  Summative assessment	Assessment	Under-graduate trainees		
<i>ABEI 013, Sumison J, Fleet A (1996) Reflection: can we assess it? Should we assess it?</i>	<i>Details Australia</i>	Assessment	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution  Nursery school	Evaluation: Researcher-manipulated	Formative assessment	Assessed	Under-graduate trainees <i>assumed</i> Post-graduate trainees <i>assumed</i>		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>ABEI 015, Lyle S (1996) The education of reflective teachers? A view of a teacher educator</i>	Details UK: England	Assessment Teaching and learning	Learners Teaching staff	17-20 assumed 21 and over assumed	Female only	Higher education institution  Primary school	Evaluation: Naturally occurring		Assessed		University tutor  Super-vising teacher	School-based experience
<i>ABEI 017, Fitzgibbon A (1994) Self-evaluative exercises in Initial Teacher Education</i>	Details Ireland	Assessment	Learners	21 and over	Mixed sex	Higher education institution  Secondary school	Evaluation: Researcher-manipulated	Formative assessment  Self-assessment	Assessment Assessed	Post-graduate trainees		School-based experience
<i>ABEI 018, Preece PFW (1993) The assessment of teaching practice performance</i>	Details UK: England	Assessment	Learners	21 and over	Mixed sex	Secondary school	Exploration of relationships	Formative assessment	Assessment	Post-graduate trainees		School-based experience

Item	In which country/countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
ABEI 019, Vaughan G (1992) <i>Profiling: a mechanism for professional development of students?</i>	Details UK	Other topic focus ICT in ITT	Learners	17-20 <i>deduced</i>  21 and over <i>deduced</i>	Mixed sex <i>deduced</i>	Higher education institution	Evaluation: Researcher-manipulated			Under-graduate trainees  Post-graduate trainees		School-based experience
ABEI 020, Calderhead J, James C (1992) <i>Recording student teachers' learning experiences</i>	Details UK: England	Teaching and learning	Learners	17-20 <i>deduced</i> 21 and over <i>deduced</i>	Mixed sex <i>deduced</i>	Higher education institution	Description			Under-graduate trainees <i>trainee teacher u/g or p/g not specified</i> Post-graduate trainees <i>trainee teacher u/g or p/g not specified</i>		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
ABEI 021, McLaughlin HJ (1991) <i>The reflection on the blackboard: student teacher self-evaluation</i>	Details USA	Assessment	Learners	21 and over	Female only	Higher education institution Secondary school	Evaluation: Researcher-manipulated	Formative assessment Self-assessment	Assessed	Post-graduate trainees <i>assumed</i>		School-based experience
ABEI 022, Simmons C, Wild P (1992) <i>New forms of student teacher learning</i>	Details UK	Assessment	Learners	17-20 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution Primary school Secondary school	Evaluation: Naturally occurring	Formative assessment Summative assessment		Post-graduate trainees		School-based experience
ABEI 024, Simbo FK (1989) <i>The effects of microteaching on student teachers' performance in the actual teaching practice classroom</i>	Details Nigeria	Assessment	Learners	17-20 <i>deduced</i>	Mixed sex <i>assumed</i>		Evaluation: Researcher-manipulated		Assessed	Under-graduate trainees <i>deduced</i>		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>AERIC 002, Dutt KM (1997) Assessing student teachers: the promise of developmental portfolios</i>	Details USA	Assessment	Learners Teaching staff Other population focus <i>HEI supervisor</i>	17-20 21 and over	Mixed sex <i>assumed</i>	Higher education institution	Description	Formative assessment Self-assessment	Assessment Assessed	Under-graduate trainees <i>assumed</i>		School-based experience
<i>AERIC 005, Dutt-Doner K, Gilman DA (1998) Students react to portfolio assessment</i>	Details USA	Assessment		17-20 <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution	Description	Formative assessment	Assessment Assessed	Under-graduate trainees		School-based experience
<i>AERIC 010, Naizer GL (1997) Validity and reliability Issues of performance portfolio assessment</i>	Details USA	Assessment Curriculum	Learners	17-20 21 and over	Female only	Higher education institution Primary school	Evaluation Evaluation: Researcher-manipulated	Formative assessment Self-assessment Portfolio assessment	Assessment	Under-graduate trainees		School-based experience



Appendix 3.1: Keywords of studies included in the in-depth review

Item	In which country/countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 013, Reis NK, Villaume SK (2002) <i>The benefits, tensions, and visions of portfolios as a wide-scale assessment for teacher education</i>	Details USA		Learners Teaching staff	17-20 assumed 21 and over assumed	Mixed sex assumed	Higher education institution  Home  Primary school  Special needs school	Evaluation: Researcher-manipulated	Formative assessment  Summative assessment  Ipsative assessment  Self-assessment  Portfolio assessment	Assessment	Under-graduate trainees  Post-graduate trainees	University tutor  Super-vising teacher	School-based experience  Exit practices
AERIC 014, Fahey PA, Fingon JC (1997) <i>Assessing oral presentations of student-teacher showcase portfolios</i>	Details USA	Assessment	Learners	17-20 assumed 21 and over assumed	Mixed sex assumed	Higher education institution	Evaluation: Naturally occurring	Formative assessment	Assessment  Assessed	Under-graduate trainees assumed Post-graduate trainees assumed		

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 025, Stroh L (1991) <i>High School student evaluation of Student Teachers: how do they compare with professionals?</i>	Details USA	Assessment  Teacher careers	Learners  Teaching staff	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex	Higher education institution <i>assumed</i> Primary school <i>assumed</i> Secondary school <i>assumed</i>	Evaluation: Researcher-manipulated	Formative assessment	Assessors	Under-graduate trainees  Post-graduate trainees <i>assumed</i>	University tutor  Super-vising teacher	School-based experience
AERIC 062, Buchanan D, Jackson S (1998) <i>Supporting self-evaluation in Initial Teacher Education</i>	Details UK: Scotland	Assessment  Curriculum	Learners  Other population focus <i>ITT students</i>	21 and over	Mixed sex <i>assumed</i>	Secondary school	Evaluation  Evaluation: Researcher-manipulated	Formative assessment	Assessed	Post-graduate trainees		School-based experience
AERIC 067, Brucklacher B (1998) <i>Cooperating teachers' evaluations of student teachers: all 'A's'?</i>	Details USA	Assessment	Learners  Teaching staff	17-20  21 and over	Mixed sex	Primary school  Secondary school  Special needs school	Evaluation: Naturally occurring	Formative assessment	Assessors  Assessment  Assessed	Under-graduate trainees  Post-graduate trainees		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>AERIC 075, Ashcroft K, Tann S (1988) Beyond building checklists: staff development in a school experience programme</i>	Details UK: England	Assessment	Learners Teaching staff	17-20 21 and over	Mixed sex <i>assumed</i>	Higher education institution  Primary school	Evaluation: Naturally occurring		Assessed			
<i>AERIC 083, Di X, Lee SJ (2000) The impact of an alternative evaluation for group work in teacher education on students' professional development</i>	Details USA- <i>assumed</i>	Assessment	Learners	17-20 21 and over	Mixed sex	Higher education institution	Evaluation: Researcher-manipulated	Formative assessment	Assessment Assessed	Under-graduate trainees		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 092, Fishman AR, Raver EJ (1989) 'Maybe I'm just NOT teacher material': dialogue journals in the student teaching experience	Details USA	Assessment	Learners  Other population focus <i>The Researcher also a Teacher</i>	17-20 <i>Assumed</i> 21 and over <i>Assumed</i>	Mixed sex <i>Assumed</i>	Higher education institution  Secondary school	Evaluation: Naturally occurring	Formative assessment	Assessment	Post-graduate trainees <i>Assumed</i>		School-based experience
AERIC 101, Baillie LE (1994) <i>Paradigms lost: the role of reason in reflection</i>	Details Canada (east)	Assessment	Learners  Teaching staff	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution  Secondary school	Exploration of relationships	Summative assessment  Self-assessment	Assessors  Assessment  Assessed			School-based experience
AERIC 104, Fueyo V (1998) <i>Pre-professional accomplished practice indicators: a metric for learning to teach</i>	Details USA	Assessment	Learners  Teaching staff	17-20 <i>Assumed</i> 21 and over <i>Assumed</i>	Mixed sex <i>Assumed</i>	Higher education institution  Primary school  Secondary school	Evaluation: Naturally occurring	Self-assessment	Assessment  Assessed	Post-graduate trainees <i>Assumed</i>		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>AERIC 105, Edwards A (1997) Guests bearing gifts: the position of student teachers in primary school classrooms</i>	Details UK: England	Assessment  Classroom management	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Primary school	Evaluation: Naturally occurring	Formative assessment	Assessed	Under-graduate trainees		School-based experience
<i>AERIC 112, Berg M, Curry J (1997) Portfolios: what can they tell us about student teacher performance?</i>	Details USA	Assessment  Teacher careers  Teaching and learning	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution  Primary school  Secondary school	Evaluation: Researcher-manipulated	Formative assessment  Ipsative assessment  Self-assessment  Portfolio assessment	Assessment	Under-graduate trainees  Post-graduate trainees		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>AERIC 115, Jones M (2000) Becoming a secondary teacher in Germany: a trainee perspective on recent developments in initial teacher training in Germany</i>	Details England; Germany	Assessment  Organisation and management  Teacher careers  Teaching and learning	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution  Primary school  Secondary school	Evaluation: Researcher-manipulated	Summative assessment	Assessed	Under-graduate trainees  Post-graduate trainees	University tutor  Supervising teacher	School-based experience
<i>AERIC 117, Scruggs TE, Mastropieri MA (1993) The effects of prior field experience on student teacher competence</i>	Details USA	Assessment  Curriculum  Teacher careers  Teaching and learning	Learners	17-20  21 and over	Mixed sex	Special needs school	Exploration of relationships	Formative assessment  Summative assessment	Assessed	Under-graduate trainees		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 121, Basom M (1994) <i>Pre-service identification of talented teachers through non-traditional measures: a study of the role of affective variables as predictors of success in student teaching</i>	Details USA	Assessment Teacher careers Teaching and learning	Learners	17-20 21 and over	Mixed sex	Higher education institution Home	Development of methodology	Formative assessment Summative assessment	Assessed	Under-graduate trainees		School-based experience Exit practices Statutory Induction
AERIC 122, Smith PL (2001) <i>Using multimedia portfolios to assess preservice teacher and P-12 student learning</i>	Details USA	Assessment	Learners Teaching staff	17-20 <i>Assumed</i> 21 and over <i>Assumed</i>	Female only <i>Assumed</i>	Nursery school Secondary school	Evaluation: Naturally occurring	Formative assessment Self-assessment Portfolio assessment	Assessment	Under-graduate trainees <i>Assumed</i> Post-graduate trainees <i>Assumed</i>	University tutor Super-vising teacher	School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 128, Wardlow G (1987) <i>The teaching performance of graduates of teacher education programs in vocational and technical education</i>	Details USA	Teacher careers	Learners Teaching staff	17-20 21 and over	Mixed sex	Higher education institution Secondary school	Description			Under-graduate trainees Post-graduate trainees		School-based experience Exit practices Statutory Induction
AERIC 131, Cassidy J (1993) <i>A comparison between students' self-observation and instructor observation of teacher intensity behaviours</i>	Details USA		Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Primary school	Evaluation: Researcher-manipulated	Formative assessment	Assessed	Under-graduate trainees		School-based experience



Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 132, Arroyo AA, Sugawara AI (1993) <i>A scale of student teaching concerns (SSTC)</i>	Details USA	Assessment Teacher careers Teaching and learning	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution	Evaluation: Researcher-manipulated		Assessed			School-based experience
AERIC 136, Reyes JR, Isele F Jr (1990) <i>What do we expect from elementary student teachers? A national analysis of rating forms</i>	Details USA	Assessment Teacher careers		17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Primary school	Development of methodology	Formative assessment Summative assessment	Assessment	Under-graduate trainees Post-graduate trainees		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 140, Wile JM (1999) <i>Professional portfolios: the 'talk' of the student teaching experience</i>	Details USA, Luxembourg Germany and Austria	Assessment	Learners Other population focus <i>mentors</i>	17-20 <i>deduced</i> 21 and over <i>deduced</i>	Mixed sex <i>deduced</i>	Higher education institution	Description	Formative assessment  Summative assessment  Self-assessment  Portfolio assessment	Assessment	Under-graduate trainees  Post-graduate trainees	Supervising teacher	School-based experience
AERIC 141, Riner PS, Jones WP (1993) <i>The reality of failure: two case studies in student teaching</i>	Details USA	Assessment  Teacher careers  Teaching and learning	Learners	17-20 <i>inferred</i> 21 and over <i>inferred</i>	Female only <i>inferred</i>		Exploration of relationships	Formative assessment  Summative assessment	Assessed	Under-graduate trainees  Post-graduate trainees		School-based experience

Item	In which country/countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 143, Tse KS, Chung CM (1995) <i>The relationship between personality-environment congruency and teaching performance in student teachers</i>	Details China	Assessment Curriculum Teacher careers Teaching and learning	Learners	17-20 <i>inferred</i> 21 and over <i>inferred</i>	Mixed sex <i>inferred</i>	Primary school	Exploration of relationships	Formative assessment Summative assessment Ipsative assessment	Assessed	Under-graduate trainees  Post-graduate trainees		School-based experience
AERIC 145, Isele F (1992) <i>The role of research in evaluating the effectiveness of an elementary teacher's performance: a national study of evaluation criteria</i>	Details USA	Assessment	Learners	21 and over	Mixed sex <i>assumed</i>	Higher education institution  Primary school	Description	Formative assessment	Assessment	Under-graduate trainees <i>assumed</i> Post-graduate trainees <i>assumed</i>	University tutor  Supervising teacher	School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>AERIC 146, Unrau NJ, McCallum RD (1996) Evaluating with KARE: the assessment of student teacher performance</i>	Details USA	Assessment  Teacher careers  Teaching and learning	Learners	17-20  21 and over	Mixed sex	Secondary school	Description	Formative assessment  Summative assessment	Assessment	Under-graduate trainees  Post-graduate trainees		School-based experience
<i>AERIC 148, Ingersoll GM, Kinman D (2002) Development of a teacher candidate performance self-assessment instrument</i>	Details USA	Assessment  Teacher careers  Teaching and learning	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution	Development of methodology	Formative assessment	Assessment	Under-graduate trainees  Post-graduate trainees		School-based experience  Statutory Induction
<i>AERIC 153, Anderson RS, DeMeulle L (1998) Portfolio use in twenty-four teacher education programs</i>	Details USA	Assessment	Learners	17-20  21 and over	Mixed sex	Higher education institution	Description	Formative assessment  Self-assessment  Portfolio assessment	Assessment	Under-graduate trainees  Post-graduate trainees		School-based experience

Item	In which country/countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 154, Kain DL (1999) <i>On exhibit: assessing future teachers' preparedness</i>	Details USA	Assessment	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Secondary school	Description	Summative assessment	Assessment	Under-graduate trainees  Post-graduate trainees		
AERIC 170, Willis EM, Davies MA (2002) <i>Promise and practice of professional portfolios</i>	Details USA	Assessment	Learners	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution  Primary school  Secondary school	Evaluation: Researcher-manipulated	Formative assessment  Portfolio assessment	Assessment	Under-graduate trainees  Post-graduate trainees		School-based experience
AERIC 172, Rakow SJ (1999) <i>Involving classroom teachers in the assessment of preservice intern portfolios</i>	Details USA	Assessment	Learners  Teaching staff	17-20 <i>assumed</i> 21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution  Primary school  Secondary school	Development of methodology	Formative assessment  Self-assessment  Portfolio assessment	Assessment	Under-graduate trainees  Post-graduate trainees	Supervising teacher	School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 175, Costigan AT III (2000) <i>Teaching the culture of high stakes testing: listening to new teachers</i>	Details USA	Assessment  Teacher careers	Teaching staff			Primary school	Evaluation: Naturally occurring	Formative assessment of children Summative assessment of children	Assessors			Statutory Induction
AERIC 178, Wepner SB (1997) <i>'You never run out of Stamps': electronic communication in field experiences</i>	Details USA	Other topic focus <i>Using electronic communications in field experiences</i>	Learners  Teaching staff	17-20 assumed 21 and over assumed	Mixed sex assumed	Higher education institution	Evaluation: Researcher-manipulated				University tutor  Super-vising teacher	School-based experience
AERIC 179, Ryan L, Krajewski JJ (2002) <i>The journey toward becoming a standards driven and performance based teacher preparation program: one college's story</i>	Details USA	Assessment	Learners  Teaching staff	21 and over assumed	Mixed sex assumed	Higher education institution	Description	Formative assessment	Assessment	Under-graduate trainees  Post-graduate trainees	University tutor	School-based experience

Item	In which country/countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
<i>AERIC 180, Gerlach GJ, Milward RE (1989) A new perspective for strengthening teaching skills: pre-teacher assessment</i>							Description	Formative assessment  Ipsative assessment	Assessment	Under-graduate trainees  Post-graduate trainees	University tutor	School-based experience
<i>AERIC 185, Hartsough CS (1998) Development and scaling of a preservice teacher rating instrument</i>	Details USA	Assessment  Teacher careers  Teaching and learning	Learners	17-20 assumed 21 and over assumed	Mixed sex assumed	Higher education institution	Development of methodology	Formative assessment	Assessment	Under-graduate trainees  Post-graduate trainees		School-based experience

Item	In which country/ countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 188, Johnson CJ, Shewan CM (1988) <i>A new perspective in evaluation clinical effectiveness: the UWO clinical grading system</i>	Details Canada	Assessment	Learners	17-20 <i>Assumed</i> 21 and over <i>Assumed</i>	Mixed sex <i>Assumed</i>	Higher education institution	Development of methodology	Formative assessment	Assessment	Under-graduate trainees <i>Assumed</i> Post-graduate trainees <i>Assumed</i>	University tutor	
AERIC 190, Ramanathan H, Wilkins-Canter EA (2000) <i>Preparation of cooperating teachers as evaluators in early field experiences</i>	Details USA	Assessment	Learners	21 and over <i>assumed</i>	Mixed sex <i>assumed</i>	Higher education institution  Primary school  Secondary school	Description	Formative assessment	Assessors		University tutor  Super- vising teacher	



Item	In which country/countries was the study carried out? (Please specify.)	What is/are the topic focus/foci of the study?	What is/are the population focus/foci of the study?	Age of learners (years)	Sex of learners	What is/are the educational setting(s) of the study?	Which type(s) of study does this report describe?	Type(s) of assessment on which the study focuses	Main agent within assessment on which the study focuses	Type of learner	Type of teaching staff	Phase of initial teacher training that is the focus of the study
AERIC 195, Johnson J (1999) <i>Professional teaching portfolio: a catalyst for rethinking teacher education</i>	Details USA	Assessment	Learners	17-20 assumed 21 and over assumed	Mixed sex assumed	Higher education institution	Evaluation: Naturally occurring	Formative assessment  Portfolio assessment	Assessment	Under-graduate trainees assumed Post-graduate trainees assumed		
AERIC 196, Shannon DM, Boll M (1998) <i>State-mandated assessment of preservice teachers in Alabama</i>	Details	Assessment	Senior management			Higher education institution	Evaluation: Naturally occurring	Summative assessment  Portfolio assessment	Assessment		University tutor	Exit practices

## APPENDIX 4.1: Studies excluded from data-extraction

Study
Brucklacher B (1998) Cooperating teachers' evaluations of student teachers: all 'A's'? <i>Journal of Instructional Psychology</i> <b>25</b> (1): 67-72.
Aim and rationale
The aim of the report is to 'describe a study of cooperating teachers' evaluations that resulted in few below-average grades' awarded to trainees (p 67). The rationale for this is that 'researchers have found problems with the ratings made by cooperating teachers', namely the 'halo effect in cooperating teacher's evaluations' (p 67).
Study design
'From the fall of 1994 through the fall of 1996, 662 elementary and high school teachers served as cooperating teachers for the university' (p 68). The university was American, but anonymous in the report. 'Of these, 465 (70%) completed evaluations of their student teachers and returned them to the university' (p 68). Evaluations were based on a 20-item assessment tool, a copy of which is included in the report.
Findings
As predicted in previous studies, few below-average grades were given.
Conclusions
'The cooperating teachers in this study may have assigned higher ratings than were warranted by their student teacher's behaviours (leniency), or they may have attended to global impressions of the student teachers rather than to the specific criteria of the rating scale' (p 69). 'A key element in determining success in student teaching is the relationship between the student teacher and the cooperating teacher' (p 69). Sympathy, empathy, and disparity between cooperating teachers and teacher educators may also load the evaluation. 'The above average ratings in this study may also be the result of a flawed instrument. Making items more behaviourally specific, or training cooperating teachers to use the instrument more objectively might lessen rating errors' (p 69). Other reasons for consistently high grading might stem from the 'need to foster students' self-esteem regardless of academic achievement' and the cultural impact the progressivist and egalitarian doctrines have had on American mainstream culture (p 70). The final conclusion is, 'rater bias, problems with the evaluation instrument, and a progressivist educational paradigm that encouraged high grading regardless of performance are all factors that might have influenced the evaluations examined in this study' (p 70).
Reasons for exclusion
This study, which does not focus on a model or instrument of assessment but focuses instead on the shortcomings of an assessment system already in operation, was keyworded ASSESSORS, ASSESSMENT and ASSESSED in section 6c. ASSESSORS or ASSESSED instead of ASSESSMENT would have been more accurate and avoided recall via the descriptive map. The review question also requires positive valuations to be made of the assessment model or instrument, not negative valuations.

<b>Study</b>
Fishman AR and EJ Raver (1989) 'Maybe I'm just NOT teacher material': dialogue journals In the student teaching experience. <i>English Education</i> <b>21</b> (2): 92-102.
<b>Aim and rationale</b>
No aim is explicitly stated. Through inference, it is possible to identify the aim: to chronicle the experience of dialogue journals between the researcher (a cooperating teacher) and a student teacher. The rationale (again not made explicit) is that their recent experience of these journals was enriching enough to warrant retelling.
<b>Study design</b>
The paper reports, retrospectively, the journal entries of both the student teacher and the cooperating teacher, presenting them as expostulations and replies, so that the two parties engage in ongoing dialogue through their journals. The study does not use samples, data-collection methods, analysis methods or quantitative data.
<b>Findings</b>
The dialogue journals enriched the experience of both the student teacher and the cooperating teacher in a number of stated ways.
<b>Conclusions</b>
'Because journal dialogues allow the student, her cooperating teacher, and/or her field supervisor to highlight, review, analyse, and synthesise what's being learned from a variety of perspectives, they can be used as important instruments for evaluation, offering a multidimensional perspective few other instruments provide' (p 106). It continues, 'they help students assess and appreciate what they have learned, what they are learning, and what they have yet to learn, without the constraints of more generic, pre-packaged instruments. For summative evaluation, dialogue journals can describe and assess what student teachers have achieved and still need to achieve along more dimensions than any behavioural performance, or product checklist can reflect' (p 106).
<b>Reasons for exclusion</b>
The study is more unreliable than the other studies. Firstly, it does not aim either to test an assessment instrument or to determine the benefits and shortcomings of some assessment tool. Instead, it concludes that dialogue journals could be used to assess student teachers, but focuses ultimately on their diagnostic rather than assessment function. The selection of data is unreliable because one of the purposes of the selection is cohesiveness of narrative. No quantitative data are presented. No detail is given in the description of what is taking place in the study. The sample group (excluding the researcher) consists of one individual and, for the purpose of reducing subjectivity (and achieving consensus results), the studies to be data-extracted should have a larger group of participants. The review-specific keywording may have been more accurately keyworded ASSESSOR and/or ASSESSED.

<b>Study</b>
Fitzgibbon A (1994) Self-evaluative exercises in Initial Teacher Education. <i>Irish Educational Studies</i> 13: 145-164.
<b>Aim and rationale</b>
'This paper seeks to discuss the teaching of self-evaluation within one element – that of keeping a journal – of a Higher Diploma in Education course' (p 145). It continues, 'in the present paper, two basic issues are explored. The first is the possible usefulness of the different activities offered in connection with the journal to achieve the objective of self-evaluation. The second is the relationship between the students' responses to these activities and their personality types' (p 146). The rationale is, 'student teachers must be given the necessary opportunities and skills to become self evaluators' (p 145). This is a study inspired by Schon's notion of the 'reflective practitioner' (Schon, 1987).
<b>Study: design</b>
Post-graduate secondary schoolteachers completed an autobiographical journal, performed exercises and answered questionnaires.
<b>Findings</b>
In summary, two-thirds (66.6%) of the trainees found the journal useful. Journals were also said to have increased reflection, clarified issues, acted as a forum for ideas, and increased teacher educator empathy.
<b>Conclusions</b>
The journals helped 'a significant number of students in providing exercises for reflection and self-awareness. The level of self-awareness present in the final reflections of many of the journals is impressive' (p 160).
<b>Reasons for exclusion</b>
The study does not focus on developing a formative assessment process or instrument; indeed, 'the journals are ungraded' (p 160). Although the journal could be used as an assessment instrument it is instead used 'for teaching self evaluation and reflection' (p 160). The study was keyworded ASSESSMENT as well as ASSESSED under section 6c. The latter is an accurate descriptor but the former is not.

## APPENDIX 4.2: Details of studies included in the in-depth review

<b>Study one</b>
Berg M, J Curry (1997) Portfolios: what can they tell us about student teacher performance? <i>Social Studies Review</i> <b>36</b> : 78-84.
<b>Study aim(s) and rationale</b>
<p>The word 'aims' is not used in this study. It is stated, however, that 'the evaluation of portfolios has emerged at the centre of the interest in the [assessment] topic' (p 78). Indeed, the researchers 'saw portfolios offering the promise of identifying both a broader and more in-depth picture of an emerging teacher's thinking and behaviour than other, more traditional forms of assessment' (p 84). The broad aim, therefore, could be stated as: to evaluate portfolios in terms of their capability for identifying trainee teachers' growth and evaluation. The study also suggests that portfolios would allow 'the professors, to look beneath the surface of the teaching act itself, and examine the decisions that shaped the student teacher's actions' (p 79).</p> <p>From being used in classrooms with children, portfolios have increasingly been employed in the US to document teachers' knowledge and skills in teaching. The researchers see portfolios as a 'natural outgrowth of this trend to explore the use of portfolios in defining and documenting more clearly what student teachers know and understand and what they are able to do; to create a vehicle for student teachers to tell their personal story of becoming a teacher' (p 78). The sample of trainees on whom the portfolio system was trialed were all involved at that time in the San Diego State University Model Education Center.</p> <p>The study identifies the involvement of five university professors, five supervisors, 30 trainees and 30 cooperating teachers, who worked against a 'backdrop of teaming as an organisational structure in classrooms across the partnership' (p 79).</p> <p>No mention is made of funding sources for the study. As it was part of institutional assessment arrangements, one assumes it was internally funded. As the study suggests that the portfolio data were gathered during one professional year, and the study itself was published in Spring-Summer 1997, it must be assumed that the previous academic year was the focus year of the study (i.e. 1995/96).</p>
<b>Study research question(s) and its policy or practice focus</b>
<p>The study is related to teacher careers insofar as the trainee teachers are new entrants to the profession in the early stages of their training. The 30 trainees are all involved in the San Diego State University Model Education Center as part of their training. As the US involves mainly undergraduate training for teachers, it is probable that these students are all undergraduates. The portfolios are developed by the trainee teachers in collaboration with the tutors and teachers who are involved in developing teaching and learning. The students themselves are also focusing on their own teaching and learning, and the learning of children.</p> <p>No information is given regarding the age and sex of the trainees. The San Diego State University teaching faculty has a Model Education Center which is described within the study as 'a professional practice school... formed as a university-school partnership for the purpose of examining effective teaching and learning practices... of the next generation of teachers' (p 79).</p>

This study is essentially about the instigation of a portfolio system for assessing the growth and development of 30 trainee teachers. The research team developed a set of eleven goals which 'would form the overarching umbrella under which the team developed the structure of the portfolio experience... [which] became the basis for student teacher portfolio entries' (p.79). The research team also devised a series of questions for student teachers to reflect on under the headings of:

- classroom management
- mathematics
- reading/language arts
- videotaped lessons

The students were then assessed broadly on categories determined by the research team, which were:

- ability to reflect clearly on own growth and change
- ability to discuss strengths and weaknesses of performance
- ability to address cross-cultural and language development infusion

The research team also developed assessment criteria which they defined as 'limited', 'developing' and 'strong' abilities of students to reflect through the portfolio. Students were also required to keep at least four examples of the 'best of the best' examples of their own practice. The portfolios were assessed three times: at the beginning of their professional year at the Model Education Center, at mid-point and near the conclusion of the program (p.82).

The research question appears to be: 'Could this [use of portfolios] not be a powerful way for student teachers to document the stories of their growth in an authentic setting?' Other than this, no research question or hypothesis is identified.

#### **Methods: design**

The portfolios are a means by which the researchers evaluated the trainee teachers' abilities to be reflective about teaching and learning practices. They are researcher-manipulated insofar as the researchers designed the specification of the content of the portfolios and assessed trainees' development and growth at three points during the year. We must infer that the concepts involved relate to reflective practices and, through these, the growth and development of trainees' thinking and development as teachers.

#### **Methods: groups**

The study appears to focus on 30 trainee teachers during one practice-based year of their training.

The potential components of trainee portfolios were determined by the project team of professors, supervisors and cooperating teachers. Questions which trainee teachers should ask themselves under a series of four headings were identified (although no theoretical or empirical basis is provided for these).

Three broad rating categories were also determined and then applied to the portfolios at three times during the teaching year. Inter-rater reliability was established by at least two professors independently assessing each portfolio and final grades were given to trainees.

#### **Methods: sampling strategy**

The study reports that 30 trainee teachers were involved but not whether this constituted a whole cohort or a sample from a larger cohort. There is no attempt at identifying a sampling frame. No information is given of any means or ways of selecting the sample.

#### **Methods: recruitment and consent**

It has to be assumed that the 30 students were a captive audience.

<p><b>Methods: Actual sample</b></p> <p>Thirty students participated in the study.</p> <p>Although it could be assumed that all the participants are from the US, at no point is the nationality of the focus group stated explicitly.</p> <p>We have to assume that the sample represents the pre-service teachers who are registered with the San Diego State University.</p> <p>There is an assumption that, because the sample group were all trainees on the course over that one-year period, they were all included and all completed.</p>
<p><b>Methods: data-collection</b></p> <p>The data collected were those contained in the trainee teachers' own portfolios, kept as part of the requirements of the course during a single year. The evidence within the portfolios was assessed by a pair of professors and rated on a three-point scale.</p> <p>Trainee teachers completed their own portfolio of reflections on teaching experiences and examples of best practice.</p> <p>The authors describe portfolios as 'defining and documenting ... what students know and understand ... a vehicle for student teachers to tell their personal story of becoming a teacher. This is also described as 'a container for storing and displaying evidence of the student teacher's knowledge and skills' (p 78)</p> <p>Student teachers accumulated all the data in their portfolios. This was then analysed and assessed by the researchers.</p> <p>Reliability of the data collected in portfolios is not mentioned.</p> <p>The validity of the collection tools is established only insofar as they relate the contents of portfolios to the contents of other portfolios which have previously been the subject of policy decisions.</p> <p>The portfolio information was gathered by the trainees themselves.</p> <p>Data were collected as a result of involvement in the Model Education Center and all data requested to be kept emanated from there.</p>
<p><b>Methods: data analysis</b></p> <p>Certain items within the portfolio were 'standardised' which would 'serve as benchmarks of formative assessment' (p 79). The 'best of the best' examples of practice would be 'used by the team to evaluate student teachers' ability to reflect upon performance over time' (p 79).</p> <p>The faculty team developed a set of eleven goals that became the basis for student teacher portfolio entries:</p> <ol style="list-style-type: none"> <li>1. Widening the repertoire of communication strategies and skills</li> <li>2. Creating a collaborative learning community</li> <li>3. Promoting teaching/learning strategies that align with constructivist theories</li> <li>4. Promoting higher order thinking skills</li> <li>5. Developing greater sensitivity to and respect for cultural differences</li> <li>6. Widening scheme of educational environment</li> <li>7. Understanding global linkages/interconnections within and among personal, social environments and technological systems</li> </ol>

8. Promoting understanding of interconnections among content area through thematic, interdisciplinary instruction
9. Developing English language skills across all content areas while supporting/respecting children's primary language
10. Understanding the theoretical underpinnings of instructional practice
11. Inspiring a lifelong commitment to curiosity and learning

Using these eleven goals as the basis, the team generated a series of 'reflective questions (p 80). The data gathered from these were then analysed against the following criteria:

- *Limited*: [student] unable to respond or cursory, superficial response, no reflection, no specific mention of culture or second language
- *Developing*: specifics identified [by students] with some substantive discussion of underlying principles and/or rationale for decisions, indicators of awareness of and sensitivity to culture and language.
- *Strong*: rich discussion indicating breadth and/or depth of understanding and critical reflection, indicators of concrete application of strategies, focusing on culture and second language acquisition, and a rationale for instructional decisions.

These were later deepened in focus for the final screening.

There was no intervention intended or carried out. The trainees kept their portfolios as part of their course assessment and these were then assessed at the three points in the year previously described.

Neither the validation of the portfolios nor the validity of the analysis of them is mentioned.

The three categories for analysis of the portfolios outlined earlier were later extended to become:

- *Limited*: no connection to or understanding of the goal, or unclear definition of the best [meaning the 'best of the best' examples]; either no mention or a peripheral mention of the student's role in the lesson; nor or vague mention of cultural differences or language development; does not address major weaknesses (by our standards) of the lesson.
- *Developing*: product shows a relation to the goal, but only a pedestrian, unimpressive relationship; sees the importance or mentions the student's role in the lesson (including student affect and/or cognition); explicitly mentions attending to cultural differences and language development in a general, philosophical way; either the lesson has major weaknesses which they mention but do not discuss, or the lesson has no major weaknesses and there is no mention of minor weaknesses or any changes.
- *Strong*: strongly exemplifies goal in an impressive, well-conceived, creative way; focus on student's role, including motivation, affective and conceptual growth and understanding; includes specific ways cultural differences and language development were or might be addressed; discusses weaknesses, if any, and sees options for subsequent instructional delivery.



<b>Results and conclusions</b>
<p>The results are presented mainly in narrative form with examples of statements from student portfolios.</p> <p>The findings are as follows:</p> <p>'The results revealed a progressive, professional growth across time in student teacher insights related to the act of teaching, its impact upon student learning in the classroom, and how to work toward making meaning comprehensible for all learners, irrespective of cultural differences or language proficiency... student teachers were focused on selecting representative examples of their practice that they felt were 'fun' or 'motivating' to students in the classroom. Little concern was evidenced with children's learning needs or how to develop instruction. There were no comments made on changes that they would like to make in the activity' (p 82).</p> <p>The contexts used by the student teachers for presenting the 'best of the best' examples, 'tended to fall into four areas - social studies, science, reading/language arts and math' (p 82).</p> <p>One unexpected finding is reported in the section 'Conclusions': 'As the planning and implementation evolved, the integration and assimilation of the faculty team's varied pedagogical perspectives and the cohesion that developed forged an unexpectedly strong bond. It was this joining together as collaborators in learning with student teachers that perhaps became one of the most powerful elements of the Model Education Center student teacher portfolio project' (p 84).</p> <p>These 'findings' are only minimally presented in the reviewers' views. Whilst we are given some information about analysis, this analysis is, in itself, very subjective and we are not told how the issue of subjectivity was handled. This would make replicability very difficult indeed. Similarly, as we have no theoretical or conceptual base for portfolios given in this study, it is difficult to understand quite what students were intended to do.</p> <p>Before the section 'Conclusions', there is a longer discussion on the issues related to student teacher development as identified in the findings.</p> <p>The later 'Conclusions' section states: 'We could conclude that student teachers' reflection on practice showed measurable growth over time as evidenced by their writing and professional judgement. They were able to integrate instruction both within content areas and draw across disciplines to meet the learning needs of the increasingly diverse student population in their classrooms... the examples [best of the best] allowed the student teachers to share their own perspectives on teaching and encouraged introspection through which began the process of informed self-assessment' (p 84).</p>
<b>Quality of the study: reporting</b>
<p>There is no explanation of the Model Education Center or of the deeper concepts related to portfolios (e.g. reflective practice as a theoretical construct). No information is given about the trainee teacher group or the ages of the children who were the focus of the portfolio teaching.</p>

Whilst it is easy to assume that portfolios must be a good thing if they encourage reflection amongst trainee teachers which then has an impact on their ability to teach, this is implicit within the aims of this study rather than actually made explicit.

Whilst considerable information is given about the basis on which the portfolio was assessed, this is all very subjective and further information was needed on how this subjectivity was handled by the research team.

More information would be needed on the sample, the actual portfolio and on the underpinning basis for its development.

On the whole, the authors stick to describing what they set out to investigate but, as we are not given sufficient information about sample and portfolio content, then it is hard to judge whether they have been selective in their reporting.

#### **Quality of the study: methods and data**

It is hard to see how the researchers could have designed what they did differently. If one wishes to research the use of portfolios in student teacher development and growth, then getting the trainees to keep a portfolio and assessing it is the obvious choice of method.

No information is given about why the particular contents of the portfolios were appropriate or used.

Without significantly more information about the subjective nature of the analysis, bias is inherent in this study. The results are not generalisable without much more contextual information.

In US and San Diego terms, one feels certain that there is the basis of a good study. However, the evidence provided is scant in both conceptual and empirical terms, therefore, making it low in trustworthiness.

Results, discussion, conclusions and implications all flow into one another and have to be interpreted.

There is an element within this study that the 'desired' outcomes (only implicitly stated) were achieved. There is no argument presented as to whether or why some students were less effective in their portfolios, for example. It is hard to agree or disagree with the findings and conclusions without further information or evidence.

<b>Study two</b>
Willis EM, MA Davies (2002) Promise and practice of professional portfolios. <i>Action in Teacher Education</i> 23: 18-27.
<b>Study aim(s) and rationale</b>
The study was conducted in the US but this is not made explicit in the report itself.
The broad aim of this study was to report 'the impact of portfolios on undergraduate teacher education students' professional development and the broader implications for teacher training programs' (p.18). It also explored 'students' perceptions regarding professional portfolios and presentations' and examined 'whether students considered the process of creating a professional portfolio and sharing it in a presentation of value as they moved from the educational to career environment' (p 20).
The report starts with an introduction that refers to previous papers written about portfolios, how they have been introduced into teacher training programmes, and how they have been beneficial. These studies range from 1993 to 2001. The introduction also starts with a quotation (Sanders, 2000; p 11) that touches on 'the current educational reform movement' towards 'authentic assessment' and the consequent rise of portfolios. In the last paragraph of the introduction, the portfolio component of the teacher training programme at a 'southwestern institution', on which the study is based, is said to be a 'response to these multiple uses of professional portfolios for assessment' (p.18). Implicit in the report, therefore, is that the study examines a portfolio component introduced because of the current climate favouring portfolios as a means to 'authentic assessment'.
One previous study, which 'investigated preservice teachers' knowledge of portfolio assessment and attitudes toward using portfolios as an alternative to conventional assessment practice' (p 246) was used to inform the questionnaire that was handed out to the 93 student teachers. This other study, therefore, had an impact on the data collected but could not be described as a 'linked report', neither was this report building on data or theory from an earlier report.
There is no evidence of consultations with any interest groups at stage in this study or report. There is certainly no evidence of any consultation when considering the broad aims of the study and the issues to be addressed. There is no statement or suggestion about the funding of this study. It could perhaps be inferred that the study was internally funded, as only one teacher training programme was investigated.
The time and date of the actual study is not made explicit, but it is inferable from the opening citation (Sanders, 2000; p 11) and the publication date (2002) that the study was conducted between the winter of 2000 and the summer of 2001. Data were collected over 'a three-semester period'.
<b>Study research question(s) and its policy or practice focus</b>
Assessment is the main focus of the study: the report is about a study that examines the use of portfolios as possible instruments for authentically assessing teacher trainees. It is also about teacher careers; the study focuses on initial teacher training, the pre-career stage of teaching, but at the same time makes frequent references to exit practices and the 'job search', and the benefit portfolios have regarding these two things. It is also about teaching and learning, for the study is loosely concerned with certain issues in teaching and learning, such as reflective practice and self-evaluation. 'Undergraduate teacher education students' are the population focus of the study. The programme is an undergraduate one, so minimum age can be confidently inferred (i.e.

post-18), but maximum age cannot be inferred with any certainty. Of the 93 participants in the study '74 were female and 19 were male' (p 19).

The educational settings of the study are (i) An HEI : the physical setting of the study is the 'southwestern teacher training institution'. It is here that the presentation of the students' 'hard copy notebooks and electronic portfolios' are presented and the later questionnaires about their experiences completed. (ii) Primary schools: although primary schools are not explicitly featured in the report, the course specialises in 'elementary education'. (iii) Secondary schools: although the study does not take the school-based experience of the participants as its main focus, the course is 'elementary education'. The American system is not in perfect alignment with the English one. 'Elementary' is not quite 'primary', so it may also cover grades 7 and 8, the first and second years of English 'secondary' education.

The research questions are implicit. They could be qualified as: what impact do portfolios have on undergraduate teacher education students' professional development and what broader implications are there? (p 18). And, what are students' perceptions of portfolio professional development and presentations? (p 19).

#### **Methods: designs**

The study evaluates a recently implemented portfolio component into a teacher education programme. It assess whether it works well, concludes it does, but also draws on suggestions for future improvement. It is researcher-manipulated because the portfolio element has changed the experience of the students that year and 'researchers collected survey data from 93 students enrolled in the third semester of the teacher education cohort program', so the collection of data was an ongoing, intervention-based process, not retrospective.

The study is retrospective, however, insofar as it required participants to look back on their portfolio presentation via a questionnaire.

#### **Methods: groups**

A study design summary could be expressed as follows: 'over a three-semester period, researchers collected survey data from 93 students enrolled in the third semester of the teacher education cohort program. Of the 93 participants, 74 were female and 19 male... The questionnaire consisted of 23 Likert-type questions and five incomplete stems' (p 19).

#### **Methods: sampling strategy**

The gender ratio (74 females to 19 males) suggests that the study is attempting to represent a 'typical' teacher education course regarding the general make-up of initial teacher training courses. It does not state explicitly nor imply, however, that it is representative of a 'typical' or a specific population. Nevertheless, it does draw conclusions that are generalised. This suggests that the researchers believe that conclusions and implications drawn from this study would naturally be applicable elsewhere.

Selection for the study appears to have been all-inclusive. There are, however, three 'delivery options for coursework' (i.e. courses). One of them, the one that the study focuses on, is 'a three-semester on campus cohort which provides all professional preparation coursework'. This particular course, it is stated, 'focuses on applying theory to practice through practicum experiences'. It is inferable that this style of course is most suited to portfolio assessment, and that this is why students from it have been chosen. People within this particular course are not further identified or classified.

No incentives for recruitment onto the study are stated but it is highly unlikely that any were offered because the portfolio component was obligatory.

There was no sampling frame as such, in that there was no distinction drawn between possible participants, ideal participants, and actual participants.

#### **Methods: data-collection**

Data were both quantitative and qualitative. The questionnaire included '23 Likert-type questions and five incomplete sentence stems'. The data from the Likert-type questions were therefore quantitative, whilst the data from the open-ended, incomplete questions were qualitative. The data were used to define the sample. The data appear to have been collected by hand and stored on a software package, The Data Collector (Turner and Handler, 1992).

The report only states who determined the categories for recording the quantitative data; it does not reveal who circulated the questionnaires or who collected the research.

A number of reliability and validity measures were undertaken. The report states that, regarding the collection and collation of qualitative data, 'a team of two, one university faculty and a graduate student, independently identified the response categories and then mutually reached consensus on category labelling' (p 20, paragraph three). There was, therefore, an inter-rater reliability measure for the collection of qualitative data. The questionnaire used to collect data incorporated 'several questions... from an earlier study' (p 19, paragraph seven).

#### **Methods: data analysis**

A couple of software packages are mentioned: the Statistical Packages for the Social Sciences (SPSS) is mentioned and so is the Data Collector. Exactly how these packages were used is unclear. From Table 1 on page 21, it appears that answers to the quantitative questions were simply tallied and the mean average deduced. A separate method was used for providing a 'framework for reporting results' from the qualitative questions.

#### **Results and conclusions**

The results are presented in prose in a section called 'Survey Results', and in part via Table 1 on page 21. In the section 'Survey Results', the Likert-type answers have been classified under five headings. In the section 'Incomplete Sentence Stems', the open-ended questions are also classified under five headings.

The findings of the study mostly relate to the portfolio as a tool for assessment. The findings are drawn from the students' retrospective answers to the questionnaire. They 'perceived the portfolio and presentation assessment a worthwhile experience' (p 20). It gave them 'greater opportunity to express themselves creatively' but they desired 'personal ownership and decision making about the portfolio categories' (p 20). The 'evaluation form promoted reflection' and 'encouraged them to think about their preparation for student teaching and a teaching career', and this preparation 'made them more aware of their growth as a teacher' (p 20). Also, 'the process of selecting portfolio pieces clearly encouraged reflection' (p 20). The presentation of their portfolio 'increased their self-confidence' and students also preferred that the portfolios were not given a letter grade, just merely passed or failed. Their portfolios 'highlighted their professional growth and skills' and 'prepared them for a job search' (p 22). It also made them think about the standards and how they should be incorporated into the portfolio (p 22). Furthermore, students thought that the portfolios 'uniquely represented themselves' (p 22).

An electronic element was part of the portfolio component and this 'supported the application of technology skills in meaningful contexts to develop technological literacy' and this electronic portfolio, they believed, 'would help them to find a job' (p 22). There were also difficulties with the portfolio.

Students had difficulty 'deciding upon both the content to present and designing a format' (p 22). They 'expressed concern over the portfolio page limitation' and found it difficult to determine how best to represent themselves (p.22). The presentation, as part of an integrated portfolio assessment system, assisted students 'in reflecting on and organising their work' (p 23). The reflective process that was a corollary of the portfolio system 'helped to develop confidence through greater self-awareness and heightened their perceptions of being life-long learners' (p 24). The 'exhibition' of the portfolio also 'improved their speaking and interviewing skills' (p 24).

The numerical data (percentages, etc.), on which assertions are made, were not consistently presented. Imprecision clouds many of the assertions. For example, 'over one fourth of the sample...' (p 24). The presentation of the findings is consistently bad, using vague percentages. The 23 Likert-type questions are not represented in their entirety. The stage involving the metamorphosis of these questions into the five headings is poorly related. The quantitative data presented in Table 1 only includes questions 1, 4, 6, 7, 10, 11, 19, 22 and 23. There is no sign of the other questions. Under the section 'Incomplete Sentence Stems', there is no presentation of the qualitative data on which the statements and assertions are based, save for a few particular statements.

The conclusions of this study mostly synthesise the findings related in the previous section. According to the researchers, the portfolio 'programmatically encourages ongoing professional development through reflective practice' (p 24). It also offers 'programs a tool for assessing effectiveness in promoting growth and its related skills and dispositions' (p 25). It 'allows for ongoing opportunities' for students 'to practice reflection and communication skills, model their values, and expose them to a wide variety of self-evaluation criteria' (p 25). It also helps students to 'develop self-confidence in their verbal communication skills' and 'reflection skills' and ultimately, to 'assist in the job search' (p 25). A further summary of this is offered on page 25. The study 'confirms a number of perceived benefits: increased reflective practice, improved communication skills, emphasis on life-long learning and growth, and greater self-confidence in making the transition from school to work' (p 25).

#### **Quality of the study: reporting**

It is inferable that the study took place when it did and where it did, but this is interpretative and conjectural. The study, so it seems, was a reflex action to a heightened nationwide interest in, and use of, portfolios, but how this was funded, the exact location, when it exactly took place, and whether the study was primarily an internally funded review of a new system or a piece of externally funded research which was supposed to have wider implications is uncertain.

It is difficult to determine whether the introduction states the actual aims of the study or what it actually succeeded in doing. If the aims were to 'report the impact', then these are satisfied (p 18).

Apart from the number and the gender, the sample used in the study is not adequately described. What description there is can be found on page 19, paragraph six.

Apart from a brief description of the questionnaire and a reference to software packages involved in the process, data-collection is not described in any detail.

Although software packages are mentioned and the means by which the qualitative research is classified is described, the process through which the data went from this raw stage to the stage in which they are presented is unclear. Not all the data are presented, so the screening process is not discernible.

The portfolio guidelines are not included, neither is a copy of the original questionnaire. The exact methods used to collect, collate and analyse the data are not made explicit. Table 1 is not explained. Percentages are not made explicit.

#### **Quality of the study: methods and data**

There is a loose connection between the climate described in the introduction and the actual study, but no sound justification, reasoning or apologetic is discernible.

Decisions are rarely made explicit, let alone given a rationale.

The questionnaire seems to have been the best (perhaps only way) to have drawn data retrospectively on the portfolio component of the teacher training course. Interviews would have been an alternative, for better or worse.

There is no deliberation on the possible shortcomings and flaws of the questionnaire and the collection of it. One major shortcoming may be that the Likert scale is four-pronged, instead of the more common five-pronged scale. One school of thought advocates that there is no room for indifference on this model as everything is either agreeable or disagreeable, to different degrees, and there is no middle ground. If this is perceived to be the case, this study is certainly flawed. Another school of thought, however, advocates that the four-pronged Likert scale is better than the five-pronged one, because it forces participants off the fence. With middle ground, as well, there is the potential for drawing conclusions either way, and seeing them as positive or negative.

The data-extractor (the questionnaire) is based mainly on a set of former survey questions. To some degree, it builds on a tried and tested base. This is a minor validity assurance measure.

Although the findings of the study are for the most part reported in the section 'Survey Results', there are obvious omissions (i.e. Table 1 does not present all the questions and therefore omits a lot of the data). Since the entire process is not adequately described, the research method and design is not easy to follow; therefore the chance of bias and error distorting the findings is quite high.

There is nothing to suggest that the sample would seriously differ from any other taken from an average teacher training course. The findings, therefore, could safely be applied to other courses, especially within the US.

Although the research design and method is not made explicit, and this naturally raises questions about the reliability and validity of the findings, the data and the assertions made from the data were fairly trustworthy, insofar as the study is a simple one, without a huge margin of error.

Quantitative data without complex statistical analysis cannot really be interpreted in too many ways, so this is fairly trustworthy. The qualitative data is the untrustworthy component of the report. As we cannot see the original questionnaire in its entirety, we cannot fairly assess the validity of the questions; however, the report draws a clear distinction between the findings and the conclusions drawn from them. Formulating a conclusion independently from the conclusion in the report is therefore possible.

Because the study is not completely traceable, high trustworthiness cannot be awarded. However, given that it presents most of the data before it interprets it and draws conclusions based on common sense it can be awarded medium trustworthiness.

The concluding section of the report, more than anything, synthesises the findings rather than interprets them. The section on page 25, which offers possible implications and recommendations, is the most interpretative part.

No real justification is offered, however, for the concluding section, but the conclusions are, at the same time, not implausible.

The conclusions drawn from the findings are the same as those the reviewer would make.



## Pre-sessional task 2

Follow the links provided to find out more about the teacher education system in partner countries.

England:

<https://getintoteaching.education.gov.uk>

<https://www.ucas.com/ucas/teacher-training/getting-started/postgraduate-routes-teaching/which-route-right-you>;

<https://www.ucas.com/connect/videos#js=on>)

<https://graduates.teachfirst.org.uk/>

Greece:

<http://www.minedu.gov.gr/>

<http://www.education-inquiry.net/index.php/edui/article/view/28421>

<http://www.anglo-hellenic.com/>

[http://www.celt.edu.gr/aims\\_activities.htm](http://www.celt.edu.gr/aims_activities.htm)

<http://www.auth.gr/en/educ>

<http://en.ppp.uoa.gr/postgraduate-studies/postgraduate-programme-in-counseling-and-career-guidance.html>

Spain:

<https://www.esl-languages.com/en/initial-teacher-training-for-teachers-in-spanish.htm>

<http://www.hylandmadrid.com/en/courses/teacher-training-madrid.php>

<https://www.esl-languages.com/en/initial-teacher-training-for-teachers-in-spanish.htm>

Bulgaria:

<http://diuu.bg/>

<http://www.dipku-sz.net/otkrivane-na-sdk-pedagogicheska-pravosposobnost>

<http://www.niokso.bg/index.php>

<https://uni-plovdiv.bg/en/pages/index/2/>

<http://zaednovchas.bg/en/>

Lithuania:

<https://www.european-agency.org/agency-projects/Teacher-Education-for-Inclusion/country-info/lithuania/structure-and-content-of-initial-teacher-education-courses>

EU: <https://www.european-agency.org/>



# **Trainee to Trained Teacher**

## **Module 6 – Assessment and Accreditation of Initial Teacher Training and Newly Qualified Teachers**

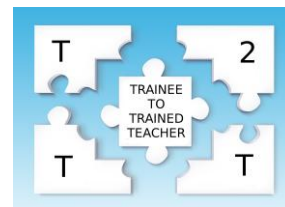


**Erasmus+**



# Objectives

- **Participants will consider the following questions**
- Why do we assess Trainees and Newly Qualified Teachers?
- What do we assess? What's important?
- How do we capture it?
- How do we accredit it?



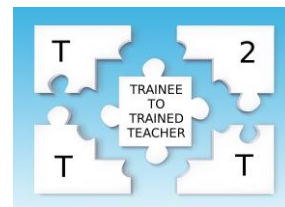
# Introduction

- Discuss the “Pre-sessional task 1” and be prepared to share 3 points - one which is a **Positive**, one which is a **Negative** and one which they found **Interesting**. (PMI feedback)



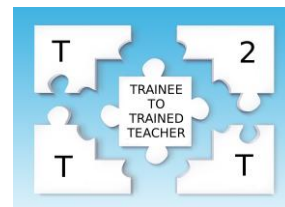
# Why do we assess trainees and Newly-Qualified Teachers?

- Brainstorm activity in groups of 3-4. Complete the task without discussion - the aim is to record ideas quickly onto flip chart paper, not to question or debate at this stage.
- Each group displays their flip chart responses on a wall. Group by group, the participants are able to ask questions of the responses they see e.g.
- What do you mean by...
- Why have you written...
- Can you tell me more about...



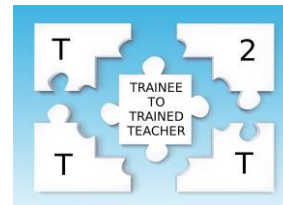
# What do we assess? What's important?

- Working in pairs, the participants should Diamond 9, the following statements, to identify a rank order.
- Identify the best way of capturing evidence for each of the “standards”.
- With reference to pre-sessional task, discuss formative and summative aspects of assessment



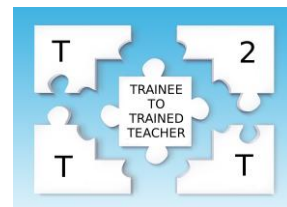
# How do we capture it?

- In groups of 4 develop an assessment calendar. What would happen when? What would the participants expect to see from trainees and newly qualified teachers at these points? Annotate on year planner/calendar.
- One person stays with their year planner/calendar whilst the rest of the group visits other groups to find out what they have done.
- Participants then return to their own groups and make any necessary changes / improvements.



# How do we accredit it?

- Stand where you believe your teacher education system currently is.
  - Where would you like to be?
  - What needs to change in order to achieve this?
- 
- Post-sessional task is to develop an action plan to support these changes.





## DIAMOND 9 ACTIVITY

Set high expectations which inspire, motivate and challenge pupils	Promote good progress and outcomes by pupils
Demonstrate good subject and curriculum knowledge	Plan and teach well-structured lessons
Adapt teaching to respond to the strengths and needs of all pupils	Make accurate and productive use of assessment
Manage behaviour effectively to ensure a good and safe learning environment	Fulfil wider professional responsibilities
Demonstrate consistently high standards of personal and professional conduct	Uphold public trust in the profession and maintain high standards of ethics and behaviour
Treat pupils with dignity	Observe proper boundaries appropriate to a teacher's professional position
Have regard for the need to safeguard pupils' well-being	Maintain high standards in their own attendance and punctuality
Act within their framework of professional duties and responsibilities	

## Academic Year Planner 2016-2017

2016-17	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T
August	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			///	///		
September				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	///	///		
October						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
November		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30			///	///		
December				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	///		
January						///	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
February			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28				///	///		
March			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	///	///		
April						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
May	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			///	///		
June				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	///	///		
July						1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

## **Descriptors for plenary**

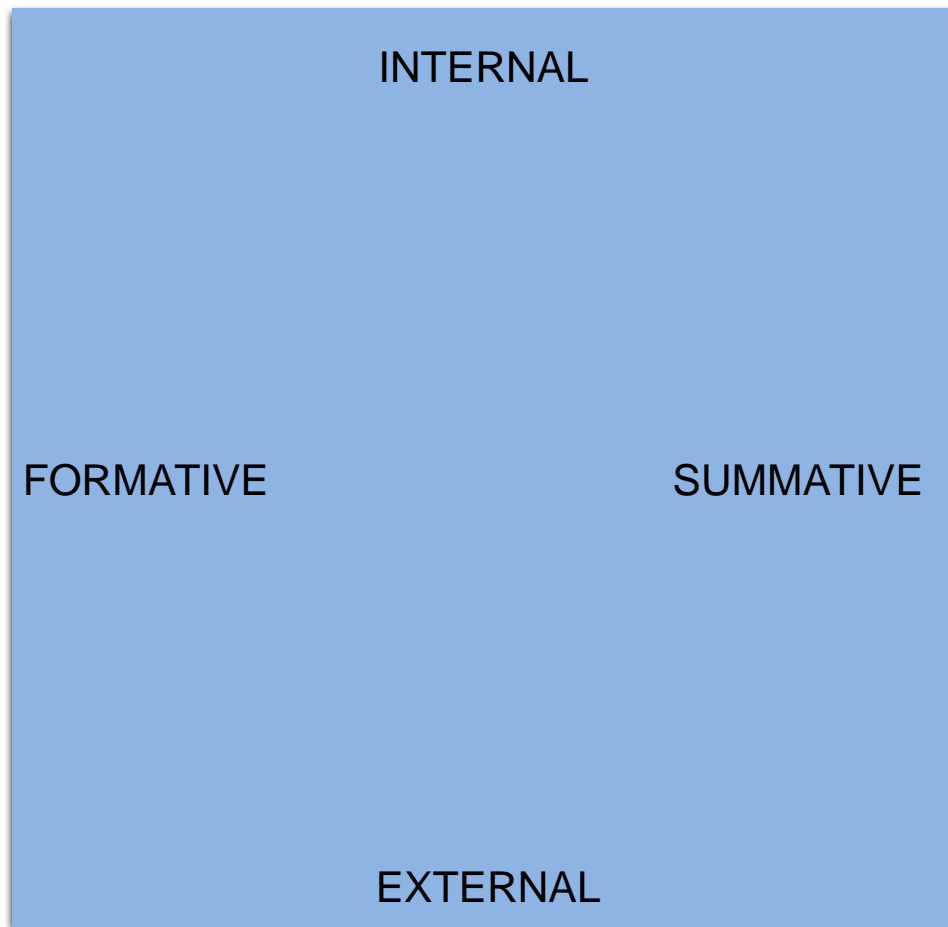
### **EXTERNAL:**

System in the country, university-school, principal-teacher, ministry-school. It is compulsory and formal, usually done by universities or the government. Predominantly summative, though not exclusively.

### **INTERNAL:**

School policy for assessing teaching quality, school framework, school assessment plan, school quality plan) It is voluntary and informal, usually done by the schools within their internal quality framework. Predominantly formative, but not exclusively.

### **Layout of room for plenary activity**



A4 sized signs placed on the walls of the room as above. Tables and chairs need to be cleared as far as possible to allow movement of participants.



Please would you complete this questionnaire to enable us to assess the quality of the training and to improve the draft resources. For the question with a scale, please put a cross X on the number that suits you.  
Remember that 1 is low and 6 is high.

<b>I am...</b>			
Male	<input type="checkbox"/>	Female	<input type="checkbox"/>

Name \_\_\_\_\_

Organisation &amp; Country \_\_\_\_\_

<b>My role is...</b>	
Trainee Teacher	<input type="checkbox"/>
Newly Qualified Teacher	<input type="checkbox"/>
Fully Qualified Teacher	<input type="checkbox"/>
Other – please specify	<input type="checkbox"/>

	Comments
Were you satisfied with the organisation and pre-event information/communication?	
Were you satisfied with the relevance of the workshop in relation to your professional activity?	
Were your expectations of the workshop addressed?	
Were you actively participating in the workshop?	

Following the workshop, how do you assess your understanding in the following areas?

### **Part 1 – Why assessment of trainees and NQTs is important?**

	1	2	3	4	5	6	Comments
I understand the importance of Assessment of trainees and NQTs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I understand why do we assess and what do we assess?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I feel able to apply effective assessment tools that help to understand what is important in assessment and how do we capture it.							
I understand knowing my previous skills, knowledge and understanding helps me to identify my needs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I understand what professional teachers standards look like in practice by using formative and summative aspects of assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Any comments about the resources provided to support your enquiry?

**Part 2 – Assessment tools**

Following the workshop, how do you assess your understanding in the following areas?

	1	2	3	4	5	6	Comments
I can identify different types of assessment and its application: external and internal, formative and summative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I understand the importance of dealing with different assessment issues in different ways of assessing teaching and learning results	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I feel more confident in using different assessment tools in my classroom	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I understand the importance of PMI feedback	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I feel able to apply successfully the year planner/calendar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Any comments about the resources or activities used in this module?

**Part 3 – Accreditation**

Following the workshop, how do you assess your understanding in the following areas?

	1	2	3	4	5	6	Comments
I understand what is meant by Accreditation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I understand better the currently stage of our teacher education system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I feel more able to put into practice assessment strategies when dealing with mentoring and coaching of NQTs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
I understand what is the function of individual development teachers plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Any comments about the resources or activities used in this module?

Any other comment about the workshop you wish to add:

Many thanks for taking time to complete this form.