

Review of
teacher education and school induction

First report — Full report

18 August 2010

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We look forward to working with these and others as we prepare the Second Report

Brian Caldwell
David Sutton
Project Leaders

The First Report at a glance

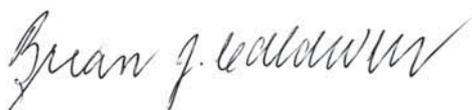
What we found

The review found that Queensland is well-placed to create a world-class system of teacher education and school induction. Reflecting developments already under way in some of its universities and elsewhere around Australia, and in other nations that have made the change, teaching should now become a graduate profession. Higher standards of entry to pre-service programs should be set and new kinds of partnerships should be established between universities and schools. These schools will excel in fields that are critically important for preparing teachers in the 21st Century at the same time that they model outstanding practice that addresses current needs and priorities. The review found a range of exciting innovations in teacher education in Queensland that should give confidence that international benchmarks can be achieved. Queensland can make a major contribution to, if not lead the way, in current efforts by the Australian Institute for Teaching and School Leadership to build a new framework for teacher education in Australia.

What we recommend

1. That from a date to be determined teaching be recognised as a graduate profession and that registration for beginning teachers be conditional on completion of a five-year program of pre-service education and two years of a formal induction program.
2. That five-year programs for pre-service teacher education generally be of two kinds, either (1) a bachelor's degree followed by two years of a master of teaching or equivalent degree or (2) a double degree that combines studies in particular disciplines and studies in education leading to a bachelor's and master's degree.
3. That the number of degrees currently offered by universities in Queensland be reduced so that, as far as possible, there is a single degree in teaching with particular strands of study in specific fields such as early childhood education, primary, middle schooling, secondary and special education.
4. That direct entry to a bachelor of education degree or double/combined degree on the basis of an OP score require a score of 12 or better. In exceptional circumstances a lower OP score may be accepted on the basis of demonstrated capacity/potential, including interviews and in some instances performance (in music, for example).
5. That every university that offers pre-service teacher education have a partnership with one or more schools that are the education equivalent of teaching hospitals.
6. That partnerships between universities and schools extend to research and professional development.
7. That staff in partner schools be exemplary teachers who receive special training for their roles.
8. That university staff who work in partnerships be engaged in 'clinical practice' in an educational counterpart to the way some academics in the field of medicine are engaged in private practice including research in some instances
9. That all students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues.
10. That all students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community.

11. That teachers entering the profession have a reduced teaching load of no more than 0.8 for at least the first year of their employment.
12. That teachers entering the profession have at least one trained mentor for the first year of their employment. Mentors should have a reduced class allocation to enable them to work with those they are mentoring.
13. That mentors be exemplary teachers who receive special certificated training for their roles.
14. That pre-service programs for all students include a subject or part of a subject that reflects the ESL dimension of work in settings where there are Indigenous students (those who are preparing to teach in settings where most students are Indigenous should complete a strand of studies that includes such a dimension).
15. That all students undertake at least two subjects that build capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students.
16. That all pre-service students undertake at least two subjects that build capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up. It is understood that those students preparing to teach in the field generally known as special education will undertake a strand of related studies as part of their degrees.
17. That all students will have successfully completed in their studies for the Queensland Certificate of Education at least one subject in each of English, mathematics and science, with an exception for science in the case of those who plan to teach non-science subjects at the secondary level.
18. That all students preparing to teach in primary schools undertake studies in evidence-based approaches to teaching literacy and numeracy that give substantial weight to explicit teaching.
19. That all students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school.
20. That all students preparing to teach in secondary schools undertake discipline-based studies in faculties or schools other than faculties or schools of education.
21. That professional teaching standards be reviewed to ensure they are expressed in parsimonious lists that are jargon-free and capable of reliable evidence-based assessment.



Brian Caldwell



David Sutton

Executive summary

A review of teacher education and school induction is one of several projects described in the implementation plan of the Green Paper *A Flying Start for Queensland Children*. Its purpose is to review and report on how teachers are prepared for professional practice in Queensland and to provide timely advice for improving teacher preparation and induction into the profession.

The First Report is intended to provide guidance in the preparation of the White Paper to be published in late 2010. A Second Report will be submitted on 31 October and this will examine current programs more closely and suggest strategies for the implementation of recommendations. More detailed attention will be given to some areas.

According to its Terms of Reference the review is to provide the following:

1. An overview of the Queensland context for teacher preparation and induction
2. An analysis of highly effective teacher preparation practices and review of related research, literature and reviews that critically appraise teacher education, both internationally and across Australia
3. A scan of the various attributes of Queensland pre-service teacher preparation, including:
 - content, duration, level and entry requirements of teacher education programs
 - the development of knowledge and skills to support effective professional practice, including core skills of: developing, implementing and using assessment; teaching literacy and numeracy; teaching students with disabilities; Early Childhood teaching; and parent and community communication
 - practicum arrangements and characteristics of partnerships developed between tertiary institutions, schools and school systems
4. An analysis of the effectiveness of current Queensland teacher preparation practices including:
 - education program outcomes and the 'work-readiness' of graduates, including core skills
 - issues in the induction of beginning teachers and early career experiences
5. Drafting and publication of a review report including
 - analysis of findings
 - formulation of recommendations

A review of documents outlining or providing background to the review, including the Green Paper and the Masters Report, suggested that particular attention should be given to the following issues:

- Evidence-based approaches particularly in literacy and numeracy
- Practical classroom knowledge and skills along with specialist discipline knowledge
- Practicum arrangements that complement coursework components
- Support for beginning teachers
- Content, duration, level and entry requirements
- Developing, implementing and using assessment
- Students with disabilities
- Early Childhood
- Parent and community communication
- Partnerships with schools and school systems

The project team was requested in early June to give particular attention to teacher education for Early Childhood Education (excluding pre-school) and for Behaviour Management.

Chapter 1 Introduction

Chapter 1 contains the Terms of Reference and the immediate background, with reference to the Masters Report and Green Paper.

Chapter 2 Context

Chapter 2 contains a summary of the Queensland context on matters related to pre-service teacher education. Particular attention is given to the role of the Queensland College of Teachers (QCT). It also contains a summary of the national context, focusing especially on national partnership agreements and the related agenda of the Australian Institute for Teaching and School Leadership (AITSL). As the longest standing body in the areas of accreditation and registration, the QCT is well-placed to provide a major contribution in the development of a national framework. As acknowledged by AITSL, the current review of teacher education and school induction is part of the contribution that Queensland can make.

Chapter 3 Issues and opportunities

A total of 32 major themes were found among the issues raised in feedback on the Green Paper, in submissions and during interviews. Each is expressed in the form of a question, the answers to which are sought in this review.

1. How can planning be improved to take account of supply and demand?
2. What should be the minimum OP cut-off score for those entering directly from school?
3. What should the entry-level qualifications be for those entering pre-service programs, especially in respect to mathematics and science?
4. Should interviews and other approaches, in addition to academic aptitude, be used to select those who are permitted to enter pre-service programs?
5. What is the most effective approach to implementing the idea of 'teaching centres of excellence'?
6. Is there a place for the proposed pre-registration tests?
7. How can greater consistency in standards be achieved in pre-service programs in different universities?
8. How much time should be spent in the practicum?
9. How can the practicum experience be expanded to provide more opportunity for students to have experience in rural/remote/Indigenous settings?
10. How can links between universities and schools be made more effective in teacher education, including the design and delivery of the practicum, internship and induction?
11. What should be the nature and scope of an internship in teacher education?
12. How should mentors be selected and prepared for their role?
13. What is meant by 'behaviour management' and how does it relate to 'classroom management' and 'discipline'?
14. How should matters related to behaviour management be addressed in pre-service programs?
15. How should national, state and local priorities in curriculum be addressed in pre-service programs?

16. What are the best approaches to teaching literacy and numeracy at different stages of schooling?
17. What are the appropriate pedagogies for personalising learning in schools?
18. How should assessment be addressed in pre-service programs?
19. How much attention should be given to ESL in pre-service programs, especially for those preparing to teach Indigenous students?
20. How should specialist areas such as physical education and librarianship be addressed in pre-service programs?
21. What are the best approaches for learning to teach students with special educational needs?
22. What are the best approaches for learning to teach students with disabilities?
23. What are the best approaches for learning how to relate to parents and other members of the school community?
24. What are the best approaches for learning to use technology?
25. How can induction programs be designed and delivered?
26. What induction should be arranged for the majority of graduates who currently secure short-term contracts only, and who shall be responsible and be held accountable for design and delivery?
27. What should be the length of postgraduate pre-service programs and what should be their content?
28. What should be the relationship between faculties/schools of education and other faculties/schools in the university in respect to the design and delivery of pre-service teacher education programs?
29. How should pre-service programs offer a global and futures perspective?
30. Should there be more pathways for preparing for a teaching career?
31. How should different stages of schooling be addressed in pre-service programs?
32. How can initiatives in matters related to these issues be funded?

Chapter 4 Benchmarking policy and practice in other settings

Chapter 4 provides an account of notable practices in other countries and in Australia other than Queensland. Internationally, particular attention is given to developments in Finland and the United States. Finland is included in most reviews where research on developments in other countries is undertaken. This is because Finland has performed consistently well in international tests of student achievement and because observers have invariably reported that the quality of teaching and the strength of its pre-service teacher education are major contributing factors. The United States is chosen because some of the world's leading scholars on teacher education and teacher professionalism are based in that country; the constitutional arrangements for the governance of education are similar to those in Australia, notably its federal system; and because some of the practices recommended elsewhere may be found there, albeit on a modest scale.

For Australia, the starting point is acknowledgement that there have been many reviews of teacher education in Australia. It is noted that (1) with few exceptions, the various models of teacher education have remained basically the same over the last three or four decades; (2) there are exemplars in each of these models; (3) new processes and practices have been introduced along the lines, for example, of professional standards, or new approaches to the practicum; and (4) evaluations of the teacher education experience by graduates and their schools have been mixed at best. The issues under investigation in this review of teacher education and school induction in Queensland are remarkably similar to those that have been reported around the country for many years.

As far as current arrangements are concerned, nearly all undergraduate pre-service teacher education courses – primary and secondary – take four years to complete. Some double degrees take up to five years. Most postgraduate courses are one year in length, but there are several that take 18 months or two years to complete.

The University of Sydney has offered a two-year Master of Teaching in its Faculty of Education and Social Studies in recent years. The University of Melbourne offered a similar course which it designated a Bachelor of Education. Discussion at Melbourne at the time centred on which designation (masters or bachelors) was appropriate for a two-year postgraduate program. As part of the university-wide 'Melbourne Model', the Melbourne Graduate School of Education has now phased out all undergraduate courses in education and offers only a two-year Master of Teaching, which is not a re-named Bachelor of Education; the debate is not now about how such a course should be designated but deeper, about what should be the nature of pre-service teacher education and what should be the relationship with practice. The Master of Teaching has explicitly adopted a 'clinical model', along the lines now proposed for the United States, and there are many similarities with what has proved successful in Finland. Research across Australia commissioned by Teaching Australia which reported the benefits of a Master of Teaching compared to bachelors or double degrees is summarised.

Induction is defined as a process, complementary to formal pre-service training, through which a person who seeks to pursue a career as a teacher acquires knowledge, skills, values, commitments and attitudes about or related to the profession. While traditionally and perhaps inappropriately seen as something that follows formal pre-service training this definition does not preclude related activity before or during initial teacher education. National and international trends point to a broader view of induction.

A key issue is whether professional teaching standards should be embedded in detailed specifications or in program, course and subject outlines, with outcomes the subject of quality assurance by expert panels. The issue is far from settled, as evident in the recent nine-country study commissioned by the Teaching Council in Ireland. Each country addressed the matter of what student teachers and teachers need to be able to do to be considered competent professionals but not all provide detailed specifications of competences and standards. Finland provides a 'light touch' whereas England is relatively prescriptive, with 33 statements associated with a list of key standards.

A limited review of pre-service programs for those who will teach in schools with large numbers of Indigenous students suggests that the task has not been successfully addressed in any nation. A possible exception is Finland and initial teacher education for those who will teach Saami (Lapp) students. It may be that benchmarks will need to be developed in the next stage of the review on the basis of highly effective or promising practice in Queensland.

Eighteen benchmarks were developed on the basis of the review and these generally reflect practice that has been confirmed through independent assessment as highly effective, as in Finland, or has been consistently proposed in almost every review of teacher education in recent years and there is early assessment of small-scale success, as in the United States.

1. There are high academic standards for entry to pre-service programs. Practice in which students with minimal entry standards to university are accepted is abandoned
2. In addition to higher levels of academic achievement than has traditionally been the case, all who seek entry to teacher education are interviewed and undertake tests or in other ways demonstrate capacity and readiness to pursue a career in teaching
3. Greater weight than has traditionally been the case is given in entry-level selection to prior achievement in science and mathematics
4. A minimum of five years of pre-service education at university level is a requirement for entry to the profession. There are different strands for the preparation of early years, primary and secondary teaching
5. All students undertake at least one subject that builds capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up
6. All students undertake at least one subject that builds capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students
7. Every university that offers pre-service teacher education has a clinical partnership with one or more schools that are the education equivalent of teaching hospitals. There is common understanding of what constitutes highly effective practice in universities and schools in these different settings and there is a seamless integration of the work of staff in the two settings
8. Staff based in partner schools are exemplary teachers who receive special training for their roles
9. Clinical partnerships between universities and schools extend to the provision of professional development programs for teachers thus, in this respect, they provide a more or less seamless integration of knowledge transfer in initial teacher education and ongoing professional development
10. All students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community
11. All students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues, including classroom management and support for those with learning difficulties
12. Induction is a process that commences from the time a student enters a pre-service program and continues for at least a year after he or she enters the profession
13. Teachers entering the profession have a reduced teaching load for at least the first year of their employment
14. Teachers entering the profession have at least one trained mentor for at least the first year of their employment. Mentors have a reduced class allocation to enable them to work with those they are mentoring

15. Mentors are exemplary teachers who receive special training for their roles
16. All students who will be involved in teaching literacy undertake studies in evidence-based approaches that give substantial weight to explicit teaching
17. All students preparing to teach in secondary schools shall undertake discipline-based studies in faculties or schools other than faculties or schools of education. All students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school
18. Professional teaching standards are expressed in parsimonious lists of statements that are jargon-free and capable of reliable evidence-based assessment

Chapter 5 Current approaches in Queensland

Chapter 5 contains a summary of current programs in Queensland, highlighting the major features in each instance. It also contains a broad assessment, as set out below, of the extent to which teacher education and school induction in Queensland currently meets the benchmarks in Chapter 4 (above). The limitations of offering brief generalisations and broad assessments are acknowledged.

Benchmark	Extent to which benchmark is currently met
1. There are high academic standards for entry to pre-service programs. Practice in which students with minimal entry standards to university are accepted is abandoned	As reported in Chapter 3, education tends to draw a disproportionately large number of students with low OP scores. While this does not apply in some universities, cut-off scores in the range 15-20 are evident for some programs
2. In addition to higher levels of academic achievement than has traditionally been the case, all who seek entry to teacher education are interviewed and undertake tests or in other ways demonstrate capacity and readiness to pursue a career in teaching	There were no instances reported of students being interviewed and there was only one instance where a test of capacity for teaching is required (capacity to perform for students entering music in a double degree)
3. Greater weight than has traditionally been the case is given in entry-level selection to prior achievement in science and mathematics	There are currently no requirements for prior achievement in mathematics and science
4. A minimum of five years of pre-service education at university level is a requirement for entry to the profession. There are different strands for the preparation of early years, primary and secondary teaching	A small number of five-year programs have been introduced, being two-year masters following successful completion of a three-year bachelor degree. Double or combined degrees are normally of four years duration. Most students complete a four-year bachelor of education or a one-year graduate diploma. Most degrees are specialist with a focus on particular levels of schooling
5. All students undertake at least one subject that builds capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up	While this may be a topic in one or more subjects in some universities, it is not clear from the evidence presented in the course of this review that a comprehensive approach has been embedded in pre-service programs across the state

Benchmark	Extent to which benchmark is currently met
6. All students undertake at least one subject that builds capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students	While this may be a topic in one or more subjects in some universities, it is not clear from the evidence presented in the course of this review that a comprehensive approach has been embedded in pre-service programs across the state
7. Every university that offers pre-service teacher education has a clinical partnership with one or more schools that are the education equivalent of teaching hospitals. There is common understanding of what constitutes highly effective practice in universities and schools in these different settings and there is a seamless integration of the work of staff in the two settings	Most universities have strong partnerships with particular schools but there are many instances where the links are tenuous, especially where the relationship is limited to placement of a student for a practicum. The education equivalent of a teaching hospital and the 'seamless integration' of the work of staff in university and school are not broadly evident
8. Staff based in partner schools are exemplary teachers who receive special training for their roles	There may be instances of exemplary teachers in practicum programs but there is little evidence of systematic or special training for their roles in supervision
9. Clinical partnerships between universities and schools extend to the provision of professional development programs for teachers thus, in this respect, they provide a more or less seamless integration of knowledge transfer in initial teacher education and ongoing professional development	There is modest evidence that this benchmark has been met
10. All students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community	There is little evidence of this benchmark being met
11. All students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues, including classroom management and support for those with learning difficulties	There is little evidence of a systematic approach although student encounters with behavioural issues are inevitable. A limited view of behaviour management, largely interpreted as classroom management or discipline, appears to be more common, with practicum experience in a narrow range of settings
12. Induction is a process that commences from the time a student enters a pre-service program and continues for at least a year after he or she enters the profession	Induction appears to be a relatively informal often hit-or-miss experience after a teacher takes up appointment. It rarely occurs for teachers who have a succession of contract appointments
13. Teachers entering the profession have a reduced teaching load for at least the first year of their employment	There is little evidence of this benchmark being met
14. Teachers entering the profession have at least one trained mentor for at least the first year of their employment. Mentors have a reduced class allocation to enable them to work with those they are mentoring	Informal mentoring arrangements appear to be in place in some schools but there is no evidence of a systematic approach across all schools and no evidence of reduced class allocation for those who serve as mentors

Benchmark	Extent to which benchmark is currently met
15. Mentors are exemplary teachers who receive special training for their roles	It is likely that mentors are outstanding if not exemplary teachers in some schools but there is little evidence that this benchmark is broadly achieved
16. All students who will be involved in teaching literacy undertake studies in evidence-based approaches that give substantial weight to explicit teaching	While this should not be interpreted narrowly to refer exclusively to phonics, a preliminary assessment suggests that more attention should be given to explicit teaching across all programs before this benchmark can be met across the state
17. All students preparing to teach in secondary schools shall undertake discipline-based studies in faculties or schools other than faculties or schools of education. All students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school	There are some instances where this occurs outside double or combined degrees but most studies for the bachelor of education are conducted entirely within faculties or schools of education
18. Professional teaching standards are expressed in parsimonious lists of statements that are jargon-free and capable of reliable evidence-based assessment	Queensland has led the way in specifying professional standards that provide a framework for accrediting pre-service programs. It is likely that this benchmark is met although a further searching examination should be conducted to ensure that evidence more than assertion is provided about what students can actually do

Chapter 6 Proposals for change

Chapter 6 contains a summary of proposals for change as set out in submissions and described during interviews. It includes a broad assessment, as set out below, on the extent to which proposals for change meet the benchmarks in Chapter 4. The limitations of offering brief generalisations and broad assessments are acknowledged. The chapter concludes with the case for maintaining a futures focus. The extent of change in most universities in recent years and the willingness to propose further change suggest that benchmarks can be met in the years ahead.

Benchmark	Extent to which proposals achieve benchmark
1. There are high academic standards for entry to pre-service programs. Practice in which students with minimal entry standards to university are accepted is abandoned	Proposals have been made to move Queensland closer to achieving this benchmark but there is a view that exceptional circumstances may make this difficult in some settings
2. In addition to higher levels of academic achievement than has traditionally been the case, all who seek entry to teacher education are interviewed and undertake tests or in other ways demonstrate capacity and readiness to pursue a career in teaching	Proposals have been made to move Queensland closer to achieving this benchmark but some have pointed to difficulties of implementation
3. Greater weight than has traditionally been the case is given in entry-level selection to prior achievement in science and mathematics	This is proposed by some but others have questioned the need. Entry-level qualifications in mathematics are under consideration

Benchmark	Extent to which proposals achieve benchmark
4. A minimum of five years of pre-service education at university level is a requirement for entry to the profession. There are different strands for the preparation of early years, primary and secondary teaching	There is a trend in some universities to five-year pre-service, mainly by extending the one-year graduate diploma to two years with re-design to make a masters degree appropriate. There are different views on the extent to which the benchmark should apply for those who plan to teach in the early years
5. All students undertake at least one subject that builds capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up	Some proposals are consistent with this benchmark
6. All students undertake at least one subject that builds capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students	Some proposals are consistent with this benchmark
7. Every university that offers pre-service teacher education has a clinical partnership with one or more schools that are the education equivalent of teaching hospitals. There is common understanding of what constitutes highly effective practice in universities and schools in these different settings and there is a seamless integration of the work of staff in the two settings	Where preferences have been expressed, there is a pattern among proposals to move toward this benchmark
8. Staff based in partner schools are exemplary teachers who receive special training for their roles	Where preferences have been expressed, there is a pattern among proposals to move toward this benchmark
9. Clinical partnerships between universities and schools extend to the provision of professional development programs for teachers thus, in this respect, they provide a more or less seamless integration of knowledge transfer in initial teacher education and ongoing professional development	There is little in proposals that would move Queensland closer to achieving this benchmark
10. All students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community	Where preferences have been expressed, there is a pattern among proposals to move toward this benchmark
11. All students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues, including classroom management and support for those with learning difficulties	Where preferences have been expressed, there is a pattern among proposals to move toward this benchmark

Benchmark	Extent to which proposals achieve benchmark
12. Induction is a process that commences from the time a student enters a pre-service program and continues for at least a year after he or she enters the profession	Induction is still largely conceived as a post pre-service experience and mainly limited to the first year of teaching. However, there is general agreement that a more formal and substantial induction experience is required
13. Teachers entering the profession have a reduced teaching load for at least the first year of their employment	This has been proposed in some submissions
14. Teachers entering the profession have at least one trained mentor for at least the first year of their employment. Mentors have a reduced class allocation to enable them to work with those they are mentoring	The appointment of a mentor in the first year is generally supported in proposals, with some referring to a reduced allocation
15. Mentors are exemplary teachers who receive special training for their roles	This benchmark is generally accepted
16. All students who will be involved in teaching literacy undertake studies in evidence-based approaches that give substantial weight to explicit teaching	This benchmark has not been addressed in submissions
17. All students preparing to teach in secondary schools shall undertake discipline-based studies in faculties or schools other than faculties or schools of education. All students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school	While there are instances of this already in place, at least in combined or double degrees, there are few instances where movement toward this benchmark is proposed
18. Professional teaching standards are expressed in parsimonious lists of statements that are jargon-free and capable of reliable evidence-based assessment	This benchmark has not been addressed in proposals, although the importance of professional standards and current approaches is endorsed

Chapter 7 Recommendations

Chapter 7 contains recommendations for change at a sufficiently detailed level to contribute to the preparation of the White Paper. A deeper examination of current programs and a relatively detailed specification of strategies for implementation will be included in the Second Report.

The idea of a ‘default setting’ may be helpful in understanding how the recommendations should be interpreted and implemented. A default setting describes a situation that normally prevails in policy and practice. There may be circumstances where different policies and practices should be adopted but a powerful case must be made for a different setting. It is acknowledged that in some instances several years will be required before full implementation will occur. It is appropriate under these circumstances for there to be a period of transition or staged implementation.

A graduate profession

Recommendation 1

It is recommended that from a date to be determined teaching be recognised as a graduate profession and that registration for beginning teachers be conditional on completion of a five-year program of pre-service education and two years of a formal induction program.

Recommendation 2

It is recommended that five-year programs for pre-service teacher education generally be of two kinds, either (1) a bachelor's degree followed by two years of a master of teaching or equivalent degree or (2) a double degree that combines studies in particular disciplines and studies in education leading to a bachelor's and master's degree.

There is persuasive evidence that teaching should now be considered a graduate profession, that is, five years of university education consisting of either (1) a bachelor's degree in another field followed by a post-graduate qualification, or (2) a double degree that includes the equivalent of a post-graduate qualification in education. This is the main thrust of reforms across the United States that are likely to be confirmed in formal agreements before the end of 2010. There are similar themes in reviews of teacher education in places like Ireland and Scotland.

The first alternative (1) has been the requirement in Finland since 1979 and the University of Melbourne since 2009. There has been uncertainty on this issue in Australia, especially in pre-service education for teachers, with a preference on the part of some universities for a two-year program following a bachelor's degree being overtaken by acceptance that one year is sufficient. The main program continued to be the four-year bachelor's degree in education. The current situation in Queensland reflects to some degree a market reality given that one-year post-graduate programs are the norm elsewhere around the country and mutual recognition allows registration in Queensland of those registered as teachers in other states.

Subject to other recommendations set out below, the second alternative (2) of a double degree includes the possibility of a combined Bachelor of Education and Master of Teaching over five years.

Account will need to be taken of the recommendations of the current review of teacher education being undertaken by the Australian Institute of Teaching and School Leadership (AITSL). It is noted in Chapter 4 that a study undertaken for Teaching Australia, the predecessor of AITSL, had found important benefits of a master's program (Louden et al., 2010).

Recommendations 1 and 2 do not call for current teachers to return to study nor is it intended to reflect on the quality of their preparation and practice. It is not based on a judgement that current four-year programs have been poorly designed or delivered nor does it imply that there have not been outstanding graduates of such programs. It is based on a view that the status of the profession itself should be raised and that meeting expectations for school education in the 21st century demands unprecedented levels of knowledge and skill, especially if there is to be success for all students in all settings.

It will be necessary to have a period of transition, to be specified in the Second Report, as the cycle of accreditation for current programs must be completed and students who are currently enrolled in existing degrees must have an opportunity to complete. Universities are, however, encouraged to introduce five-year programs at the earliest opportunity as current programs run their course.

Proliferation of degrees

Recommendation 3

It is recommended that the number of degrees currently offered by universities in Queensland be reduced so that, as far as possible, there is a single degree in teaching with particular strands of study in specific fields such as early childhood education, primary, middle schooling, secondary and special education.

Recommendation 3 does not distinguish between those preparing to teach at different levels of schooling. For example, the view that preparing to teach in early childhood or primary schools, calls for fewer years of preparation compared to those who plan to teach in secondary schools is rejected. The early and primary years are the most important for laying a foundation for subsequent learning, including lifelong learning, and the knowledge base is as sophisticated and robust as for any other level.

High standard of entry

Recommendation 4

It is recommended that direct entry to a bachelor of education degree or double/combined degree on the basis of an OP score require a score of 12 or better. In exceptional circumstances a lower OP score may be accepted on the basis of demonstrated capacity/potential, including interviews and in some instances performance (in music, for example).

This recommendation applies to the years of transition when the traditional four-year bachelor of education degree continues to be offered (see comments above in relation to Recommendations 1 and 2) and for double/combined degrees for which there is direct entry from schools on the basis of an OP score.

The fact that several universities admit students to pre-service programs with a low OP score was mentioned in a number of interviews and submissions. It was argued that the knowledge base for teaching is now so rich that high levels of academic ability are demanded in a context in which Queensland school students should achieve at a higher level than is currently the case and gaps between high- and low-performing students should be closed. The same argument has been mounted elsewhere in Australia and in other countries. A counter-argument was also presented, usually expressed as a challenge to the view that there is only a weak if any relationship between prior academic achievement and success in pre-service education and subsequent performance as a classroom teacher. Research reported in Chapter 4 confirmed the positive relationship between success in university and prior achievement.

It may be that market forces in terms of supply and demand in Queensland will result in smaller numbers of students in pre-service programs, allowing universities to limit enrolments and limit the number of students with relatively low OP scores. The current situation in terms of supply and demand is outlined in Chapter 3. However, it is the conclusion of this review that a position should be taken on the basis of the case for a graduate profession.

Where interviewees expressed a view on the topic, the range for minimum OP scores was 8 to 12. It is recommended that a score of 12 be adopted in the first instance, with exceptional cases being dealt with on the basis of other considerations. It may be that a movement toward 8 is possible in the future. It is likely that a change in legislation will be required to give effect to this recommendation.

Clinical partnerships

Recommendation 5

It is recommended that every university that offers pre-service teacher education have a partnership with one or more schools that are the education equivalent of teaching hospitals.

Recommendation 6

It is recommended that partnerships between universities and schools extend to research and professional development.

Recommendation 7

It is recommended that staff based in partner schools be exemplary teachers who receive special training for their roles.

Recommendation 8

It is recommended that university staff who work in partnerships be engaged in 'clinical practice' in an educational counterpart to the way some academics in the field of medicine are engaged in private practice including research in some instances.

Recommendation 9

It is recommended that all students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues.

Recommendation 10

It is recommended that all students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community.

There is a general consensus in reviews of teacher education that partnerships between universities and schools are critical in determining the success of pre-service programs. This has been the conclusion of reviews over several decades in Australia as well as current reviews here and elsewhere. In the United States, for example, the idea of 'clinical partnerships' has been widely endorsed in reviews and associated recommendations, with a sound evidence base in long-standing successful Professional Development Schools (PDS) around the nation. Issues in current practice have centred on the difficulty of placing students for school experience (practicum), the costs of school staff who supervise students, the lack of alignment of views of university and school staff on what constitutes good practice, and the assessment of students.

There is a clear preference in contemporary studies and accounts of good practice, as set out in Chapter 4, for university-school partnerships to adopt a clinical model, moving closer to the educational equivalent of a teaching hospital and away from the traditional practice of a multitude of schools, many of which have to be persuaded to take students for short-term practicums. Like teaching hospitals, the school also becomes the site for professional development and research, with the latter also including research by teachers ('teacher as researcher') and pre-service student research focusing on particular 'problems' or 'issues' such as behaviour management or support of students with special educational needs ('problem-based research').

It is stressed that the idea of a clinical partnership is different from the kind of partnership that currently prevails in most settings where universities seek out schools that are prepared to accept students in a practicum.

It is acknowledged that the metaphor of 'teaching hospital' has its limitations. There is no attempt here to compare health care and the treatment of patients with learning and teaching as they occur in schools. It is the nature of the authentic partnership between universities and centres of good practice that lies at the heart of these recommendations. Another difference is that there are relatively few teaching hospitals in Queensland but there will be scores of university-school partnerships.

An important issue in this review concerned the relationship between pre-service education and Teaching Centres of Excellence, as proposed in the Green Paper. The review team was briefed on progress in planning for Teaching Centres of Excellence. The clinical partnerships recommended here may include the five Commonwealth-funded Teaching Centres of Excellence, as originally

conceived in the Green Paper or as they emerge in further planning. It is envisaged, however, that there will be scores of partnerships around the state, with some selected for their excellence in teaching and the support of teaching in specialist areas such as literacy and numeracy, science and mathematics, dealing with behavioural issues, schooling for Indigenous students, and schooling in remote locations. It is important to stress that universities will not only continue but strengthen the knowledge/discipline/theoretical bases in each of these domains.

It is acknowledged that some 'centres of excellence' may not be stand-alone schools but may be a cluster of schools in the same community or a network of schools that may be spread geographically. An example of the latter is the network of 376 schools served by the Stronger Smarter Institute at QUT led by Dr Chris Sarra. These schools are located in several states and territories and are characterised by their support of Indigenous students. Some networks may be networks of remote or isolated schools, including those that are outstanding in their use of technology

A review of professional development is outside the terms of reference of this review of teacher education and school induction. However, it is important to note that policy and practice on partnerships should extend beyond the years of pre-service education in the same way that teaching hospitals do for ongoing professional development for medical practitioners.

A new model of induction

Recommendation 11

It is recommended that teachers entering the profession have a reduced teaching load of no more than 0.8 for at least the first year of their employment.

Recommendation 12

It is recommended that teachers entering the profession have at least one trained mentor for the first year of their employment. Mentors should have a reduced class allocation to enable them to work with those they are mentoring.

Recommendation 13

It is recommended that mentors be exemplary teachers who receive special certificated training for their roles.

Whereas induction has traditionally referred to the experience of a beginning teacher after initial appointment, induction is defined in this review as a process, complementary to formal pre-service training, through which a person who seeks to pursue a career as a teacher acquires knowledge, skills, values, commitments and attitudes about or related to the profession. Under this definition, the process commences at the time a student enters a pre-service program and continues for at least a year after he or she enters the profession.

Induction therefore includes school experience (practicum) even though this experience serves other important purposes such as assisting the student and the university determine whether he or she is suited to teaching.

It is clear that current arrangements for the practicum (school experience) are generally unsatisfactory as far as induction is concerned. At its worst, there were too many accounts of teams of staff in universities on the phone a few days before a practicum pleading with schools to accept students. While intentions may be sound, the evidence suggests a good induction experience is relatively rare and that a different model of induction is required.

Teaching Indigenous students

Recommendation 14

It is recommended that pre-service programs for all students include a subject or part of a subject that reflects the ESL dimension of work in settings where there are Indigenous students (those who are preparing to teach in settings where most students are Indigenous should complete a strand of studies that includes such a dimension).

The teaching of Indigenous students is particularly important in the Queensland context. The Masters Report and the Green Paper largely reflected concern that levels of achievement of Queensland students were lower than desired, and the gap between high- and low-performing students was far wider than it ought to be. An important factor that has been known for some years, in Queensland and elsewhere around Australia as well as in comparable countries, is the relatively low levels of achievement of Indigenous students. Raising these levels and closing the gaps for Indigenous students would therefore go a long way to addressing the concern about overall levels of achievement in the state. It is for this reason that the review addressed the preparation of teachers who desire to or are assigned to work in these settings, even though it was not explicitly mentioned in the Terms of Reference and the parameters of the review, as set out in Chapter 1.

It emerged in the course of the review that insufficient attention is being given in some quarters to the fact that the challenge of teaching Indigenous students is as much a problem of language as it is of culture and socio-economic background. Expressed simply, for many Indigenous students, English may be a second, third or even fourth language. Those who teach such students should therefore possess knowledge and skill of a kind that is generally required for teaching students for whom English is a Second Language (ESL). Teachers whose pre-service education is preparing them for work in these settings will be under-prepared if they do not include related ESL subjects, and if they do not have experience/induction in clinical partnerships where there is outstanding practice in teaching Indigenous students.

In addition to a focus on ESL, it is important to stress that preparing to teach Indigenous students also requires studies of pedagogy and dealing with diversity that research has shown to be effective.

It is important to note that the same analysis applies to those who teach students from other countries, especially from some African nations, who initially lack capability in English.

Subjects of study

Recommendation 15

It is recommended that all students undertake at least two subjects that build capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students.

Recommendation 16

It is recommended that all pre-service students undertake at least two subjects that build capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up. It is understood that those students preparing to teach in the field generally known as special education will undertake a strand of related studies as part of their degrees.

There are several approaches to implementation of Recommendations 15 and 16. An alternative may be to specify the percentage of a course that should be devoted to related studies. Another may be a combination of at least one discrete unit/subject and clearly identifiable related studies across a course.

It is important to stress that each recommendation refers to the range of special educational needs, including those of students often described as 'gifted and talented'.

Pre-requisites

Recommendation 17

It is recommended that all students will have successfully completed in their studies for the Queensland Certificate of Education at least one subject in each of English, mathematics and science, with an exception for science in the case of those who plan to teach non-science subjects at the secondary level.

Recommendation 18

It is recommended that all students preparing to teach in primary schools undertake studies in evidence-based approaches to teaching literacy and numeracy that give substantial weight to explicit teaching.

Recommendation 19

It is recommended that all students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school.

Recommendation 20

It is recommended that all students preparing to teach in secondary schools undertake discipline-based studies in faculties or schools other than faculties or schools of education.

Care is required in the implementation of Recommendation 18 to ensure that appropriate pedagogies are followed in preparatory and early years. Reliance on highly structured off-the-shelf kits to prepare the youngest children to pass NAPLAN in Grade 3 may be harmful.

Recommendation 19 concerning those preparing to teach in primary schools calls for a change in practice in some universities where all discipline studies are undertaken within a faculty or school of education. It may not be possible in some instances for students to undertake discipline-based studies in another faculty or school. However, it is desirable for students to gain knowledge and skill from those who specialise in particular disciplines, for example to learn from scientists or musicians or historians. Some faculties and schools of education will have staff that see themselves and are seen by others first and foremost as scientists or musicians or historians rather than teacher educator. Those who seek to be specialist teachers of mathematics and/or science in secondary schools will have a deeper foundation in these fields in their QCE and, consistent with earlier recommendations, will have completed a bachelors degree with major and minor studies in these specialisations.

It is important to make clear that Recommendations 19 and 20 do not necessarily require all discipline-based studies to be undertaken in pre-service programs. It may be that most are conducted within a faculty or school of education in a joint/combined degree (see Recommendations 2 and 4). The particular benefit in Recommendations 19 and 20 is that they propose the involvement of other faculties or schools in the work of teacher education, thereby building understanding and support of pre-service education. The review team encountered a view in the course of interviews that these connections should be better than they are. The blame, if

any, should be shared both ways in the sense that some perceive faculties or schools of education as being remote from the real world of the disciplines while teacher educators may argue the same line of their colleagues elsewhere in the academy. Rather than form a judgement on the matter, it is the view of the review team that the wider university has an important role to play in the preparation of teachers.

Professional standards

Recommendation 21

It is recommended that professional teaching standards be reviewed to ensure they are expressed in parsimonious lists that are jargon-free and capable of reliable evidence-based assessment.

It was noted in the course of the review that pass-rates in some if not most subjects in pre-service programs exceed 95 per cent. This may be viewed as a matter of concern in situations where students with relatively low OP scores are admitted to pre-service programs. This reinforces the importance of having professional standards that are capable of reliable evidence-based assessment, as set out in the above recommendation. It also reinforces the importance of having a moderation process within and across universities. It was noted that the Queensland College of Teachers is currently considering such a process.

More detailed specification in the Second Report

The Second Report will provide a more detailed specification of approaches to implementation, especially in respect to subjects/units of study and pre-requisites, as well as strategies for implementation of the 20 recommendations listed above. Particular attention will be given to early childhood education, behaviour management, Indigenous education, students with disabilities, parental engagement and special features associated with different stages of schooling such as middle schooling.

Conclusion

The review found that Queensland is well-placed to create a world-class system of teacher education and school induction. Reflecting developments already under way in some of its universities and elsewhere around Australia, and in other nations that have made the change, teaching should now become a graduate profession. Higher standards of entry to pre-service programs should be set and new kinds of partnerships should be established between universities and schools. These schools will excel in fields that are critically important for preparing teachers in the 21st Century at the same time that they model outstanding practice that addresses current needs and priorities. The review found a range of exciting innovations in teacher education in Queensland that should give confidence that international benchmarks can be achieved. Queensland can make a major contribution to, if not lead the way, in current efforts by the Australian Institute for Teaching and School Leadership (AITSL) to build a new framework for teacher education in Australia.

Chapter 1

Introduction

A review of teacher education and school induction is one of several projects described in the implementation plan of the Education Green Paper *A Flying Start for Queensland Children* (Queensland Government, 2010). Its purpose is to review and report on how teachers are prepared for professional practice in Queensland and to provide timely advice for improving teacher preparation and induction into the profession.

The First Report is intended to provide guidance in the preparation of the White Paper to be published in late 2010. A Second Report will be submitted on 31 October and will examine current programs more closely and suggest strategies for implementation of recommendations.

Terms of Reference

According to its Terms of Reference the review is to provide the following:

1. An overview of the Queensland context for teacher preparation and induction
2. An analysis of highly effective teacher preparation practices and review of related research, literature and reviews that critically appraise teacher education, both internationally and across Australia
3. A scan of the various attributes of Queensland pre-service teacher preparation, including:
 - content, duration, level and entry requirements of teacher education programs
 - the development of knowledge and skills to support effective professional practice, including core skills of: developing, implementing and using assessment; teaching literacy and numeracy; teaching students with disabilities; Early Childhood teaching; and parent and community communication
 - practicum arrangements and characteristics of partnerships developed between tertiary institutions, schools and school systems
4. An analysis of the effectiveness of current Queensland teacher preparation practices including:
 - education program outcomes and the 'work-readiness' of graduates, including core skills
 - issues in the induction of beginning teachers and early career experiences
5. Drafting and publication of a review report including
 - analysis of findings
 - formulation of recommendations

Matters to be given special attention

A sharper focus as far as purpose is concerned was made clear in the description of the outcomes of the review which indicated that the report should deal with:

- The extent to which current teacher education programs prepare beginning teachers who effectively use evidence-based approaches in their professional practice, particularly when teaching literacy and numeracy
- The extent to which teacher education programs prepare beginning teachers with sound practical classroom knowledge and skills, and requisite specialist discipline knowledge
- The extent to which practicum arrangements in teacher education complement coursework components and contribute to the preparation of highly effective beginning teachers, and
- The support beginning teachers receive in their first years of teaching

Item 3 in the Terms of Reference set out on page 1 indicated that the scan of current programs would include:

- Content, duration, level and entry requirements of teacher education programs
- the development of knowledge and skills to support effective professional practice, including core skills of: developing, implementing and using assessment; teaching literacy and numeracy; teaching students with disabilities; and parent and community communication; and
- practicum arrangements and characteristics of partnerships developed between tertiary institutions, schools and school systems

Combining these two lists yields a set of issues that should be given particular attention in the review, namely:

- Evidence-based approaches particularly in literacy and numeracy
- Practical classroom knowledge and skills along with specialist discipline knowledge
- Practicum arrangements that complement coursework components
- Support for beginning teachers
- Content, duration, level and entry requirements
- Developing, implementing and using assessment
- Students with disabilities
- Early Childhood
- Parent and community communication
- Partnerships with schools and school systems

The project team was requested in early June to give particular attention to teacher education for Early Childhood Education (excluding pre-school) and for Behaviour Management.

Policy context in Queensland

The immediate policy context can be described in terms of proposals in the Green Paper and findings in the Masters Report (Masters, 2009).

Green Paper

A 'review of teacher training' was included as a strategy for addressing Objective 3 ('Improving school discipline, the quality of teaching and setting high performance for all schools') (page 19). While acknowledging that 'significant reforms are already under way to improve teacher quality and school leadership' (page 19), the Green Paper proposed that the review of teacher education address the following (page 20):

- Parents want to know that teachers are getting strong grounding in subject knowledge and effective teaching practice. The ability to identify and support struggling students and ensure classroom discipline need to be essential components of teacher training.
- Our systems need to ensure that there is a continuous feedback loop between schools and university training courses.
- This is why we are introducing pre-registration tests for aspiring teachers, to make sure they have the skills they need to teach literacy, numeracy and science.
- This also means looking closely at how teachers are trained in the subjects they are teaching, in how students learn effectively, and in how to use assessment.
- The preparation of teachers needs to include a strong focus on evidence-based approaches, in particular in teaching literacy.
- Teachers must also have sound practical skills and specialist training in running a classroom and maintaining strong school discipline in classrooms that are focused on learning.

- To ensure universities include clear and consistent training on how to teach the foundations, a review will be undertaken of the content and standards of teaching courses. The review will also consider ways of giving beginning teachers strong support in their first year of teaching.
- There will be an ongoing survey of teacher graduates to find out how well their university courses and placements as student teachers in schools prepared them for the practical demands of teaching. As well, a survey will be undertaken by principals from schools that take the teacher graduates in the first year to see how well prepared they are.
- Particular attention will be paid to school discipline and teaching literacy and numeracy.

The survey of teacher graduates and principals described in the second last of the above has already been conducted and findings are reported in Chapter 5.

Strategies for addressing Objective 3, cited above, included the establishment of Teaching Centres of Excellence and planning for implementation is under way. It is clear that these strategies are connected to the review of teacher education, as is evident in the following (page 21):

- To improve student teacher pracs, the Government will establish Teaching Centres of Excellence in selected schools to take on more teaching students and give them the opportunity to learn from the best.
- Five centres will be established over the next three years, with the support of the Commonwealth Government.
- The centres will be chosen from our top performing schools, with a strong record in education achievement and student discipline.
- These schools will work in partnership with universities to provide the best possible practice training for new teachers.
- Because the Centres of Excellence will be based in schools, they will be a direct link back to university teacher training, making for stronger relationships between training courses and the daily realities of the classroom.

While acknowledging that a separate project is under way on the topic, this report includes a short account of efforts around Australia and beyond to establish 'teaching centres of excellence' as these relate to programs for teacher education.

The Green Paper also called for a single body 'to set and monitor high standards for teachers and all schools across Queensland' (page 21) which would see that:

- Curriculum and assessment standards are built into university teacher training and school performance evaluations.
- What is learned from schools across Queensland would be fed back to universities to help them improve their teacher training. It would also be fed back to schools to help them improve their teacher preparation and curriculum support.

The Masters Report

The Queensland Government commissioned the Masters Report (Masters, 2009) in response to deep concern about the achievement of students in the state's schools, when compared to other states in national and international tests. Masters drew attention to the issue of achievement in the early years and offers several explanations:

Students in the middle primary years (Years 3, 4 and 5) in Queensland tend to have literacy, numeracy and science achievement levels below those of students in all other states and territories with the exception of the Northern Territory. Part of the explanation for these lower performances is no doubt the fact that, currently, Queensland students in these year levels have had one less year of schooling than students in other parts of Australia. [A Preparatory Year has now been introduced].

By the middle years of school (Years 7 to 10), Queensland students often are ranked ahead of, or are not statistically different from, students in one or more of Tasmania, Western Australia and South Australia. In other words, Queensland students appear to make more rapid progress than students in these three states in the intervening years (Masters, 2009, p. v).

Masters described the demographic differences that should be taken into account in making comparisons between Queensland and other states. For example, in comparing Queensland and Tasmania it is important to recognise that Queensland students:

Have had twelve months less total schooling

- Are in their second, rather than third, year of secondary schooling; and
- Are nine months younger than Tasmanian Year 9 students (Masters, 2009, p. 14).

Masters drew attention to other demographic features of Queensland's education system including the relatively high numbers of Indigenous students and students in remote settings. Apart from the Northern Territory (27.8 per cent), Queensland has the highest percentage of Indigenous students (3.5 per cent) (high-performing Victoria and NSW have 0.6 per cent and 2.1 per cent respectively) (Masters, 2009, p. 15). Similarly, apart from Northern Territory (45.9 per cent) and Western Australia (7.4 per cent), Queensland has the highest percentage of students in remote settings (4.1 per cent) (high-performing Victoria and NSW have 0.1 per cent and 0.7 per cent respectively) (Masters, 2009, p. 15). These characteristics suggest that a review of highly effective practice should also give attention to pre-service and induction programs for those who will work with Indigenous students and in remote settings.

Masters drew on findings in the Program for International Student Assessment (PISA) to highlight shortcoming in the preparation of teachers in mathematics and science:

After NT (68%), QLD teachers of Year 4 students report they are least prepared to teach mathematics (71%), with leaders being ACT (88%), NSW (87%) and SA & WA (each 82%).

Teachers in all states and territories report low levels of preparation in the teaching of science, ranging from a low of 39% (ACT) to a high of 55% (NT) with QLD sitting at 44% (Masters, 2009, p. 28).

Masters was careful to note that perceptions of poor preparation are Australia-wide and not limited to Queensland:

In summary, only 44 per cent of Queensland Year 4 teachers report feeling 'very well' prepared to teach science. Very few (15-16 per cent) Australian teachers report having had professional development in the teaching and assessment of science. Australian teachers also stand out internationally for their limited use of textbooks (24 per cent do not use a mathematics textbook; 78 per cent do not use a science textbook) (Masters, 2009, p. 29).

Masters believed that the following measures should be taken to improve outcomes in literacy, numeracy and science (Masters, 2009 p. viii):

- Access to a workforce that is very well prepared through pre-service teacher education programs
- Access to high quality professional learning for teachers
- Access to ongoing expert advice and support for the teaching of literacy, numeracy and science
- Clarity about what teachers are expected to teach and students are expected to learn by particular stages of schooling and support in monitoring the extent to which this is occurring
- Access to high quality professional learning and support for school leaders

In respect to pre-service programs, Masters believed that 'all beginning teachers should have some understanding of how students learn to read, knowledge of how to assess reading ability and growth, as well as knowledge of how to use assessment information to diagnose difficulties and decide on effective learning strategies' (Masters, 2009, p. ix). He cited the recommendation of the National Inquiry into the Teaching of Literacy (2005) 'that the preparation of primary teachers include a strong focus on evidence-based findings, including the use of integrated approaches to the teaching of phonemic awareness, phonics, fluency, vocabulary knowledge and text comprehension'.

Acknowledging the limitations

It is important to acknowledge the limitations of the review, indeed, the limitations of initial teacher education and school induction. The aim in Queensland, as elsewhere, is to ensure that within a few years of graduation and throughout their careers teachers are at the forefront of knowledge and skill and are playing their part to the maximum extent possible to secure success for all students in all settings. The extent to which these outcomes can be achieved is constrained by a range of factors such as those implied in the following list of questions, which is illustrative rather than exhaustive.

1. Are the best people attracted to teaching? Have earlier experiences in schools, including the examples they have seen in the work of their teachers, been conducive to attracting them to the profession?
2. Are requirements for entry to formal pre-service programs set high enough to reflect the substantial knowledge base and the level of skill required to contribute to the success of all students in all settings?
3. Are standards in pre-service programs sufficiently robust to discriminate between high and low performance? Do pass rates reflect these standards?
4. Where accreditation of pre-service programs is based on professional teaching standards, are these standards evidence-based in their formulation? Are judgements about the efficacy of pre-service programs based on evidence on what students in such programs know and can do?
5. Are induction programs coherent and comprehensive rather than fragmented and superficial? Are they robust to the extent that those preparing for or entering the profession gain useful feedback and guidance that distinguishes between effective and ineffective performance?
6. Is there a more-or-less seamless integration and acceptance of what constitutes effective practice as conveyed in pre-service and induction programs and what is expected in schools?

A 'worst case scenario' is where substantial numbers of those accepted for entry to pre-service programs have low academic ability, with other more able students having been put off by what they have experienced in schools or have observed in teachers who are not good models of professional practice. Teaching is not a highly valued or esteemed profession in the wider community. Universities accept minimally qualified students as a matter of course without further screening on the basis of interviews or demonstration of capacities that can be assessed at this stage. Once accepted in the program, almost all students are passed in all subjects including school experience. While many factors can be put forward to explain such a high pass rate, one might be that objectives or standards are not capable of assessment. There are not good links with what is agreed to be good practice of a kind that characterises the relationships between medical faculties and teaching hospitals. Schools of education struggle to get schools to

participate in the practicum program. While relationships with staff in universities and schools are very good at a personal level, evaluations of the total experience by beginning teachers in their first or subsequent years of appointment tend to be negative, with many declaring they were not adequately prepared either in the pre-service or the induction program. Clearly there was a breakdown in some or all of the areas addressed in the sample questions listed above.

A 'best case scenario' is where teaching is a respected and highly valued profession in the wider community and there is high demand for places in pre-service programs. Only the best students are accepted and there is rigorous screening on the basis of interviews and selected indicators of suitability. Objectives and standards for each subject in the pre-service program are specified. There is agreement on what constitutes evidence of achievement. There is no hesitation in failing a student where that evidence is not forthcoming. There is common understanding on what constitutes good practice in schools and in pre-service programs. Students in teacher education gain experience throughout their studies in the education equivalent of teaching hospitals. Induction is a process that is evident in one form or other throughout the program and in the early years of practice. Mentoring and a range of related clinical practices characterise the early years of teaching. Beginning teachers and the schools in which they serve report high levels of satisfaction with pre-service and induction programs.

No judgements are offered of where in the continuum of possible scenarios Queensland lies as far as pre-service and school induction is concerned, although concerns in the Green Paper and Masters Report are acknowledged.

Methodology

Co-leaders were appointed to conduct the review: Brian Caldwell is Managing Director and Principal Consultant at Educational Transformations. He is a Professorial Fellow at the University of Melbourne. He is a former Dean of Education at the University of Melbourne (1998-2004) and the University of Tasmania (1989-90). He was an international member of the panel that conducted a review of teacher education at the University of Auckland in 2009. David Sutton is recently-retired Principal of Brisbane State High School. He has served as principal in several complex state secondary schools. He has been a primary teacher and Supervisor of Studies. He is currently Principal-in-residence at Queensland University of Technology.

A Reference Group was established to provide advice on the review. Its 30 members, as listed in Appendix 1, include representatives of major stakeholder. Meetings were held: May 13, July 6 and August 13. Further meetings will be scheduled to provide advice on the Second Report.

The following were the major strategies in the review:

1. The first task was to undertake a comprehensive review of research, policy and practice in other nations and states other than Queensland to guide the development of benchmarks. This review constituted an 'interim draft report' and was considered by the Reference Group at its second meeting on July 6. An updated review and refined benchmarks are contained in Chapter 4.
2. Members of the Reference Group and their affiliated organisations and other major stakeholders were invited to make submissions. A copy of the letter of invitation is included in Appendix 2. Fourteen were received before the due date of 30 June or shortly thereafter. A list of those making submissions is contained in Appendix 3. In several instances these were updated or more sharply focused versions of submissions made earlier in response to the Green Paper.

3. Interviews were conducted with key stakeholders, either individually or in teams or groups. Thirty-three had been conducted by 13 August, as listed in Appendix 4.
4. The review leaders received copies of all feedback to the Green Paper that was relevant to this review. Most were from individuals but several organisations provided submissions in response to the Green Paper. Responses are analysed in Chapter 3.
5. The Queensland College of Teachers (QCT) conducted a survey of beginning teachers and their principals. The review leaders were provided with a copy of the analysis. Findings are reported in Chapter 5.
6. The benchmarks described in #1 provided a framework for assessing what had been or is planned in Queensland.

Organisation of the report

Chapter 1 contains the Terms of Reference and the immediate background, with reference to the Masters Report and Green Paper.

Chapter 2 contains a summary of the Queensland context on matters related to pre-service teacher education. Particular attention is given to the role of the Queensland College of Teachers (QCT). It also contains a summary of the national context, focusing especially on national partnership agreements and the related agenda of the Australian Institute for Teaching and School Leadership (AITSL). As the longest standing body in the areas of accreditation and registration, the QCT is well-placed to provide a major contribution in the development of a national framework. As acknowledged by AITSL, the current review of teacher education and school induction is part of the contribution that Queensland can make.

Chapter 3 identifies and briefly describes issues in teacher education and school induction in Queensland. The starting point is a reference to the nature and purpose of the review as described in Chapter 1 but much of the chapter is devoted to issues identified in submissions and interviews. Issues are defined as 'unresolved matters of concern'.

The focus in Chapter 4 is on international developments and policy and practice in states other than Queensland. Benchmarks are set for policy and practice that can be fairly described as 'best practice' or 'state-of-the-art' and these provide a framework for analysis and preliminary assessment of current policy and practice in Queensland as set out in the chapters that follow.

Chapter 5 contains an overview of current approaches to teacher education and school induction in Queensland. Major features as described in submissions are presented. Findings from the 2010 survey of beginning teachers and their principals are summarised. The benchmarks identified in Chapter 4 provide an organising framework for an appraisal of current practice.

Chapter 6 summarises proposals for change as presented in submissions and interviews. Comment is made on the extent to which these meet the benchmarks identified in Chapter 4.

Chapter 7 contains recommendation for change at a sufficiently detailed level to contribute to the preparation of the White Paper.

Chapter 2

Context

Chapter 2 contains a summary of the Queensland context on matters related to pre-service teacher education. Particular attention is given to the role of the Queensland College of Teachers (QCT). It also contains a summary of the national context, focusing especially on national partnership agreements and the related agenda of the Australian Institute for Teaching and School Leadership (AITSL). As the longest standing body in the areas of accreditation and registration, the QCT is well-placed to provide a major contribution in the development of a national framework. As acknowledged by AITSL, the current review of teacher education and school induction is part of the contribution that Queensland can make.

Queensland

The Queensland College of Teachers (QCT) is a statutory authority funded by the teaching profession. It was established by the Queensland Government on 1 January 2006 under the *Education (Queensland College of Teachers) Act 2005*, building on the work of previous authorities, namely the Board of Teacher Education (1971–1989) and the Board of Teacher Registration (1989 – 2005). Queensland was the first state in Australia to establish a system of registration for teachers in public and private schools. The Board of Teacher Education was established in 1971 and registration began in 1973. Registration was initially voluntary, but became mandatory in 1975.

Over the seventeen years of its existence, the Board of Teacher Registration contributed to the quality of teaching in Queensland schools through regulation of the teaching profession as well as by influencing the initial and on-going professional learning of teachers. The Board also exercised leadership in modelling and promoting teacher registration throughout Australia.

Queensland and South Australia are the only Australian states or territories that have continuously, since the 1970s, required registration to practise the profession of teaching. In recent years, issues in child protection, professional standards and teacher education have helped drive change. All other states and territories except the Australian Capital Territory have now introduced registration or accreditation of teachers.

As a result of a [review of the role and functions of the Board of Teacher Registration in 2004](#) by an independent reviewer appointed by the Queensland Government (McMeniman, 2004), the Board was replaced from 1 January 2006 by the Queensland College of Teachers (QCT), operating under new and expanded legislation.

Roles and functions of the QCT

The purpose of the QCT is to regulate, enhance and promote the teaching profession in Queensland in the best interests of the public and the profession. It develops, maintains and applies professional standards, codes of practice and policies to underpin initial entry to and continuing membership of the profession. Its functions include:

- maintaining a register of approved teachers
- receiving and assessing applications for teacher registration and for permission to teach
- ensuring ongoing eligibility for registration or permission to teach by approved teachers
- approving and monitoring Queensland pre-service teacher education programs
- promoting the teaching profession

- managing notifications and complaints about teachers that allege there are grounds for disciplinary action
- conducting investigations into the conduct of approved teachers
- managing disciplinary matters referred to disciplinary committees
- monitoring compliance with the Act and disciplinary orders; and
- identifying and undertaking research relevant to the work of the QCT and the profession

For the purposes of this review the focus in the pages that follow is primarily on the roles and functions of the QCT for the approval and monitoring of pre-service teacher education programs and the development of a set of professional standards that underpins the endeavour.

Professional standards

One of the QCT's initial projects was to develop a set of professional standards that could be used for a number of functions including the approval of pre-service teacher education programs in Queensland.

The [QCT's Professional Standards Committee](#) was responsible for setting the strategic direction and overseeing the development of the standards. A writing group was appointed by the Committee to produce a draft. In 2006 the QCT conducted a state-wide consultation process that included face-to-face and written responses involving registered teachers and a range of key stakeholders. These consultations informed the final version, which was endorsed by the [Board of the QCT](#) in December 2006.

In 2007 the QCT released the *Professional Standards for Queensland Teachers* (QCT, 2006) These standards are intended to be rigorous and explicit, being a statement by the profession of what teachers in Queensland schools need to know, understand and be able to do and, as such, provide a common reference point for the profession and the work of the QCT.

Approval and monitoring of pre-service teacher education programs

The QCT's predecessor, the Board of Teacher Registration, published its first *Guidelines on the Acceptability of Teacher Education Programs for Teacher Registration Purposes* in 1990. These were the result of extensive consultation by the Board and its Professional Education Committee and, in the following decade, were regularly updated in the light of emerging trends and issues in education. Unique in Australia, they provided a model for later attempts to develop national teacher education guidelines.

In 2002, there was a move towards a standards-based approach to approval of teacher education programs through the development of the *Professional Standards for Graduates and Guidelines for Preservice Teacher Education Programs* (the current edition is QCT, 2009a).

Following the major review of teacher registration in Queensland and the establishment of the QCT, the QCT developed its *Program Approval Guidelines* which include the graduate level of the *Professional Standards for Queensland Teachers* and requirements for pre-service teacher education programs. The *Program Approval Guidelines* came into effect in 2007 and were updated in 2009 (QCT, 2009b).

The QCT has established the Professional Standards Committee (PSC), with delegated responsibility for the approval and monitoring of pre-service teacher education programs. Membership of the PSC comprises representatives of teacher employers, universities, teacher unions, registered teachers, community groups, the Queensland Studies Authority and the QCT Board.

Consideration of program submissions is undertaken by Program Panels which make recommendations to the PSC. A Program Panel is established to take responsibility for a specific Higher Education Institution (HEI) and its range of teacher education programs.

HEI's develop their pre-service teacher education programs with due regard to the Standards and *Program Approval Guidelines*. The HEI's must demonstrate how each standard will be addressed and assessed in the program. Judgements about students are to be based on evidence, and students must demonstrate achievement of standards in order to graduate and be eligible for teacher registration.

The approval process for pre-service teacher education programs involves several stages of consultation and consideration of a formal submission. Phase One approval enables a program to commence and remains in place until completion of a full cycle of offering the program. Reviews of programs occur after the first cohort has graduated and involves consultation with graduates, employers and school-based representatives as to the success of the program. This Phase Two process, if successful, is thereafter renewed on a five-yearly basis.

Since 2007 there have been some graduates of one-year (graduate-entry) programs that were designed using the QCT's Professional Standards for Queensland Teachers but it should be noted that no graduates have yet been produced from four-year programs based on these standards; that will occur from 2012.

The QCT provides guidance on issues such as undergraduate degrees acceptable for entry to graduate pre-service education programs to ensure that programs encompass an acceptable range of professional studies in education, discipline studies and embedded professional experience. It also engages in ongoing monitoring of programs through annual updates and other mechanisms.

The *Annual Statement on Approved Programs* is a key accountability document and the principal way in which HEI's report on their year's activities to the QCT. The primary purpose of the annual statements is to provide QCT with the following:

- enrolment data in regard to each approved program
- progress towards achieving intended outcomes – highlighting the performance of students against the Professional Standards
- changes to approved programs, with a focus on what changes have occurred and what outcomes have been achieved
- program / course evaluation data – key results from internal / external mechanisms; and
- priorities for the year ahead

Following research and consultation in 2009 the QCT has recently developed guidelines and an electronic template for HEI's to use in their annual reporting. The aim is to increase the depth of information received and enhance the consistency of annual reporting on approved programs.

Queensland has been acknowledged as leading the way nationally in setting standards for teaching and program approval (e.g. Ingvarson et al., 2006). Several states have modelled their program approval requirements and processes on the QCT's approach. The QCT is also active at the national level in regard to the development of national accreditation requirements and processes.

Key stakeholders, such as teacher employers and universities, play an important role in approving pre-service teacher education programs at a number of levels:

- consultation and input during the process of developing the *Professional Standards for Queensland Teachers* and *Program Approval Guidelines*
- consultation on an annual basis in updating the priority areas of the *Program Approval Guidelines* (current priority areas include curriculum and assessment, equity, STEM, teaching

Indigenous learners, literacy and numeracy, special needs, educational use of ICTs, behaviour management, ethical and legal issues, and sustainability)

- membership on each of the Program Approval Panels that undertake the detailed work of assessing individual teacher education programs
- membership on the Professional Standards Committee that has responsibility for Program Approval

The QCT has an ongoing agenda for reviewing and strengthening pre-service teacher education programs. Strategies are set out in Table 2.1.

Induction

To be eligible for full registration in Queensland, a provisionally registered teacher must complete one year (200 days) of teaching experience and demonstrate achievement of the standards at the level of full registration. The policy developed by the QCT places a great deal of importance on the induction and support provided by schools to assist the development of the provisionally registered teacher through this period.

Table 2.1: Strategies of the QCT for strengthening pre-service teacher education

Domain	Strategy
Discipline content knowledge and curriculum / pedagogical content knowledge	<ul style="list-style-type: none"> • Review content and duration of graduate entry programs (support gained from HEI's) • Specify required subject / discipline content knowledge within undergraduate teacher education programs which also serve as the basis for entry to graduate teacher education programs • Specify required curriculum studies in each KLA / subject (for Primary, Early, Middle Phase programs) – e.g. a minimum of one literacy and one numeracy unit in addition to units addressing each of the learning areas, including English and Mathematics
Entry requirements	<p>Working with universities to strengthen entry requirements, e.g.:</p> <ul style="list-style-type: none"> • minimum OP for entry to teacher education • prerequisite in Mathematics for at least Primary, Early and Middle phase programs (SA in English is current entry requirement) • prerequisite IELTS for International and NESB students (currently is exit requirement)
Monitoring of pre-service programs	<ul style="list-style-type: none"> • Clearer specification of required program submission documentation and timeframes for new program submissions (implemented from 2010) • Implementation of new processes for monitoring pre-service teacher education programs • New requirements, guidelines and template for annual reporting on program implementation (trialled for reports submitted March 2010) • Survey of graduates and principals on perceived effectiveness of pre-service programs in preparing graduates for beginning teaching (implemented April 2010)
Strengthening practical experiences within pre-service teacher education programs	<ul style="list-style-type: none"> • liaison with groups such as the Queensland Consortium for Professional Experience in Pre-service Teacher Education (ongoing) • dissemination of information about innovative practices and projects; and • supporting supervising teachers and mentors (workshop trialled)

Current work

- The development and trial of pre-registration tests for aspiring primary school teachers, as recommended in the Queensland Education Performance Review (QEPR)
- The development and administration of a professional development framework for primary school teachers and school leaders in the areas of literacy, numeracy, science and assessment, as recommended in the Queensland Education Performance Review (QEPR); and
- Participating in the development of national standards and nationally consistent registration processes.

Australia

National Partnership Agreement on Improving Teacher Quality

The national framework for matters addressed in this review was established in December 2008 in the National Partnership Agreement on Improving Teaching Quality signed by the Prime Minister, Premiers and Chief Ministers (the following information is drawn from the agreement as set out in Council of Australian Governments, 2008). They agreed to share the objective of 'raising overall attainment so that all Australian school students acquire the knowledge and skills to participate effectively in society'. 'Outputs' included the following:

- New professional standards to underpin national reforms
- National accreditation of pre-service teacher education courses
- National consistency in teacher registration
- Improved mobility of the Australian teaching workforce
- Joint engagement with higher education to provide improved pre-service teacher education; new pathways into teaching; and data collection to inform continuing reform action and workforce planning

Performance indicators were also agreed, as illustrated in Table 2.2:

Table 2.2: Illustrative indicators in national partnership agreement (COAG, 2008)

Facilitation reforms	Performance indicators
New professional standards to underpin national reforms	Nationally-agreed and endorsed teacher professional standards developed and implemented
Joint engagement with higher education providers to improve teacher quality	Nationally-agreed and endorsed processes for pre-service teacher education course accreditation developed and implemented
Establish quality placements for teacher education courses	Number of trained mentors
Establish School Centres of Excellence	Attrition rates of early career teachers
	Number of School Centres of Excellence

The intended outcomes of the Queensland Review of Teacher Education and School Induction are consistent with the objectives and the broad strategies set out above. The School Centres of Excellence as well as this review was proposed in the Green Paper.

Design and implementation of relevant parts of the national agreement are the responsibility of the Australian Institute of Teaching and School Leadership (AITSL) with scope and progress summarised below.

Role of the Australian Institute of Teaching and School Leadership (AITSL)

AITSL gave a report of progress in a symposium at the conference of the Australian Teacher Education Association (ATEA) conducted in Townsville on 7 July 2010 (AITSL, 2010). The process for the development of a national system of accreditation of pre-service teacher education programs was described in these terms:

- A Working Group of AITSL Board members and co-opted members will oversee the process with membership to include jurisdiction authorities, teacher educators and teacher / school leaders
- A discussion paper will be prepared to be circulated to all teacher education providers as well as other key stakeholders, inviting feedback and input
- AITSL will co-host consultation forums

A timeline for the completion of the task has not been formally announced. It was noted that 'AITSL will take into account developments and recommendations arising from any reviews and changes occurring in the jurisdictions, including the current review of teacher education in Queensland'.

While there have been no formal decisions on the framework pending 'a representative and rigorous validation process', the AITSL paper at the ATEA conference included a draft version of program standards developed by Australasian Teacher Regulatory Authorities (ATRA) and the Australian Council of Deans of Education (ACDE) in 2008. There were eight sets of standards. Standard 2 (Qualifications) envisaged essentially the same program structure as at present, a four-year pre-service arrangement. Standard 4 (Program Structure and Content) referred to a mix of discipline studies, professional studies and professional experience, with a practicum of no less than 45 days (one year post-graduate) and 80 days (four-year bachelors). Standard 5 (Program Delivery) referred to an intention to provide benchmark percentile scores in Year 12 in English for primary and secondary teachers and in Mathematics for primary teachers. Standard 6 (School Partnerships) envisaged that 'providers will be required to establish enduring school partnerships for the delivery of their programs, including the professional experience component'.

Education ministers agreed at the MCEECDYA meeting on 15 April 2010 (reported in AITSL, 2010) that program standards for initial teacher education courses should include 'as a minimum':

- (a) Prerequisites for Maths and English and English language requirements
- (b) Course content requirements including secondary subject content and primary subject content (Maths, English and other KLA's); and content addressing assessment and use of assessment data
- (c) Special education, Aboriginal and Torres Strait Islander education, classroom management including anti-bullying strategies and ICT
- (d) Professional experience requirements
- (e) Consideration of strengthened assessment of graduating students in core areas
- (f) Information standards

This review of teacher education and school induction in Queensland addresses these matters but goes further in its attention to school induction.

Chapter 3

Issues and opportunities

Chapter 3 identifies and briefly describes issues in teacher education and school induction in Queensland. Much of the chapter is devoted to issues identified in submissions and interviews. Issues are defined as ‘unresolved matters of concern’. Feedback on the Green Paper as it related to the Terms of Reference of this review is summarised.

Issues in the international context

It seems that most countries have conducted a review of teacher education in recent years. The underlying issues are strikingly similar as are the recommendations. One of the most comprehensive was commissioned by the Teaching Council in Ireland. It drew on a nine-country study that reviewed developments in Ireland, Northern Ireland, Scotland, England, Finland, United States, Poland, Singapore and New Zealand (reported in Conway et al., 2009). The context was set in the following statement on the challenges faced in systems of education:

The accelerated pace of societal change is reflected in new and/or amplified challenges for the education system, each with significant implications for teacher education. In an emerging knowledge society, the challenges are:

- addressing achievement gaps, especially in relation to core areas such as reading, mathematical and scientific literacies
- addressing proven difficulties students have in using knowledge in problem-solving contexts
- promoting inclusion (in terms of interculturalism, disadvantage and special education needs)
- extending lifelong learning opportunities
- promoting higher-order thinking (in subject areas), knowledge generation and creativity
- integrating new models of teaching and assessment in light of rolling reviews of curricula/ syllabi
- addressing system shortcomings identified in various evaluations of syllabus/curriculum implementation
- promoting the integration of new learning technologies in classroom teaching and learning
- working in the context of changing social relationships in families, schools, communities and online settings
- the role of the school of tomorrow in a knowledge society (Conway et al., 2009, xiv)

These challenges are the same for Queensland and any other state or territory in Australia.

Overview of issues raised in the course of the review

Several submissions referred to the Green Paper and its reference to ‘teacher training’. ‘Teacher education’ is the preferred term. For example, in its submission the Queensland College of Teachers (QCT) expressed ‘disappointment in much of the language’:

References to ‘teacher training’, for example, betray an outdated and restrictive view of teacher preparation and the role of teachers. The emphasis on teachers’ ability to maintain classroom and school discipline and to teach ‘the basics’ suggests a particular view of the part that schools and teachers play in society. The QCT emphasises that teachers and those involved in teacher preparation should not be seen as the means to solve what are in many cases much wider social problems.

Over-supply of graduates

Issues of supply and demand for graduates were raised in several submissions and interviews. Discussion was invariably triggered by information in Table 3.1 on the number of graduates who secured permanent or temporary employment in the Department of Education and Training in 2010 (Department of Education and Training, 2010).

Table 3.1: Employment of graduates from Queensland providers by DET in 2010 (based on DET, 2010)

Sector	Graduates from Queensland providers	Applications to DET		Permanent appointments to DET		Temporary appointments to DET	
		Number	%	Number	%	Number	%
Primary including ECE	1734	1478	85.2	149	8.6	764	44.1
Secondary	2306	1128	48.9	195	8.5	506	21.9
Special	64	64	100.0	36	56.3	113	N/A*
Total	4104	2669	65.0	390	9.5	1313	32.0

* Teachers may be appointed to special education roles who can clearly demonstrate skills, knowledge and experience in the area without holding a qualification specific to special education

Concerns were raised in several interviews about the data in Table 3.1, ranging from challenging the morality of accepting so many students and producing such a large number of graduates when employment levels in the DET were so low, especially in respect to the number of permanent appointments, to the need for more effective approaches to workforce planning (DET) and program delivery (providers). No information is available on comparable numbers for employment in non-government schools. Trend analysis of appointments over the last decade was not available at the time of writing.

The analysis in Table 3.1 should be understood in the light of serious shortages in specialist areas, notably in Mathematics and the Sciences.

Information provided in interviews suggested that there were more than 5,000 graduates qualified to teach in primary schools who were not currently employed in Queensland; the corresponding figure for New South Wales was alleged to be more than 12,000.

There is a similar situation in Scotland where more than two-thirds of newly qualified teachers are failing to find a full-time job within a year. The general secretary of the Educational Institute of Scotland (Scotland's largest teacher union) declared that:

The fact that so many of our newly-qualified teachers are unemployed or under-employed on very patchy, short-term, contracts is a tragedy not only for these individual teachers but also for Scottish education and its pupils. Having encouraged more and more people into teacher education in order to meet the growing need for new teachers in our schools, there is a clear obligation on the part of the Scottish government and local authorities to provide a fair and appropriate level of opportunity for these new teachers. (As reported by Glossop, 2010)

The situation in Queensland for graduates in nursing appears to be even bleaker than for graduates in teaching, with only 222 of about 800 nursing graduates employed by Queensland Health in 2010 (*Sunday Mail*, 2010). There was an 18 per cent increase from 2008 to 2009 in enrolments in nursing in Queensland universities.

The Queensland College of Teachers (QCT) has a particular concern about over-supply and the number of people who are employed on a casual basis. These people do not have an appropriate induction experience. As stated in its submission:

The QCT notes that in recent years, due to labour market pressures and related employment practices of major employers, less than half of graduating teachers are employed on a long-term contract (i.e. at least twelve months) in the same school, or permanently. Many graduates' initial employment is on a casual basis or a number of short-term contracts. This does not allow for structured mentoring or induction programs or enable the graduate to consolidate the skills and knowledge they have learnt in their course. It must be extremely difficult for a beginning teacher to commence their career as a casual teacher with a different group of students each day.

Students in teacher education with a low OP

Concerns about students with a low OP (Overall Position) in some teacher education programs was identified as a concern in several interviews and submissions. The submission of the Queensland College of Teachers expressed this succinctly: 'Raising the quality of entrants to teacher education preparation is essential to raise the quality of teachers and teaching'. Independent Schools Queensland (ISQ) observed in its submission that 'some institutions admit students with relatively low OP scores into education programs; therefore OP (as a measure of academic performance and capacity) is not a filter for these programs'. However, the submission went on to declare that 'at the same time, use of OP does not by itself determine appropriate fit for teaching; graduate teachers need strong interpersonal and communication skills, a willingness to learn, and the motivation to teach'.

The Australian Council for Educational Research (ACER) prepared a report for the Queensland College of Teachers on the issue (ACER, 2010). The following information is drawn from the ACER report.

- While the proportion of the 17-year-old population undertaking Year 12 has risen from about 35% in the late 1970s to about 72% from the early 1990s on, the proportion of the Year 12 population eligible for a tertiary entrance rank has declined steadily from about 97% to about 60%.
- The OP is a number, from 1 to 25, representing the ranking, in order of merit, of an OP-eligible student in that year's cohort. They are derived from a measure called the overall achievement indicator (OAI). The 25 OP bands are determined by setting cut-offs along the range of the OAI.
- The shape of the distribution has shifted over time such that the proportion of students with higher-rank OPs is increasing and the proportion with lower-rank OPs is decreasing.
- Whereas the OP represents a ranking based on an indicator of overall achievement, Field Positions (FPs) recognise that different skills areas of the curriculum are emphasised in assessment across Tertiary Entrance Rank (TER) subjects. The five fields are A (extended written expression), B (short written communication), C (basic numeracy), D (solving complex mathematical problems), and E (practical performance involving physical or creative arts or expressive skills).
- The proportion of students eligible for the various FPs has shifted over time. Fields C and D have remained relatively stable; Field B has declined; and Fields A and E have increased markedly (Field E has risen from 34% to 81%)
- Education, as one of 11 'fields of education' (FOE), attracts proportionally fewer of the higher-ranked students (OP 1-10). In OP bands 1-9, Education is proportionally under-represented (see Table 3.3).

- First qualification teacher education applicants are a mix of about 40% current Year 12 students and about 60% who entered through other tertiary entrance pathways.
- Year 12 applicants for an education degree come predominantly from the middle OP band (80% are in OP bands 8-17) and, of the 11 FOEs, teacher education has the second smallest proportion of OP 1-10 students.

The distribution of OPs among applicants for Education compared to applicants in all other fields is contained in Table 3.3.

Table 3.3: Applicants in OP bands for Education compared to all Fields of Education (%) (ACER, 2010)

Field	OP 1-5	OP 6-10	OP 11-15	OP 16-20	OP 21-25
Education	7%	27%	45%	21%	0%
All Fields	25%	33%	28%	12%	2%

Information was provided to the review team on 'cut-offs' (lowest OP offered) in teacher education courses throughout Queensland. Table 3.4 contains the range of cut-offs for programs in teacher education offered by providers in Queensland in 2010. It is important to note that these are the lowest OP ranks of students accepted for direct entry from Year 12 to a first qualification in teacher education (normally a four-year bachelor's degree).

Table 3.4: Range of OP 'cut-offs' for courses in teacher education (2010)

Provider	Number of courses with direct entry from Year 12	Range of OP 'cut-offs' (lowest OP rank of students accepted)
Australian Catholic University	3 of 11	17
Central Queensland University	18 of 19	6 – 17
Christian Heritage College	5 of 7	17 – 18
Griffith University	17 of 28	6 – 16
James Cook University	10 of 14	12 – 16
Queensland University of Technology	10 of 21	9 – 15
The University of Queensland	7 of 11	10 – 11
University of Southern Queensland	11 of 15	12 – 15
University of the Sunshine Coast	6 of 8	15 – 16

The place of Mathematics and Science in pre-service programs

Attention was drawn in Chapter 1 to excerpts from the Masters Report concerning the preparation of those who teach mathematics and science. They are included again at this point.

After NT (68%), QLD teachers of Year 4 students report they are least prepared to teach mathematics (71%), with leaders being ACT (88%), NSW (87%) and SA & WA (each 82%). Teachers in all states and territories report low levels of preparation in the teaching of science, ranging from a low of 39% (ACT) to a high of 55% (NT) with QLD sitting at 44%. (Masters, 2009, p. 28)

Masters was careful to note that perceptions of poor preparation are Australia-wide and not limited to Queensland:

In summary, only 44 per cent of Queensland Year 4 teachers report feeling 'very well' prepared to teach science. Very few (15-16 per cent) Australian teachers report having had professional development in the teaching and assessment of science. Australian teachers also stand out internationally for their limited use of textbooks (24 per cent do not use a mathematics textbook; 78 per cent do not use a science textbook) (Masters, 2009, p. 29).

National concerns on the issue have been evident for many years. The Australian Council of Deans of Science (ACDS) conducted studies (ACDS, 2005, 2006) that found that little had changed since an earlier review of teaching and teacher education that focused on attracting and retaining teachers of science, technology and mathematics (Commonwealth of Australia, 2003).

For science, the ACDS called on federal and state governments as well as secondary and tertiary authorities to:

- Implement rigorous workplace planning to ensure that sufficient numbers of suitably qualified teachers of science disciplines are available to nurture future generations of school students;
- Cooperate across sectoral, State and Territory boundaries to develop a national science teacher workforce plan;
- Work with the university sector to develop international best practice in science teacher education programmes;
- Adopt minimum standards, focused on science as well as pedagogy, of qualifications for science teachers at the various levels of secondary school education;
- In the medium term, introduce a meaningful accreditation mechanism for science teachers, involving minimum qualification levels in science as well as pedagogy. (adapted from ACDS, 2005)

For mathematics, the ACDS called on federal and state governments as well as secondary and tertiary authorities to do the following (including science in each recommendation):

- Implement rigorous workplace planning to ensure that sufficient numbers of suitably qualified teachers of mathematics and science are available to nurture future generations of school students;
- Cooperate across sectoral, State and Territory boundaries to develop a national science and mathematics teacher workforce plan;
- Work with the university sector (particularly Deans of Education) and state government education departments to develop international best practice in science and mathematics teacher education programmes;
- Adopt minimum standards, focused on science as well as pedagogy, of qualifications for science and mathematics teachers at the various levels of secondary school education;
- In the medium term, introduce a meaningful accreditation mechanism for science and mathematics teachers, involving minimum qualification levels in science as well as pedagogy;
- Implement bonded teaching scholarships to encourage students to enrol in combined science, mathematics and education programs. (adapted from ACDS, 2006)

It is fair to observe that little progress has been made in implementing these recommendations.

The Queensland Government has placed a priority on building the capacity of the state in the fields of Science, Technology, Engineering and Mathematics (STEM) and the more sharply focussed issue of pre-service teacher education should be understood in this broader framework. The Chief Scientist Professor Peter Andrews has a key role and serves on the Reference Group for this review.

The issue is of international concern. For example, for the first time in its long history, the Royal Society (UK) prepared a 'state of the nation' report on Science and Mathematics Education 5-14 (Royal Society, 2010). Among a range of strategies it raised the possibility of preparing specialist teachers in science for service in primary schools. The President of The Royal Society argued the case on the importance of science and mathematics in primary schools, in particular:

Clearly future advances in science and technology will be essential to combating the greatest social and environmental challenges we face, and suitably qualified experts are required to tackle these. Evidently, the success of Government policies concerning science and innovation depends on the quality of young people's education . . . but, year after year, large proportions are 'turned off' science and mathematics by the time they reach secondary school, with little prospect of that interest being rekindled. Inevitably, those who are most likely to suffer are the under-privileged. (Royal Society, 2010, vii)

While the issue concerning specialist science teachers in primary schools has yet to be resolved, in Australia as in the UK, this is an argument that supports a higher priority for pre-service entry level skills in mathematics and science.

Issues raised in feedback on the Green Paper

Members of the profession and the public at large were invited to provide a response to the Green Paper, either online or in hard copy. The deadline for submissions was 30 June 2010. Several universities and other stakeholders, including the QCT, provided a response and then made a separate/subsequent submission to this review. Their views are reported separately in the context of all submissions received from universities and other stakeholders.

Two questions were related to preservice teacher education and support for beginning teachers. Several organisations provided responses as did individuals. The former were named in the submissions while the responses by the latter were anonymous. Responses were either a statement of agreement or disagreement with a particular proposal being canvassed in the Green Paper, or a recommendation for action, or both.

All responses were made available for consideration in this review of teacher education and school induction and the purpose of this section of Chapter 3 is to provide a summary and brief commentary on responses to each question. Staff in the Department of Education and Training (DET) undertook a separate analysis of all responses to the Green Paper, including those presented in forums around the state. The independent analysis of the review team was consistent with that conducted by DET.

Pre-service

One item invited a response to the question 'what are the most important aspects that must be included in teacher's pre-service training?' Responses from 147 individuals are summarised in Table 3.5. In several instances it was evident from the wording of the response that these were the views of unnamed organisations but it was not possible to identify the area of interest; these were treated as individual responses for the purposes of this analysis. It is likely that most responses were from persons who were directly involved in education, either connected to schools or with pre-service education, although no assumptions in this regard are made in the summary and commentary set out below.

The 147 respondents provided a total of 385 responses, organised according to the themes and sub-themes in Table 3.5. The five themes that drew almost three-quarters of these responses

among the 12 themes (excluding 'other') were: curriculum (20.3 per cent), behaviour management (15.8 per cent), student focus (13.7 per cent), practicum (12.2 per cent) and pedagogy (11.7 per cent). Except for the practicum, all are concerned with knowledge and skills to be addressed in pre-service programs.

The five sub-themes mentioned most often were concerned with strategies for behaviour management (13.0 per cent), literacy and numeracy in the curriculum (9.6 per cent), increased time in the practicum (8.8 per cent), teaching methodologies (5.2 per cent) and subject content knowledge (4.4 per cent).

The pattern of responses suggests that people see teaching as a more complex and demanding profession than in the past, especially in respect to the demands of the curriculum, levels of knowledge and skill to successfully deal with diversity among students in schools, and heightened expectations for behaviour management. Also noteworthy are issues related to higher standards of entry to pre-service programs and more extensive and diverse practicum experiences including internship and mentoring.

Table 3.5: Matters raised in individual responses to the Green Paper (147 anonymous individual responses)

Theme	Sub-theme	Number of responses	% sub-theme	% theme
Teaching Centres of Excellence	Support but five is insufficient	4	1.0	2.6
	Not support because of inequality/representation	6	1.6	
Increased variety	Teacher/ Librarian training	1	0.3	0.3
Professional standards	Supporting pre-service basic skills assessment	4	1.0	10.1
	Not supporting pre-service basic skills assessment	4	1.0	
	Independent single body to manage standards	2	0.5	
	Pre-requisite testing prior to course admission	2	0.5	
	Consistency in standards across universities	1	0.3	
	Increase course intake standards	16	4.2	
	Improved skills in literacy and numeracy	10	2.6	
Practicum	Increased practical experience time	34	8.8	12.2
	Increased time in first years of course	4	1.0	
	Remote/Rural placements	3	0.8	
	Variety of SES placements	3	0.8	
	Links between universities and schools	3	0.8	
Mentoring and internship	General	7	1.8	4.6
	Internship program (6-12 months)	9	2.3	
	Identify 'master teachers' for mentor programs	2	0.5	

Theme	Sub-theme	Number of responses	% sub-theme	% theme
Behaviour management	Focused practical experience	7	1.8	15.8
	Strategies	50	13.0	
	Bullying	4	1.0	
Curriculum	National/State/School documents/ requirements	7	1.8	20.3
	Subject content knowledge	17	4.4	
	Literacy and Numeracy	37	9.6	
	Physical fitness	1	0.3	
	Planning	8	2.1	
	Assessment	8	2.1	
Pedagogy	Investigative/Inquiry approach	1	0.3	11.7
	Teaching methodologies	20	5.2	
	Strategies for engagement	5	1.3	
	Personalising learning	9	2.3	
	Inclusive strategies	8	2.1	
	Recent initiatives	2	0.5	
Student Focus	Child/Educational psychology	16	4.2	13.7
	Disabilities/special needs/gifted and talented	11	2.9	
	ESL/Cultural	5	1.3	
	Indigenous issues	3	0.8	
	Generational understandings	1	0.3	
	Relationship development	11	2.9	
	Enhancing creativity and thinking skills	2	0.5	
	Wellbeing needs	3	0.8	
Post-graduate qualifications	Masters degrees	1	0.3	0.3
Community	Partnerships with other institutions e.g. libraries	2	0.5	2.8
	Parent/family relationships skills	9	2.3	
Other	First aid training	1	0.3	3.7
	Stress management	3	0.8	
	Ethics/Values/Religious perspectives	3	0.8	
	Self-defence	2	0.5	
	Workplace behaviour and industrial relations	1	0.3	
	School organisation/administration	2	0.5	
	Communication skills	2	0.5	
ICT	General training	6	1.6	2.1
	Teaching strategies	2	0.5	
Total		385	100 (rounded)	100 (rounded)

A total of 18 organisations provided a response to the same question ('what are the most important aspects of education that must be included in teachers' pre-service training?') The responses are summarised in Table 3.6. Several universities and other organisations, including the QCT, also provided a response but these were either re-submitted or were expanded in response to the call for submissions to this report. Themes in these responses are summarised in another section of Chapter 3.

Table 3.6: Matters raised in organisational responses to the Green Paper (responses from 18 organisations)

Organisation	Theme	Comment	Suggestions / Recommendations
ECTA (Early Childhood Teachers Association)	Course content inclusions		Pedagogy
			Balanced subject knowledge
			Assessment and monitoring practices
	Professional focus in courses		Teacher identity and profession suitability
			Problem solving
	Monitoring		Individual monitoring
			Supported practicum experiences
	Teaching Centres of Excellence	Five are not enough to reflect QLD community complexity	
		Logistically not practical	
Pre-registration tests	Not supported	Should be done prior to acceptance into courses	
IEUA-QNT (Independent Education Union of Australia – QLD & NT)	Supports and endorses proposals		Review of guidelines for supervision teachers
	Teaching Centres of Excellence	Five is insufficient	
ICPA (Isolated Children's Parents Association)	Small community issues	Importance of community partnerships	Rural and remote education perspectives included
		Small school structures	Inclusion of teaching skills for multi-age settings
	High numbers of schools and students in rural and remote settings		Pre-service practicum in rural areas.

Organisation	Theme	Comment	Suggestions / Recommendations
QRC (Queensland Resources Council)	General inclusions	Curriculum knowledge	
		Behaviour management strategies	
		Minimum standards for literacy and numeracy	
	Additional ideas	Awareness of emerging industries	
Learning Support Teachers Association of Queensland (LSTAQ)	University entrance standards	Opposed to pre-registration test	Enhance entrance requirements
	Teaching Centres of Excellence	Opposed due to inequalities	TCEs would be better to support training existing teachers
QASSP (Queensland Association of State School Principals)	Teaching Centres of Excellence	Endorsed	Extend number of centres to meet demand
	Concerned about graduate teacher preparation		Conduct a forum on attraction and selection of candidates, nature of teacher preparation, developing continuous process between employers, QCT, schools and universities to support novices.
Brisbane Archdiocese Catholic Education Primary Principals Association (BACEPPA)	Review of teacher pre-service education	Should address issues of skilling with behaviour support strategies	
	Pre-registration tests	Not supported	
	Teacher Centres of Excellence	Not supported	Resource strategic university partnerships with a range of schools
Queensland Secondary Principals' Association	Review of pre-service teacher education	Welcomed and would like to have significant input	QSPA be involved with induction programs at universities
	School placements for teacher preparation	Lack of places available	Provide incentives to place students in regional and rural areas
	Teaching Centres of Excellence	Supported	Need to consider regional and rural, high and low SES communities

Organisation	Theme	Comment	Suggestions / Recommendations
Brisbane Catholic Education	Review of pre-service teacher education	Should address issues of skilling with behaviour support strategies	
	Pre-registration tests	Do not progress	
	Teaching Centres of Excellence	Not supported	Resource strategic university partnerships with a range of schools
Independent Schools Queensland (ISQ)	Teaching Centres of Excellence	ISQ through <i>Smarter Schools National Partnerships on Quality Teaching</i> is establishing Teaching Centres of Excellence in independent schools	Recommend that the government use existing structures to provide such services.
ASEAQ (Association of Special Education Administrators of Queensland)	Teacher Pre-service education		Undergraduate courses contain core components to teach a students with disabilities and special needs
			Undergraduate teachers complete at least one practice placement in a Special Education program or setting
			Provision of undergraduate course for specialist teachers in special education field.
	Teaching Centres of Excellence	Support for creation in a Special Education settings	Suggest a multi-campus model to offer a range of experiences
QCEC (Queensland Catholic Education Commission)	Tertiary entry standards		Reviewed for all teaching courses
	Teaching Centres of Excellence	Not endorsed	Provision of funding to support cooperative supervision in a variety of quality schools
Associated Christian Schools	Teacher pre-service education review		QCT implement review and that all education sectors are involved.
	Teaching Centres of Excellence	Equity of access across all sectors needs to be considered.	Recommends further funding to support 'prac' students and supervising teachers
Graduate Women QLD	Teaching Centres of Excellence	Supported	Number of five should be extended to meet demand

Organisation	Theme	Comment	Suggestions / Recommendations
Catholic Education (Diocese of Rockhampton)	Teacher pre-service education review	Supported	OCT implement the review
	Supervising teachers for pre-service practical experiences		Review the status of those teachers, including remuneration and extra time provisions
	Teaching Centres of Excellence	Not supported	Will not support regional and rural locations
Brisbane Archdiocese Secondary Schools Principals Association (BACSSPA)	Brisbane Catholic Education response	Strongly endorsed	
	Pre-registration testing	Not supported	Raising academic standards of students applying to teaching courses
	Teaching Centres of Excellence	Not supported	Wider variety of experiences preferred.
Education Queensland	Review of teacher pre-service education		Consistency across entry standards, course expectations and practicum requirements
			Greater focus on working with diverse learners, behaviour management and content depth
			Improvements in practicum experiences
	Teaching Centres of Excellence	Supports proposal	
Vision Australia	Teacher pre-service education		Includes introductory understandings of issues for a student who is blind or who has low vision

Responses generally reflect the particular interests of the organisations, in most instances stressing the importance of these interests and maintaining or strengthening a focus in pre-service programs. On issues of common concern, it was clear that those who commented would wish to see more Teaching Centres of Excellence than the five proposed in the Green Paper. The idea of such centres is generally supported. Pre-registration assessment of teachers was not supported in the three responses on the issue. In general the need for a review of teacher education was supported. Concerns about the practicum referred to the status and time allowance for supervising teachers and the need for more school placements.

Beginning teachers

One item invited a response to the question 'how can we provide better support to our beginning teachers to make the transition to the classroom?'. Responses from 98 individuals are summarised in Table 3.7.

The 98 respondents provided a total of 183 responses as organised according to the themes and sub-themes in Table 3.7. The three themes that drew nearly 80 per cent of these responses among the 6 themes (excluding 'other') were: mentoring and induction (49.3 per cent), supportive classroom arrangements (15.7 per cent) and improved pre-service programs (14.8 per cent).

The three sub-themes mentioned most often were concerned with provision of a mentoring program (23.0 per cent), internship and related strategies (12.0 per cent) and longer practicum (8.2 per cent).

Table 3.7: Support for beginning teachers (98 anonymous individual responses)

Theme	Sub-theme	Number of responses	% sub-theme	% theme
Mentoring and induction	Development of mentoring standards and PD programs for mentors	4	2.2	49.3
	Maintaining continuity in mentoring from pre-service into beginning teaching	2	1.1	
	Internship/apprentice/teacher aide time program (6-24 months)	22	12.0	
	Provide mentoring program	42	23.0	
	Induction programs	10	5.5	
	Provide schools with additional funding for mentoring programs	6	3.3	
	Identify cohort of 'master teachers' for mentoring	2	1.1	
	District support staff available	2	1.1	
Partnerships	Universities and schools	5	2.7	2.8
Professional standards	Raise standards for beginning teachers	1	0.5	0.5
Classroom arrangements	Reduced teaching contact time	11	6.0	15.7
	Smaller class sizes	4	2.2	
	Provide teacher aides/assistant in classrooms	5	2.7	
	Provide opportunities to observe others	3	1.6	
	Support for planning	3	1.6	
	Extra support for remote/rural beginning teachers	3	1.6	
Further training	Subject content	1	0.5	9.7
	Individual student needs	3	1.6	
	Professional development	9	4.9	
	Behaviour Management	3	1.6	
	Processes and expectations	2	1.1	

Theme	Sub-theme	Number of responses	% sub-theme	% theme
Other	Support for developing relationships with students	1	0.5	7.0
	Provide funding for new teachers to purchase resources	1	0.5	
	Increase beginning teacher pay rates	2	1.1	
	Organise beginning teacher networks	6	3.3	
	Beginning teachers should be older	2	1.1	
	Support use of ICT	1	0.5	
Pre-service education	High quality programs	8	4.4	14.8
	More practical experiences	15	8.2	
	Pre-service educators to have stronger links to classrooms	4	2.2	
Total		180	100 (rounded)	100 (rounded)

A total of 10 organisations provided a response to the same question ('how can we provide better support to our beginning teachers to make the transition to the classroom?') As noted earlier in respect to Table 3.6, several universities and other organisations, including the OCT, also provided a response but these were either re-submitted or were expanded in response to the call for submissions to this report. Themes in these responses are summarised in another section of Chapter 3.

The responses are summarised in Table 3.8. The themes are consistent with the pattern reported above in responses of individuals, especially in respect to enhancing induction and mentoring and supporting those whose initial placements are in remote or isolated communities.

Table 3.8: Support for beginning teachers (responses from 10 organisations)

Organisation	Theme	Comment	Suggestions/Recommendations
ECTA (Early Childhood Teachers Association)	Mentoring/ induction programs	School level	Structured and funded mentoring programs provided
		System level	Access experienced teachers (near retired) to support program
	Support beginning teacher wellbeing	Isolation and connection with communities.	
IEUA-QNT (Independent Education Union of Australia – QLD & NT)	Induction courses		Mandate provision, including reduced contact time and class sizes
ICPA (Isolated Children's Parents Association)	Isolation and mentoring issues		School and community mentoring programs implemented
			Provide access to experienced teachers as mentors

Organisation	Theme	Comment	Suggestions/Recommendations
QRC (Queensland Resources Council)	Concern for remote school beginning teachers		Provide mentoring programs, reduced loads, periodic reviews, PD and use web 2.0 technologies to support
Brisbane Archdiocese Catholic Education Primary Principals Association (BACEPPA)	Mentoring		Government support provided through QCT to enhance mentoring for first two years.
Queensland Secondary Principals' Association	Lighter teaching load for beginning teachers	Time for PD and observation of mentors and other senior teachers	
Brisbane Catholic Education	Mentoring		Government support provided through QCT to enhance mentoring for first 2 yrs.
Associated Christian Schools	Support for inexperience teachers		Include induction programs and targeted effective mentoring
Brisbane Archdiocese Catholic Secondary School Principals Association (BACSSPA)	Support for graduate teachers		Review includes areas of financial remuneration, extra planning time, extra support with behaviour and classroom management and provision of mentors
Education Queensland	Support for beginning teachers		Provide induction and mentoring and focussed PD

Issues identified in submissions

Most submissions identified a range of issues that should be addressed in the review. In some instances, these were accompanied by recommendations for change or particular plans that were underway and these are described in Chapters 5 and 6.

Central Queensland University (CQU)

The submission of Central Queensland University included the following statement of concern:

It is widely recognised that broad scale standardised testing regimes have conservative and narrowing influences on both pedagogy and curriculum in schools. Universities, as providers of teacher education programs, must guard against shaping their programs to over-emphasise foundation skills and 'basics', and remain committed to research-based practices that emphasise innovation and complexity, in addition to these more fundamental skills and competencies.

Griffith University (GU)

The submission of Griffith University contained seven recommendations to the review and these are summarised in Chapter 6. The accompanying commentary referred to issues and concerns in the following terms:

- There is a need to take into account labour market demands, current areas of teacher shortage, current oversupply, and 'national market threats'
- There is a need to strengthen the entry level requirements for subjects completed at the secondary level and to set a minimum OP / TR
- In relation to partnerships involving schools and universities, the culture needs to shift to a 'shared responsibility for quality teachers'
- Pedagogical content knowledge (PCK) is insufficient for teaching and learning in the 21st Century
- One-year postgraduate programs have insufficient coursework to enable adequate coverage of the breadth and depth of professional knowledge, practice and values to be developed
- There is a lack of transparency by the QCT in determining the approval of various undergraduate degree programs enabling progression to teacher registration after the completion of a postgraduate teacher education program
- Induction of teachers is largely ad hoc and ineffective

James Cook University (JCU)

The submission of James Cook University included the following concern:

The most significant shortcomings in the quality of teacher education programs at state and national levels can be attributed to the widely-acknowledged and long-term effects of inadequate government funding and emerging staffing shortages. Together, these contextual factors affect greatly our capacity to bring about sustainable improvements to the quality of our academic and professional programs, and especially in the areas of literacy, numeracy and science education.

Queensland University of Technology (QUT)

The Queensland University of Technology (QUT) provided a response to the Green Paper and a subsequent more sharply focused response to this review. The latter was largely devoted to innovative features in its current programs and these are reported in Chapter 5.

In its response to the Green Paper QUT stated that 'behaviour management should be a distinct and recognisable component of teacher education programs, with opportunities provided to apply skills during the practicum'. It noted that there are 'currently no standards for mentoring in any Australian education system'. QUT's program for training mentors at its Caboolture campus is described in Chapter 5.

QUT supports the idea of Teaching Centres of Excellence but, as in most responses / submissions, urges a broader view:

It is suggested that, in consultation with the universities whose students will utilise these facilities, consideration be given to allowing these centres to perform a much wider role in preservice education programs. Such roles could include the provision of model lessons (video streaming could be utilised here to overcome distance problems) and provision of opportunities for groups of students to work with top line teachers in the planning of lessons and following their observation of these lessons, a subsequent analysis and discussion with those teachers. In these ways, a far greater number of students would benefit from exposure to the work in the centres.

QUT's submission also highlighted the need for an extended practicum experience: 'Most agree that this type of more intensive and longer-term practical experience for pre-service teachers is the way forward for teacher education in Australia'. Moreover, it was stated that 'The difficulties of placing vast numbers of pre-service teachers in practicum placements is a significant issue for universities right across Australia.'

University of Queensland (UQ)

In preparing for its submission to the review, the University of Queensland (UQ) canvassed academics in the Faculties of Social & Behavioural Science, Health Sciences, Science and Engineering, Architecture and Information Technology. UQ had earlier responded to the Green Paper, through its Head, School of Education, and had made submissions on matters related to Science, Technology, Engineering and Mathematics (STEM).

A university-wide response was explained in the following terms:

The University of Queensland has become increasingly aware of the continuum of P-12 education into higher education. What happens in the P-12 system impacts directly on the higher education system and in areas like science and engineering we are increasingly being involved in remedial teaching. To highlight the importance of students obtaining a quality education at high school we have recently brought in a system of awarding two extra bonus points to students who take subjects such as mathematics, music or a foreign language.

The submission drew attention to matters of supply and demand, data for which were reported earlier in Chapter 3, especially in relation to the relatively large number of temporary appointments. It was felt that 'these employment practices do not provide a positive environment for developing beginning teachers and potentially work against retaining the most gifted and talented teachers in this important profession'.

A particular issue in the submission related to Indigenous students, with reference to student achievement data that indicate that in Queensland, 25 percent of students fall below national standards in reading. The issue was considered to be so important that the Department of Education and Training was urged to 'treat Indigenous education as a special case, and set up a task force to determine what needs to be implemented to turn our current poor performance into successful outcomes'.

The submission suggested that teacher education at UQ was 'in good shape' but that 'further improvements can be achieved' especially in respect to induction. It was heartened that 'there is also a growing sense that society must value more the teaching profession'. Features of current programs and recommendations to the review are contained in Chapters 5 and 6, respectively.

University of the Sunshine Coast (USC)

The submission of the University of the Sunshine Coast (USC) described a number of issues that it felt should be addressed by the review and proposed strategies that should be followed. These are considered as recommendations and a summary is provided in Chapter 6. The starting point was the need for the review to 'take forward' matters addressed in earlier reviews and to take account of what is occurring elsewhere in Australia and internationally.

The challenge for this review of teacher education will be to take forward the ideas that have been developed in the numerous reviews of teacher education that have been undertaken in Australia and overseas as they relate to teacher quality. This provides the challenge of ensuring that, while a review of teacher education in Queensland, it does maintain a national and international focus on the literature and practice.

The USC submission also strongly endorsed the current role of the Queensland College of Teachers (QCT) and, like several other submissions, argued against the QCT being subsumed in a larger entity, as had been canvassed in the Green Paper (addressing this issue is outside the Terms of Reference for this review).

University of Southern Queensland (USQ)

The submission of the University of Southern Queensland (USQ) was the only one that was framed by a futures perspective, with frequent reference to 21st Century skills and 'trajectories' for learning in the years ahead. It noted that 'significant change in school systems arises from key policy drivers such as globalisation, information and communications technologies, and the need for 21st century skills necessary for the knowledge economy'. It described two trajectories in England and the United States: (1) moving from 'one size fits all' to context specific and personalised approaches to learning and teaching, and (2) reconceptualising what counts as the quality of teachers and teaching by creating a profession characterised by lifelong learning. The submission noted the relevance of (1) to Queensland where there are differences in respect to the following:

- geographical location, for example; remote, rural, suburban and urban,
- cultural and religious differences in the student and parent populations,
- pre-school experience, home context, socio-economic status, language competence, levels of development and the ability of children and young people in a cohort entering school,
- the experience and expertise of teachers and school leaders, and
- the expectations of various stakeholders who have an interest in the outcomes achieved by schools.

For (2) above, the submission stated that 'the skills needed to teach and facilitate learning that are currently specified within an undergraduate program are unlikely to serve the needs of graduating teachers in five years time'. Accordingly it was suggested that:

the most effective programs of teacher education are those that are underpinned by a learner-centred focus, using pedagogical approaches that are tailored, context specific and enable students to engage creatively with process, content and develop attributes appropriate for the profession. This is what is necessary in schools to meet the challenges of the next decade. Pedagogies for 21st century learning are likely to include well developed online and blended learning opportunities, 'real' as well as 'relevant' curriculum explored through cases, problems, issues, dilemmas and / or scenarios, from which the capacity to exercise professional judgement in context with partial evidence is developed. It is crucial that teachers also have the capacity for critical analysis and reflection on practice in order to understand and enhance the outcomes for their students.

USQ has introduced programs that are consistent with the foregoing and these are described in Chapter 5. Recommendations on the same theme are summarised in Chapter 6. In summary, a major issue for USC is how teacher education should take account of trends and trajectories for learning and teaching in the 21st Century.

Deans of Education

The Deans of Education in Queensland provided feedback on the Green Paper on matters related to this review but did not make a separate submission. Consequently, their feedback did not provide information on programs in Queensland or elsewhere that they considered exemplary and no formal recommendations were made. They acknowledged that a review would occur and were content to draw attention to matters that such a review should consider.

As in other feedback and submissions, Deans preferred the term 'teacher education' to 'teacher training'. They noted that 'teacher education may include teacher training, but also develops the capacity and capabilities for teachers to deal with changing and complex educational contexts'. They gave 'qualified support to [the review] while noting that reviews of teacher education seem to be endemic. The review panel would need to take into account the findings of previous reviews . . . as well actions taken as a result of previous reviews and the effectiveness of such actions'.

They recommended that 'the review panel understands and incorporates the wider national and international agendas in teacher education' (as is done in Chapter 4). They drew attention to the role of the Queensland College of Teachers (QCT), noting that programs 'are only accredited after rigorous examination by that body'. The review should 'consider the funding implications of any recommendations, particularly those involving practicum placements as these already impose a significant financial burden on higher education institutions'.

Deans of Education believed that support for beginning teachers should be given prominence in the review and drew attention to the consequences of short-term contracts described earlier in this chapter.

To the present, much of the support given to beginning teachers has been seen as being 'in house' in their schools, even though in the 2008 AEU survey 45% of beginning teachers reported that they had received no mentoring at all at their schools. While there is much to laud in a system where an experienced teacher is readily available to guide the novice and to provide timely advice, the nature of employment for beginning teachers is changing with short term contracts, often in different schools, interspersed with periods of unemployment, becoming more frequent. To provide continuity in the development of teachers employed in this way, a program that is portable and more integrated than individual school programs needs to be considered. Consideration also needs to be given to ensuring that any program developed integrates with and builds on the preservice programs from which the new teacher has graduated.

Deans considered mentoring of beginning teachers to be important, stating that 'for maximum effectiveness of any mentoring program, the development of a training program for mentors is recommended. Such a program should include both mentoring skills and the assurance of adequate and up-to-date pedagogical knowledge on the part of the mentor'.

Plans for Teaching Centres of Excellence were applauded. However they considered the number proposed to be too small and that a broader view be taken of their number, nature, distribution and purpose.

We therefore believe that the purpose of the centres and how they may articulate with other schools and the higher education institutions will need to be clarified. The [Green] paper refers to five centres of excellence but does not indicate if these will be single schools or clusters of schools. Also, their possible distribution throughout the state is not addressed . . . It is suggested that, in consultation with the higher education institutions whose students will utilise these facilities, consideration be given to allowing these centres to perform a much wider role in preservice education programs than just being centres for a practicum experience, thus widening student access to the expertise available in such centres. One such role could include the provision of model lessons with opportunity provided for groups of students to work with the teachers presenting the lessons in the planning and subsequent analysis/ discussion of the lessons.

Deans noted that 'it is now increasingly appreciated that an ability to maintain effective classroom discipline is not an innate skill but one that needs to be taught along with other teaching skills and subject content knowledge as part of any preservice teacher education program. This is

recognised by the QCT through incorporation of such a requirement into their standards for course accreditation'. They stressed the importance of parental support for the success of a behaviour management program.

Department of Education and Training (DET)

The following issues were identified in the submission of the Department of Education and Training (DET):

- Pre-service teacher education programs, particularly those for primary school teachers will need to include a stronger focus on science and technology components in addition to other core discipline areas such as mathematics. There has also been a suggestion that teachers of high level mathematics and science be prepared predominantly by mathematical and science faculties in conjunction with education faculties.
- The introduction of the new national curriculum will see an increased demand for teachers qualified and experienced to teach in English, Maths, Science and History in Years 8-10. To respond to this demand the department is building a range of workforce planning strategies to ensure there is a match in the profile and composition of the workforce to meet future projected demand.
- The introduction of a new LOTE National Curriculum and the continued compulsory teaching of LOTE in Years 6, 7 and 8 will increase the demand for teachers who are suitability qualified, experienced and proficient in the relevant language.
- Future forecasting of the make up of the department's workforce in 2020, and the capabilities required of our workforce, is subject to influence from a range of external and internal factors and trends. Pre-service Teacher programs offered by Queensland HEI's need to be cognisant of these reforms to ensure the department is well positioned to attract Aboriginal and Torres Strait Islander teaching aspirants to roles within the department.
- Each year there is significant media interest in the OP scores for entry to pre-service teacher education programs. Whilst the department acknowledges that OP scores are used for entry to tertiary programs and are not a measure of the quality of graduates from a pre-service program there is a need to strengthen the requirements for entry to raise the status of the profession and to ensure aspirant teachers have an appropriate level of academic rigour and understanding.
- Queensland College of Teachers' current structured approach to pre-service teacher preparation including approval of pre-service teacher education programs based on the Professional Standards for Queensland Teachers is well regarded by higher education providers, teacher employers and the profession. It does not however currently provide sufficient diversity in the pathways to becoming a teacher or the models that are implemented by Queensland higher education providers.
- Once attracted to the profession, there needs to be a closer alignment between the current and predicted teacher workforce needs and the number and qualifications of graduates from pre-service teacher education programs.
- The role of quality supervising teachers and mentors in professional experiences is paramount; however feedback from schools indicates that they feel increased support is needed from higher education providers. The movement away from higher education staff visiting schools and supporting pre-service teachers and supervising/mentor teachers has not assisted in this regard.
- One of the significant challenges faced by DET is to ensure that we are able to attract quality teachers to schools in rural, remote and regional locations.

Queensland Catholic Education Commission (QCEC)

The Queensland Catholic Education Commission (QCEC) expressed concern about the planned pre-registration tests for graduates when it noted in its submission that 'the introduction of a pre-registration test will put the emphasis on a narrow skill base. Testing of literacy, numeracy and science is best placed within the university course where poor performance can be remediated'.

The QCEC believes that behaviour management should go beyond a focus on discipline: 'Teacher education programs need to focus on a fuller understanding of behaviour management and pastoral care rather than on an isolated focus on discipline'.

Independent Schools Queensland (ISQ)

Independent Schools Queensland is the peak body for 190 independent schools across Queensland. The sector enrolls over 107,000 students and employs over 12,000 staff. As noted in its submission 'the independent sector supports pre-service teachers and employs many new teacher graduates each year'. Its submission referred to several initiatives in the sector that are pertinent to the review and these are described in Chapter 6. The submission of ISQ drew attention to matters that ought to be considered in this review. In addition to content knowledge and units of study, pre-service courses need to focus on issues such as:

- the range of school environments reflected in the diverse nature of schooling provision in Queensland, including rural and remote, multicultural and low socioeconomic communities;
 - understanding of diagnostic procedures;
 - pedagogical content knowledge i.e. knowing how students' understandings in a subject typically develops, and effective ways to teach a subject for different types of students;
 - effective pedagogy in relation to technology;
 - the effective management of student behaviour; and
 - the capacity to engage with parents and the broader community.

The following matters should be considered in relation to field experience:

- earlier placement of pre-service teachers into schools;
- the length and regularity of practicum experiences to more closely link to classroom practice; and
- universities to provide appropriate support to schools for practicum students, particularly those at risk of failing.

The submission suggested that the review consider the provision of induction programs for graduate teachers.

Queensland College of Teachers (QCT)

The important role of the Queensland College of Teachers (QCT) was described in Chapter 2. Its submission identified several issues. Those concerned with the quality of entrants to teacher education and supply and demand were included earlier in Chapter 3. The QCT is also mindful of its leadership in a national context and the review being undertaken simultaneously with this review by the Australian Institute of Teaching and School Leadership (AITSL). The submission included the following in relation to the national context:

There are developments at the national level in the areas of standards and accreditation of teacher education programs. It will be essential for Queensland that the QCT, as an acknowledged leader in both areas, continues to have a strong role during this time of transition and is recognised as the state body responsible for implementation of the national standards and national accreditation process.

The QCT is fearful that with the introduction of a national approach to the approval of pre-service teacher education programs there may be an attempt to reduce the number of supervised practical experience days currently prescribed by the QCT as Queensland currently requires more days than any other state.

Themes in interviews with stakeholders

The review leaders held interviews and conducted consultations with a range of individuals and stakeholder groups as listed in Appendix 4. A template was developed to provide a framework for identifying issues (Table 3.9), describing current approaches (Table 5.1 in Chapter 5) and making proposals for change (Table 6.1 in Chapter 6). Interviews and consultations were recorded and transcribed. Responses summarised in Chapters 3, 5 and 6 are not verbatim statements that can be attributed. They serve to guide the preparation of the First Report. Table 3.9 summarises issues raised in the course of these meetings organised according to themes in the template. The first column includes a statement from a respondent that captures either a common theme among the responses and/or a challenge to be taken up in addressing the issue.

Table 3.9: Issues raised during interviews

Area of interest	Summary of issue
<p>Pre-service</p> <p>'Somewhere in the teacher development process they should learn to love the profession and get to appreciate it as a powerful, magical profession.'</p>	<ul style="list-style-type: none"> • There exist broad concerns with one-year Dip Eds. • There needs to be a greater emphasis on a clinical model of teaching. • Concerns exist as to the best way of improving Science content knowledge and pedagogical knowledge especially for primary teachers. • The quality of the partnerships between school and university needs scrutiny and improvement. • The teacher has to be educated to understand the child's social and cultural context. • Early childhood pathways into university courses include matriculation from TAFE. There are significant concerns with this cohort. • The early years' course enables teachers to learn to teach in a way that is distinctively appropriate for young children, but over the years the early childhood course has been altered into looking more like a primary course. • The performing arts are of inestimable importance in the education of young children, yet much of that has been cut out of the B. Ed course. • There is great concern with the lack of student teachers' engagement with reading. Reading picture books to children every day is how they internalise language. • There has been a major focus by the universities on developing programs against professional standards. • The universities are seeking better partnerships with the schools, where they feel a part of the program and share a sense of professional responsibility. • There are divergent views about the extent to which the universities really try to develop authentic partnerships with schools.

Area of interest	Summary of issue
<p>Behaviour management</p> <p>'If you've lost them in those early years, they're lost.'</p>	<ul style="list-style-type: none"> • Behaviour management, and the correct way to address it, has given rise to a range of responses. • In terms of behaviour management, it is not possible to set up a virtual experience at university for that. They need to be in schools. • Behaviour management in the early childhood context is an entirely different suite of skills from those applied elsewhere, and student teachers need that specific yet different knowledge. • A critical yet different aspect of behaviour management in this setting is the extent to which it is a tool to build children's motivation and positive attitudes to school and learning. • Appropriate behaviour management also helps develop social skills.
<p>Beginning teachers</p> <p>'We need to do better, I remember being a beginning teacher and you can't convince me that as a beginning teacher my life wasn't exactly the same as all of the advanced teachers. I had my classes and responsibilities the same as them. Nobody was sitting in with me.'</p>	<ul style="list-style-type: none"> • There is a view that too many beginning teachers are not provided with ongoing guidance and support. • The model that parallels teacher preparation with medical or engineering preparation only goes so far. • The view that beginning teachers should be on a reduced load has met with almost universal approval, notwithstanding cost implications. • Students are still being taught by teachers whose reading and literacy skills are inadequate. • Beginning teachers need to understand that they are part of a community, not just a school. • All beginning teachers must go through a program of ESL. • The appropriate time for registration is at the end of the degree. • Beginning teachers need to have amongst their personal qualities those that permit them to value diversity, although that could be hard to pick up at interview. • Beginning teachers should not graduate with a limited repertoire of practicum placements. • Too often the beginning teacher assumes that someone can be a student one day and the next can be a fully paid-up professional on the same standing as a teacher of twenty years' experience. • Apart from the Northern Territory, Queensland is the only state that doesn't give extra time to beginning teachers to plan.
<p>Selection</p> <p>'The public perception is very bad. So we've got the room here to make the pre-requisites very, very strong while having the social inclusion approach.'</p>	<ul style="list-style-type: none"> • There is evidence to demonstrate that students who enter a Grad Dip course with an OP3 still struggle with education discourse and written communication beyond what their OP would suggest. • The selection criteria for teaching should not be restricted to an OP, but should include an assessment of capacity to work as a member of a team, and of the personal qualities that are required of a teacher. • An interview could be a supplementary selection strategy for anyone who really wants to be a teacher but doesn't meet the minimum OP. Interviews as a selection strategy are not universally favoured. They provide another level of filter, but applicants soon learn what to say, even though they don't have the capacity to demonstrate it.

Area of interest	Summary of issue
	<ul style="list-style-type: none"> • For Early Childhood teacher selection, it is of critical importance that selection processes should include an interview as an essential part of that process. • As a minimum for Primary teachers Maths A to year twelve level was indicated. For early childhood, the view was probably to finish Maths to Year 10. To teach Year 6 and perhaps, if they stay in Primary, Year 7, then a much higher level of mathematical knowledge is needed.
<p>Practicum</p> <p>'Field experience is of enormous importance as it makes all the theory come to life.'</p>	<ul style="list-style-type: none"> • The education degree today is seen as a good first degree, something that replaces the old Arts degree. Those facts have implications for schools trying to find practicum places for those who have no intention of ever becoming a teacher. • Great concern was expressed at the practicum's extent and timing in the school year. • Placement of students is very difficult with schools giving a variety of reasons why they won't take students. • Examples exist of schools with a staff of 90 who are expected to provide places for 20 prac teachers. • QUT has to find 4500 placements per year. • One of the concerns schools have is that they feel that the institutions don't show enough interest- that they're not out there visiting. • There are a lot of reasons why the traditional visit doesn't make sense any more but schools still enjoy having visits and having that connection. • Students still have difficulty with prac for a variety of personal reasons, such as whether they actually like children, or how well they get on with people. • There is an ongoing need to develop the relationships between teacher education institutions and schools to make sure that the practicums and induction periods better serve the needs of beginning teachers. • The practicum enables sophisticated strategies such as play-based learning to be seen and experienced, and hopefully understood. • It would be desirable to see supervising teachers in school get some sort of credit for a master's for being involved as supervising teachers. • Having students out in schools practising teaching virtually the first day they arrive a university might alleviate the problem of their not being advised they are unsuited to teaching until their last prac. • There is a certain type of very caring primary teacher who will not let a student sink. • It is important that a student teacher has sole responsibility for a class, and has to plan everything for that class at some stage of the practicum. • Field experience should be in a range of settings, not just in a very limited range of schools.

Area of interest	Summary of issue
<p>Induction</p> <p>‘Some schools do a marvellous job in inducting. But it’s not a systemic requirement, it’s little pockets of excellent practice.’</p>	<ul style="list-style-type: none"> • The beginning teacher is expected by colleagues to be able to handle the students. • If induction could be included as part of a higher qualification, that could address the issue of attempting to include too much in the preservice course. • The cost of an enhanced induction program would be significant, and there is debate as to whose responsibility this is. • A key element of induction involves partnering and meaningful partnering. • Interviewees reported that, for some principals, induction entails giving the school handbook to somebody and telling them to read of it. • Induction needs to start at the university prior to graduation. • There are certain policies and procedures that go on in schools that are common, like Student Protection Policy, WH&S, which can be taught there. • The Principals’ Associations would support being a resource whose members could go into the universities and assist in that respect. That knowledge is generic across sectors. • There is a view that only the schools are accepting the responsibility for induction. • One view holds that induction starts with the internship.
<p>Internship</p> <p>‘The reality is that these people are going to struggle with the internship model because their worlds don’t allow it. You know the days are gone where our pre-service teachers are 21 living at home and able to suddenly give up their normal work and go and do an internship for two months without any pay.’</p>	<ul style="list-style-type: none"> • It was felt that interns added significantly to the resources of the school and to the culture of the school. • The internship is seen as a way in which professional knowledge, professional practice and professional values are brought together. • It is a place where the students have a graduated development and set of responsibilities in moving from observation to small groups, to teaching for parts of days. • The internship is very restrictive in terms of the number of students who could be supported at any one time, especially with senior classes. • Interviewees were of the view that, without financial assistance, internship would be largely impossible. • Paid Internships might be one of the incentives for going to remote areas • Internship should really occur once beginning teachers are employed. • Some felt that Internships could be seen to be a way for universities to abdicate their ongoing financial problems onto schools and onto the department. • The intern should be given the opportunity to prepare, undertake and evaluate a significant curriculum unit. • If internships are to be trialled, they have to be at schools with a capacity to do it well in the first place.

Area of interest	Summary of issue
	<ul style="list-style-type: none"> • The internship is not an apprenticeship model, which is all about practice, but an opportunity for pedagogical theory or curriculum theory and for professional reflection. • Interns should have a reduced teaching load and systemic support that is built into their industrial rights or their professional rights, so they can grow as professionals.
<p>Mentoring</p> <p>'For mentoring to be effective there has to be a principal who's committed to renewing the profession. That principal also has to be in a school that has the resource capacity to do it.'</p>	<ul style="list-style-type: none"> • There was a view that mentoring was not actually conceptualised well enough and certainly not resourced well enough. • An essential element of mentoring would be practical experience and the capacity to have a conversation with the teachers without sounding like they were being told what to do. • It was felt that the financial arrangements that attend being a supervising teacher are so pathetic that no one can impose any conditions on being a supervising teacher. • Given that most primary teachers will teach in very small schools, that reality needs to be considered when developing a mentoring program. • There is an advantage in putting mentoring into an industrial instrument in that it doesn't leave it to chance. • Mentoring programs, especially those that might involve rural schools, should be considered carefully as those schools would have the resource capacity, in that they're fairly well resourced, but they could have reduced capacity in terms of quite inexperienced teachers.
<p>MUP</p> <p>'The worst thing you can do for somebody is keep them somewhere where they shouldn't be.'</p>	<ul style="list-style-type: none"> • Schools experience difficulty in failing student teachers. Too often they are just sent to another prac school. • In terms of unsatisfactory performance the universities have to work a lot more with the schools. • There is a great reluctance to fail students in their final semester. • 'They are kept afloat. We are our own worst enemies.' • In order to come up with a fair yet rigorous process that would have the confidence of supervising teachers, perhaps there is a need to consider the existing MUP process that is in place for Department teachers.
<p>Pre-registration tests</p> <p>'This concept that Geoff Masters provides us of having a little test at the end is not only immoral, it's senseless. Everyone, anyone can pass it.'</p>	<ul style="list-style-type: none"> • The view was held that something needed to be done, but that it was being done at the end of the teacher education course, when it should have been done at the beginning • Students who graduate from an interstate university have no requirement to do a pre-registration test under mutual recognition. • The main problem from the university's point of view is that the level of scrutiny they go under for QCT is already very robust. • There are questions as to whether a multiple choice test is going to do any more than the existing regime. • A U.S. study maintained that there was absolutely no correlation between the testing of teachers and the outcomes for students. • Preservice teachers are already assessed for literacy and numeracy at university.

Area of interest	Summary of issue
	<ul style="list-style-type: none"> Universities feel insulted by the suggestion that they can't assess for their own students' literacies and numeracies. It is a current requirement for successful course completion. There is a range of ongoing assessment to determine and address students' literacy and numeracy mastery. If they can't pass the literacy program, they don't get their degree and don't become teachers. They are referred to an alternative degree.
<p>HR Planning</p> <p>'I don't think it's ethical anymore for us to take in students where we know there's not going to be jobs. It's dreadful, it's unethical.'</p>	<ul style="list-style-type: none"> It was felt that planning in this area should be relatively easy, but it was one of the worst aspects of teacher management. It was seen to be the classic dilemma, there exists a business model that encourages people to undertake teaching and the universities are funded to do that, but the model does not address the employing authorities' requirements. The universities see the biggest issue for them is that there are not enough places for their students to undertake a practicum. Universities maintain that they're producing graduates for many other industries, which validates their need for bigger numbers in their programs, without any thought of the pressure this puts on finding prac placements. There is a body of opinion from interviewees that says that universities deliberately over-enrol in education because they have to support resource-intensive faculties such as medicine, so they make money in teacher education. It is felt that the imbalance in the supply and demand situation is a waste of federal money. There is no agreement between the Queensland government or Department with universities compelling it to take all students or any students. Teachers would be happy to supervise if they knew there was some vetting, some level of determining that the people they were going to get in their classroom are committed to teaching. There are more vacancies in Special Ed. than there are applicants. There is a view that it be mandatory for teachers in prep to year one to have an early childhood qualification. By and large, principals prefer primary teachers over specialist early childhood teachers in P to three because of their prac experience in primary. The way in which DETA appoints graduates now is not by a permanent appointment in their first year out of university. If the universities are to call their degrees 'Bachelor of Education', it should be about capacity to work in a classroom. Maybe the term used should be 'Teaching' because 'education' has a much broader perspective. Very little seems to have been achieved as an outcome of the Improving Practicum Component of Teacher Education Funding. Two universities in the last two years have introduced new primary programs despite there being for a number of years beforehand an oversupply of primary school teachers. They did that knowing that there wasn't employment for even a fraction. There should be better supply and demand prediction by teacher employers and then liaison with teacher education faculties to advise preservice teachers where teacher shortages exist.

Area of interest	Summary of issue
<p>Science and Mathematics Education</p> <p>'If teachers don't have the capability of establishing or progressing the building blocks in the children's minds, the results are quite damaging.'</p>	<ul style="list-style-type: none"> • All primary student teachers should be studying science. • There is a need for district specialists in mathematics. • There is a need for a Masters level qualification for people in science - a Master of Education Science Education, or a Master of Science Education, where students don't undertake curriculum studies but engage in cutting edge science, where they may be asked to think about ways of knowing and ways of thinking and to translate what they've learnt into classroom practice. • Until the State mandates that a master's degree is the baseline, nothing's going to happen. • 'Some (science practices) are quite dangerous, some of the things you hear teachers in primary schools telling their students, you have to walk in and explain that that's not the way a vacuum works actually.' • A concern with the pre-registration test is that a multiple-choice test of pedagogical content knowledge seems inappropriate as a mechanism for assessing scientific knowledge or the ability to teach it.
<p>Indigenous Education</p> <p>'We don't need the missionaries, the madmen or the misfits; we need quality teachers'</p>	<ul style="list-style-type: none"> • Pre-service teachers have insufficient capacity to address the needs of Indigenous students. • Culture shock is related to specific communities, and can be significant because it has been allowed to become significant.
<p>ESL/TESOL</p> <p>'One reason that we're behind in NAPLAN is not just the percentage of indigenous kids in Queensland of itself, but that there are so many hidden kids who need ESL support and who have never been picked up. Nobody has gone looking for them. There are people in the Department who know this, and they say that there's a hidden, there's a whole mass of kids.'</p>	<ul style="list-style-type: none"> • There are more students who don't understand ASE than previously thought • ESL needs to be integrated across the entire teacher education program, and not merely confined to those who might become ESL teachers. • For indigenous communities the needs are for quality teachers and then teachers competent in ESL teaching.

Summary

The following is a summary of the 32 major themes among the issues raised in feedback on the Green Paper, in submissions and during interviews. Each is expressed in the form of a question, the answers to which are sought in this review.

1. How can planning be improved to take account of supply and demand?
2. What should be the minimum OP cut-off score for those entering directly from school?
3. What should the entry-level qualifications be for those entering pre-service programs, especially in respect to mathematics and science?

4. Should interviews and other approaches, in addition to academic aptitude, be used to select those who are permitted to enter pre-service programs?
5. What is the most effective approach to implementing the idea of 'teaching centres of excellence'?
6. Is there a place for the proposed pre-registration tests?
7. How can greater consistency in standards be achieved in pre-service programs in different universities?
8. How much time should be spent in the practicum?
9. How can the practicum experience be expanded to provide more opportunity for students to have experience in rural/remote/Indigenous settings?
10. How can links between universities and schools be made more effective in teacher education, including the design and delivery of the practicum, internship and induction?
11. What should be the nature and scope of an internship in teacher education?
12. How should mentors be selected and prepared for their role?
13. What is meant by 'behaviour management' and how does it relate to 'classroom management' and 'discipline'?
14. How should matters related to behaviour management be addressed in pre-service programs?
15. How should national, state and local priorities in curriculum be addressed in pre-service programs?
16. What are the best approaches to teaching literacy and numeracy at different stages of schooling?
17. What are the appropriate pedagogies for personalising learning in schools?
18. How should assessment be addressed in pre-service programs?
19. How much attention should be given to ESL in pre-service programs, especially for those preparing to teach Indigenous students?
20. How should specialist areas such as physical education and librarianship be addressed in pre-service programs?
21. What are the best approaches for learning to teach students with special educational needs?
22. What are the best approaches for learning to teach students with disabilities?
23. What are the best approaches for learning how to relate to parents and other members of the school community?
24. What are the best approaches for learning to use technology?
25. How can induction programs be designed and delivered?
26. What induction should be arranged for the majority of graduates who currently secure short-term contracts only, and who shall be responsible and be held accountable for design and delivery?
27. What should be the length of postgraduate pre-service programs and what should be their content?

28. What should be the relationship between faculties/schools of education and other faculties/schools in the university in respect to the design and delivery of pre-service teacher education programs?
29. How should pre-service programs offer a global and futures perspective?
30. Should there be more pathways for preparing for a teaching career?
31. How should different stages of schooling be addressed in pre-service programs?
32. How can initiatives in matters related to these issues be funded?

Chapter 4

Benchmarking policy and practice in other settings

The focus in Chapter 4 is on international developments and policy and practice in states other than Queensland. Benchmarks are set for policy and practice that can be fairly described as ‘best practice’ or ‘state-of-the-art’ and these provide a framework for analysis and preliminary assessment of current policy and practice in Queensland as set out in the chapters that follow.

Particular attention is given in international settings to developments in Finland and the United States. Finland is included in most reviews where research on developments in other countries is undertaken. This is because Finland has performed consistently well in international tests of student achievement and because observers have invariably reported that the quality of teaching and the strength of its pre-service teacher education are major contributing factors. The United States is chosen because some of the world’s leading scholars on teacher education and teacher professionalism are based in that country; the constitutional arrangements for the governance of education are similar to those in Australia, notably its federal system; and because some of the practices recommended elsewhere may be found there, albeit on a modest scale.

Concerns are sometimes expressed about drawing on experience in Finland and the United States. In the case of Finland, despite the performance of its students on international tests, it is pointed out that the demography of Australia is dramatically different to that of Finland, hence its experiences should be regarded with caution or should be discounted. These observations usually refer to the fact that Finland’s population is relatively homogeneous, with little of the multi-cultural heterogeneity of Australia, and that its Indigenous population is relatively small. As shall be shown in the pages that follow, the point of the Finland experience is that the gap between high and low performing students is relatively narrow, and the view of expert observers is that the high status of the teaching profession, now a graduate profession, is a major contributing factor, as is the relatively large numbers of teachers who receive special training to support other teachers to ensure that students do not fall behind (The Masters Report stated that about 14 per cent of teachers have these skills). As far as Indigenous students are concerned, Finland’s Saami students do well compared to their counterparts in other countries. While there may be less diversity in Australia, we have the same challenges and there appears to be no reason why these two particular strategies (graduate profession, support for students who fall behind) cannot be implemented in other settings.

As far as the United States is concerned, those with reservations about its experience often refer to overall levels of student achievement that tend to be well below those of students in Australia. However, like in many others fields, some of the world’s best practices can be found in the United States, and leading researchers like Linda Darling-Hammond tend to draw on these and call for scaling up across the country. In some instances, some of these practices have addressed the relatively low levels of performance among Black or First Nation (Indigenous) students. Darling-Hammond has introduced pre-service programs at Stanford that prepare teachers for work with these students.

Exemplars identified in Masters Report

Masters drew on the McKinsey Report on *How the World’s Best-Performing Systems Come out on Top* (Barber & Mourshed, 2007), highlighting international exemplars of teaching practice that shaped pre-service programs. He reported McKinsey’s conclusion that:

... high-performing education systems have developed systematic ways of intervening to support students who are slipping behind their age peers in their learning. For example,

in high-performing Asian countries, classroom teachers spend additional time, sometimes after school, working with students who need additional assistance. Singapore provides extra classes for the bottom 20 per cent of students in the first and second grades. Finland provides special education teachers who work with students who are falling behind. There is one such teacher for every seven classroom teachers, and special education teachers support up to 30 per cent of students each year (Masters, 2009, p. 10).

Masters drew on a range of national and international studies to describe 'highly effective practices for continuous improvement in student learning'. Table 4.1 highlights the importance of targeted teaching and continuous monitoring and summarises what highly effective teachers and schools do (Masters, 2009, p. 11). He also included 'high expectation' and 'deep knowledge'.

In further accounts of highly effective practice, Masters refers to Finland and strategies that help ensure that students do not fall behind. Drawing again on the McKinsey Report:

Among the strategies that appear to be effective in addressing the needs of students who are slipping behind in their learning are individualised and small group teaching tailored to the needs of those students. In some schools and school systems, students who are experiencing difficulties are withdrawn from their classes and work with teachers trained in addressing special learning needs. For example, in Finland, every eighth teacher is a 'special education teacher' who does not have a class, but works with students – either individually or in small groups – who require additional help. Up to 30 per cent of students in Finland are supported at some time by a special education teacher, and so there is little stigma attached to being withdrawn for this purpose. (Masters, 2009, p. 78)

Masters summarised the characteristics of high- and low-performing school systems in the recruitment and selection of students in pre-service programs:

[The McKinsey Report found that] in the world's top-performing school systems, high standards are set for entry into teacher education, the number of places in teacher education programs is limited to the number of graduates required, students compete for entry, and the status of teaching is high. In contrast, low-performing systems often set low standards for entry and train more teachers than they require, resulting in limited competition and low status. The dilemma is that it is difficult for education systems to raise entry standards when teachers are in short supply. However, international experience suggests that unless teaching standards are raised, teaching will remain unattractive to highly able high school graduates and the status of teaching will remain low. (Masters, 2009, p. 90)

Masters is one of many who highlight what has been achieved in Finland. Darling-Hammond (2010) includes Finland in a group of mostly Scandinavian nations that are doing well in international tests of student achievement, the others being Sweden and Norway. Along with the Netherlands:

. . . all teachers now receive 2 to 3 years of graduate level preparation for teaching, generally at government expense, plus a living stipend. Typically this includes a full year of training in a school connected to the university, like the professional development school partnerships created by some US programs, along with extensive coursework in pedagogy and a thesis researching an educational problem in the schools (Darling Hammond, 2010, p. 44).

Table 4.1: Strategies used by highly effective teachers and schools in targeted teaching and continuous monitoring (Masters, 2009, p. 11)

Strategy	Highly Effective Teachers	Highly Effective Schools
Targeted Teaching	<ul style="list-style-type: none"> • Understand the importance of ascertaining students' current levels of attainment • Design learning opportunities appropriate to students' current levels of readiness and need • Maximise student engagement through personalised teaching and learning • Use effective teaching methods such as direct instruction • Use intrinsic factors to motivate student learning • Ensure that all students are appropriately engaged, challenged and extended, including those at the top of the class 	<ul style="list-style-type: none"> • Encourage and support teachers to identify individual learning needs and difficulties • Make diagnostic tools, assessment instruments and professional support available to teachers • Make past records of students' performance and difficulties available to teachers • Maintain individual learning records to share across year levels • Design programs and school structures around student needs • Understand that students' literacy and numeracy skills may differ significantly and ensure that all students are engaged and challenged
Continuous Monitoring	<ul style="list-style-type: none"> • Continually monitor individual student progress and provide feedback to guide student action and to provide encouragement • Assist students and parents to monitor progress over time, including across year levels • Provide feedback to parents on ways to support learning • Use feedback on student learning to monitor the effectiveness of teaching practices • Recognise that improvements in teaching practice are always possible • Prioritise professional learning and collaboration with colleagues in pursuit of improved teaching practices 	<ul style="list-style-type: none"> • Have strong accountability and performance monitoring systems • Use reliable data to drive school-level decisions, interventions and initiatives • Promote a culture of self-evaluation and reflection at all levels of the school • Share performance information across the school and school community, including parents • Build the in-school capacity to collect, analyse and interpret data • Encourage parents and caregivers to discuss, monitor and support their children's learning • Provide guidance to parents on ways to further assist learning • Build partnerships with community organisations and agencies to assist in addressing individual needs

Masters also referred to Singapore in his commentary on highly effective practice in other countries. Darling-Hammond does the same, highlighting the following:

To get the best teachers, students from the top third of each graduating high school class are recruited into a fully-paid 4-year teacher education program (or, if they enter later, a 1- to 2-year graduate program) . . . As in other highly ranked countries, novices are not left to sink or swim. Expert teachers are given released time to serve as mentors to help beginners learn their craft. The government pays for 100 hours of professional development each year for all teachers in addition to the 20 hours a week they have to work with other teachers and visit each others' classrooms to study teaching (Darling-Hammond, 2010, p. 45).

Finland

Darling-Hammond is one of the most highly-respected scholars in the field of teacher education and she offers the following description of what has been accomplished in Finland:

Finland has been a poster child for school improvement since it rapidly climbed to the top of the international educational rankings after it emerged from the Soviet Union's shadow. Leaders in Finland attribute these gains to their intensive investment in teacher education. Over 10 years, the country overhauled preparation to focus more on teaching for higher order skills like problem solving and critical thinking. Teachers learn how to create challenging curriculum and how to develop and evaluate local performance assessments that engage students in research and inquiry on a regular basis. Teacher training emphasises learning how to teach students who learn in different ways – including those with special education needs. The egalitarian Finns reasoned that if teachers learn to help students who struggle, they would be able to teach all students more effectively and would indeed leave no child behind. The bet has paid off as educational achievement has soared (Darling-Hammond, 2010, p. 45).

The following pages describe and illustrate how teacher education has helped achieve these outcomes. Particular attention is given to the issues of special interest in the review of teacher education in Queensland.

Content, duration, level and entry requirements

Teacher education in Finland for primary and secondary schools involves a combination of a three-year Bachelor's degree and a two-year Master's degree (Niemi & Jakku-Sihvonen, 2009). The Master's degree has been required for teachers in Finland since 1979 (Niemi & Jakku-Sihvonen, 2009). The Bachelor's degree contains 180 European Credit Transfer and Accumulation System (ECTS) credits (European Communities, 2009), while the Master's contains 120 ECTS credits (60 ECTS credits are considered equivalent to a full-time year of formal learning) (European Communities, 2009), and one credit is equivalent to about 27 hours of work (Niemi & Jakku-Sihvonen, 2009). ECTS is described as a 'learner-centred system for credit accumulation and transfer based on the transparency of learning outcomes and learning processes' (ECTS, 2009, p. 11). Primary teachers are required to obtain a Master's degree in educational studies while secondary teachers obtained a Master's in their chosen subject speciality (The Trade Union of Education in Finland, 2010). Kindergarten teachers who work with children aged one to six, are required to complete a Bachelor of Education, with a specialisation in early childhood education (The Trade Union of Education in Finland, 2010) (children do not start school until they are seven years of age).

The high application rate of prospective teachers results in the acceptance of only 10 to 15 per cent of applicants to teacher education (Niemi & Jakku-Sihvonen, 2009). The application process to primary teacher education involves a written examination, aptitude test and a personal interview (EUROBASE, 2009; National Board of Education, 2010; Niemi & Jakku-Sihvonen, 2009). For some universities an optional skills demonstration is also part of the application process (EUROBASE, 2009). Secondary teacher applicants apply directly to the department responsible for their main subject, and then they separately apply for teacher education (National Board of Education, 2010; EURYBASE, 2009).

The autonomy Finland universities have in curriculum design in education has enabled the creation of a diversity of curriculums across the different universities that are unified by general underlying principles and outlines (as shown in Tables 4.2 and 4.3) (Niemi & Jakku-Sihvonen, 2009). These

unifying guidelines are provided by the Ministry of Education and in agreements between the Deans of the Faculties of Education and the Directors of the Departments of Teacher Education (Niemi & Jakku-Sihvonen, 2009). The generalised structure for primary and secondary teacher education in Finland is outlined in Table 4.2 and Table 4.3, respectively (adapted from Niemi & Jakku-Sihvonen, 2009; Niemi & Jakku-Sihvonen, 2006).

The preparation of a personal study plan was implemented in 2005 and acts 'to guide students to develop their own effective program plans and to tutor them in achieving their goals' (Niemi & Jakku-Sihvonen, 2009). In secondary education the department of education is responsible for the provision of pedagogical studies while the subject departments of different faculties provided the academic study in another discipline (EURYBASE, 2009).

Table 4.2: Components of teacher education programs for primary school teachers (adapted from Niemi & Jakku-Sihvonen, 2009; Niemi & Jakku-Sihvonen, 2006).

Primary school teacher education program	Percentage of course devoted to subject		
	Bachelor's Degree (3 years)	Master's Degree (2 years)	Total time in study (5 years)
Class teachers' pedagogical studies (as part of a major in education) <ul style="list-style-type: none"> – Basics of teaching methods and evaluation – Support of different kinds of learners – Latest research results and research methods of teaching and learning – Cooperation with different partners and stakeholders 	13.5% (including supervised teaching practice)	30% (including supervised teaching practice minimum of 12.5% - 407 hours)	20%
Other studies in a major in education <ul style="list-style-type: none"> – Research methods – Scientific writing – Optional studies 	20% (BA thesis 3-5%)	37.5% (including MA thesis 17-34%)	26.5%
Subject matter studies for comprehensive school teachers	33%	N/A	20%
Academic studies in a different discipline (a minor)	13.5%	0-30%	8.5-20%
Language and communication studies including ICT Practice in working life Preparation and updating a personal study plan Optional studies	20%	14-33%	13.5-25%

The Finnish education system involves Grades 1 to 9 (students start school at the age of seven) and is considered compulsory and taught by primary teachers (Grades 1 to 6) and secondary teachers (Grades 7 to 9) (Finnish National Board of Education, 2010). After the completion of compulsory schooling there is the choice of either a matriculation examination or vocational qualifications, which are taught by secondary and vocational teachers. In addition to primary and secondary teacher qualifications, teachers can be trained in vocational subjects for employment at vocational schools. Vocational teachers are required to have completed a suitable Master's degree within a university or polytechnic institution, or another degree specified by the education

provider (Trade Union of Education in Finland, 2008). The qualification of teachers of business, administration, social services and health care sector requires the completion of a Masters degree (Trade Union of Education in Finland, 2008). Work experience for the duration of three years is required for acceptance into teacher education for vocational subjects (Trade Union of Education in Finland, 2008).

Table 4.3: Components of teacher education programs for secondary school teachers (adapted from Niemi & Jakku-Sihvonen, 2009; Niemi & Jakku-Sihvonen, 2006).

Secondary School teacher education program	Percentage of course devoted to subject		
	Bachelor's Degree (3 years)	Master's Degree (2 years)	Total time in study (5 years)
Class teachers' pedagogical studies (minor) <ul style="list-style-type: none"> – Basics of teaching methods and evaluation – Support of different kinds of learners – Latest research results and research methods of teaching and learning – Cooperation with different partners and stakeholders 	13.5-16.5% (including supervised teaching practice)	30% (including supervised teaching practice -minimum of 12.5% - 407 hours)	20% (supervised teaching practice 4-8% or 327-648hrs)
Academic studies in different disciplines (a major)	33% (BA thesis 3-5%)	(including MA thesis 17-34%)	40-50%
Academic studies in a different discipline (1-2 minors)	13.5-33.5%	0-25%	8.5-30%
Language and communication studies including ICT Practice in working life Preparation and updating a personal study plan Optional studies	20-22%	0-25%	11.5-23.5%

Practicum

A practicum occurs in every year of pedagogical study and is supervised by university teachers (first year of study), university trained school teachers (second and third year of study) or local school teachers (fourth and fifth years of study) (Niemi & Jakku-Sihvonen, 2009). The incorporation of the practicum in pedagogical studies was deliberate: 'the intention (is) to link theory and practice in a sufficiently close relationship that a teacher may be able to resolve everyday teaching problems on the basis of his or her theoretical knowledge' (UNESCO, 2003, p. 89). University training schools (also known as Normal schools) are state schools although the teachers have a 'different status than teachers in other schools and have dual responsibilities: teaching their pupils and the supervision and mentoring of student teachers' (Niemi & Jakku-Sihvonen, 2009). These teachers are often active in research and development (Niemi & Jakku-Sihvonen, 2009). The practicum progresses from observation, then planning, teaching and assessment of instruction (EURYBASE, 2009) with a specific focus on subject areas for secondary teachers, with the end goal of teachers taking 'holistic responsibility in their teaching and schools' (Niemi & Jakku-Sihvonen, 2009). Trainee teachers also participate in practicum team teaching (EURYBASE, 2009). There is no formalised teacher induction program in Finland (Ladd, 2007).

One of the aims of the practicum is 'for students to find their own ways of functioning as class teachers and to become capable of developing their instruction and of taking independent, creative and justified solutions to problems' (EURYBASE, 2009, p. 155). The teacher trainees' individual identity as a teacher is strengthened through group counselling which includes 'discussion, planning and assessment meetings between instructors and teacher trainees' (EURYBASE, 2009, p. 157). A recent graduate of Finnish teacher education described their journey in teacher education:

It is no accident that I am in the teaching profession; it was for me a terribly important question of choice. I think that it was good that during that year there was no harsh criticism, but rather, everyone was supported in finding their own personal style. Our teaching methods and choices must fit our personalities. There are no ready-made moulds, and if anyone offers a mould, it should be rejected, because we work with our personalities and are not acting out a role (Kallioniemi & Kaivola, 2003 cited by Kaivola, 2004, p. 5).

Developing, implementing and using assessment

All Finnish teachers are responsible for the generation of suitable assessments. External assessment occurs only during the final matriculation year (EUROBASE, 2009). The group counselling involved in the practicum includes a focus on assessment (EUROBASE, 2009). Research-based teacher education has produced a generation of teachers that can 'take an analytical and open-minded approach to their work' in which they 'draw conclusions based on their observations, and experiences and they develop their teaching and learning environments in a systematic way' (Niemi & Jakku-Sihvonen, 2009). The focus of teacher education on the assessment of students was described in these terms:

Even though teachers need many specific skills, they also need to understand the complexity of educational processes and face evidence that is coming from different sources. They need research-based and research-informed knowledge, but they also need to be open to acquiring and assessing local evidence. (Niemi & Jakku-Sihvonen, 2009)

Teachers' competence must include a readiness to analyse the situation like a researcher and to make conclusions and decisions to act or to change something in a given situation (Niemi & Jakku-Sihvonen, 2009).

Teaching literacy and numeracy

The Finnish education system involves national periodical assessments for mathematics and national language at the lower secondary level, although the results are not publicly available (OECD, 2008). The implementation of the LUMA program in 1996, whose aim is to increase the level of knowledge in mathematical and natural sciences among youth, has the following features:

- Increased weight to the teacher candidates' mathematics and natural sciences matriculation scores for entry into teacher education
- The measurement of mathematics and/or natural sciences thinking was included in the aptitude tests for entry into teacher education at various Finnish Universities
- Increase in the proportion of mathematics and the natural sciences in primary class teaching training
- Universities were to form minor subject modules in mathematics and natural sciences for teacher training (Ministry of Education, 2002)

The implementation of LUMA resulted in increased achievement of Finland in PISA and TIMSS (interestingly the results of the national assessments showed less positive results), increased numbers of students enrolled in science and technology degrees and increased number of master's degrees with subject teacher qualification in mathematics and/or science (Arajarvi, 2003).

Teaching students with disabilities

A key component of pedagogical studies for both general primary and secondary teacher education is focused on how to teach school subjects to 'different learners' with a focus on their distinct 'learning capacity' (Niemi & Jakku-Sihvonen, 2009). The practical studies are designed to enable students to 'meet pupils and students from various social backgrounds and psychological orientations and have opportunities to teach them according to the curriculum' (Niemi & Jakku-Sihvonen, 2009). The inclusive nature of teacher education in the Finnish system was described:

Instruction and pedagogy at Finnish schools have accordingly been structured so as to fit heterogeneous student groups. Finnish teachers know, for example, that no student can be excluded and sent to another school. In line with this principle, the students' own interests and choices are taken into account at schools when planning the curriculum and selecting contents, textbooks, learning strategies, methods and assessment devices. (OECD, 2005a, p. 59)

A major in special education is available within teacher education for vocational, matriculation (secondary), or primary teachers. It results in a Master's degree specialising in special education (Trade Union of Education in Finland, 2008). Alternative pathways exist to become a special education teacher after a Masters or a Bachelor of Primary Education (Trade Union of Education in Finland, 2008). Special needs trainee teachers study special pedagogy as the main component of their pedagogical studies and studies in special education, which constitute a minimum of a full year of study (60-75 ECTS) (EURYBASE, 2009; OECD, 2005a). The training of special needs teachers has the aim of training 'experts who, in addition to their own educational work, can supervise the special pedagogical work of other teachers and the institution as a whole' (Kyro, 2006, p. 41).

Parent and community engagement

Pedagogical studies include 'how to cooperate with other teachers, parents and other stakeholders' (Niemi & Jakku-Sihvonen, 2009) and the 'ability of teachers to communicate with . . . families and other stakeholders has been seen as an essential part of teacher competence' (Niemi & Jakku-Sihvonen, 2006, p.57). Parents have the opportunity to be involved in every aspect of their child's education including 'local curriculum design and planning their children's learning' at both the primary and secondary levels (OECD, 2005a, p. 18). Niemi and Jakku-Sihvonen (2006; 2009) described the complexities in teachers' communication with parents and the community:

They also need to implement their expertise in such a way that their customers, stakeholders and colleagues trust them. In the teaching profession this means that students and parents and even society can trust teachers' expertise (Niemi & Jakku-Sihvonen, 2009). They have to be aware of opportunities and ways to work together with other partners and stakeholders in formal and non-formal educational contexts in order to provide learning opportunities to learners at various age levels. They also need to be aware of value contradictions in society and educational institutions and they should be prepared to deal with moral and value-based issues. (Niemi & Jakku-Sihvonen, 2006, p.64)

Indigenous education

The Saami (also referred to as Sami) (Lapp) are the indigenous people of Finland. Saami (Lappish) language involves three dialects and is spoken by 0.03 per cent of the population (OECD, 2003). In 1999, Saami children gained the right to receive native-language instruction in their comprehensive schooling from Grades 1 to 9 (Keil, 2001). The incorporation of native language instruction meets the first recommendation of Skutnabb-Kangas and Dunbar (2010) in their extensive review on Indigenous Children's Education that 'the mother tongue should be the main teaching language for the first eight years' (p.101).

A separate curriculum is employed for the Saami languages which is different from the Finnish and Swedish languages curriculum (OECD, 2003). The Sami Education Institute provides education in Saami language and culture (Ministry of Education, 2009). The institute was designed to act as the national provider of resources in Saami language and culture (Ministry of Education, 2009). Instruction in the Saami language and culture included Saami handicraft, art, literary arts and music (Ministry of Education, 2009). The national government provides the funds that enable the production of teaching materials in Saami in addition to the training of Saami teachers (Keil, 2001).

The promotion of intercultural understanding through the development of teachers' knowledge of history and cultural backgrounds is a key focus of pedagogical studies, as described by Niemi & Jakku-Sihvonen, (2006):

Teachers' work has more generic aims. They open doors and windows to cultural enrichment and help people to understand other human beings and their cultural contexts (Niemi & Jakku-Sihvonen, 2006, p.63).

Teachers need in their profession a concept of culture which includes cultural knowledge and intercultural understanding. They also need to understand the factors that create social cohesion and exclusion in a society and how the teaching profession plays an integral part in these processes (Niemi & Jakku-Sihvonen, 2006, p.64).

United States

Detailed attention has been given to Finland, reflecting a broad consensus among observers that its teacher education programs have been a major factor in the high performance of its students in international tests and the relatively narrow gap in achievement between its high- and low-performing students. Brief mention was also made to similar approaches in other Scandinavian countries (Norway and Sweden) as well as to the Netherlands and Singapore. Attention is given now to the United States, not because it has a broadly outstanding approach across the country (it has some exceptional programs but many mediocre ones) but because teacher education has faced similar criticisms to those levelled in Australia and there appears to be a consensus on the best way to achieve reform. Reference is made here to the expert views of Levine (2006) and Darling-Hammond (2010).

The Education Schools Project

The Education Schools Project was a four-year study of teacher education in the United States led by Arthur Levine, former President of Teachers College at Columbia University, and now President of the Woodrow Wilson National Fellowship Foundation. The following is a brief account of findings in the second report of the project along with its five recommendations.

The scale of teacher education in the United States is evident in the fact that there are 1,206 faculties or schools of education, with more diplomas or degrees awarded in education than in any

other field (Levine, 2006, p. 5). Levine and his team undertook a comprehensive study of these programs and concluded that the best have the following characteristics:

Each is committed to prepare excellent teachers and has clearly defined what an excellent teacher needs to know and be able to do. The field component of the curriculum is sustained, begins early, and provides immediate application of theory to real classroom situations. There is a close connection between the teacher education program and the schools in which students teach, including ongoing collaboration between academic and clinical faculties. All have high graduation standards (Levine, 2006, p. 81).

Levine's team selected four of many programs that have these characteristics: Alverno College, a Catholic women's college in Milwaukee, and Emporia State University in Kansas, each of which offers a four-year undergraduate program; the University of Virginia which offers a five-year program in its Curry School of Education leading to a bachelor's degree and a master's degree in teaching; and Stanford University in California which offers a master's program on a highly selective basis to fewer than 100 students (Darling-Hammond is a member of the faculty at Stanford). The selection of exemplars that have the characteristics cited above suggests that there is no one best configuration of degrees at either bachelors or masters levels. Levine makes five recommendations for enhancing teacher education in the United States:

1. Transform education schools from ivory towers into professional schools focused on classroom practice
2. Focus on student achievement as the primary measure of teacher education program success
3. Rebuild teacher education programs around the skills and knowledge that promote classroom learning; make five-year teacher education programs the norm
4. Establish effective mechanisms for teacher education quality control
5. Close failing teacher education programs, strengthen promising programs and expand excellent programs by creating incentives for outstanding students and career changers to enter teacher education at doctoral universities (Levine, 2006, pp. 103-114)

In explanation of the first recommendation, Levine signals a theme that is at centre stage in current discourse on teacher education in the United States, as discussed in subsequent pages. He noted that 'Medical schools are rooted in hospitals; law schools look to the courts; journalism schools see their home as the media; and business schools focus on corporations. The work of education schools needs to be grounded in P-12 schools' (Levine, 2006, p. 114).

His explanation of the second recommendation is consistent with the context for the current review of teacher education in Queensland and the thrust of the Masters Report. According to Levine, 'the focus of schooling has shifted from process to outcomes; from teaching to learning. The measure of a school's success is the achievement of its students and the gauge of a teacher's effectiveness is the learning of his or her students'. As a result 'the job of a teacher education program is to prepare teachers who can promote student achievement' (Levine, 2006, p. 105). Levine advocated the development of a P-12 longitudinal data base that would track each student's academic progress, with indicators of the value that is added to each child's learning as he or she progresses through school. Several states in the United States have implemented such an approach which is similar to what is proposed for tracking NAPLAN outcomes in Australia, with subsequent reporting on the My School website. However, Levine takes this one step further and suggests that these measures of students' academic progress should be used as a way of assessing the effectiveness of teacher education programs: 'It will also generate a data-base that can be used to assess and improve the performance of education schools by providing information on the performance of the teachers and principals who were prepared at the institution' (Levine, 2006, p. 106).

Levine describes in broad terms the key components in the re-building of teacher education programs proposed in the third recommendation:

The curriculum would consist of three components: a subject matter concentration of a scope and depth that constitutes mastery of a discipline; pedagogical education rooted in the subject area and tied to the skills and knowledge teachers need to promote student learning; and education in child development to teach the most effective ways to apply subject matter and pedagogy to educate particular groups of students (Levine, 2006, p. 107).

Levine makes clear the relationship between coursework and the practicum: 'Student teaching and field work should begin in the first days of teacher preparation and continue to its conclusion' (Levine, 2006, p. 108).

Levine's fourth recommendation does not at first sight appear relevant to Queensland and other states in Australia that already have mechanisms for quality control in teacher education. The situation in the United States is fragmented if not chaotic, as captured in Levine's often quoted comment that 'At the moment [2006 in the United States], teacher education is the Dodge City of the education world. Like the fabled Wild West town, it is unruly and disordered' (Levine, 2006, p. 109). He called for improved standards at the state level and for one of the two national bodies to take the lead in the re-design of accreditation of programs in teacher education. This issue is relevant to Australia to the extent that the relationship between our various state and territory authorities and the Australian Institute for Teaching and School Leadership (AITSL) will need to be sorted out in the years ahead.

Levine's fifth recommendation is understandable in the light of his fourth. It may be that closing some programs in Australia may be necessary in the years ahead. Levine's commentary relates the need in the United States to the status of teacher education programs in universities:

Because teacher education is a low-status field, the most eminent universities, their education schools, and their faculties have retreated from teacher education in favour of offering programs in more 'academic', higher-status fields. The result is that the lion's share of teacher education is relegated to weaker programs (Levine, 2006, p. 111).

The Stanford Studies

Linda Darling-Hammond is the Charles E. Ducommun Professor of Education at Stanford University. She is an influential scholar who has led several studies in teacher education. A particular strength of her work is the way she locates developments in the United States in a wider international context.

Two themes are drawn from a recent report of her research (Darling-Hammond, 2010). One relates to the ongoing debate about the content of teacher education. She contends that George W. Bush's Secretary of Education Rod Paige regarded much of the coursework in teacher education programs as a bureaucratic hurdle. His 2002 report 'suggested that certification should be redefined to emphasise verbal ability and content knowledge and to deemphasise requirements for education coursework, making student teaching and attendance at schools of education optional' (as described by Darling-Hammond, 2010, p. 36). This view of teacher education is quite the opposite of that formed by Levine in his review cited above. Darling-Hammond is a leader in one of the four exemplar programs (Stanford) described in Levine's report and she is also clearly at odds with the views she ascribed to Paige.

In developing a second theme, Darling-Hammond traces the recent history of teacher education and cites evidence to support the view that short-term programs are relatively ineffective. Like

Levine, she compared preparation in teaching with preparation for medical doctors and offers the following devastating observation:

For at least 2 decades, teaching has been poised where medicine was in 1910 before the Flexner report, with some high-quality programs counterbalanced against an array of weak ones. At that time, doctors could be prepared in a 3-week program, featuring memorised lists of symptoms and cures or, at the other extreme, in a graduate program of medicine like that created at Johns Hopkins University, featuring extensive coursework in the sciences of medicine along with clinical training in the newly invented teaching hospital (Darling-Hammond, 2010, p. 38).

Darling-Hammond is critical of 'front-loaded coursework' with a 'dollop' of student teaching at the end:

By contrast, the most powerful programs require students to spend extensive time in the field throughout the entire program, examining and applying the concepts and strategies they are simultaneously learning about in their coursework . . . Such programs typically require at least a full academic year of student teaching under the direct supervision of one or more teachers who model expert practice with students who have a wide range of learning needs (Darling-Hammond, 2010, p. 40).

She concluded that 'learning to practice *in practice*, with expert guidance, is essential to becoming a great teacher of students with a wide range of needs' (Darling-Hammond, 2010, p. 40). She calls for more professional development schools (PDS) that 'like teaching hospitals, offer yearlong residencies under the guidance of expert teachers'. PDS also become hubs for professional development.

Shifting the focus to clinical preparation

The recommendations of Levine and Darling-Hammond on establishing counterparts to teaching hospitals now lie at centre stage in policy discourse on teacher education. The National Council for Accreditation of Teacher Education (NCATE), which accredits more than 600 programs graduating two-thirds of new teachers across the United States, has established a Panel on Clinical Preparation, Partnerships and Improved Student Learning. James Cibulka, President of NCATE has called for the 'redesign and transformation' of teacher education, consistent with the call of current Secretary of Education Arne Duncan's view that 'America's university-based teacher preparation programs need revolutionary change – not evolutionary tinkering'. Arthur Levine is a member of the panel and has reiterated his view that schools should become more like teaching hospitals (each cited in Epstein, 2010).

The NCATE Panel will report in late 2010. The focus will be on principles that should frame clinical preparation and specific policy recommendations. NCATE plans to establish pilots of partnerships that connect programs in teacher education to the P-12 sector.

Despite the apparent progress in the work of Levine, Darling-Hammond and NCATE and the emerging consensus on clinical practice through partnerships, it is reasonable to conclude that 'redesign and transformation' is still a long way off. The longitudinal data base on students' academic progress is making slow progress (as reported by Cibulka, 2010, p. 1) and the concept of 'clinical preparation' is still defined in general terms. The co-chairs of the NCATE Panel described the concept in these terms:

Clinical preparation may be redefined to include mutual self interest in sharing responsibility for teacher and student learning on the part of schools of education and P-12 schools, and support of simultaneous renewal of educator preparation and school reform.

In keeping with the policy context, all on the Panel agreed that it must be evidence-based and data-driven (Zimpher & Jones, 2010, p. 6).

The Levine Report and the ongoing studies of Darling-Hammond, combined with the powerful interest in the approaches being pursued by the NCATE Panel, are evidence of a powerful synergy that has implications for the current review of teacher education in Queensland. Reform in teacher education should be intertwined with reform in school education. Expressed another way, success in one is an important factor to secure success in the other as illustrated, for example, in building capacity to assess well, act on assessment, and provide personal support for each student. Finland is an exemplar, and it is possible if not likely that the United States will follow the same path.

Clinical preparation at the University of Melbourne may offer a model for what might take shape in Australia.

Australia

It has become almost a cliché that there have been many reviews of teacher education in Australia over the years yet implementation of findings has been limited. Former Chair of the Australian Council of Deans of Education Terry Lovat, writing in 2006, referred to 'the latest of an almost annual round of teacher education reviews since 1980' (Lovat, 2006, p. 10).

It is not the purpose of this section to summarise the various reports and to document to any great extent what the outcomes have been. It is sufficient to note that (1) with few exceptions, the various models of teacher education have remained basically the same over the last three or four decades; (2) there are exemplars in each of these models; (3) new processes and practices have been introduced along the lines, for example, of professional standards, or new approaches to the practicum; and (4) evaluations of the teacher education experience by graduates and their schools have been mixed at best. The issues under investigation in this review of teacher education and induction programs in Queensland are remarkably similar to those that have been reported around the country for many years. It may be that 'redesign and transformation' along the lines promised in the United States is now needed in Australia.

The importance of teacher education is conveyed by Lovat, who made the connection between the quality of teacher education and the status of the profession and offered comparisons with other professions in similar terms to those used in the United States. Referring to the 1998 Senate Report on the topic he noted that:

The report was explicit in making the point that the public recognition of teaching as a profession relies in large part on the status of its training arm. The fact that medicine, law and engineering are perceived to require full university training, to be hard to get into and to have high academic standards, is part of what sustains the perceived status of these professions in the public's eyes (Lovat, 2006, p. 10).

Lovat described the fall in public recognition in England in the 1980s with the shift toward school-based training and the rise in China, where some of the former 'teachers' college' universities are now counted among its elite institutions . . . in these elite institutions at least, demand is extremely high (e.g. Beijing Normal University) (Lovat, 2006, p. 10).

Current models

The Taskforce on Teacher Quality and Educational Leadership, Ministerial Council on Employment, Education, Training and Youth Affairs (MCEETYA) commissioned the Australian Council for

Educational Research (ACER) to conduct a review of teacher education courses and completion rates. The unpublished report (Ingvarson, Beavis, Kleinhenz & Elliott, 2004) identified six kinds of programs, each with variations, and these may be considered as models for preparation, at least to 2004 when the study was completed.

To set the context, Ingvarson et al. (2004, p. 5) cited an earlier report (Ballantyne, Bain & Preston, 2002) that highlighted the fragmented nature of offerings. A total of 410 teacher education courses were listed by the 38 institutions that prepared teachers. Of these, 136 (33 per cent) had no recorded student completions for the previous year. For 43 per cent of the courses, less than 50 students completed in 2001. Only 42 courses had more than 100 students completing in 2001.

The six 'models' reported by Ingvarson et al. (2004, pp. 7-8) were as follows:

- *Undergraduate pre-service primary teacher education.* Data from 27 universities offering undergraduate pre-service primary teacher education courses were available. All except one course took four years to complete. One course took three years, and one of the four courses could be fast-tracked and completed in three calendar years. There was thus considerable uniformity across Australia in the length of undergraduate pre-service primary teacher education courses.
- *Undergraduate pre-service secondary teacher education.* Data from eight universities offering undergraduate pre-service secondary teacher education courses were available. All courses took four years to complete. One course could be fast-tracked and completed in three calendar years.
- *Undergraduate pre-service double degree primary teacher education.* Data from five universities offering undergraduate double degrees in primary teacher education courses were available. All courses were of four years' duration and one (a combined teaching and music degree) was of five years' duration.
- *Undergraduate pre-service double degree secondary teacher education.* Data from 17 universities offering undergraduate double degrees in secondary teacher education courses were available. Eleven courses took four years to complete. The other six courses took 4.5 or 5 years, depending upon the curriculum area of the double degree. For example, a B Ed / B Law double degree at Monash took five years.
- *Postgraduate pre-service primary teacher education.* Data from 12 universities offering postgraduate pre-service primary teacher education courses were available. Seven courses took one year to complete, one took 18 months and five took two years to complete.
- *Postgraduate pre-service secondary teacher education.* Data from 27 universities offering postgraduate pre-service secondary teacher education courses were available. A majority of these courses (19) took one year to complete. Six courses took two years, but three of these could be fast-tracked and completed in 18 months. One course was 18 months long but could be fast-tracked and completed in 12 months. One was an off-campus course offered only part-time and was of two years' duration.

In summary, nearly all undergraduate pre-service teacher education courses – primary and secondary – took four years to complete. Some double degrees took up to five years. Most postgraduate courses were one year in length, but there were many that took 18 months or two years to complete.

The University of Sydney has offered a two-year Master of Teaching in its Faculty of Education and Social Studies in recent years. The University of Melbourne offered a similar course which it designated a Bachelor of Education. Discussion at Melbourne at the time centred on which designation (masters or bachelors) was appropriate for a two-year postgraduate program. Melbourne has now phased out all undergraduate courses in education and offers only a two-year

Master of Teaching, which is not a re-named Bachelor of Education; the debate is not now about how such a course should be designated but much deeper, about what should be the nature of pre-service teacher education and what should be the relationship with practice in the field. As described below it is an example of 'redesign and transformation' now at centre stage in discourse on teacher education in the United States.

Master of Teaching at the University of Melbourne

There has been almost continuous and major change in teacher education at the University of Melbourne in recent years. Until the late 1980s the University offered a relatively small pre-service program. As elsewhere around the country, the so-called Dawkins reforms resulted in the amalgamation of many institutions, and faculties or schools of education were affected more than most. At Melbourne, five institutions came together to form what was initially called the Institute of Education. In 1990 it was the largest faculty in the University with more than 9,000 students. By 2000 it was much smaller with less than 4,000 students. Many staff retired or were re-located in other faculties. Numbers increased again with the arrival of international and local fee-paying students, but the approach to teacher education was essentially the same, conforming to several of the models listed above. The largest programs were a four-year Bachelor of Education preparing primary teachers, a one-year Graduate Diploma of Education preparing secondary teachers, and a Bachelor of Early Childhood Studies.

A transforming change began in 2005 when Glyn Davis became the Vice-Chancellor. In 2008 the so-called 'Melbourne Model' was implemented across the University. Almost all students preparing for the professions now undertake a first degree, with professional preparation moving almost entirely to the post-graduate level. Double degrees and hundreds of courses across the University have been abandoned. There were exceptions in particular fields but the foregoing applied for most students. For the Faculty of Education this means that the Bachelor of Education and the Bachelor of Early Childhood Studies are no longer offered, with the last intakes in 2008. Those preparing for teaching in schools must now complete the Master of Teaching. In the same year the faculty was re-named the Graduate School of Education. The number of enrolments has exceeded expectations with a 20 per cent increase in demand for the course each year the course has been offered. However, the most significant features to be described here suggest that a new model of preparation has been created. Early evaluations from schools and graduates have been very positive, with schools frequently electing to employ an M Teach graduate rather than an experienced teacher. A formal evaluation of the initiative by ACER is now under way.

The Master of Teaching (M Teach) is a two-year postgraduate qualification which follows a first degree in another field, meaning that graduates of the M Teach have five years of university study. It is described as a clinical masters. It involves partnerships with designated schools, each of which has a Teaching Fellow who works with a University Clinical Specialist. Students spend two days per week in schools and three days per week at the University throughout the year for each of the two years.

The M Teach has early years, primary and secondary streams. An accelerated program in the secondary stream is the preferred model where three semesters are taught in one calendar year. An important feature of the program is building a capacity to test well and to use data on student performance to offer a high level of personalisation and support for each student. The partner schools have the characteristics of 'teaching hospitals' and the use of data and support for students makes the approach similar to the successful programs in Finland described earlier.

The program called for additional funding. For the initial offering in 2008, approximately \$900,000 was required to support 21 Teaching Fellows on a half-time basis at a cost of \$45,000 per fellow. Support was provided by the Department of Education, Employment and Workplace Relations (DEEWR), Victoria's Department of Education and Early Childhood Development (DEECD), the Catholic Education Office in Melbourne (CEOM) and the University. The University secured additional support from the Australian Government's Diversity and Structural Adjustment Fund for 2009 and 2010, amounting to \$8 million over two years. These funds are allocated in the ratio of 40 per cent to support Teaching Fellows and 60 per cent to support the clinical program at the university, meaning that the per student support from the public purse rose from about \$14,500 to about \$17,500, with the latter more or less the same as for the preparation of a clinical psychologist.

Developments have been led by the Dean of the Graduate School of Education Professor Field Rickards who succeeded Brian Caldwell as dean in 2004. Vice-Chancellor Professor Glyn Davis has been a powerful advocate of the initiative given its consistency with the 'Melbourne Model' that took shape soon after he took up his appointment as Vice-Chancellor in 2005. It is noteworthy that Rickards' early academic experience was in the Faculty of Medicine, being a specialist in audiology involved in the early development of the bionic ear. He is passionately committed to clinical preparation for the professions. He visited several of the leading faculties / schools of education in the United States soon after his appointment as dean and identifies Teachers College at Columbia, Harvard, Stanford and Virginia as exemplars. He indicates that the M Teach is consistent with many aspects of the Stanford Teacher Education Program (STEP) led by Linda Darling-Hammond. It also takes account of the report of the Business Council of Australia (BCA) on the preparation of teachers (Business Council of Australia, 2008).

Reference is made here to two particular strands in the M Teach program, one on literacy and numeracy and the other on assessment. The fourth semester in the primary stream is devoted entirely to early literacy and numeracy intervention. Language and literacy is a core component in the secondary stream. A contributor to the early literacy theme is John Fleming, former Principal of Bellfield Primary School (a state school) and now Deputy Principal of Haileybury College (an independent school). Developed with the assistance of staff at the University of Melbourne, Fleming and his colleagues at Bellfield developed an approach to explicit instruction in literacy that enabled virtually all P-2 students to achieve target. This was a remarkable achievement considering that the school drew students from one of the most disadvantaged communities in Melbourne. In fact, the school's performance exceeded the mean performances of like schools and all schools in the state sector on state tests.

Fleming and several of his leaders at Bellfield then took up leadership positions at Haileybury, one of the largest independent schools in Australia. Their initial analysis of test data revealed that Haileybury was not doing as well in literacy as it should or claimed, and they set about implementing the same approaches that had proved so successful at Bellfield. Working initially on one campus but soon extending to all campuses, the improvement was striking to the point that the school has lifted its performance and does better than like schools, not only on state-wide tests but also on NAPLAN. The evidence of change has been carefully documented and Fleming now has a brief to share what has been learned with schools and school systems across the country. Details are contained in his co-authored book (Fleming & Kleinhenz, 2007). He has made presentations in Queensland in recent months including a major panel presentation to school leaders at the QSA conference in April 2010. The evidence of effectiveness of the approach is clear and it is noteworthy that building capacity is part of the program in the M Teach.

Noted elsewhere, and illustrated in an international context in the case of Finland, is the importance of building capacity to assess well and act on the results of assessment. It is a particular focus in this review of teacher education in Queensland. The initiative at Melbourne is led by Associate Dean and Director of the Assessment Research Centre Professor Patrick Griffin. While a formal evaluation of this and other aspects of the M Teach program will be included in the forthcoming review by ACER it is helpful to describe the major features of the assessment component of the program.

All M Teach students do a subject in assessment. The focus is on working in groups to interpret data and determine how it will be acted on. In assessment of their own work, students make presentations that tend to be of high quality. The introduction of the subject meant a major change in the program and it was important to build knowledge and understanding of the reasons for its inclusion among staff in the Melbourne Graduate School of Education. Griffin and his colleagues conducted a four-day workshop for staff. There is a range of 'acceptance' of the subject and the approaches which are incorporated therein. This is also the case in schools where students are based for two days per week. This is understandable given that these approaches to assessment are part of building capacity in schools. It illustrates what is needed when reforms in teacher education are linked to reforms in school education. Acceptance by staff is 'across the range'.

The coaching of staff in schools is an important part of the assessment subject. University staff are working with several regions in the Department of Education and Early Childhood Development (DEECD) and the Catholic Education Office Melbourne (CEOM) to train coaches who are considered to be essential for success, as is the support and active engagement of principals.

There is explicit acknowledgement that building capacity in assessment is critical to success in personalising learning for school students. Vygotsky's work and the notion of a proximal zone of learning are addressed. Implied in the delivery of this subject is that effectiveness is indicated primarily through outcomes for students who are taught or will be taught by students in the M Teach. It is expected that the levels of achievement will be raised for all students, both high- and low-performing. 'Closing the gap' between high- and low-performing students requires the successful implementation of other strategies related to the support of students, as is the case in Finland where specially trained staff are 'on call' to provide immediate individual or small group assistance to students who may be falling behind.

It is noteworthy that the University of Melbourne is host of the international project on Assessment of Teaching of 21st Century Skills (see Cisco, 2008 and Cisco, 2010 for a description of these skills). Executive Director of the project is Professor Patrick Griffin whose role in the M Teach is described above, who assumed the role from Professor Barry McGaw, Chair of the Australian Curriculum Assessment and Reporting Authority (ACARA). The significance of this work in the context of the current review is that the assessment strand in the M Teach will include the assessment of 21st century skills as approaches are developed during the project. There are implications for the work of ACARA and developments in teacher and school education in the years ahead.

Teaching Australia Study of Effective Teaching and Teacher Education

In 2008 Teaching Australia, now the Australian Institute for Teaching and School Leadership (AITSL), commissioned a study to examine the impact of teacher education in the Teaching Australia Study of Effective Teacher Education. Two studies in the project are reported here. A finding in Study 1 was that there were 530 separate programs in teacher education in Australia's 38 universities.

Study 2 (reported by Loudon et al., 2010) focused on the impact of teacher education on knowledge of literacy and mathematics teaching. The findings are relevant to this review of teacher education in Queensland and provide support for the efficacy of the approach at the University of Melbourne reported above.

The purpose of Study 2 was to investigate the effectiveness of teacher education by recruiting a large group of teacher education students in their final year of study and to follow them to the end of their second year of teaching. More than 3,000 students in 15 universities were invited to participate in this study. Of these, 766 agreed to take part. Demographic characteristics were broadly representative of the Australia-wide profile of students in teacher education although regional students were under-represented and postgraduate initial teacher education students were over-represented.

Study 2 drew on four separate forms of a new survey instrument, the Teacher Learning Inventory (TLI) which was designed to measure three traits:

- personal characteristics – including conscientiousness and teamwork – that have been shown to be associated with occupational success;
- perceptions of preparation for teaching in the two substantive areas, early years literacy and middle years mathematics teaching; and
- knowledge of literacy or mathematics teaching, as measured by capacity to analyse videos and written texts of students' reading, writing and mathematics. (Loudon et al., 2010, p. 9)

A total of 590 students completed one or other of the forms of the TLI (literacy, 409; mathematics, 181).

The findings are noteworthy and are cited directly from the summary of the study:

For literacy, the results showed statistically significant differences on the three traits among four key program types (four year Bachelor of Education; Double degree; Graduate Diploma; Master of Teaching). Of these differences, the largest effect size was recorded for knowledge of teaching in the Master of Teaching programs.

- Among the Master of Teaching students who participated in this study, knowledge of literacy teaching as measured by the TLI was substantially greater than that of students in other kinds of programs.
- Although the effect sizes were small, there were statistically significant differences in favour of female students.
- Age was not statistically significant for any of the traits on the literacy TLIs.
- There was a notable difference in knowledge of literacy teaching between those who had entered the course on the basis of a completed degree, rather than through alternate entry, TAFE, on the basis of year 12 school performance or an incomplete degree.

The results for students completing the mathematics forms of the TLI were somewhat similar. Although between groups variance was statistically significant only in the case of knowledge of mathematics teaching, there was a large effect size associated with enrolment in a Master of Teaching program. There were no significant differences among groups according to gender or age of entry. (Loudon et al., 2010, p. 10)

According to the authors, the study 'reinforced the importance of recruiting well qualified entrants to the teaching profession':

Students who entered teaching on the basis of a completed degree, or who entered the more demanding postgraduate option of a Master of Teaching rather than a Graduate Diploma, were more likely to be able to analyse student work and thus scored well on the teachers' knowledge trait. (Loudon et al., 2010, p. 11)

Early Childhood Education

United States

Early childhood education (ECE) program leaders in the United States of America participated in a research project to determine ‘the faculty perspectives on program priorities and factors that may facilitate or impede program quality improvements’ which involved an online survey, and interviews (Hyson et al., 2009). It was concluded that beginning teachers should possess ‘knowledge, skills, and professional dispositions’ outlined in the National Association for the Education of Young Children (NAEYC) five standards:

- Standard 1--knowing how young children develop and learn (e.g. being able to create environments in which all children thrive);
- Standard 2--building family and community relationships (e.g. developing respectful, reciprocal relationships with families);
- Standard 3--using assessment responsibly (e.g. knowing about observation and documentation);
- Standard 4--teaching to promote children’s learning (e.g. making evidence-based decisions about curriculum, using a range of appropriate, effective teaching practices, having essential content knowledge in areas such as literacy and math); and
- Standard 5--becoming a professional in the early childhood field (e.g. being able to advocate for children, using ethical guidelines). (Hyson, et al., 2009)

One of the key recommendations was that ECE courses should ‘expand faculty knowledge about research and evidence-based practices’. In responding to the report, Surbeck (2009) described the importance of ‘teachers’ understanding of research-based practice’:

An inquiry-based approach demands that teacher educators understand and use teacher research themselves, that they engage students in reading research and in becoming inquiry based in their planning and interactions with children during their preparation. The best way to engender understanding of the importance of inquiry is to engage teacher candidates in it, beginning at a very elemental level and increasing the complexity of understanding over time. Our students don’t learn this sitting passively in our courses, and further, I think we do not always consider our students capable of action research. Action research, lesson study, and case study— all easily used in college coursework—demand reflection and analysis, and they can be accomplished through guided and collaborative practice. It should be required that during their practicum or student teaching experience, prospective teachers collect data, analyse results, and communicate to others what was learned about how children learn, what they learned, and what was learned by the teacher in order to determine next steps. This approach to improving capacity to understand and implement inquiry should be ‘content’ that all ECE teacher educators teach and guide as prospective . . . teachers matriculate through their programs (Surbeck, 2009).

Singapore

The Singapore school system demonstrated a remarkable turnaround in performance in its results in the Program for International Student Assessment (PISA) (Barber & Mourshed, 2007). Results in PISA were associated with the quality of primary education: ‘test scores on graduation from high school are highly dependent on the quality of primary education that students received . . . which

in turn is highly dependent on the quality of the teachers (Barber & Mourshed, 2007, p. 39). A contributing factor to this turnaround may have been the implementation of a new primary degree structure of BA / BSc (Education) introduced in 2001, which included:

- Increased total length of practicum (16 weeks) which was distributed throughout the degree
- Educational and pedagogical studies moved to the last two years of the degree rather than during the first two years to ensure updated and relevant studies for the students just prior to their entrance into the profession
- Emphasis on content mastery through a focus on one academic discipline subject (rather than two) and the four curriculum content studies
- Minors offered in a) Psychology and Counselling, b) Advanced ICT applications in Education and c) Arts in Education (Chaun & Gopinathan, 2001)

The teacher education curriculum must act to encourage 'inquiry and independent thought and provide prospective teachers with experiences which enable them to become reflective practitioners' (Chaun & Gopinathan, 2001). The use of 'inquiry method, students as independent knowledge creators, integrated project work, group project and problem based learning, use of ICT in instruction' to create 'student centred learning' was considered fundamental to the nurturing of teachers that encourage self-directed learners as described below:

It seems a little incongruous to suggest that teachers who have not experienced inquiry in their own lives will be able to create classroom settings which encourage students to question, to pose and solve problems and to be self-directed learners. If teachers are to be able to create classroom experiences and conditions which promote student inquiry, and to be capable of reflective thought, collegial teamwork and school reform, these skills and capacities must be taught and nurtured in their preservice professional learning settings and developed throughout their careers (Beattie, 1997 as cited by Chaun & Gopinathan, 2001)

Further to the above mentioned changes, the recent implementation of the 'Teach less, learn more' (TLLM) initiative in 2005 has encouraged a focus on 'independent learning and experimentation' with school-based curriculum innovations (SCI) which include 'inquiry-based learning and problem-solving learning' (Wei, Chongvilaivan & Yang, 2008 p. 28).

It is evident in these brief accounts of studies in the United States and Singapore that preparation for teaching in the early years is at least as complex as for other stages of schooling and that preparation programs should be no less rigorous.

Australia

The Victorian Early Years Learning and Development Framework was 'designed to advance all children's learning and development from birth to 8 years by supporting all early childhood professionals to work together and with families to support all children to achieve the learning and development outcomes' (Victoria, 2009, p. 1). The document was produced through extensive interaction with 3,500 early childhood professionals, children, families, and stakeholders. Practice Principles for Learning and Development (Table 4.4) describe the 'most effective ways for early childhood professionals to work together and with children and families' (Victoria, 2009, p. 6) 'to deliver effective learning and development experiences relevant to children in their local contexts' (Victoria, 2009, p. 9).

These Practice Principles are based on the P-12 Principles of Learning and Teaching, latest international evidence and the Early Years Learning Framework for Australia (Victoria, 2009, p. 6). The Practice Principles can be used to discern essential aspects of the desired outcomes of beginning ECE.

Table 4.4: The Practice Principles in Victoria arranged into three categories: Collaborative, Effective and Reflective (Victoria, 2009, pp. 9-14)

Category of Practice Principle	Practice Principle	Elaboration of Practice Principle
Collaborative	1. family-centred practice	Professionals engage in family-centred practice by respecting the pivotal role of families in children's lives
	2. partnerships with professionals	They use multidisciplinary approaches to provide better support to families and draw on the skills and expertise of their peers
	3. high expectations for every child	Every child has the ability to learn and develop. Having high expectations is especially important in achieving better outcomes for the most vulnerable children
Effective	4. equity and diversity	Children learn when early childhood professionals respect their diversity and provide them with the best support, opportunities and experiences
	5. respectful relationships and responsive engagement	Interactions with children and families inform early childhood professionals' knowledge of children's distinctive interests, skills, cultures and abilities
	6. integrated teaching and learning approaches	Early childhood professionals recognise that a gradual shift in emphasis occurs over the first eight years of a child's life, along a continuum from play to more structured learning in formal settings
	7. assessment for learning and development	Assessment is designed to discover what children know and understand, based on what they make, write, draw, say and do. Early childhood professionals assess the progress of children's learning and development, what children are ready to learn and how they can be supported
Reflective	8. reflective practice	Early childhood professionals become more effective through critical reflection and a strong culture of professional enquiry. Early childhood professionals: gather information that supports, informs, assesses and enriches decision-making about appropriate professional practices

Behaviour Management

It is acknowledged that there are many factors that may determine the extent to which teachers and other staff need to address issues of 'behaviour management' including the characteristics of students; the extent to which there is an optimal match of student needs, interests, aptitudes and passions to the curriculum, and programs for personalising learning; and the nature of support for students. There is also an overlap with preparation for working with students with special educational needs.

United States

A collaboration between a Professional Development School (PDS) network, university field instructors and a local union's Educational Research and Dissemination Division in America's Midwest enabled the development for pre-service teachers of 'research-based classroom management strategies while immersed in actual middle and high school contexts thus resulting in

a powerful and effective blending of theory and practice' (Siebert, 2005). The program responded to a perceived need for pre-service teachers to interact with teachers 'in the trenches' to enable the 'realities of contemporary classrooms' in relationship to behaviour management to be addressed (Siebert, 2005). The communities served by the PDS network included 42 per cent minority students, with 65 per cent of all students qualifying for free meals and 35 per cent identified as having special needs. These were considered 'rich sites in which to train future teachers' (Siebert, 2005).

The Pre-service Teachers Initiative involved one full-day and two half-day sessions within the sixteen weeks of student teaching (Siebert, 2005). The cooperating teachers provided relief for the pre-service teachers' classes (Siebert, 2005). The curriculum was revised to 'address the issues of most pressing concern to novice teachers'. Student teachers:

- Took the theories and strategies into their individual classrooms
- Debriefed and discussed their experiences
- Experimented with the course material, theorised about why certain strategies seemed effective and others didn't
- Identified a student that posed classroom management challenges, observed that student, and [took] anecdotal notes using the data recording techniques introduced that day. (Siebert, 2005)

The National Comprehensive Center for Teacher Quality (TQ Center) prepared a review and recommendations of effective classroom management in teacher education (TQ Center, 2007).

The TQ Center review described how the use of a professional development school model can circumvent a problem with existing pre-service initiatives:

Most preservice teachers conduct student teaching in classrooms with previously established classroom management plans and basic levels of classroom control already in place [these being] circumstances that offer no practice in establishing and implementing class-wide or target group strategies. One approach that addresses this issue is the professional development school model which involves strong coordination between field experience and the teacher education curriculum. In this model, pre-service teachers complete course work on classroom management and practice in field experience with experienced teachers. They also have the pragmatic opportunity to practice classroom management in an actual classroom with feedback and support. (TQ Center, 2007, p.6)

England

A study of behaviour management elements in Initial Teacher Training (ITT) programs in England involved 66 pre-service teachers, newly qualified teachers (NQT), young people and representatives of training providers (five training providers were involved in the study) (TAC, 2006). A mixed method approach was employed which comprised semi-structured interviews, descriptions of effective practice and scenario testing. Data were analysed to identify 'factors and experiences that impact on trainees' competence and confidence to incorporate behaviour management' (TAC, 2006). Recommendations to improve support for trainees included (TAC, 2006):

- At the beginning of ITT training, providers should discuss definitions of behaviour management . . . with their trainees. They can then work towards a shared and clearly understood definition which supports a positive mind-set rather than allowing trainees' perceptions to be based on a deficit model (TAC, 2006, p. v).
- Training providers need to be able to empower trainees to focus on the factors over which they have direct control and help them overcome under-confidence by challenging their attitudes and beliefs through reflective practice (TAC, 2006, p. vi).

- If the majority of the behaviour management . . . is to be learnt through school-based provision, then effective, regular monitoring and evaluation of this element of the course should be paramount to ensure it meets the individual needs of the trainees (TAC, 2006, p. vi).
- More needs to be done to help trainees (TAC, 2006, p. vi):
 - See the importance of reflection and continuous learning in their development as teachers.
 - Recognise the potential importance of research and evidence-based practice.
- In terms of NQT induction, training providers need to do more to liaise with local authorities to ensure that trainees are entering their NQT year with satisfactory behaviour management . . . and that the support offered by local authorities builds upon this (TAC, 2006, p. vi).
- Some trainees and providers hold stereotypical perceptions of behaviour management within particular subject specialism that should be firmly challenged by providers (TAC, 2006, p. vi).

Recommendations for the reform of initial teacher training to support behaviour management referred to:

- Further research is required to support the current guidance for ITT that placement experiences should be in schools without any significant behaviour difficulties. Many trainees and providers within this research felt that experience of more challenging placements could be of significant value when developing behaviour management (TAC, 2006, p. vii).
- The opportunity for trainees to engage meaningfully with parents and professionals from other agencies is essential (TAC, 2006, p. vii).

Bromfield (2006) studied 88 Post-Graduate Certificate of Education (PGCE) students in an English university. The 36 week course was divided into 12 weeks of course study and 24 weeks of school experience. The subjects were surveyed prior to and after several of their practicum experiences. The pre-experience survey found that the trainee teachers' main concerns were how to deal with abusive, violent or threatening behaviour and feeling out of control in the classroom. In the survey after practicum experiences there were significant changes in reporting of major concerns toward lower level disruptive behaviours such as refusal to work, talking when the teacher was talking and inappropriate noise levels. The researchers found that these later concerns became more focused on management of behaviour rather than focussing on behaviour for learning. For example, some trainee teachers reported using a strategy of providing their students with tasks to keep them occupied from a perceived understanding that if they were kept busy they would not misbehave. The researchers conclude that it is important for initial teacher training to provide research and theory about the interdependent nature of learning and behaviour but that more support is required to transfer that to effective behaviour management practices in schools.

Australia

Main and Hammond (2008) conducted a study of pre-service teachers' beliefs about effective behaviour management strategies and their reported self-efficacy. Self-efficacy was defined as 'the individual's belief in his or her ability to undertake the actions to successfully accomplish a specific task in a specific context' (Main & Hammond, 2008, p. 29). The study surveyed pre-service teachers in the third year of a four-year Bachelor of Education degree in an Australian university prior to and after completion of a four-week practicum. In the post-practicum survey the pre-service teachers reported significantly higher levels of self-efficacy in the area of behaviour management. However, it also found that the strategies that the subjects aligned themselves with tended to be more reactive than proactive. The study concluded that pre-service teachers are significantly influenced by their practicum experience but that evidence-based best practice was not always observed and therefore not developed. The implication is that varied teaching practicum experience should provide opportunity for pre-service teachers to develop self-efficacy,

and for a range of behaviour management strategies to be observed and reflected on through other experiences such as video examples, case studies and the like. In order to support the development of effective best practice it is important that opportunity is provided for reflection on experiences. Explicit training in appropriate behaviour management skills that align with evidence-based practice is also needed. An effective combination of learning experiences that balance development of self-efficacy and evidence-based behaviour management practices provide beginning teachers with 'the will and the skill' required to be best prepared for teaching in inclusive classrooms.

The researchers concluded that behaviour management is an essential factor of effective teaching and is particularly so in inclusive settings (where students with disabilities are included in mainstream classrooms). 'Put simply, a teacher equipped with effective behaviour management skills is better able to deliver lessons that address the needs of individual children' (Main & Hammond, 2008).

The Student Behaviour Management Project funded by MCEETYA produced seven principles of best practice in Australia which were summarised as follows (De Jong, 2005 cited by Peters, 2009, p. 6):

1. An eco-systemic approach to discipline that considers the complex interplay between 'environmental, interpersonal and intra-personal factors';
2. The creation of a safe, supportive and caring environment;
3. Inclusiveness which caters for the different potentials, needs and resources of all students;
4. A student-centred philosophy;
5. A quality learning experience;
6. Positive classroom relationships; and
7. School-based and external support structures

Peters (2009a) employed these principles as a framework to consider the perceptions of 140 first year pre-service teachers from five primary schools. The five schools were chosen as models for best practice (Peters, 2009a). The study investigated the Stage 1 Professional Experience at the participating schools which involved five days spread across five weeks during the first year of a Bachelor of Education program (Junior Primary / Primary) (Peters, 2009a). The professional experience involved 'input from staff members to the whole group, modelled lessons illustrating the focus in action, clustering of student teachers in small groups in home classes for observation and teaching of prepared lessons to small groups of children' (Peters, 2009a, p.4). University lectures paralleled the themes of focus for the professional experience. An earlier study identified factors which were crucial to support the pre-service teacher learning in the school-based component of the course (Peters, 2009b as cited by Peters, 2009a):

- The supportive culture of the school in which they were placed;
- Deliberate modelling provided by mentors;
- Encouragement and feedback from mentors;
- The structured nature of the professional experience with emphasis on set foci,
- Guided observation and opportunities for preservice teachers to practice

The study found that Principles 1 and 7 of best practice were not fully addressed in the Stage 1 Professional Experience. Proposals for change to pre-service teacher professional experience to encourage teacher development in these specific principles of practice are summarised in Table 4.5.

Table 4.5: Principles of best practice and methods to encourage teacher development in specific areas where shortcomings had been identified (adapted from De Jong, 2005 cited by Peters, 2009a & Peters, 2009b)

Principle of best practice	Element of the principles of best practice	Methods to encourage teacher development in best practice
<i>Principle 1</i> An eco-systemic approach to discipline that considers the complex interplay between 'environmental, interpersonal and intra-personal factors'	Understanding the complex and interconnected nature of pupil behaviour and the environments in which it is constructed	Introduce a wide array of specific strategies in conjunction with opportunities to apply and reflect on them in situations that require considerations of all aspects of students' development and the learning environment
	Applying professional judgment in responding to different students in different contexts	Ample opportunities to talk to mentor teachers about why they make specific decisions
	Managing chronically disruptive students	Mentor teachers should support pre-service teachers to manage behaviour in the early stages of professional experience, gradually withdrawing support as they become familiar with the students and context Preservice teachers need to explicitly engage with theories and practices for the management of students who display serious forms of misbehaviour
<i>Principle 7</i> School-based and external support structures	Engaging within wider support systems	Participating schools should explicitly address and demonstrate the role of wider support systems through planned interactions with parents / caregivers and support personnel

Induction

Induction is a process, complementary to formal pre-service training, through which a person who seeks to pursue a career as a teacher acquires knowledge, skills, values, commitments and attitudes about or related to the profession. While traditionally and perhaps inappropriately seen as something that follows formal pre-service training, this definition does not preclude related activity before or during initial teacher education. The report on initial teacher education in Ireland that included a study of developments in nine countries (see Part 2) defined induction as 'the first year or years of teaching' (Conway et al., 2009, xxxv). This seems unnecessarily restrictive.

The practicum is often seen as part of induction, as is internship. These 'components' of induction are sometimes construed as a process to link theory and practice. Mentoring is often a part of the induction experience but, in the broadest sense, mentoring can occur at any time in a career. The purpose of this section of Chapter 4 is to summarise what is known about induction here in Australia and in other countries. Particular attention is given to mentoring (see summaries in Figures 4.6 to 4.9).

Induction signals 'a special phase in the life-span of a teacher, one that brings with it unique challenges, requirements and needs' (Britton et al., 2003). The following descriptions of complexity in the education of teachers provide a framework for initial ideas about induction:

Recent research and innovation in the UK have demonstrated the interaction of cognition

and experience in professional learning, the distinctive nature of teachers' thinking and decision making and the significance of the student teacher/teacher pedagogic relationship, and have led to intern and mentoring approaches. There is a growing recognition of the complexity of professional learning for teaching and of the potential contribution of school-based practitioners in a much more structured way than previously assumed (GTCS, 2005, p. 5).

The question here is not whether those who are learning to teach need theory, but rather how they can connect theory to practice and use practice as a context to advance the development of theory and knowledge. Then teacher education and teaching can move from the idiosyncratic toward a profession that experiments with ways of teaching and learning and better meets the changing and competing needs of citizens, taxpayers, and consumers (Wang et al. 2010).

The first message is that there should be an internal effort to create strong and sustainable connections between theory and practice in teacher education. Internal efforts to bridge the gap between theory and practice in teacher learning take various forms – from developing hybrid teacher educators in a third space, to forming a professional culture for teachers by encouraging more public teaching and examination, to integrating research, teacher education, and student learning through social design experiments (Wang et al. 2010).

While these views provide a framework for organising ideas about induction, the level of jargon contained therein and in other descriptions makes the process more complex than it needs to be, as illustrated in research summarised in the pages that follow.

Structure

Research on beginning teachers has identified the elements of induction that are most valued or desired: feedback from mentors, regular observation of lessons, observation of other teachers' lessons, relationships with colleagues and university tutor visits (Wang, Odell & Schwille, 2008). A survey of 186 beginning science teachers in the United States found that beginning teachers 'overwhelmingly regard having interactions with feedback from mentors as important for their learning to teach' (Luft & Cox, 2001 as cited by Wang, Odell & Schwille, 2008, p. 138). The higher the frequency of observed lessons and discussions with mentors the 'higher they rated their induction programs' (Luft & Cox, 2001 as cited by Wang, Odell & Schwille, 2008, p. 138). The analysis of 11 journals of new teachers in the United States found that what beginning teachers value most was the opportunity to observe others' teaching and to be observed by colleagues; observations helped them to reflect on their own teaching (Hall, Johnson & Bowman, 1995 as cited by Wang, Odell & Schwille, 2008, p. 138). Pre- and post-induction surveys and interviews with British teachers found that student teachers' relationships with colleagues and university tutor visits were the most helpful element in support of their learning to teach (Oberski, Ford, Higgins & Fischer, 1999 as cited by Wang, Odell & Schwille, 2008, p. 139). Beginning teachers in 20 secondary schools in New Zealand were interviewed and many expressed a desire 'to have regularly timetabled supervision as well as opportunities to observe the teaching of their colleagues' (Dewar et al. as cited by Cameron & Baker, 2004). The findings of these studies indicate the need for regular observations and feedback for the induction of beginning teachers.

Internationally, regular observation was found within the majority of countries studied, within either formalised frequencies or in a self-regulated manner, as in New Zealand (see Table 8, below). An experimental study of intensive mentoring in the United States highlighted the importance during induction of weekly meetings with mentors. Stanulis & Floden (2009)

investigated the impact of intensive mentoring as a component of teacher induction through a comparison of 12 teachers in the program and 12 not participating in the program (details of program are contained in Tables 6 and 7 below). The teachers that participated in the intensive mentoring showed a significantly higher level of teacher effectiveness than those not participating in the program (Stanulis & Floden, 2009). Mentors met weekly with beginning teachers in their classrooms and observed, provided feedback, co-planned, analysed student work, collected and analysed teaching data, or demonstrated a teaching practice (Stanulis & Floden, 2000, p. 114). Mentors led monthly seminars for their three novice teachers, which 'provided a time for beginning teachers to connect with one another' and for mentor-facilitated discussion about 'continued learning to teach' (Stanulis & Floden, 2009, p. 114). University-based coaches provided support to mentors through observation of mentors in their conversations with beginning teachers (Stanulis & Floden, 2009, p.114).

A survey of the beginning teachers involved in the abovementioned study revealed the benefits of the seminars which included 'opportunity to share ideas, resources, and advice; an opportunity to hear from other new teachers who were going through similar struggles; and the increased openness to try new things in their practice' (Stanulis & Floden, 2009, p. 119). The mentoring had 'provided material about varied instructional methods to address differentiated learning styles to increase student engagement' (Stanulis & Floden, 2009, p. 119). To improve the program the students would have liked the opportunity to observe their mentors teach (Stanulis & Floden, 2000, p. 120). Stanulis & Floden (2009) described how the intensive mentoring program encouraged joint inquiry:

Within the induction program with intensive mentoring, preparation of mentors focused on helping novices enhance student achievement through development of effective balanced instructional practices. Such 'educative' mentoring places emphasis on engaging beginning teachers in joint inquiry with a mentor to help novices to understand the importance of learning from practice while providing tools useful for studying teaching, including observation, feedback, and analysis of student work (Allen, 1998 & Feiman-Nemser, 2001 as cited by Stanulis & Floden, 2009, p. 114).

The induction program was the product of a collaborative partnership between a university and a Midwestern urban school district based on specific characteristics of effective teaching which involved three components of 'teaching of worthwhile content, excellent classroom management that engages students, and strong motivation and scaffolding of student learning' (see Table 5 below based on Stanulis & Floden, 2009, p. 113). Britton et al. (2000, p. 4) observed a similar focus in commonalities in induction practices in New Zealand, Shanghai and Switzerland which focused on basic skills of teaching such as:

- Daily and long-term planning of a lesson's content, teaching strategies, and logistics
- Assessing students' work, including creation and scoring of teacher-made tests
- Writing informative reports to parents about their children's progress
- Communicating more generally with parents

The specific elements of a revised induction program in England provide further insight into the important components of teacher induction (TDA 2008a as cited by Alexander, 2010, p. 426):

- Development opportunities including observing and working alongside experienced colleagues and participating in more formal events and activities
- Regular observation of teaching by the induction tutor and/or others
- An individualised programme of monitoring, support and assessment planned and implemented in conjunction with an induction tutor, and focusing on strengths and development opportunities identified towards the end of initial teacher training (ITT) as part of career entry and development profile (CEDP) process

A study in the United States of 101 secondary pre-service teachers in three types of induction – general education programs, reading specialisation and reading embedded programs – found that students from the specialised and embedded programs ‘tended to speak in clearer and more thoughtful ways about their reading instruction and were more likely to focus on assessing and meeting students’ needs in reading’ than the students in the general education program (Maloch & Flint 2003 as cited by Wang, Odell & Schwille, 2008, p. 143). The students from the embedded and specialised programs were also more willing to seek support for their teaching (Maloch & Flint 2003 as cited by Wang, Odell & Schwille, 2008). The findings of this study suggested that subject induction support might be facilitated by an emphasis of subject-specific pedagogy (Wang, Odell & Schwille, 2008, p. 143).

In *Comprehensive Teacher Induction: Systems for Early Career Learning* Britton (2003) described key patterns in the selected international induction programs she investigated:

First, they are broad and robust . . . practices aim not at a single dimension of a teachers’ development, but at many. Furthermore, each site targets significant, complex issues in teaching rather than offering shorthand recipes and quick orientations. The focus – whether on nurturing reflection, developing a curriculum critique or teaching-analysis skill, or deepening understanding of diverse pupils, for example – concentrates squarely on what one might think of as building blocks of teaching (Britton, 2003, p.303).

A framework of characteristics to assist in the design of induction and mentoring programs is contained in Table 4.6 (adapted from Whisnant, Elliott & Pynchon as cited by Ashby et al., 2008; NCTAF, 2005; Stanulis & Floden, 2008; Everston & Smithey, 2000).

Table 4.6: Framing the design of induction and mentoring programs (adapted from Everston & Smithey, 2000; NCTAF, 2005; Stanulis & Floden, 2008; & Whisnant et al. cited by Ashby et al, 2008)

<p>Overall design</p> <p>Beginning teachers are orientated to the district, school and community</p> <p>Emotional supports are provided by the community</p> <p>New teachers are contributors to the school’s learning community</p>
<p>Theoretical framework</p> <p>Professional community with shared expertise:</p> <p>‘Novice teachers have gaps in skills and knowledge, but also areas of expertise; they learn alongside experienced teachers in a community of learners that is continually evolving’</p>
<p>Responsible parties</p> <p>State and district policies support school initiatives</p> <p>Partnerships between unions, district and teacher preparation programs</p>
<p>Mentoring framework</p> <p>Mentors and novices work in teams</p> <p>Mentors are selected for skill in content, pedagogy, and ability to coach and work with other teachers</p> <p>Structured time and incentives for mentors (e.g. stipends, release time, professional credits and advancements)</p> <p>Clear expectations and accountability of mentors and new teachers</p>
<p>Mentor training</p> <p>Extensive, continuous training for mentors</p>

Suggested outline for an aspect of mentor training	
<p>The process of mentoring</p> <p>Knowing the characteristics of the adult learner</p> <p>Practising empathic communication skills</p> <p>Conducting formal observations</p> <p>Leading novices to construct teaching knowledge</p> <p>Using reflective discovery</p> <p>Mentoring and the mentoring role</p>	<p>What is mentoring and who is a mentor?</p> <p>Roles and responsibilities of mentors</p> <p>Characteristics of effective mentors</p> <p>Functions of mentoring</p> <p>Assisting the beginning teacher</p> <p>Stages of teacher development</p> <p>Needs of beginning teachers</p> <p>Concerns of new teachers</p>
<p>Induction activities</p> <p>Regular opportunities for new teachers to observe and be observed by other teachers</p> <p>Team teaching with other novice or experienced teacher</p> <p>Opportunities for guided reflection and self assessment of practice</p> <p>Common planning time</p>	
<p>Assessment and evaluation</p> <p>Match established standards to practices</p> <p>Support demonstrations of performance</p> <p>Encourage peer review and self-assessment to encourage reflection</p>	
<p>Suggested outline for evaluation of characteristics of effective teaching in the induction program</p> <p>Worthwhile content</p> <p>Planning deliberate instruction balance (direct instruction and group/individual application time), instructional density (strong authentic tasks with high expectations, time to discuss and process), and scaffolding</p> <p>Planning a structure for setting up and maintaining learning experiences</p> <p>Knowing the content beyond the current lesson</p> <p>Thinking about content from the student's perspective, anticipating student needs</p> <p>Excellent classroom management that engages students</p> <p>Creating thoughtfully planned routine during the day e.g. transitions</p> <p>Creating environments that stimulate curiosity</p> <p>Paying deliberate attention to both the verbal and nonverbal environment in the classroom and deliberate attention to developing relationships with students and among students</p> <p>Managing many different kinds of learning experiences</p> <p>Strong motivation and scaffolding of student learning</p> <p>Developing an environment of high expectations in which students move from dependence to independence</p> <p>Motivating students to spend the time needed to learn complex ideas and solve problems they find interesting</p> <p>Anticipating frustrations, segmenting tasks, and providing hints and other mechanisms for students to move from guidance to independence</p>	
<p>Workload</p> <p>Reduced workload for new teachers (and mentors) to allow time for observations, planning, learning and reflection</p> <p>No extra duties for teachers during the induction period</p>	
<p>Teaching assignments</p> <p>New teachers placed in less challenging teaching assignments and/or in team teaching assignments</p>	
<p>External supports</p> <p>Professional guided networks as well as informal social networks</p> <ul style="list-style-type: none"> • Involvement of teacher preparation institutions • Online networking for internal and external communities provide resources, learning, support 	

Time

Mentor teachers in New Zealand reported that 'they were seldom able to provide the support they felt beginning teachers were entitled to' (Dewar et al. as cited by Cameron & Baker, 2004, p. 90). The provision of time for mentoring practices was reported in Scotland (Matheson, 2009; Clarke et al. 2007), Japan (NCTAF, 2005) and the United States (Stanulis & Floden, 2000) (see Table 4.8 below). In Scotland the allocation of 0.1 FTE for mentor teachers produced divided responses on adequacy, with reference to the specific support needs of each trainee teacher, the time of year, and the disposition of the mentor (Matheson, 2009).

The allocation of a reduced timetable for beginning teachers during induction was common across the nations studied, and present in all states in Australia except the Northern Territory and Queensland. The degree of the reduced load varied considerably from a reduced timetable of 95 per cent in Western Australia to a reduction of a third of the schedule in France.

Table 4.7 summarises the characteristics of induction and mentoring programs in Australia. Table 4.8 summarises findings in the international literature on induction drawn from studies in England, China, France, Japan, New Zealand, Scotland, Switzerland and the United States.

Selection of mentors

The processes for the selection of suitable mentors internationally ranged from that of the specifically qualified Pedagogical Advisor in France to those chosen by the school in China or one that incorporated student choice in New Zealand (see Table 8 below) (Cameron & Baker, 2004; NCTAF, 2005). In the United States, the assignment of mentors was reported to be based on 'convenience, volunteerism, and entitlement rather than on selection of mentors who are willing to help novices continue learning to teach' (Stanulis, Meloche & Ames, 2008 cited by Stanulis & Floden, 2009, p. 114). For Australian supervisors/mentors, the role of 'facilitator' rather than critic was reported, which required the 're-definition of roles and responsibilities to include increased reflection, collaboration and partnership' (GTCS, 2005, p.17). In England the assignment of mentors was based on the presence of the 'skills to fulfil the role' and to 'be able to make rigorous and fair judgements on performance' (TDA, 2008b as cited by Alexander, 2010, p. 426).

Table 4.7: Characteristics of induction and mentoring programs in Australia (adapted from McFarlane, 2007)

State	Induction time provision for beginning students	Induction activities	Induction PD	Mentor activities
QLD	None	School-based initial induction	Compulsory induction for beginning teachers in Partners for Success Schools and Low Economic Status National Partnership schools	Regular constructive feedback Performance reports for 3 and 6 months into the induction.
NSW	1 hour/week	School-based induction programs – orientation to the department and to school	Regional induction days \$700 professional development funds.	Structured supervision Full time mentors provided to schools
VIC	Reduced time table (95%). Release time of 50min or less from playground duty or meetings	Induction program at school level	Two Victorian Institute of Teachers seminars in 1 st year are mandatory Union teacher learning network holds conferences each year	Mentors trained by the Victorian Institute of Teachers
ACT	6 days / first year 5 days / second year 4 days / third year		1 day – DET inform participants of rights and obligations as employee Combination of presentation and workshops	Informal mentoring at school. Each school ensures there is a beginning teacher coordinator who is to liaise with new educators
WA	Reduced time table (95%) – 80 minutes secondary level, 77 minutes primary release per week. \$800 for personal use e.g. purchase of resources	System level program – ½ day welcome program 2 day induction for teachers servicing remote districts	New educator series of modules – 4 days in first year and 4 days in second year	Under development – 1 FTE for every 30 new educators
SA	1 day per fortnight.	Local districts induct new teachers to their district (conference, social events, regular meetings)	New teachers to Anangu lands in far north SA – 9 day induction program AEU and DECS provide 1 day induction seminar	Induction although no formalised activities
TAS	2 hours/week Can be banked for maximum of 6 hrs for use in PD	Structured school induction programs Provided time can be used for planning observations, visits, meetings, network meeting	Department district induction	Varies widely across school depending on school leadership priorities and available resources.
NT	None	Extra 3 day induction for those going to remote schools	3 day orientation in Darwin & Alice Springs 4 one day workshops/year	Informal

Table 4.8: Characteristics of induction programs reported in the international literature

Location (authors)	Length of induction	Induction time provision	Induction activities	Induction PD	Evaluation
United States Intensive mentoring (Stanulis & Floden, 2009)	1 year	None	Weekly individual meeting Monthly group seminars	Half day orientation + 4 PD sessions	Experimental study – based on teacher effectiveness
England Primary School (Alexander, 2010)	1 year	Reduced time table (90%)	Regular observation of teaching Three formal assessments	Individualised program	Three formal assessments, the final one leading to recommendations on whether the core standards have been achieved
New Zealand (Cameron, & Baker, 2004; NCTAF, 2005)	2 years	Reduced time table (80%) – First year teach four rather than five classes a day – (90%) – Second year	Self regulated – observing or working with students on monitoring and assessing their learning	Individualised program One day PD at Colleges of Education	School principals have authority to recommend a beginning teacher for permanent registration Based on professional knowledge, practice, relationships and leadership
Scotland (Matheson, 2009; Clarke et al. 2007)	1 year	Reduced time table (0.7 FTE)	Weekly meetings, focused on progress against specific aspects of the Standard for full registration Nine classroom observations - monthly	Continuing Professional Development (CPD)	Completion of both interim and final profile to measure progress and confirm achievement of the standard for full registration
Switzerland (Bern, Lucerne and Zurich) (NCTAF, 2005)	1-2 years	Expected to spend a certain percentage of paid time on induction activities	Classroom observation – minimum 2 per year for formal discussion	PD centres	Mentor Self-evaluation
Japan (NCTAF, 2005)	1 year	Reduced time table (75%)	Two or more demonstrated lessons viewed by administrator, mentor, principal and other teachers	One day per week for minimum of 30 days training at centralised in-service school centres	Action research project during first year – results presented on a periodic basis or at end of year
China (Shanghai) (NCTAF, 2005)	1 year	Reduced to allow approximately half-day each week for participation in training activities	Weekly observations of one or two classes (each other's and other teachers) by mentor/novice teams	Half day classes per week at Colleges of Education	Ethics: school administrators and mentors Pedagogy and teaching: district General pedagogy and psychology: municipal test
France (NCTAF, 2005)	1 year	Reduced by a third of regular schedule	Regular observation of pedagogical advisors' classes	One and a half days per week for classes and research	Professional memoir: written text with oral presentation to jury at end of first year; reflection on elements of one's teaching practice

In a Scottish study, head teachers and supporters (mentors) were placed in focus groups to share their ideas on the recruitment policy and criteria for selection of mentors, including a focus on the importance of subject or stage specialisation of the mentor. The 'dangers of appointing teachers who may seek to impose their personal teaching style on beginning teachers' (Matheson, 2009, p. 2) was identified as an important point for consideration and was further described by a head teacher:

I think someone who's also able to recognise that it's not about telling them, you know, accepting their practice as long as the outcome is a positive one. There's a risk of a supporter finding it hard not to tell them to do this, so you have to be careful in terms of the selection (Matheson, 2009, p. 3).

The three most important criteria identified for the selection of mentors, based on the frequency of responses from head teachers and mentors (Matheson, 2009, p. 2), were as follows:

1. Effectiveness in their own classroom practice
2. An appropriate level of teaching experience (over four years)
3. Strong personal communication skills to support a mentoring role

The above qualities were to be of a demonstrable nature (Matheson, 2009, p. 2). The third point was elucidated further as 'being approachable, non-threatening, yet able to be diplomatically honest in a gentle way' (Matheson, 2009, p. 2).

The provision of mentors having familiarity with the subject and stage of the trainee teacher was discussed:

The focus groups reveal very strong support for the need for Supporters (mentors) to have familiarity with the subject or stage of the probationer. This is necessary to provide contemporary knowledge of curriculum, assessment, resources and pedagogies. It is important in enabling the Supporter (mentor) to judge the appropriate level of pitch, challenge and pace of learning in observed sessions. (Matheson, 2009, p. 4)
... although high levels of support were expressed for the involvement of subject/stage specialists, practicalities of timetabling, school size and available staffing influenced opportunities available for probationers ... the professional community within the whole school had a collective responsibility to the novice teacher. (Matheson, 2009, p. 6)

The intensive mentoring course described in the United States study mentioned earlier (see also Table 4.9 below) involved the provision of mentors matched to the subject speciality and the year level of the beginning teachers (Stanulis & Floden, 2009). The beginning teachers described the characteristics of their mentors who helped during their induction year, (Stanulis & Floden, 2009):

I would have felt very alone without a mentor teacher this year ... It was very helpful to have an open-minded, unbiased, experienced observer provide feedback and advice. Debbie was my saving grace this past year (Stanulis & Floden, 2009, p. 120).

There is nothing I can say that my mentor hasn't done for me ... she has supported me through a very trying year. The first week of school I wanted to quit. She made me believe in myself and want to continue to grow as a teacher (Stanulis & Floden, 2009, p. 120).

Training of mentors

The Cambridge Primary Review in England found that 'training for what is a complex role (of mentor) is not mentioned and it certainly cannot be assumed that simply by being on a school's senior management team a teacher has the capacities needed' (Alexander, 2010, p. 426). Internationally and locally the preparation of mentors varied, with Victoria identified as the

only state that provided the training of mentors (see Table 5 above). Training of mentors was a component of induction in Switzerland, Japan and China. The development of 'fully prepared' mentors' (Wang et al., 2010) through thoughtful training was considered essential as 'mentors' beliefs of teaching and mentoring can exert both a positive and negative impact on beginning teachers' learning' (Wang, Odell & Schwille, 2008, p. 145).

An experimental study of 46 mentors and their students in the United States investigated the effect of a three-day workshop focused on mentoring techniques (see Table 4 above) (Everston & Smithey, 2000). Those mentors who received training showed 'better skills of conferencing with novices and were more likely to share their teaching experiences with novices' (Everston & Smithey, 2000 as cited by Wang, Odell & Schwille, 2008, p. 145). The beginning teachers of the trained mentors in comparison to those with untrained mentors showed increased organisation and managed instruction more effectively, developed and sustained more workable classroom routines, gained more student cooperation, and their students showed higher engagement and improved behaviour (Everston & Smithey, 2000). The study stressed the need to provide mentors with 'proper training for the role that they were expected to play in teacher induction' (Wang, Odell & Schwille, 2008, p. 145).

Wang, Odell and Scwille (2008) made the following observations about the structure of the training of mentors for induction:

Firstly, beginning teachers' initial beliefs of teaching may play an important role in shaping the influence of workshops on beginning teachers; beliefs and practices, especially when they conflict with those underlying the workshops . . . Second, the direction of workshop influences if any may not be universal for all beginning teachers. Third, the change of beginning teachers' beliefs about teaching may not lead to changes in their teaching practice . . . The workshop approach to induction often functions as an additive approach, failing to consider or exert any influence on the ecological environment in which their teachers' teaching is situated (Wang, Odell & Schwille, 2008, p. 141-142)

In the study of Stanulis and Floden (2009), mentors were prepared through participation in mentor study groups which involved six hours each month in addition to six full days of professional development during the school year. In consideration of the 'ecological environment' of the mentors, school personnel and university staff were involved in the mentor study group sessions (Wang, Odell & Schwille, 2008, 142; Stanulis & Floden, 2009). 'Reflective analysis of the teachers' pedagogy was emphasised in the preparation of mentors (Stanulis & Floden, 2009, p. 114).

Impact of school culture

Interviews with beginning teachers and mentors, induction program heads, teachers and principals in England found that there were differences in the impact of mentoring on beginning teachers' professional development reflecting differences in the culture of the school (Williams, Pestage & Bedward, 2001 as cited by Wang, Odell & Schwille, 2008). A collaborative school environment was found to have a stronger impact on the professional development of beginning teachers in comparison to beginning teachers who worked in an individualistic school culture (Williams, Pestage & Bedward, 2001 as cited by Wang, Odell & Schwille, 2008, p. 139). This suggested that 'individualistic culture limits the effects of structured induction components on beginning teachers, whereas the collaborative culture further extends such influences' (Williams, Pestage & Bedward, 2001 as cited by Wang, Odell & Schwille, 2008, p. 140).

The context of the school should be taken into account to ensure a culture that supports beginning teachers during induction (Cohen & Hill, 2001 as cited by Wang et al. 2010). In New Zealand, for

example, both urban and rural contexts shape the experience. The primary teacher education practicum includes 'Normal' and 'Model' schools which are exemplars of suburban and rural schools, respectively (Cameron & Baker, 2005; GTCS, 2005):

Model schools were established to provide opportunities for students to observe multiclass teaching situations similar to those in rural schools. Normal and model schools are so designated for specified colleges of education thereby confirming their special status. (GTCS, 2005, p. 16)

Table 4.9 summarises findings in the international literature on mentoring drawn from studies in England, China, France, Japan, New Zealand, Scotland, Switzerland and the United States.

A sobering commentary on Australia's standing

A broader perspective suggests that the culture of the profession itself serves as a constraint on the effectiveness of induction programs in Australia. Cited earlier was a study in the United States (Stanulis & Floden, 2009) which found that beginning teachers favoured meetings with mentors that provided an 'opportunity to share ideas, resources, and advice; an opportunity to hear from other new teachers who were going through similar struggles; and the increased openness to try new things in their practice' (Stanulis & Floden, 2009, p. 119). An issue for consideration in Australia is whether there is a culture or climate that fosters such practices.

The recent study by the Grattan Institute (Jensen, 2010) drew on findings in the OECD Teaching and Learning International Survey (TALIS) which revealed that (a) relatively few teachers in Australia reported that the most effective teachers received the most recognition, (b) they would receive greater recognition if they improved the quality of or were more innovative in their teaching, and (c) evaluation of their work led to moderate or large changes in teaching practice. TALIS was concerned primarily with evaluation of teaching as far as scale and impact are concerned. The findings suggest that the broader culture in which induction of beginning teachers occurs is not generally conducive to open and evidence-based approaches to sharing information about performance.

Significant in the context of this current review of teacher education was the finding that a relatively large number of principals reported that 'lack of pedagogical preparation by teachers hindered the provision of instruction in their school' (Jensen, 2010, p. 21). In a conclusion that has ramifications for the use of professional standards, Jensen observed that 'teachers report that the evaluation of their work is largely meaningless and is therefore ineffective in developing their teaching'.

Moreover:

Policy development in these areas has historically focused on developing teacher standards. It seems this will continue with the development of new draft professional standards for teachers. Standards are developed for initial teacher accreditation and for promotion once they become teachers. However, standards mean nothing if evaluation is meaningless. Very few teachers do not pass the standards set for each level of promotion. (Jensen, 2010, p. 26)

Table 4. 9: Characteristics of mentor programs reported in the international literature

Location (authors)	Mentor selection	Mentor training	Mentor time provision	Mentor stipend	Mentor activities	Responsible parties
United States - Intensive mentoring (Stanulis & Floden, 2009)	Matched to level and subject	6hr/month + 6 days year	1 day a week – mentor 3 teachers	None	Weekly individual meeting Monthly group seminars	Lecturers involved in monthly seminars
England (Alexander, 2010; TDA, 2008b)	Have the skills to fulfil the role	None		None		Mentor, head teachers and principal, local authorities
New Zealand (Cameron, & Baker, 2004; Clement 2000)	Majority of beginning teachers choose supervisor	None	None	None	Ad hoc – dependent on needs of trainee teacher. Involved observing trainee teacher	Mentor
Scotland (Matheson, 2009; Clarke et al. 2007)	Recruitment based on three criteria	None	0.1 FTE		Weekly individual meetings – not at a specific time	Mentors (Supporters), whole school responsible
Switzerland (Bern, Lucerne and Zurich) (NCTAF, 2005)	Often same teacher that supervised practicum	Seven days (Lucerne) 3-4hr/wk for two semesters and 1-2 day workshop	None	\$4500	Individual mentoring Observations – sometimes weekly Group meetings involving counselling and reflective practice from observations	Shared responsibility across schools, preservice
Japan (NCTAF, 2005)	Matched by subject matter and guiding teacher's experience/ reputation	Three meetings per year for guiding teachers in Tokyo or at local in-service centres	Reduced teaching responsibilities	None	Two days per week, for a minimum of 60 days per year Observations – two formal with oral and written feedback	Principal and guiding teacher use regional and local guidelines to devise year- long plan Centralized in-service centres provide out of school training
China (Shanghai) (NCTAF, 2005)	Chosen by school	Handbook provided – which has local variation	None	Limited financial reward	None	Mentors
France (NCTAF, 2005)	National specifications of Pedagogical Advisor	None	None	\$750	Regular observation of classes	University Institute for the formation of Teachers (IUFM)

The findings in the report of the Grattan Institute are particularly sobering given the nations that contributed to the study. It was noted above that relatively few teachers report in positive terms. The countries that fall below us among the 23 participating nations include Belgium, Denmark, Ireland and Spain. For reports by principals on shortcomings in 'pedagogical preparation', only in Italy, Lithuania, Mexico, Spain and Turkey did a higher proportion of principals report in more negative terms. The report did not analyse findings for Australia by state or length of time teachers had served in the profession.

Professional standards

This section of the report provides a brief overview of developments in the setting of professional teaching standards as these relate to teacher education and induction programs. It is important to do so because these have been established for Queensland and they are used in the accreditation of pre-service programs. However, as elsewhere in this Chapter 4, no judgements are made about these standards or the manner in which they are applied. This is done in another stage of the review. It is also important to consider the matter of professional teaching standards in the wider Australian setting because these have been proposed for a range of purposes. At the time of writing a draft set of standards was the subject of consultation in a project of the Australian Institute of Teaching and School Leadership (AITSL).

According to Ingvarson and Kleinhenz (2006, p. 24) 'a complete set of standards provides answers to the following questions:

- What is important about what we teach, and what do we consider to be quality learning of what we teach?
- What should teachers know and be able to do to promote that kind of learning?
- How do teachers provide evidence of what they know and can do?
- How will that evidence be judged fairly and reliably and what level of performance counts as meeting the standard?'

A semantic difficulty

It is necessary to draw attention to a semantic difficulty in matters related to standards. There are debates about the efficacy of setting professional teaching standards and whether or not they can be used for purposes such as those described by Ingvarson and Kleinhenz (see above). However there is no debate about the importance of there being a high standard of teaching. There is a parallel here with the debate about national tests and what form they should take and to what use they should be put. However, there is no debate about the importance of testing. To illustrate in an international setting, in Finland there are no national tests like NAPLAN but one is likely to find more testing in classrooms in Finland than one is likely to find in classrooms in Australia. There is universal acceptance if not acclaim for the high standard of teaching in Finland but there is no counterpart to professional teaching standards of a kind found in some states in Australia and under consideration for implementation on a national basis.

One part of a general critique on the specification of professional teaching standards is based on their fundamental nature: they are descriptions of what teachers need to know and do. There are literally thousands of things that teachers need to know and do and specifying all in a set of standards that can serve a variety of purposes, including accreditation in teacher education, is not feasible. Consequently, efforts are made to reduce the list and this often entails combining different actions or bodies of knowledge into single statements. The result is often a set of complex statements that are made shorter than they would normally be through the short-hand of

professional jargon. Frequently there are multiple indicators for each statement and judgements about the extent to which they are evident are made difficult when there is no agreement on what constitutes good evidence.

Accreditation in the professions

Ingvarson, Elliott, Kleinhenz and McKenzie were commissioned by Teaching Australia (now the Australian Institute of Teaching and School Leadership) (AITSL) to conduct a study on the accreditation of teacher education (Ingvarson, et al., 2006). Accreditation was defined in the following terms:

'Accreditation', as used in this report, refers to an endorsement by an independent external agency that a professional preparation course is adequate for the purpose of a particular profession; that the course is able to produce graduates who meet standards for entry to the profession and are competent to begin practice.

Accreditation is a key mechanism for assuring the quality of preparation courses in the professions. Accreditation is also an important mechanism for engaging members of a profession in decisions about standards expected of those entering their profession, as well as standards expected of preparation courses (Ingvarson et al., 2006, p. 1).

Ingvarson et al. (2006) described how accreditation was carried out in different states and territories in Australia. In Queensland, for example, it is carried out by the Queensland College of Teachers under the Education (Queensland College of Teachers) Act of 2005. Under section 225(g) the QCT has the responsibility of approving and monitoring pre-service teacher education programs for provisional registration. According to the authors, the processes are 'well developed and regarded' (Ingvarson et al., 2006, p. 7). More specifically:

Today, Queensland is recognised as a leader in the development of professional standards for teachers in the Australian context and its processes provide a respected model for states that have embarked on teacher registration more recently (Ingvarson et al., p. 12).

The Queensland approach is described and assessed against national and international benchmarks in another stage of this review of teacher education. It is sufficient to note at this point that the specification of professional teaching standards is central to the process, thus establishing the relevance of the short review of research on the topic.

Ingvarson and his colleagues provided a descriptive account of approaches to accreditation throughout Australia and many other nations and noted the findings of an OECD (2005b) report that described the shift from processes to outcomes.

Accreditation criteria should focus more on the outcomes of teacher education programs than on inputs, curriculum and processes. A focus on the latter elements runs the risk of consolidating conventional wisdom about how best to prepare teachers, thereby leading to greater uniformity of programs and reducing the scope for innovation. In any event it is what trainee teachers learn and can do that should be the policy focus. How they get to that point is better left to the teacher education programs and other programs for teacher preparation (OECD, 2005, p.1130 cited by Ingvarson et al., 2006, p. 30).

Ingvarson et al. (2006, p. 31) believe on the basis of their international review that a 'national accreditation framework should (1) establish nationally agreed standards for accrediting teacher education programs that are based on agreed profession wide standards for graduate teachers, and (2) establish processes for accrediting teacher education programs, based on the standards'.

Much of the study reported here described approaches in different professions and built the case for national rather than state-based mechanisms. The process in most professions other

than teaching follows a 'traditional' approach in which the related university program provides a detailed specification of objectives for various programs, courses and subjects and relies on an expert accreditation panel to determine if these objectives are achieved. The focus is on credibility and quality assurance as well as improvement. There is no counterpart to the detailed specification of standards of a kind now making their appearance or are advocated for teaching in a national framework in Australia. The authors note the limited evidence of impact of accreditation in the professions.

An important question to ask is, 'How well are current accreditation policies and practices serving these two purposes of quality assurance and improvement?' Research on the effects of accreditation is rather scarce, probably because the issues involved in implementing valid research designs to test this question are complex. Accreditation processes and standards also need to be built on firm foundations – a knowledge base for teaching – a knowledge base for professional practice (Ingvarson et al., 2006, p. 47).

After reviewing approaches to accreditation in Australia and elsewhere around the world, Ingvarson and his colleagues conclude that the National Council for Accreditation of Teacher Education (NCATE) in the United States and the Training and Development Agency (TDA) in England are especially noteworthy:

[T]he NCATE approach represents the strongest in terms of broad-based professional involvement in the development and implementation of the accreditation process. However, it is an expensive alternative. The Training and Development Agency in England represents the tightest control by a national government over the supply of teacher education students and the provision of teacher education (Ingvarson et al., 2006, p. 52).

While no country provided a model that could be replicated in Australia, NCATE came closest to offering a system that had rigour and that engaged the professional associations in all phases of its operation (Ingvarson, et al., 2006, p. 62).

While the study reported here was published in 2006, more recent developments should be noted. The NCATE approach is the subject of comprehensive review, as described earlier in this chapter, with the outcomes to be published later in 2010. The Training and Development Agency (TDA) is to be abolished by the new Coalition Government in England. It is reasonable to conclude in the light of these developments and the limited research on the impact of various approaches that what is best is still an open question.

Whatever form they take, professional standards are likely to be developed within the following broad categories that span professional knowledge, practice, values and relationships:

1. Content knowledge (i.e., knowledge of child development and learning; family relationships and processes; subject matter knowledge in literacy, mathematics, science, social studies, the visual and performing arts, and movement/physical education; as well as knowledge about children's learning and development in these areas);
2. Pedagogical and professional knowledge, skills, and dispositions; and
3. The ability to promote significant educational learning experiences that enhance social and cognitive outcomes for children (Ingvarson et al., 2006, p. 74).

The issue is whether these should be embedded in detailed specifications or in program, course and subject outlines, with outcomes the subject of quality assurance by expert panels. The issue is far from settled, as evident in the recent nine-country study commissioned by the Teaching Council in Ireland that reviewed developments in Ireland, Northern Ireland, Scotland, England, Finland, United States, Poland, Singapore and New Zealand (reported in Conway et al., 2009). All countries

address the matter of what student teachers and teachers need to be able to do to be considered competent professionals but not all 'specify in precise detail, and in terms of competences and standards, what teachers need to be know and be able to do'. Finland provides a 'light touch' and does not provide detailed specifications whereas England is relatively prescriptive, with 33 statements associated with a list of key standards (Conway et al., 2009, xxiv).

Teachers for Indigenous students

Disparities between Queensland and other states in respect to student achievement are partly explained by the relatively large numbers of Indigenous students (Masters Report, 2009). For this reason, attention is given to research on teacher education for Indigenous students. Developments in Finland in this area were described earlier in the chapter where reference was made to teacher education for the Saami people (Lapps).

Context

De Bortoli and Thomson (2010) identified contextual factors that influence achievement of Australia's Indigenous students through the analysis of outcomes in the Program for International Student Assessment (PISA):

- Indigenous students were significantly less interested and less engaged in reading than their non-Indigenous peers (De Bortoli & Thomson, 2010 p.90)
- Indigenous males, in particular, reported low average levels of interest and engagement in reading (De Bortoli & Thomson, 2010 p.90)
- Indigenous students' appreciation of science, both from a general or personal perspective, was significantly lower than that reported by non-Indigenous students. Indigenous students were also found to have significantly lower levels of instrumental motivation in science than non-Indigenous students (De Bortoli & Thomson, 2010 p.90)
- Australian Indigenous students reported a reduced preference for competitive learning environments in comparison to non-Indigenous students (De Bortoli & Thomson, 2010 p.91)
- Indigenous female students reported feeling more supported in their mathematics classroom than their male peers (De Bortoli & Thomson, 2010, iii)
- In terms of the learning environment, no significant differences were found in the attitudes towards school or a sense of belonging to school of Indigenous and non-Indigenous students, an extremely positive finding that indicates that schools are doing well at providing a supportive and welcoming environment for all students. Nor were any differences found in the ways students reported interacting with their teachers, or in the disciplinary climate of their classes. (De Bortoli & Thomson, 2010 p.91).

The United Nations' *Study on lessons learned and challenges to achieve the implementation of the right of indigenous peoples to education* made the following recommendations:

Teacher training and capacity-building initiatives aimed at allowing communities to manage education projects independently are essential for the successful, long-term implementation of any curriculum. Successful teacher training programmes include strategies for teachers to be competent to teach culturally appropriate curricula and indigenous languages, and to enhance the engagement and academic achievement of indigenous learners (UN, 2009, p.18).

The main concept of mother-tongue-based bilingual education is that, once a child learns his or her indigenous language well, learning a second language will be easier. The benefits of mother-tongue-based bilingual education include a better personal and conceptual

foundation for learning (if indigenous languages are learnt well and not suppressed); access to more information and opportunities (knowing other languages and other cultures); and more flexible thinking processes, thanks to the ability to process information in two languages (UN, 2009, p. 17).

The pages that follow include descriptions of practices in New Zealand (one program), Canada (one program), United States (two programs) and Australia (one program).

New Zealand

Te Kōtahitanga (meaning unity) is a key research and professional development program implemented in 2001 and 'seeks to improve the educational achievement of Māori students through the Effective Teaching Profile (ETP) (Bishop et al., 2009, p. 1). The ETP was 'guided and shaped by experiences of Māori students, their whānau (family), principals and teachers' (Bishop et al., 2007, p. 1). The ETP details the understandings of effective teachers of Māori students through the use of Māori cultural metaphors (Bishop et al., 2003 as cited by Bishop et al., 2009):

1. They positively and vehemently reject deficit theorising as a means of explain Māori students' educational achievement levels.
2. Teachers know and understand how to bring about change in Māori students' educational achievement and are professionally committed to doing so, in the following observable ways:
 - (a) Manaakitanga: They care for the students as culturally-located human beings above all else.
 - (b) Mana motuhake: They care for the performance of their students.
 - (c) Whakapiringatanga: They are able to create a secure, well-managed learning environment by incorporating routine pedagogical knowledge with pedagogical imagination.
 - (d) Wānanga: They are able to engage in effective teaching interactions with M ori students as Māori. (Involves a 'rich and dynamic sharing of knowledge')
 - (e) Ako: They can use a range of strategies that promote effective teaching interactions and relationships with their learners (involves teachers and students learning in an interactive dialogic relationship).
 - (f) Kotahitanga: they promote, monitor and reflect on outcomes that in turn lead to improvements in educational achievement for Māori students. (Bishop et al., 2003 as cited by Bishop et al., 2009):

The professional development intervention of Te Kōtahitanga was implemented within the framework of ETP in 2004-2005 and involved 12 schools and 422 teachers (Bishop et al., 2009). The professional development intervention, which could be modified to be incorporated into initial teacher education, involved (Bishop et al., 2007, p.1):

- Initial induction workshop
- Structured classroom observations and feedback sessions
- A series of collaborative problem-solving sessions based on evidence of student outcomes
- Specific shadow-coaching sessions.

Timperley et al., (2007) in their Best Evidence Synthesis Iteration (BES) on Teacher Professional Learning and Development described some of the key transformative elements of Te Kotahitanga:

In Te Kotahitanga, we use the narrated experiences of the people most closely involved with the education of Māori students — including the young people themselves — to give teachers the opportunity to reflect upon the experiences of others in similar circumstances. For some, it is the first time they have listened to the student experience. By vicariously sharing in these experiences, teachers are able to reflect on their own understandings of

Māori students' experiences, their own theorising and explanations, the practices that follow, and the likely impact of these theorisings and practices on the achievement of their Māori students. In other words, we seek to open the 'black box', affording teachers the opportunity to critically reflect upon their discursive positioning and the implications of this positioning for their own agency and for the learning of Māori. Where necessary, teachers are able to discursively reposition themselves from limiting discourses to those in which they have agency. (Timperley, et al., 2007, p. xix)

Māori students from Te Kōtahitanga schools showed increased numeracy, literacy and Year 11 completion (Bishop et al., 2007; Timperley et al., 2007). The National Certificate of Education Achievement (NCEA) level one (completion of Year 11) for Māori and Pacific Islander Students in Te Kōtahitanga schools showed an increase in 2005-2006 in comparison to students in non-Te Kōtahitanga schools, as shown in Table 4.10 (Timperley et al, 2007). Students work through levels one to three of their NCEA in Years 11 to 13 of schooling in New Zealand (NZQA, 2010). Numeracy and literacy were measured in 2005 for Year 9 and 10 students with two instruments: Assessment Tool for Teaching and Learning (asTTle) and Essential Skills Assessment (ESA) (Bishop et al., 2007). A larger increase in the difference between Pre and Post-test in asTTle numeracy was identified in Māori students from Te Kōtahitanga schools (n=236) in comparison to those in non-Te Kōtahitanga schools (n=167) (Bishop, 2007). Māori students (n=319) in the lowest third ESA (literacy) results showed a significant increase in performance from pre and post tests which was similar to gains made in non-Māori students (n=488) (Bishop, 2007, p. 182). These gains in literacy and numeracy and gains in student work completion and student engagement were presented in Figure 4.1 (Bishop 2007). The implementation of the ETP in teachers, the cognitive level of the lesson and teacher-student relationships show a gradual increase over 2005 that mirrors that of student gains. In summary, 'the positive trends indicated by these eight sets of quantitative results in relationship to each other' as shown in Figure 4.1 suggest 'that there is a relationship between Māori student performance and how well Te Kotahitanga teachers implement the elements of the ETP' (Bishop, 2010, p. 739).

Table 4.10: Comparison of the percentage change in students gaining Year 11 NCEA level 1 in students in Te Kōtahitanga schools and those in non-Te Kōtahitanga schools (Adapted from Timperley et al., 2007, p. 263)

Ethnicity	Year 11 students gaining NCEA Level 1			
	Te Kōtahitanga schools			National cohort
	Percentage increase			
	2005 (n=1318)	2006 (n=1645)	2005-2006	
NZ Māori	32.1	48.4	16.4	8.9
European	62.5	69.0	6.6	4.1
Pacific Islands	23.6	39.0	15.4	6.1
Other	68.8	75.8	6.9	8.1

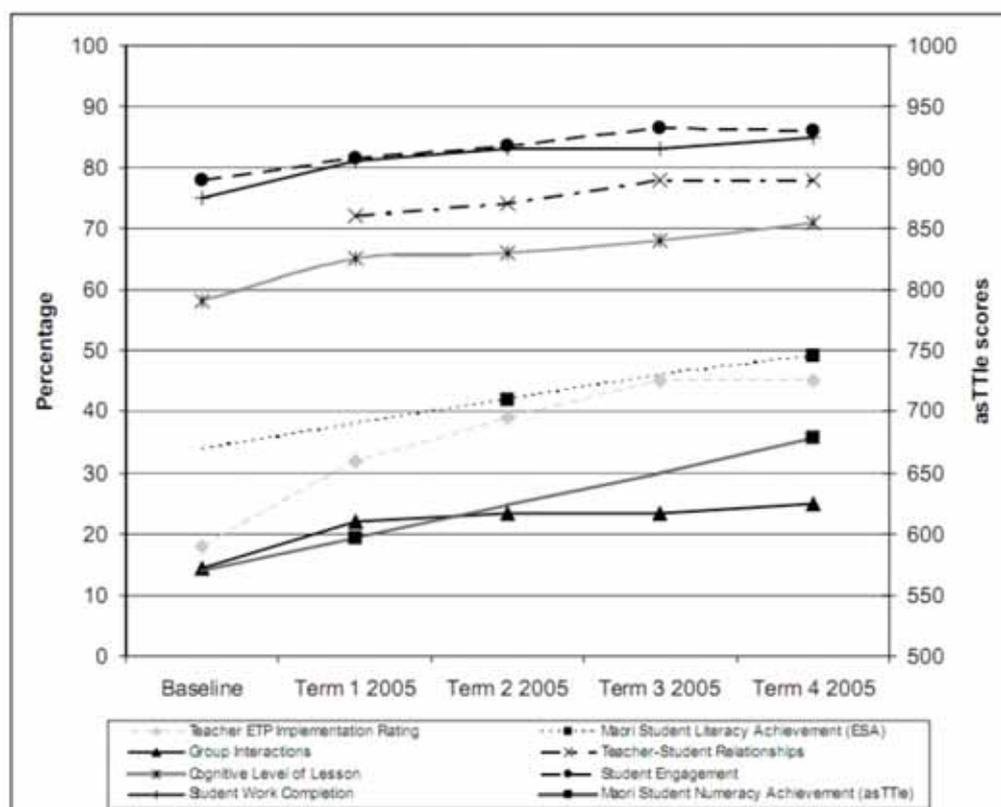


Figure 4.1: Improvement in Teacher Practice and Student Performance during Phase 3 of Te Kōtahitanga (Bishop, 2007, p. 187)

Canada

The Ontario College of Teachers (OCT), in conjunction with the Ministry of Education's Aboriginal Education Office, embarked on a series of conversations with First Nations, Métis and Inuit communities, and produced the following recommendations for improvements in teacher education:

First Nations participants in the conversations emphasised the need for supports and resources for teachers learning how to teach Aboriginal culture, traditions, knowledge and identities. Teachers do not just teach Aboriginal content and need to be prepared to teach culturally-sensitive subjects. Participants felt the College could play an important advocacy role with practising teachers to encourage learning more about Aboriginal culture and perspectives, and about instructional methods that are responsive to the Aboriginal community. (OCT, 2010, p. 7)

Participants indicated that teachers need a thorough orientation and high level of professional knowledge with respect to Aboriginal students and communities, much of which is gained through experiential learning. Participants confirmed that Aboriginal cultures are very complex and teachers need to be skilled and knowledgeable in order to guide students through the curriculum. This is particularly applicable to the history of residential schools and the loss of identity that resulted for all Aboriginals. Lessons in this area need to be taught in a highly informed and sensitive manner. (OCT, 2010, p. 10)

The importance of the practicum placement occurring in Aboriginal settings was stressed in most conversations. Participants in the Métis groups noted that Métis teacher preparation is distinct from First Nations teacher preparation and emphasised important considerations for teaching Métis children, for example, relationship building and employing flexible teaching styles. First Nations participants agreed that cultural understanding could be enhanced if non-Aboriginal teachers completed their practicum in First Nations communities with a focus on experiencing holistic learning (OCT, 2010, p. 10).

Previous to the series of conversations reported above, OCT conducted a review of initial teacher education, which provided the following recommendations specific to Indigenous education (OCT, 2006):

... all teacher candidates [should] be trained in teaching students with different learning styles, since many of them will be teaching in public schools where Aboriginal children attend and some will teach in Aboriginal communities (OCT, 2006, p.35)

Aboriginal children are better served with more hands-on learning and different evaluation strategies. In any case, all students – Aboriginal and non-Aboriginal should become more familiar with Aboriginal history in order to improve relations between and understanding of Canada's Aboriginal and non-Aboriginal communities, and a teacher educated in Aboriginal issues can be a much more effective teacher of Aboriginal and non-Aboriginal students alike (OCT, 2006, p.35)

It was suggested that more effort be made to provide off-campus programs in or close to northern Aboriginal communities. This would provide more opportunities for teacher candidates who cannot easily travel from their communities to receive training and for those who are already teaching to continue their professional education (OCT, 2006, p.28)

Recommendations were provided for programs of teacher training for elders and other community education support workers to enable them to participate more effectively in school programs to improve the knowledge and understanding of Aboriginal culture among students (OCT, 2006, p.35).

United States

Beaulieu and Viri (2004) involved approximately 500 American Indian, Alaska Native and Native Hawaiian pre-service teachers and conducted eight individual case studies of participants in their induction year as part of the Native Educators Research Project in the United States. One of the major aims of the project was to 'prepare educators who are enlightened and empowered to become the change-agents' (Beaulieu & Viri, 2004, p. 38). A key concept was that of community-based education which was described in the following terms:

The process of Community-based education begins with people and their immediate reality. Above all, it allows them to become meaningfully involved in shaping their own futures through schools and other agencies in their community. . . Meaningful school reform often depends on this kind of participation, in which people renegotiate and reconstruct the ways in which a school relates to its community's interests. (Corson, 1999, p. 10 as cited by Beaulieu & Viri, 2004, p. 4-5)

There is an expectation that the community members become the experts, the advisors and controllers of the educational system; their values begin to shape educational outcomes and the promotion of native cultures and languages becomes integral to the process (Beaulieu & Viri, 2004, p. 5).

This research led to the development of a 'transformational indigenous teacher education model' (Beaulieu & Viri, 2004, p. 38) which included the following components:

1. Planning and designing of the program would begin with the community it will serve. Acting as the experts, community members would identify needs and oversee the curriculum for inclusion of the community's values and culture
2. All faculty members and instructors would be highly trained Indigenous educators, committed to transformative schooling, and experienced in classroom teaching
3. Native language and culture would be at the heart of the program, integrated throughout the courses and specifically attended to through classes to gain proficiency in the Native language and to learn methods for instructions—bilingual and ELL classes—and language planning
4. A cohort model would be followed throughout professional development to facilitate reflective dialogue and provide peer support
5. The faculty, in collaboration with community members and master teachers, would serve as mentors in and outside the classrooms, conducting seminars and engaging the participants in the use of reflective journals to link theory to practise
6. Curriculum would be community-based and integrated rather than segmented and compartmentalised (Beaulieu & Viri, 2004, p. 38).

Stachowski and Frey (2005) investigated 'service learning' in the American Indian Reservation Project across the Navajo Nation (Arizona, New Mexico and Utah) which formed part of teacher education programs. The service learning activities were completed in cooperation with supporting Navajo community members, and required 'adherence to the "three R's" realistic tasks serving the community, a strong reflective component, and reciprocal exchange between equals' (Stachowski & Frey, 2005, p. 101). The project was based on the belief that 'knowledge of the community and its people, including their backgrounds, beliefs, traditions, and values, contributes to the creation of a classroom context in which teachers can more effectively serve their elementary and secondary pupils' (Stachowski & Frey, 2005, p. 101). Participants underwent extensive preparation (which involved readings, workshops, sessions with Navajo consultants and seminars) to gain an understanding of the 'cultural values, beliefs, lifestyles, and educational practices in their placement sites' (Stachowski & Frey, 2005, p. 101). The reflections of student teachers involved in the project revealed that service learning enabled:

- acquisition of new knowledge about Navajo culture and society—things that are not learned in classrooms and books
- a deeper appreciation for the circumstances of other people's lives, including a better understanding of the pupils in their classrooms and colleagues in the school
- greater acceptance in their placement communities
- new insights of a personal nature, and
- a renewed vision of their role in the Reservation (Stachowski & Frey, 2005, p. 110).

Stachowski and Frey (2005) described the impact of the service learning projects on student teachers:

Through their service learning projects, student teachers also learned more about their position in and knowledge of the community, leading to moments of humility in the face of what they did not yet understand about their new environment, as well as satisfaction at having taken the first step toward a more complete comprehension of the local community (Stachowski & Frey, 2005, p.119).

Australia

The Remote Area Teacher Education Program (RATEP) is a community based teacher education program specifically designed for Aboriginal and Torres Strait Islander students (JCU, 2010). Entry to RATEP can occur through an OP score into four-year programs or through Technical and Further Education (TAFE) qualifications (Diploma of Education) into a three-year program (JCU, 2010). RATEP enabled students to study within their own communities, with 23 sites available for study within Queensland (York & Henderson, 2003). The reasoning behind teacher education of Indigenous students within their communities was described in these terms:

The nature of large on-campus urban institutions militates strongly against tertiary success for Indigenous students who maintain many of their traditional customs, live in small remote communities, ranging from 200 to 1500 people, few of whom are transitory non-Indigenous people, and have limited experience of the world beyond. Relying heavily on family, kinship groupings, and community networks for support, they maintain strong reciprocal kinship responsibilities and obligations within these systems (York & Henderson, 2001, p. 137–138).

The inter-systemic management structure of RATEP enables collaboration between a majority of Indigenous representation in the management community, representatives from Education Queensland, James Cook University (JCU) School of Education and TAFE (York & Henderson, 2003). RATEP was described as a 'three-way conversation between the Indigenous, non-Indigenous, and Western academic cultures' (York & Henderson, 2001, p. 142). On-site tutors, lecturers, workshops and ICT such as email and teleconferencing enabled the provision of RATEP (JCU, 2010; York & Henderson, 2001; York & Henderson, 2003). RATEP was considered a learner-centred rather than teacher-centred approach (York & Henderson, 2001; York & Henderson, 2003). The majority of RATEP students were found to speak 'traditional Torres Strait language, Torres Strait Creole, an Aboriginal language, or Aboriginal Kriol as their first language: standard Australian English is their second, third and, sometimes, fourth language' (York & Henderson, 2001, p. 139). The beliefs (ideologies) underpinning the RATEP program were described in these terms:

RATEP was conceived as a program that would seek to redress issues of geographical remoteness, racial discrimination, economic exploitation, educational marginalisation, linguistic plurality, land alienation, and enforced dependency of the Indigenous communities. It was driven by the concepts of social justice, culturally contextualised education, empowerment, and use of information technologies. The special components of the RATEP program that have contributed ... include: multi-systemic collaboration, mode of delivery, graduation rate, multiple cultural contextualisation, and student satisfaction (York & Henderson, 2001, p. 139).

The success of RATEP is reflected in its ability to generate graduates who showed a high retention in the teaching profession (85 per cent) and were promoted to principals, school administration officers, and advisory teachers to Indigenous and non-Indigenous teachers (York & Henderson, 2003, p. 82). RATEP graduates represented over a quarter of the registered Indigenous teachers in Queensland (York & Henderson, 2003, p. 82). Previous students described the RATEP program in these terms:

Years ago, when doing a degree on-campus and living in an urban setting, I dropped out because of alienation, social isolation, and cultural estrangement. In studying for a Bachelor of Education (Honours) at James Cook University RATEP campus at the Yarrabah Aboriginal Community, I have been able to experience success. It eliminated any feelings of alienation that I may have experienced if I were doing this course in a non-Indigenous setting (York & Henderson, 2003, p. 82).

... a far-sighted seeding program, whereby Indigenous students end up as teachers in their own [and urban] communities to serve as educators and role models to the generation to come (Van Tiggelen, 1996, p.1 as cited by York & Henderson, 2003, p. 83).

The potential of Queensland to set the benchmark

On the basis of the limited review of research, policy and practice summarised above, it seems that ensuring success for Indigenous students in different national settings is a challenge that has not been successfully addressed in any nation. A possible exception is Finland and initial teacher education for those who will teach Saami (Lapp) students. It may be that benchmarks will need to be developed in the next stage of the review on the basis of highly effective or promising practice in Queensland.

Predictors of success at university

The relationship between prior educational attainment and subsequent success in universities is an issue in any review of teacher education, given the often-expressed concern that some students are admitted to university programs with relatively low levels of achievement at the end of secondary school. There is no research on the relationship for teacher education but a limited amount of a general nature. The studies reported here are from the United States and Australia.

United States

High school grades were found to be predictive of performance at university in the United States (Atkinson & Geiser, 2009; Geiser, 2008; Harackiewicz et al., 2002). The studies summarised by Geiser (2008) involved almost 125,000 students whose enrolment at the University of California, spanned 1996 to 2001 (Geiser with Studley, 2003; Geiser and Santelices, 2007 as cited by Geiser, 2008). The use of high school Grade Point Average (GPA) for admission to university was seen to show the 'least adverse effect on admission of poor and minority applicants' as it was thought to be more representative of student ability as it involved 'repeated sampling of student performance over several years' (Geiser, 2008, p. 2).

Prior high school performance was predictive of academic performance for 422 students in a psychology course in a US university (Harackiewicz et al., 2002). The high school percentile (defined as students' GPA compared with their graduating class) was significantly correlated to final grade, semester GPA and subsequent GPA (Harackiewicz et al., 2002). These studies indicate the predictive role that high school grades play in the determination of success at university.

Although the relationship between school grades and performance at university was well established, the most prolific test used for university entrance in America is the Scholastic Aptitude Test (SAT). The SAT Reasoning Test was designed to determine 'students' level of critical thinking skills' (James, Bexley & Shearer 2009, p. 32). In a study that examined over 140,000 students, in 106 universities, SAT scores were related to retention into a second year of university (Mattern & Patterson, 2009). Mattern and Patterson (2009) found that 95 per cent of students with the highest SAT scores resumed their studies in the second year in comparison to 64 per cent of students with the lowest SAT scores.

Australia (Victoria)

The strongest influence on university course completion in Victoria is the students' Year 12 Equivalent National Tertiary Education Rank (ENTER) score (Marks, 2007). ENTER scores are calculated from Victorian Certificate of Education (VCE) scores (James, Bexley & Shearer, 2009). Marks (2007) analysed longitudinal data for over 22,000 students who were in Year 9 in 1995, and entered university in the years from 1998 to 2001. The study investigated the predictive nature of ENTER score, school sector, gender, language background, Indigenous status, parental employment and educational level on completion of university (Marks, 2007).

An increase in ENTER score resulted in an increase in the odds of course completion as shown in Table 4.10. The increased odds of completion of the university course did not show significant variability across all fields of study including education (Marks, 2007).

Table 4.10: Odds of university completion in Victoria in relationship to ENTER score (Marks, 2007)

ENTER score	Odds of course completion
+10	1.5
+20	2.4
+30	3.6

Marks (2007) summarised the implications of his findings:

Completion rates are very high among those with high ENTER scores and much lower among students with ENTER scores below 70. The strong influence of ENTER score is presumably due to higher ability students being more able to cope with the academic demands of university study. Students with lower ENTER scores, on the other hand, are more likely to struggle. However, it needs to be pointed out that about three-quarters of students with ENTER scores below 70 had completed their course by 2004, so a low ENTER score does not necessarily mean non-completion. An important implication of this finding is that further expansion of university participation could increase course non-completion if expansion meant more students with lower ENTER scores. (Marks, 2007, p. 28)

ENTER scores were the dominant criterion for tertiary selection, with an estimated 75 per cent of offers of placement at university based predominately on ENTER (James, Bexley & Shearer, 2009). In 2009 the acronym ENTER was changed to Australian Tertiary Admission RANK (ATAR) (James, Bexley & Shearer, 2009) which is calculated in an identical manner to ENTER (VTAC, 2010).

Benchmarks

The purpose of this section of the chapter is to describe the practices that ought to be evident in any system of education that reflect what has been shown to be effective, or is proposed on the basis of evidence, in national and international settings. These serve as benchmarks against which current practice can be assessed. It is important to acknowledge that these benchmarks do not reflect judgements on the current state of affairs in Queensland. Chapter 5 contains a summary of current approaches in Queensland with brief commentary on the extent to which they are consistent with the benchmarks set out below.

It is difficult to provide benchmarks in some areas, especially in respect to professional teaching standards and programs for the preparation of teachers who will work with Indigenous students. For the former, there is an absence of evidence of impact of different approaches to specifying and

utilising standards, even though there may be a deep commitment to high quality teaching. For the latter, there is little evidence on which to base judgement on what constitutes 'highly effective practice'. Ensuring success for Indigenous students in different national settings is a challenge that had not been successfully addressed in any nation, given evidence available at this time. A possible exception is Finland and initial teacher education for those who will teach Saami (Lapp) students. It may be that benchmarks will need to be developed on the basis of highly effective or promising practice in Queensland.

The benchmarks reflect practice that has been confirmed through independent assessment as highly effective, as in Finland, or has been consistently proposed in almost every review of teacher education in recent years and there is early assessment of small-scale success, as in the United States.

1. There are high academic standards for entry to pre-service programs. Practice in which students with minimal entry standards to university are accepted is abandoned
2. In addition to higher levels of academic achievement than has traditionally been the case, all who seek entry to teacher education are interviewed and undertake tests or in other ways demonstrate capacity and readiness to pursue a career in teaching
3. Greater weight than has traditionally been the case is given in entry-level selection to prior achievement in science and mathematics
4. A minimum of five years of pre-service education at university level is a requirement for entry to the profession. There are different strands for the preparation of early years, primary and secondary teaching
5. All students undertake at least one subject that builds capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up
6. All students undertake at least one subject that builds capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students
7. Every university that offers pre-service teacher education has a clinical partnership with one or more schools that are the education equivalent of teaching hospitals. There is common understanding of what constitutes highly effective practice in universities and schools in these different settings and there is a seamless integration of the work of staff in the two settings
8. Staff based in partner schools are exemplary teachers who receive special training for their roles
9. Clinical partnerships between universities and schools extend to the provision of professional development programs for teachers thus, in this respect, they provide a more or less seamless integration of knowledge transfer in initial teacher education and ongoing professional development
10. All students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community
11. All students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues, including classroom management and support for those with learning difficulties

12. Induction is a process that commences from the time a student enters a pre-service program and continues for at least a year after he or she enters the profession
13. Teachers entering the profession have a reduced teaching load for at least the first year of their employment
14. Teachers entering the profession have at least one trained mentor for at least the first year of their employment. Mentors have a reduced class allocation to enable them to work with those they are mentoring
15. Mentors are exemplary teachers who receive special training for their roles
16. All students who will be involved in teaching literacy undertake studies in evidence-based approaches that give substantial weight to explicit teaching
17. All students preparing to teach in secondary schools shall undertake discipline-based studies in faculties or schools other than faculties or schools of education. All students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school
18. Professional teaching standards are expressed in parsimonious lists of statements that are jargon-free and capable of reliable evidence-based assessment

Worth watching

The draft interim report considered by the Reference Group on July 6 included the following, which was deleted in the final list of 20 set out above: 'Longitudinal value-added student achievement data for students taught by graduates are included in the body of evidence that is collected to assess the impact of teacher education programs'. It was deleted because, while it had been proposed in some reviews in the United States, no accounts of implementation had been located. However, a proposal along these lines has been recently endorsed by the National Council for the Accreditation of Teacher Education (NCATE) in the United States and it is possible that it may be included in future frameworks for accreditation. Furthermore, there is consensus across the major political parties in Australia for implementation of schemes for the reward of teachers on the basis of value-added measures of student achievement. Should such schemes be implemented, it is relatively easy to relate these value-added measures for each teacher to the institution where they completed their teacher education. These might provide over time a measure of the relative effectiveness of different teacher education programs. This is a hypothetical possibility but it suggests that a watching brief be kept on developments.

Chapter 5

Current approaches in Queensland

Chapter 5 contains an overview of current approaches to teacher education and school induction in Queensland. Major features of these programs as described in submissions are presented (excerpts are drawn directly from submissions in most instances). The findings of a survey of graduate and their principals conducted in early 2010 are also reported. Related themes from interviews are summarised.

Australian Catholic University (ACU)

The Australian Catholic University has five campuses operating in three states and one in the Australian Capital Territory. The Faculty of Education is the University's largest, and Australia's second largest Faculty of Education with more than 7,000 students and over 190 staff in 2010, operating on five of the University's six campuses. The Faculty Office and Dean are located in Melbourne. The Faculty is structured into six Schools including the School of Education (QLD)

Programs

- Bachelor of Education (Primary) (four years)
- Bachelor of Education (Early Childhood and Primary) (four years)
- Bachelor of Education (Early Childhood and Primary) (Indigenous Education) (two years after successful completion of Diploma in Aboriginal and Torres Strait Islander Studies)
- Graduate Diploma in Education (Secondary) (one year)
- Bachelor of Teaching / Bachelor of Arts (four years)
- Master of Teaching (Primary) (two years)
- Master of Teaching (Secondary) (two years)

Features

The ACU submission contained a detailed description of its current programs as listed above, focusing on (1) discipline knowledge and evidence-based pedagogy, (2) professional learning units, (3) induction into the teaching profession, and (4) continuous feedback between school systems and the ACU and links with the profession.

Two features were considered to be unique. The first, in the Professional Experience Program for preservice primary teachers, is the online Teaching Resources and Collaborative Communication (OnTRACC) program, the purpose of which is to provide innovative quality support to pre-service teachers by establishing an online community that scaffolded their learning and begins the process of induction into the profession of practising classroom teachers. The second is the Community Engagement Experience, conducted in a community setting in a voluntary capacity. It is designed to be a 'transformative' experience. Students engage in learning activities that foster lifelong learning and active citizenship by establishing linkages between school, the world of work and the broader community beyond school environments.

ACU offers a one-year induction to the profession which it offered as a model in the recommendations to the review summarised in Chapter 6. It is described in the submission in the following terms:

For students enrolled in the pre-service teacher education programs, induction is a one-year process aimed at assisting them make the transition from pre-service student to beginning teacher. This is achieved via a two-step process. In Semester 1 there is an emphasis on

tying together theoretical learnings from their pre-service studies and preparing for the profession. This is both a mental and physical adjustment for students to undertake. Throughout their studies they have been thoroughly trained in the theoretical knowledge of teaching and learning and have focused on the development of their pedagogy. This has been an ongoing process of reflection and adjustment, particularly after each Professional Experience Placement (PEP). All of these learnings and experiences are then tied together in Semester 1, which is designed to be a sense-making experience for students about the journey they have undertaken. The core of this semester is to help students make that important leap from perceiving themselves as students, to understanding that they are beginning teachers at the start of their professional career. In Semester 2 the focus is more of an emphasis upon on reflective practice and initiation into the profession. Students engage in a structured reflective process prior to undertaking either an Internship, where they assume a fifty percent workload of a classroom teacher, or an action research project where they attempt to solve a classroom-based problem.

Central Queensland University (CQU)

Programs

- Bachelor of Learning Management (Early Childhood, Primary, Middle School, Secondary, Japanese) (four years)
- Bachelor of Learning Management (Secondary and VET) (four years with advanced standing possible with VET qualification)
- Graduate Diploma of Learning and Teaching (Primary, Secondary) (one year)

Features

Several features of programs offered at Central Queensland University were described in its submission.

- The practicum for the Bachelor of Learning Management (BLM) and Graduate Diploma of Learning and Teaching (GDLT) is referred to as Embedded Professional Learning (EPL). The following are some of its major features:
 - (a) It is based on a Teaching School Model that simultaneously emphasises the professional partnership between schools (including early childhood learning centres, preschools, primary and secondary schools and TAFE) and the university, and offers supported opportunities for students to translate theory into practice.
 - (b) The Teaching School Model acknowledges that in teacher education, many people contribute to learning.
 - (c) Students are placed in a mentoring relationship over extended periods each year.
 - (d) Strong university and school partnerships allow for practising teachers to be employed as tutors to deliver coursework.
 - (e) Students' final placement culminates in an internship. Interns will have QCT Internship Authorisation, permitting them to take full responsibility for learners at times allocated by their mentor or site coordinator. Interns exercise independence and autonomy in planning and managing the learning of the cohort for 50% of class time, while working in collaboration with the mentor for the remainder of the internship period. The internship enables consolidation of learning and demonstration of the Professional Standards for Queensland Teachers (Graduate Level).

- Knowledge of literacy theory, content and pedagogy is explicitly taught in a sequence of four (4) courses in the BLM Primary and Early Childhood programs. A strong foundation of personal competence in knowledge about language and texts is established in the first year of the program to provide a basis for understanding the nature of socio-cultural theories of literacy and instructional frameworks and curriculum approaches to literacy pedagogy for the range of diverse groups of learners in Queensland schools.
- Teaching reading explicitly addresses literacy for Indigenous and ESL learners through developing an understanding of the language, social and cultural needs specific to these groups.
- Classroom management is a key focus of the Embedded Professional Learning (EPL) curriculum that prepares BLM students for professional practice in schools. The program draws on preventive approaches to classroom management that primarily focus on the features and actions of the teacher in creating safe supportive learning environments as a fundamental responsibility. Strategies for preventive and corrective behaviour management and conflict resolution skills are learnt in conjunction with communication and organisational skills for teaching, and are structured in accordance with the expectations for teaching practice at a particular level of the program.
- Those preparing to be Early Childhood Learning Managers complete the full range of core Primary courses that cover the KLAs in the primary curriculum. Learning Managers are therefore well equipped to teach in the Primary and EC sectors.
- A feature of the governance of teacher education programs is the existence of local Advisory Committees at each of six sites. Representatives from each local committee come together in the overall Governance Committee. These committees comprise industry representatives of all levels and sectors of education.
- The inclusion of a compulsory internship immediately following the final practicum placement in both undergraduate and graduate diploma education programs provides opportunities for final year students to ease the transition from the university to the school. For each of the undergraduate programs this will mean that students are placed in schools for the whole of the final term of their study. The internship agreement allows them to teach unsupervised, for up to 50 percent of this time.

Christian Heritage College (CHC)

No submission was received from Christian Heritage College (CHC). The Queensland College of Teachers advised that the following programs are offered at CHC:

- Bachelor of Education (Primary-Early Years, Primary-Middle Years, Secondary-Middle Years) (four years)
- Bachelor of Education (Secondary-Middle Years) (Graduate Entry) (two years)
- Bachelor of Arts and Bachelor of Education (Primary-Early Years, Primary-Middle Years, Secondary-Middle Years) (Combined degree) (four years)
- Graduate Diploma (Primary, Secondary) (one year) (under consideration)

Griffith University (GU)

Programs

Griffith currently offers eleven programs or courses. There are six four-year bachelors degrees:

- Bachelor of Education (Primary)
- Bachelor of Education (Secondary)
- Bachelor of Education (Special Education)
- Bachelor of Technology Education
- Bachelor of Adult and Vocational Education

There are three double degrees with 4, 4.5 or 5 year options:

- Bachelor of Arts / Bachelor of Education (Secondary)
- Bachelor of Arts (Language and Linguistics) / Bachelor of Education (Secondary)
- Bachelor of Science / Bachelor of Education (Secondary)

There are two one-year graduate diplomas:

- Graduate Diploma in Education (with specialisations in Primary, Secondary, Middle Years)
- Graduate Diploma of Early Childhood Education

There is a Master of Teaching with Primary and Secondary streams for overseas students only.

Griffith is currently developing a Master of Teaching (Professional Practice) (Primary) and a Master of Teaching (Professional Practice) (Secondary) as described below.

Features

The submission of Griffith University included examples of effective or best practice in its Faculty of Education. These included:

1. Regular systematic review and improvement as part of the Queensland College of Teachers Cycle but specifically using Griffith's Annual Program Review and Improvement Reports.
2. Strong partnerships with Industry Advisory Groups, supporting student placements in schools across Australia and internationally as well as in Queensland
3. The use of federal funds in the Improving the Practical Component of Teacher Education (IPCTE)
4. Inclusion of 'compulsory, final semester, capstone, signature experience internships' which match students with mentors who support the former as they become 'co-teachers'
5. All students undertake studies that involve 'internationalisation', with international placements arranged for international students

Griffith is developing a Master of Teaching (Professional Practice) (Primary) and a Master of Teaching (Professional Practice) (Secondary) with the following characteristics:

- A two-year program offered in intensive mode to enable completion in 1.5 years.
- Participants will be expected to be high performing undergraduate students who have completed a minimum of a three-year non-education undergraduate degree
- The model of induction, scheduled to commence in the second year of the program, is a partnership between the school mentor, a dedicated university staff member and the Griffith beginning teacher. Central to the induction is action research, which will take place in parallel

to the induction placement. The action research to be undertaken has three mandatory elements in literacy in the curriculum, with an explicit focus on the teaching of reading, numeracy in the curriculum using, and interpreting assessment data to improve learning and teaching

- Induction is intended to help the student become a member of the school community in the second year of the program. Griffith staff will deliver the academic parts of the program in the school.
- The culminating element of the Master of Teaching (Professional Practice) is a showcase conference in which learning from the action research will be shared with the school, sector members and the wider community as appropriate.

This program is to be offered to graduates with a high Grade Point Average. The selection process will involve interviews. The aim is to attract high performing graduates to the teaching profession and to ensure that research, policy and practice are all brought to bear in the co-production of the next generation of teachers.

James Cook University (JCU)

Programs

Bachelor of Education (four years)

- Graduate Diploma in Education (Primary, Secondary, Years 1-9) (one year)
- Master of Teaching (two years)

Joint degrees (4.5 – 5 years)

- Bachelor of Science, Bachelor of Arts, Bachelor of Sport and Exercise Science, Bachelor of Languages, Bachelor of Psychology with Bachelor of Education

Queensland University of Technology (QUT)

Programs

- Bachelor of Education (Early Childhood, Primary, Secondary) (four years)
- Bachelor of Education (Pre-service Early Childhood) (2.5 years)

Combined degrees (all four years)

- Bachelor of Arts, Bachelor of Arts (LOTE), Bachelor of Applied Science (Human Movement Studies) with Bachelor of Education (Secondary)
- Bachelor of Arts, Bachelor of Applied Science with Bachelor of Education (Primary)
- Bachelor of Arts (LOTE) with Bachelor of Education (Early Childhood)

Graduate Diploma in Education (Early Years, Primary, Middle Years, Junior Years, Senior Years)

Features

Most of the submission of the Queensland University of Technology (QUT) was devoted to a description of innovative programs, as summarised below.

- Students preparing to become primary, middle years or secondary teachers through the four-year Bachelor of Education undertake a mix of teacher education units of study through the Faculty of Education and discipline units through other faculties. For example, an

undergraduate secondary Mathematics pre-service student will study Mathematics through the Faculty of Science and Information Technology. Primary and middle years pre-service students undertake discipline studies relevant to their areas of teaching through the Faculty of Creative Industries (for example, dance, drama, music, visual arts) or the Faculty of Health (human movement).

- Evidence-based approaches to professional practice are embedded in pre-service courses, particularly in relation to current, high-stakes testing in literacy and numeracy and QCS. The assessment cycle (learning-assessment-interpretation-learning) is taught throughout the pre-service education program at QUT. All fourth-year primary students engage in a unit (25% of a full-time student's semester of study) which focuses on the use of educational data to improve students' learning. They exit the university with the skills to locate, analyse and use educational data that is generated from the testing program. The submission noted that QUT and the University of Melbourne are the only universities in Australia to teach data analysis and its use for learning improvement in a systematic way to pre-service teachers.
- A premise of the Graduate Schools Project (GSP) is that students in a one-year Grad Dip of Education course will benefit from access to a community of practice. The GSP commenced in 2006 with a small number of students but is now the main mode for all Early Childhood Graduate Diploma students studying full-time and on campus. Approximately sixty students per year participate in this program.
- The QUTe@Redcliffe program enables senior secondary students from disadvantaged schools in Queensland to commence teacher education degrees while completing secondary school studies. Introduced in mid 2008, *QUTe@* involves collaboration between the Queensland University of Technology and Queensland's Bays Cluster of State High Schools. Current participating schools are Redcliffe SHS, Deception Bay SHS, Clontarf SHS, Sandgate District SHS, and North Lakes College.
- The Teacher Education Done Differently (TEDD) project was awarded to QUT's Faculty of Education at the end of 2008. Funding was received from the Diversity and Structural Adjustment Fund 2008-2011 provided by the Department of Education, Employment and Workplace Relations (DEEWR). Based at QUT's Caboolture campus, the project aims to integrate school-based learning into the Bachelor of Education degree (QUT Caboolture campus) and the Teacher's Aide Certificate III (Brisbane North Institute of TAFE) and to co-design a Mentoring for Effective Teaching (MET) professional development module for existing teachers to better support and mentor education students.
- The Exceptional Teachers for Disadvantaged Settings project which commenced in Semester 2 2010 is funded by QUT's Faculty of Education, the Division of Administrative Services (Equity Services), and external partners Morayfield State School, ATSI Independent School, Abused Child Trust for Kids. The project addresses the significant social issue of educational disadvantage through a new cohort model of Work Integrated Learning (WIL) placement that ensures the best-suited pre-service teachers are equipped to teach and encouraged to select employment in disadvantaged schools. The project involves customised curriculum, active mentoring and WIL placements in identified school locations across urban and regional locations. Second-year students enrolled in the Bachelor of Education are selected for this project on criteria that include GPA at the end of first year, personal attributes and practical application of knowledge, and interest in teaching in a complex school.

The University of Queensland (UQ)

Programs

- Bachelor of Education (Primary, Middle Years of Schooling) (four years)
- Graduate Diploma (Secondary, Middle Years of Schooling) (one year)

Dual degrees

- Bachelor of Arts, Bachelor of Business Management, Bachelor of Human Movement Studies, Bachelor of Commerce, Bachelor of Music with Bachelor of Education (Secondary, Middle Years) (four years)

Features

Several features of programs offered at the University of Queensland were described in its submission. These concerned the practicum (professional experience), assessment and behaviour management. The following is a summary.

Professional experience

The following principles and practices characterise the UQ approach to professional experience:

- Integrated with institutional-based learning
- A shared responsibility between professional experience sites and teacher education institution
- At-risk process
- Collaborative inquiry in diverse learning contexts
- Developmental continuum. An internship is included in the professional experiences for the pre-service teachers in the Middle Years of Schooling program. During the internship phase, the pre-service teacher is encouraged to accept the role of a teacher with support being provided by consultation outside the narrow classroom setting.
- On-going innovation
- The new Bachelor of Education (Primary) and Bachelor of Education (Middle Years of Schooling) programs have opened opportunities for the continuous development of pre-service teachers
- A professional experience course in the third year of the Bachelor of Education (Secondary) dual degree programs will be introduced from 2011
- Internationalisation
- Support for NESB students
- In the School of Human Movement Studies (HMS), the on-campus teacher education program develops knowledge and skills in curriculum planning, pedagogical practices, and evaluation of teaching and learning primarily within the fields of school health education, physical education and science
- In addition to block practicums in third and fourth years, from the second year onwards, students undertake practical experiences in a range of courses e.g. peer teaching, teaching people with disabilities, teaching on outdoor education camps, involvement with schools on special projects and sports activities.
- As with their colleagues in the School of Education, the HMS education staff maintain strong, productive relationships with various government agencies, school sectors and community groups as a point of service to the education community and to ensure that pre-service teachers have access to field expertise and the most up-to-date policy and curricular information.

Assessment

Pre-service teachers are taught general and curriculum specific assessment approaches in the context of their curriculum studies areas. They are introduced to the QCAR framework, to specific strategies such as QCATS, and to diagnostic, formative and summative assessment procedures.

Behaviour Management

Pre-service teachers are taught general and specific behaviour management strategies in on-campus skills courses that culminate in extended professional practice in schools and in on-campus pedagogy courses that link teaching and learning strategies to classroom management models and techniques.

University of Southern Queensland (USQ)

Programs

- Bachelor of Education (Early Childhood, Primary, Secondary, Special Education, Technical and Vocational Education) (four years)
- Graduate Diploma in Learning and Teaching (Early Years, Primary, Middle Years, Secondary, Vocational Education and Training) (one year)

Features

Issues identified by the University of Southern Queensland were highlighted in Chapter 3. These included a rejection of a 'one-size-fits-all' approach across the state and the importance of responding to or anticipating trends and trajectories in learning and teaching. Its submission described a feature that responds to these issues.

Given the diversity in both programs and student profile, the Faculty of Education has developed a flexible and innovative suite of programs offered on campus which includes access to on campus offerings at Fraser Coast and Springfield campuses as well as in Toowoomba. These programs are also available through distance education and web-based courses and, for the first time in 2010, a student can prepare for teaching through a program offered wholly on line.

University of the Sunshine Coast (USC)

Programs

- Bachelor of Education (Primary) (four years)
- Graduate Diploma in Education (one year)
- Bachelor of Education (Early Childhood) / Bachelor of Human Services (four years)
- Bachelor of Education (Senior and Middle Phase) with Bachelor of Arts / Bachelor of Business / Bachelor Science (four years)

Department of Education and Training (DET)

The Department of Education (DET) identified several promising practices among programs offered in Queensland universities:

- In 2008, James Cook University trialled a 'review of candidature' process within the Graduate Diploma of Education program to ensure that entrants into the program are inducted into the 'expectations' of the profession. The review process, completed prior to enrolment census date, actively engaged pre-service teachers in conversations about their candidature within a teacher education program, enabling a dialogue around expectations for entrants to the teaching profession. It also provided students with an opportunity to self-identify or be counselled about their suitability to become a teacher.
- DET has supported a Queensland University of Technology initiative, called *QUTeach*, which is an equity-focused initiative introduced in mid-2008 to years 11 and 12 students attending the Bays Cluster of State High Schools. The program provides opportunities for students to commence first year tertiary level pre-service teacher education courses in a supportive environment. Students who successfully complete the program are granted automatic entry into a degree program at QUT, with advanced standing.
- The Queensland University of Technology is currently piloting a program called *Exceptional Teachers for Disadvantaged Settings*, which aims to address the significant social issue of educational disadvantage through a cohort model of professional experience that will identify suitable pre-service teachers and equip them to teach in schools in low SES communities. The program includes a selection process to identify high achieving pre-service teachers and provide them with targeted professional experiences; customised curriculum and active mentoring within identified disadvantaged schools.
- The *Flying Start* Induction Toolkit forms part of DET's overall induction strategy, as part of the *2010-14 Workforce Strategic Plan*. It is provided to all permanently-appointed beginning teachers and temporary teachers with contracts longer than one term. All other beginning, returning and supply teachers and their mentors are also encouraged to download the resource from the department's website.

Queensland Catholic Education Commission (QCEC)

The submission of the Queensland Catholic Education Commission (QCEC) described several promising practices in the different dioceses. The following are illustrative.

- The Brisbane Diocese has a tutoring scheme for pre-service teachers involving experienced, accomplished and leading teachers working with higher education partners. A mentor training program identifies and trains 40 local and non-local personnel, accomplished and leading teachers, and Indigenous teachers to act as mentor trainers.
- The Cairns Diocese supports the recruitment and employment of Indigenous teachers by offering five scholarships for school leavers / mid career entrants to commence teacher training. It also identifies and trains 26 (one mentor for each school) local and non-local personnel, accomplished and leading teachers, and Indigenous teachers to act as mentor trainers.
- The Rockhampton Diocese has developed a mentor program by identifying and training local and non-local personnel, accomplished and leading teachers, and Indigenous teachers to act as mentor trainers. It has a mentoring and networking program for 60 first and second year teachers and delivers 60 induction programs to graduates and newly appointed teachers.

- The Townsville Diocese has identified and trained 24 local and non-local personnel, accomplished and leading teachers, and Indigenous teachers to act as mentor trainers. It has expanded its curriculum leadership team to 24 whose roles include the support of early career teachers in the teaching and learning process. Ten mentors offer mentoring and networking program for first and second year teachers. Two induction programs (one urban, one rural) provide graduates and newly appointed teachers with a comprehensive induction to teaching.

Independent Schools Queensland (ISQ)

The submission of Independent Schools Queensland (ISQ) encouraged the review to consider several initiatives / promising practices in the independent sector. One was funded as a National Partnership (Improving Teacher Quality). It seeks to provide high quality field experiences for pre-service teachers and build a clinical approach to teacher education programs through a range of partnerships, including Pilot Centres of Excellence in pre-service teaching. Participating schools include Cannon Hill Anglican College, Brisbane Girls Grammar School, Trinity Lutheran College and Forest Lake College.

A second initiative is a professional learning program conducted by ISQ which targets graduate teachers in their first three years of practice. It seeks to make explicit 'the skills, knowledge and practice of effective educators' and to build on the 'commitment and interpersonal attributes' with which they begin their career. The program involves workshops, which include master class presentations and school-based programs developed by individual schools. Traditional and innovative pedagogies are employed.

Survey of graduates and their principals

There was immediate action in respect to one intention in the Green Paper:

There will be an ongoing survey of teacher graduates to find out how well their university courses and placements as student teachers in schools prepared them for the practical demands of teaching. As well, a survey will be undertaken by principals from schools that take the teacher graduates in the first year to see how well prepared they are.

The survey was conducted in early 2010. The following are drawn from the report to the Queensland College of Teachers by Insight SRC that conducted the two surveys (Queensland College of Teachers, 2010).

Sampling and structure

Samples were drawn from those who graduated at the end of 2008 and were registered and employed in schools, along with principals of schools in which these graduates were currently employed. Each principal was requested to consider one such graduate. There were 1,215 graduates in the sample but responses were received from matching pairs of principals and graduates in only 40 schools, so that no school-by-school analysis was undertaken. Overall, there was a low response rate, with 9.51 per cent from graduates and 15.43 per cent from principals (adjusted to take account of 'bounce backs' in these online surveys). Insight SRC believes that these rates of return were sufficient:

Nevertheless, the level of participation is likely to yield results which are indicative of graduates and principals more generally. This is based on the premise that a 5% sample will yield accurate results in most circumstances. This also assumes that whether the participant chose to participate or not was a random event. (Queensland College of Teachers, 2010, p. 7)

The graduate survey included questions on attitude towards the program they undertook, preparedness for teaching (teaching practice, classroom management, professional responsibilities and relationships, literacy and numeracy, assessment practice, and knowledge of assessment), teaching science, induction and internship, wellbeing (job satisfaction, individual morale, individual distress), practical experience (quality), and practical experience (clarity and feedback).

The principal survey included questions which assessed their views on (their) attitude towards the pre-service teacher education undertaken by the graduate in their school, preparedness for teaching (teaching practice, classroom management, professional responsibilities and partnerships, literacy and numeracy, assessment practice, and knowledge of assessment), teaching science, and graduates' transitions from program (course) to teaching.

Summary of findings

Structural equation modelling was undertaken to investigate the relationship among factors identified in a factor analysis of responses. The following are important features of the Graduate Model, based on the responses of graduates:

- The main factor which contributed to attitude towards the preparation program was preparedness for teaching
- Preparedness for teaching also had a direct influence on wellbeing and preparedness for teaching science
- Practical experience had a direct influence on preparedness for teaching and how graduates felt about induction

In the Principal Model, based on the responses of principals, the main factor that contributed to their overall attitude towards the program undertaken by graduates employed in their schools was preparedness for teaching, which also contributed to their assessment of transition from education to employment.

The following is a summary of some of the major findings that are especially relevant in this review:

- There were differences in ratings of graduates and principals when analysed according to the pre-service program: four-year undergraduate or one-year graduate but these were not statistically different in most instances.
- Graduates who undertook the four-year program tended to be more positive than those who completed the one-year program, especially for teaching practice, classroom management, professional responsibilities and relationships, and teaching science. Principals tended to rate the one-year experience higher than the four-year experience especially for classroom management.
- Graduates in primary schools tended to rate the one-year program more positively than those who completed the four-year program with the exception of individual morale and practical experience. Graduates in secondary schools tended to rate the four-year program more positively than those who completed the one-year program on most elements although those in the one-year reported higher job satisfaction, morale and level of stress.
- The scores of graduates on the wellbeing element of the survey were benchmarked against scores in 'all' Insight SCC surveys across Australia and in surveys of 'other' teachers with less than two years of experience in their schools. Compared to 'all', graduates in the survey tended to have higher job satisfaction, higher morale and similar levels of stress. Compared to the 'other' teachers, they tended to have lower satisfaction, lower morale and higher levels of stress.

- Graduates responded to 9 items about induction. They provided ratings on a scale from 1 (not at all valuable) to 7 (extremely valuable). The modal rating was 7 for each item, indicating a very positive view about the experience.

Discussion

Insight SRC noted several ways in which surveys could be improved in the future including earlier contact with graduates, inclusion of measures of school climate, and evidence of performance in pre-service course results, entry scores at university and performance at the school once employed.

The direct links between practical experience (clarify and feedback), practical experience (quality), preparedness for teaching, and attitudes towards preparation programs are noteworthy, as are the very positive ratings of the induction experience. The ratings of induction are at odds with concerns about the experience reported in interviews summarised in Chapter 3.

Themes in interviews with stakeholders

The review leaders held interviews and conducted consultations with a range of individuals and stakeholder groups as listed in Appendix 4. A template was developed to provide a framework for identifying issues (Table 3.9 in Chapter 3), describing current approaches (Table 5.1 below) and making proposals for change (Table 6.1 in Chapter 6). Interviews and consultations were recorded and transcribed. Responses summarised in Chapters 3, 5 and 6 are not verbatim statements that can be attributed. They serve to guide the preparation of the First Report. Table 5.1 summarises themes among comments on current programs as described by participants during interviews. The first column includes a statement from a respondent that captures either a common theme among the responses and/or a challenge to be taken up in the operation of current programs.

Table 5.1: Themes among comments on current programs as described by participants in interviews

Area of interest	Themes
Pre-Service 'Partnerships are where we enter into a business arrangement that's not exactly what we want, it's not exactly what they want, but it's in the middle. At the moment this is not happening with the universities.'	<ul style="list-style-type: none"> • There exists a degree of satisfaction with the quality of graduates in those instances where there are strong partnerships between the universities and the schools and where attention has been paid to the evidence that the number of days spent in professional experience is critical.

Area of interest	Themes
<p>Beginning teachers</p> <p>'I would prefer to see that energy and that time being focused on looking for resources or doing professional reading They're so focused on "if I get don't get these lesson plans right". But to have that expectation that that's what the real world of teaching is like is ridiculous because it's not.'</p>	<ul style="list-style-type: none"> • Part of the beginning teacher's skill set is managing the learning environment, and that means knowing each child's particular skills and needs, as well as having the capacity to address those skills and needs in supporting the child. • There was general agreement that those skills could only be learned in a practicum setting, not at the university, and that's one of the things that needs to be built into the practicum structure. • Of most benefit would be a partnership between employing authority and teacher preparation institute whereby high quality teachers help deliver the program in the institutions.
<p>Induction</p> <p>'Well it starts when I first hear about they're coming. And then we have a huge induction book about all relevant things. It's something we do every week. And they meet and gradually work through the entire school. There's a lot of learning to do.'</p>	<ul style="list-style-type: none"> • The question arises from interviewees as to who accepts the cost of induction – the employer or the preparer of the program? • It is felt that it is important for beginning teachers, from day one when they're alone with 25-28 pupils, to know how to engage with the parents, the community, the children, with ICTs, to become comfortable with behaviour management. A program of induction is critical because that point has not been reached yet. • There is a significant benefit from a partnership between employing authority and teacher preparation institute whereby high quality teachers help deliver the program in the institutions. • One view put forward was of a competitive tendering process where placement preference is given to the university that partners with the employing authority in developing and delivering a proper induction process
<p>Internship</p> <p>'And I found that it was really beneficial. It really helped.'</p>	<ul style="list-style-type: none"> • A considerable proportion of beginning and experienced teacher interviewees report that they believe internships to be of significant benefit in the preparation of teachers. • In some universities, internships have moved to project-based internships, or 'service learning'. • With the introduction of the one-year graduate diploma, it is very difficult to fit an internship into the time available. • Internships have been targeted to fill a need in the rural and remote vacancies this year.
<p>HR Planning</p> <p>'People think they are going to graduate and gain employment and there is a view that if you get that qualification that there will be employment for you.'</p>	<ul style="list-style-type: none"> • Scholarships could provide an answer to the shortage of manual arts and IDT teachers and other groups. • There is a lot of work being done in the attraction and retention of teachers with a particular focus in rural and remote.

Area of interest	Themes
<p>MUP</p> <p>'The question is, for me, under the present system, do we wash out the right ones?'</p>	<ul style="list-style-type: none"> • Interviewees feel that with universities now, students can remain virtually anonymous and invisible to university staff. There is mounting concern at the number who don't attend university and then attempt prac but fail it. • It is felt that there has to be a process where management of unsatisfactory performance is based on the internship model and the school will be the place where you're actually accredited to become a teacher. • Some supervising teachers believe that there's a lot more responsibility on them now to say, 'this person is fit', or 'this person isn't'.
<p>Science and Mathematics Education</p> <p>'I'm worried about the studies of maths and teachers not being able to teach maths. I've actually had to ban textbooks from the school. I'd go into classes and I'd never see a lesson being taught I'd only see them working in books.'</p>	<ul style="list-style-type: none"> • A STEM working party has been established at the request of the Minister to explore teacher quality for STEM teachers in Science, Technology. • There are currently targeted primary science programs in response to the Masters report. There are about 40 on scholarships this year and that will continue in the next couple of years.
<p>Indigenous Education</p> <p>'I believe our kids can leave here with academic outcomes that are comparable to any kid in Queensland, that they can leave with a really solid sense of what it means to be Aboriginal.'</p>	<ul style="list-style-type: none"> • Teachers in Indigenous communities need a 'Flying Start' type of induction. An orientation phase after 4th year university, then appointment, then a two-year induction phase around content and context. • QUT students all have a compulsory unit of Indigenous studies in their first year. There is a very close engagement with Oodgeroo unit and the Stronger Smarter Institute. • The graduate diploma course at QUT has a one-week induction to the program that covers Indigenous knowledge and is used as the starting point for the rest of the program. • There is an Indigenous studies minor available to students who don't need to be Indigenous to take it, although most of those who take that minor are Indigenous.
<p>ESL/TESOL</p> <p>'If you want access to the cultural capital of westernism, standard Australian English is the way into it.'</p>	<ul style="list-style-type: none"> • There is a general view that the use of children's first languages in schooling has been justified as a means by which students can be inducted into the use of English. • There is mounting evidence that there are more students who don't understand what's going on in the classroom than were previously thought.

General assessment of current practice in light of benchmarks

Table 5.2 contains a broad assessment on the extent to which teacher education and school induction in Queensland currently meets the benchmarks in Chapter 4. These benchmarks were derived from a review of policy and practice in other countries and states other than Queensland. The assessment is based on descriptions of current programs, including their major features, summarised in Chapter 5, and issues and opportunities reported in Chapter 3. The limitations of offering brief generalisations and broad assessments are acknowledged.

Table 5.2: Extent to which benchmarks are currently met in Queensland

Benchmark	Extent to which benchmark is currently met
1. There are high academic standards for entry to pre-service programs. Practice in which students with minimal entry standards to university are accepted is abandoned	As reported in Chapter 3, education tends to draw a disproportionately large number of students with low OP scores. While this does not apply in some universities, cut-off scores in the range 15-20 are evident for some programs
2. In addition to higher levels of academic achievement than has traditionally been the case, all who seek entry to teacher education are interviewed and undertake tests or in other ways demonstrate capacity and readiness to pursue a career in teaching	There were no instances reported of students being interviewed and there was only one instance where a test of capacity for teaching is required (capacity to perform for students entering music in a double degree)
3. Greater weight than has traditionally been the case is given in entry-level selection to prior achievement in science and mathematics	There are currently no requirements for prior achievement in mathematics and science
4. A minimum of five years of pre-service education at university level is a requirement for entry to the profession. There are different strands for the preparation of early years, primary and secondary teaching	A small number of five-year programs have been introduced, being two-year masters following successful completion of a three-year bachelor degree. Double or combined degrees are normally of four years duration. Most students complete a four-year bachelor of education or a one-year graduate diploma. Most degrees are specialist with a focus on particular levels of schooling
5. All students undertake at least one subject that builds capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up	While this may be a topic in one or more subjects in some universities, it is not clear from the evidence presented in the course of this review that a comprehensive approach has been embedded in pre-service programs across the state
6. All students undertake at least one subject that builds capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students	While this may be a topic in one or more subjects in some universities, it is not clear from the evidence presented in the course of this review that a comprehensive approach has been embedded in pre-service programs across the state

Benchmark	Extent to which benchmark is currently met
7. Every university that offers pre-service teacher education has a clinical partnership with one or more schools that are the education equivalent of teaching hospitals. There is common understanding of what constitutes highly effective practice in universities and schools in these different settings and there is a seamless integration of the work of staff in the two settings	Most universities have strong partnerships with particular schools but there are many instances where the links are tenuous, especially where the relationship is limited to placement of a student for a practicum. The education equivalent of a teaching hospital and the 'seamless integration' of the work of staff in university and school are not broadly evident
8. Staff based in partner schools are exemplary teachers who receive special training for their roles	There may be instances of exemplary teachers in practicum programs but there is little evidence of systematic or special training for their roles in supervision
9. Clinical partnerships between universities and schools extend to the provision of professional development programs for teachers thus, in this respect, they provide a more or less seamless integration of knowledge transfer in initial teacher education and ongoing professional development	There is modest evidence that this benchmark has been met
10. All students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community	There is little evidence of this benchmark being met
11. All students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues, including classroom management and support for those with learning difficulties	There is little evidence of a systematic approach although student encounters with behavioural issues are inevitable. A limited view of behaviour management, largely interpreted as classroom management or discipline, appears to be more common, with practicum experience in a narrow range of settings
12. Induction is a process that commences from the time a student enters a pre-service program and continues for at least a year after he or she enters the profession	Induction appears to be a relatively informal often hit-or-miss experience after a teacher takes up appointment. It rarely occurs for teachers who have a succession of contract appointments
13. Teachers entering the profession have a reduced teaching load for at least the first year of their employment	There is little evidence of this benchmark being met
14. Teachers entering the profession have at least one trained mentor for at least the first year of their employment. Mentors have a reduced class allocation to enable them to work with those they are mentoring	Informal mentoring arrangements appear to be in place in some schools but there is no evidence of a systematic approach across all schools and no evidence of reduced class allocation for those who serve as mentors
15. Mentors are exemplary teachers who receive special training for their roles	It is likely that mentors are outstanding if not exemplary teachers in some schools but there is little evidence that this benchmark is broadly achieved

Benchmark	Extent to which benchmark is currently met
16. All students who will be involved in teaching literacy undertake studies in evidence-based approaches that give substantial weight to explicit teaching	While this should not be interpreted narrowly to refer exclusively to phonics, a preliminary assessment suggests that more attention should be given to explicit teaching across all programs before this benchmark can be met across the state
17. All students preparing to teach in secondary schools shall undertake discipline-based studies in faculties or schools other than faculties or schools of education. All students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school	There are some instances where this occurs outside double or combined degrees but most studies for the bachelor of education are conducted entirely within faculties or schools or schools of education
18. Professional teaching standards are expressed in parsimonious lists of statements that are jargon-free and capable of reliable evidence-based assessment	Queensland has led the way in specifying professional standards that provide a framework for accrediting pre-service programs. It is likely that this benchmark is met although a further searching examination should be conducted to ensure that evidence more than assertion is provided about what students can actually do

Chapter 6

Proposals for change

Chapter 6 summarises proposals for change as contained in submissions and interviews. Descriptions are drawn verbatim from submissions and interviews (in some instances there is minor editing). Comment is made on the extent to which these are consistent with the benchmarks identified in Chapter 4.

Australian Catholic University (ACU)

The Australian Catholic University (ACU) considered the review to be ‘an opportunity for change’. Its submission contained suggestions for ‘improving the quality of education graduates from Queensland Universities’ in matters related to induction, common core across universities, school placements, and support for beginning teachers.

- The final year of the four-year pre-service programs should officially be designed as a 12-month induction program, assisting students in making the transition from pre-service student to beginning professional (the ACU two-step process was suggested as a model)
- Currently pre-service programs offer a high level of quality; however there are significant differences between programs. Whilst differences need to exist in order to cater for the variety of schools graduates may teach in, a core set of skills needs to be common across all programs in the different institutions.
- Better incentives are needed for teachers who mentor pre-service teachers as well as school-based support for those who are beginning mentors. A suggestion would be a liaison staff member in schools who could perform these roles as well as become familiar with the courses offered by universities.
- Beginning teacher stress and attrition rates are persistently high. This would indicate that early career teachers are not receiving the necessary help and support they require once they join the profession. Some steps that could be implemented to alleviate this problem are:
 - (a) Beginning teachers should not be expected to do the same job as experienced teachers. They should be allocated a lower workload in the first year and assigned a trained mentor
 - (b) Beginning teachers should be required to undertake extra professional development sessions during their first year, to provide them with access to support and resources. This should prevent problems from developing into major issues.
 - (c) Access to continuous support in the form of an online community for beginning teachers or other learning communities.
 - (d) Ensure university courses have a specifically designed induction program for the transition into the profession. This should be during their last year of study.

Griffith University (GU)

Recommendations from Griffith University included the following:

1. Develop a more coordinated, strategic, State approach to labour market needs
2. Improve the quality of teachers in Queensland through strengthening the minimum entry requirements for students in teacher education programs
3. Develop strategies which acknowledge and value the roles played by industry partners in the co-design, co-delivery of teacher education programs, and the co-production of quality teachers

4. Design programs using technological content knowledge (TPACK) appropriate for building the professional capabilities of teachers for the 21st Century
5. Require a minimum of two years equivalent of pre-service education for postgraduate teacher education programs
6. Improve the transparency of QCT processes for the approval of programs of study which are approved programs of study prior to postgraduate pre-service teacher education programs
7. Develop and implement coherent induction programs for graduates into the profession

The University of Queensland (UQ)

The University of Queensland (UQ) made 11 recommendations in its submission to the review.

Recommendation 1: We support the re-introduction of four-semester Graduate Entry Programs (or equivalent) for all teacher education programs – early childhood, primary, middle years of schooling, and secondary. We propose that the programs be called Master of Teaching to highlight their advanced professional standing nationally and internationally.

For Recommendation 1, the submission noted that universities across Australia are moving towards an extended model even in the absence of accreditation requirements. It was suggested, however, that the QCT should only accredit four-semester Graduate Entry programs in order to ensure that ‘market forces’ do not undermine the proposed change.

Recommendation 2: We support the development and maintenance of a diversity of pathways into the teaching profession.

For recommendation 2, the submission acknowledged that teachers enter the profession in many different ways – through four-year year bachelor’s degrees in education, through dual undergraduate degrees, and through Graduate Entry Programs. There are important pathways also from the VET/TAFE sector into University degrees for early childhood teachers and specialist VET teachers in secondary.

Recommendation 3: We support the distinction between different programs of teacher education - early childhood, primary, middle years of schooling, secondary education or specialist fields (e.g. H.P.E.).

Recommendation 4: We support improving the quality and diversity of applicants to teacher education programs.

For recommendation 4, the submission acknowledged that some regional and smaller universities are criticised for admitting applicants with comparatively poor academic performance. Certificate and diploma programs (one or two semesters of full-time study) should be developed for aspiring teacher education applicants in order to ensure that they have the required competencies in literacy, numeracy and study skills to be successful in their degree programs. The importance of providing these flexible pathways relates to the regional contexts and requirements of many universities in Queensland and their central community role in maintaining the economies and cultural resources available to regional areas.

Recommendation 5: We support the establishment of the Teaching Centres of Excellence.

In respect to Recommendation 5, the submission suggested that Teaching Centres of Excellence might better be considered as clusters of schools dedicated to different agendas such as: improving the preparation of teachers for remote and regional schools and especially for

Indigenous learners; or improving the preparation of teachers for low SES communities and schools. It also suggested that these centres be resourced so that they fulfil a research and development function with broad appeal to teacher educators and teachers alike.

Recommendation 6: We recommend a consideration of strategies to enhance the quality and recognition of supervision excellence.

Recommendation 7: We suggest a more professional and evidence-based approach to the issue of behaviour management (discipline) be adopted and that the complex questions of student engagement in schooling be addressed in a multi-faceted and thoughtful manner.

For recommendation 7, the UQ submission argued that management of student behaviour for learning is not likely to improve if the rhetorical language in the Green Paper is indicative of the policy direction. The use of terms like 'tougher powers' and 'stronger behaviour standards' suggests a policing approach with increasing levels of sanctions, penalties, detentions and exclusions as the strategic tactics. There is no evidence that indicates this tougher approach to discipline will be successful in engaging young people in learning.

Recommendation 8: We support the surveying of Teacher Education graduates regarding their readiness for the challenges of teaching.

Recommendation 9: We support better induction and mentoring programs for beginning teachers.

For recommendation 9, the submission noted that data reported in AEU surveys is not re-assuring as far as mentoring is concerned. In 2008 almost half of beginning teachers (45 per cent) reported that they had received no mentoring at all at their school.

Recommendation 10: We regard a teaching degree as excellent preparation for a variety of employment opportunities and do not support a policy shift that would restrict entry to teacher education places on the basis of filling specific vacancies in the profession either in the private or the State sector. [A counter-argument is offered by some principals who are concerned that they are expected to find a practicum place for people who do not intend to take up a teaching appointment]

In support of recommendation 10, the submission suggested that the review note also that graduates from teacher education programs in Queensland include many individuals who do not apply to teach in Queensland for various reasons.

Recommendation 11: We recommend that regulations regarding major shifts in policy regarding teacher registration and program accreditation be implemented only after broad consultation, consideration of all the available evidence and a thorough review of research literature is conducted.

For recommendation 11, the submission drew the attention of the review to research that suggests the absence of evidence to support the introduction of pre-registration testing of graduates using multiple choice assessment techniques.

University of the Sunshine Coast (USC)

The submission of the University of the Sunshine Coast (USC) described several strategies that ought to be addressed in the review. Citing a range of sources in support, particular attention was given to characteristics of a quality teacher education program, support for beginning teachers, discipline, 'centres of excellence' and pre-registration tests.

The USC submission drew attention to a consequence of the limited number of full-time appointments made by employers, as described in Chapter 3:

No longer do teachers necessarily enter the workforce as a full time employee and remain in a school community for their years as a beginning teacher. Many now enter the workforce on short-term contracts, as supply teachers and move from school to school. This requires the redevelopment of the approach to teacher induction that has been largely based within school sites. One of the challenges of this review will be to consider options for developing robust and transportable induction solutions that will be able to be delivered with attention to human and financial resource implications.

USC described the kinds of support that are needed, highlighting induction and mentoring in the following terms:

- strong, robust and practical induction processes that genuinely recognise and accept new teachers into the school culture: school context, culture and philosophy, school-based policy and procedures and school-wide behaviour management approaches
- collaborative mentorship programs, that welcome and recognise the beginning teacher's strengths and knowledge and include training for those undertaking both the mentor and mentee role

The USC submission referred to the Green Paper which included the view that 'strong discipline is imperative to the success of schooling' (p. 20). The USC position was stated in the following terms:

We would argue that ensuring classrooms are free from disruptions and focused on learning involves teachers implementing socially just practices that disrupt problematic behaviours, including gender stereotypes, while fostering education as positive human endeavour and expanding students' repertoire of experience.

Two strategies were recommended:

- First, in developing empowering experiences for students to facilitate engagement there is a need to develop mutually supportive teacher–student relationships that contribute to students' social outcomes while enhancing greater legitimacy and agency in everyday interactions.
- Second, fostering connected classrooms that encourage respectful relations within peer groups and enabling 'experiences of others' involve teachers challenging many taken-for-granted, and often socially unjust, notions of gender, race and ethnicity. This is particularly evident where dominant forms of masculinity position [the] school as 'nerdy' and 'uncool'.

The USC submission supported the idea of Teaching Centres of Excellence but, like most submissions and views expressed in feedback on the Green Paper, felt that five is 'potentially restrictive and may disadvantage regional areas and place an onerous burden on metropolitan schools'. USC argued for a project approach in the following terms:

We would argue that an alternate model based around brokerage funding / grants to specific projects and partnerships would provide a more cost effective and flexible framework. We also believe that greater participation and access to all preservice teachers could be achieved through unique, individualised, goal specific projects brokered between schools and universities especially given the diverse characteristics and needs of schools throughout various regions of the state.

Without stating a position, the USC submission urged the review to consider whether research supports the efficacy of pre-registration tests.

University of Southern Queensland (USQ)

Apart from its advocacy of what was described in Chapter 3 as a 'futures perspective' in program design and delivery, the University of Southern Queensland made specific recommendations on matters related to induction and mentoring. Reference was made to promising approaches in England and Scotland.

1. An induction program should be available to all newly qualified teachers on entry to the workforce for the first time, whether as a supply, temporary, full-time or part-time teacher.
2. A mentor for those in their first year of teaching should be appointed with time release for the mentor and mentee to have regular meetings, observation of colleagues and observation by mentors to build a collaborative and reflective approach to teaching from the beginning.
3. Models of entry to the professions in medicine and law are based on an apprenticeship model, where practice is negotiated and monitored in an internship. Such approaches could be trialled in teaching with perhaps a lower salary and teaching load in the induction year.
4. Induction into the profession begins with entry to a teacher education program not the workplace, so opportunities to continue contact and engagement with tertiary providers, professional associations and mentor teachers are essential.

Department of Education and Training (DET)

In its submission the Department of Education and Training (DET) offered the following recommendations on preservice programs. Such programs should:

1. ensure a strong link between practicum / professional experiences and the theory and content of programs;
2. include a more clinical or 'in school' model of preparation;
3. develop knowledge and skills in evidence-based teaching strategies;
4. develop thorough understanding and knowledge of Queensland curriculum frameworks, and the Australian Curriculum where available;
5. include explicit content and discipline knowledge of the subject areas going to be taught;
6. develop thorough and in-depth knowledge of departmental strategic initiatives and programs in schools;
7. ensure that graduates possess requisite levels of personal competence in literacy, numeracy and science, content knowledge in these areas, and develop the capacity to teach in these areas;
8. provide opportunities to develop knowledge and understanding of the Aboriginal and Torres Strait Islander dimension of Australian culture and history;
9. ensure that graduates are prepared to engage with and teach Culturally and Linguistically Diverse (CALD) and Aboriginal and Torres Strait Islander students;
10. ensure that graduates are prepared to address the individual learning needs of the students they teach, including Aboriginal and Torres Strait Islander children, students from non-English speaking backgrounds and children with special needs and/or disabilities;

11. ensure that graduates develop effective classroom management skills that equip them to positively support and manage the range of student behaviours and school cultures in contemporary school environments;
12. provide graduates with the capacity to effectively engage with parents and the broader school community;
13. ensure that graduates are proficient in the educational use of ICT and are effective users of eLearning strategies and tools;
14. provide opportunities for pre-service teachers to engage in different models of curriculum delivery such as distance education and school cluster approaches;
15. ensure that graduates develop strategies to build higher-order thinking skills in students;
16. address the ethical and legal context of teachers' work, including knowledge of child protection issues and requirements;
17. develop skills and competencies necessary for analysis of the full range of student data (e.g. NAPLAN and school-based)
18. address the issues of education for sustainability; and
19. provide opportunities to engage with the range of school environments in Queensland, including those in rural and remote locations and multicultural and low socioeconomic communities.

Other recommendations of DET included:

1. Academic staff teaching within pre-service teacher education should also be expected to keep abreast of current initiatives and reforms in the schooling sectors and ensure that they are well connected with the realities of the role of teachers in contemporary learning contexts.
2. The role of supervising teachers and mentors in professional experiences should be reviewed, including a clarification of the responsibilities of schools, supervising teachers and higher education providers.
3. Rural, remote and regional locations should be promoted as preferable locations for undertaking practicums and internships.
4. Higher education providers should work closely with employing authorities to build effective strategies that ensure a closer alignment between the teaching capabilities of graduates from pre-service teacher education programs and the current and predicted workforce demands.
5. Higher education providers should investigate new pathways to becoming a teacher in Queensland in recognition of the changing demographic nature of teacher applicants, including exploration of options aligned to those available in the United States and the United Kingdom and a broadening of options available to current secondary students.
6. The requirements and standards for entry to undergraduate and postgraduate pre-service teacher education programs need to be strengthened, and include a common Pre-Tertiary Aptitude Analysis and Endorsement process for aspiring teachers.

7. The department's induction strategy seeks to address perceived shortfalls in the preparation of teachers for their role in the classroom. Whilst some aspects of induction must be tailored to local needs, principals currently report deficits that DET views as essential aspects that should be covered in teacher education programs, including:

Lesson planning;

- Behaviour management;
- Supporting students with special needs;
- Assessment and reporting;
- Student performance data analysis; and
- Community engagement.

Queensland Catholic Education Commission (QCEC)

The following recommendations were made by the Queensland Catholic Education Commission (QCEC):

1. QCEC recommends that the review of teacher training programs should incorporate a review of appropriate tertiary entry standards required.
2. QCEC advocates provision of funding to enable cooperative supervision of pre-service 'prac' teachers by tertiary educators and experienced school teachers.
3. QCEC supports the provision of funding to enable cooperative supervision by universities and experienced teachers of pre-service teachers on practicum.
4. QCEC does not endorse proposals to establish five Teaching Centres of Excellence as an effective mechanism to improve teacher training.
5. QCEC suggests instead funding of the teaching practicum should be increased to allow: (a) university based supervisors to develop the role of visiting and supporting the 'prac' students and the 'prac' teacher and (b) release time and remuneration for the school based 'prac' teacher.
6. QCEC advocates induction and mentoring programs that address values and professionalism. The programs will need to be underpinned with the provision of quality evidenced based programs and resources easily adaptable for a range of contexts and situations e.g. rural and remote as well as metropolitan.
7. Employing authorities be encouraged to develop employment practices which provide a stable teaching environment for beginning teachers during their formative years of teaching.

Queensland College of Teachers (QCT)

The Queensland College of Teachers (QCT) has a leading role in matters related to teacher education. Details were provided in Chapter 2. The following recommendations were made in its submission:

Entry requirements

- mechanisms such as establishing a minimum OP for entry to teacher education and / or taking into account field positions and Core Skills Test results; setting prerequisites in Mathematics for at least Primary, Early and Middle phase; raising the prerequisite level of English for all entrants

- requiring universities to introduce additional measures to assess potential applicants – both aptitude and likely success as a teacher and possession of a minimum knowledge in areas such as literacy and numeracy, and science for primary teachers
- in the case of graduate entry programs there be greater specification of required subject / discipline content knowledge within the undergraduate degree

Duration and models of teacher education programs

- The current requirement enabling graduate-entry programs to be of only one year of professional studies in education be expanded to two years in order to adequately address all professional standards and provide sufficient curriculum studies in each subject/learning area
- Higher Education Institutions be supported in developing innovative approaches to enhance the quality of teacher preparation
- Higher Education Institutions be encouraged to focus on provision of programs in areas of, for example, particular expertise, demand and regional need to promote high quality

Discipline content knowledge

- there be greater specification of required subject/discipline content knowledge within undergraduate teacher education programs and within the undergraduate program used as the basis for entry to graduate teacher education programs

Professional studies in education

- there be greater specification of required curriculum studies in all programs and particularly for each KLA / subject in Primary, Early, Middle Phase programs – e.g. a minimum of one literacy and one numeracy unit in addition to units addressing each of the learning areas, including English and Mathematics
- that adequate attention be given to all year levels within the area addressed by the program
- consideration be given to the other areas of the professional standards such as diversity of learners, behaviour management, relationships with parents, assessment and reporting

Practical experiences

- development of stronger partnerships between schools / employers and Higher Education Institutions to ensure high quality practical experiences and internships
- advocacy at the national level for minimum amounts of school practical experience of at least the current minimums set by QCT
- provision of a reduced work load for supervising teachers to enable a focus on the important work of supporting preservice student teachers
- provision of professional development for supervising teachers
- ongoing support for internships to assist transition to beginning teaching
- Higher Education Institutions be supported to develop new arrangements for practical experience based on strong and reciprocal partnerships with schools

Centres of Excellence

The QCT commends the establishment of five centres of excellence for preservice teacher education by the Queensland Government as an excellent starting point. It is hoped that these Centres will not all be in SE Queensland.

Induction

- Beginning teachers be afforded a reduced teaching load, for example, 0.7 of a full-time workload
- Beginning teachers be assigned trained mentors who are experienced teachers
- Mentors assigned to work with beginning teachers be provided with a reduced teaching load
- Higher Education Institutions and schools form partnerships to assist beginning teachers in their first two years and remove the artificial divide between completion of a course and beginning to work in a school
- New graduates should not be placed in the most difficult-to-staff schools, nor given the most difficult classes

Teacher Supply and Demand

- The QCT strongly advocates close liaison between employers and Higher Education Institutions regarding the current and future labour market
- To further address the current over-supply of teachers in some areas, consideration could be given to encouraging Higher Education Institutions to specialise in areas of strength
- The QCT recommends that issues of teacher supply and demand, and their relationship to entry requirements for preservice programs, induction practices, and ultimately teacher quality, be raised with DEEWR and AITSL.

Themes in interviews with stakeholders

The review leaders held interviews and conducted consultations with a range of individuals and stakeholder groups as listed in Appendix 4. A template was developed to provide a framework for identifying issues (Table 3.9 in Chapter 3), describing current approaches (Table 5.1 in Chapter 5) and making proposals for change (Table 6.1 below). Interviews and consultations were recorded and transcribed. Responses summarised in Chapters 3, 5 and 6 are not verbatim statements that can be attributed. They serve to guide the preparation of the First Report. Table 6.1 summarises themes among suggestions made by participants during interviews. The first column includes a statement from a respondent that captures either a common theme among the responses and/or a challenge to be taken up in the implementation of change.

Table 6.1: Themes among suggestions made by participants during interviews

Area of interest	Theme
Pre-service 'We've got to think about how we approach teaching, learning, schools, preparing the next generation, community engagement; it's a big package.'	<ul style="list-style-type: none"> • A number of interviewees suggested that there could profitably be much better engagement of practicum supervising teachers in the curriculum of the teacher education programs. • It was felt that, if a person has done a degree in, for example, Business or Science, and they want to become a teacher through the Diploma process, the first 2 weeks of that course has to be in a school setting. • There was common acceptance that the OP has some limitations, but it's the best/fairest sort of mechanism that is currently available and others might re-design and improve it in time. • Part of the recommendations that were put forward by the STEM working party with the Chief Scientist initially included minimum OP cut-offs for any teacher education program. There is a view that they decided on OP8 because it would have an impact on the numbers of people that enrol in pre-service courses.

Area of interest	Theme
	<ul style="list-style-type: none"> • There are some people who just aren't suited to teaching and there was wide agreement that the best way for them to make that discovery would be to provide them with opportunities to see what it's really like in a school. • There is a view that mandating an M Teach will do a lot immediately for the profession. It would certainly change the mindset of people coming from other careers or other study and hopefully school leavers as well. • The view exists that the Centres of Excellence will provide an opportunity to explore a number of different models for a practicum curriculum and an internship curriculum for schools. They would also provide exemplars to challenge universities to change the "almost industrial way" that they approach practicum.
<p>Practicum</p> <p>'The prac office will call the school and say, can you take 8 people, and some school coordinators are so good. We've got rewards for those people with chocolates and so on.'</p>	<ul style="list-style-type: none"> • The NT Department's intent is to move teachers' perceptions away from prac students being regarded as another imposition to the prac students being regarded as another resource to be shared. • There is a strongly held view that principals at prac schools have a significant role in weeding out those who look like they won't make the grade. • NT appears to have a much more rigorous and unafraid process of separation for those who don't reach the expected standards across a number of categories, than operates in Queensland where unsatisfactory prac students are merely passed because there are so many hurdles to separating them.
<p>Induction 'Many students come back to the university in the first six months because the uni is perceived as a place where they have been supported.'</p>	<ul style="list-style-type: none"> • Griffith University believes a co-designed M Teach program can help with induction through its progression of student teacher to co-teacher; prac to internship. QUT runs a '1 plus 2 program' where students who come through the graduate diploma program are connected through an online community to peers and experienced teachers in an induction. • The other program QUT runs is the Teacher Education Done Differently (TEDD) project at Caboolture.
<p>Internship</p> <p>'The best experience I've had is when we had a 90 day internship and we had a person here for 90 days and you could see him from the beginning right to the end. He actually became a teacher.'</p>	<ul style="list-style-type: none"> • NT intent is to move teachers' perceptions away from the prac students being regarded as another imposition to the prac students being regarded as another resource to be shared. • UQ introduced a model where the students had to prove they were ready to move to an internship. It was a supportive process where the university and the school made a decision that a particular person was ready to move on and become an intern. • Many schools like having an intern because it gives them an opportunity to trial somebody before employment. • There are some financial considerations to an internship, especially where an intern has a family and has given up a job to take an internship. • The QUT internship program adds 20 days to field studies. • Some models have interns on 50 percent load. They have a designated mentor who talks through their plans prior to internship and debriefs with them.

Area of interest	Theme
<p>Mentoring</p> <p>'What happens in first year is a lot of students, or a lot of young teachers hit the wall very quickly because they've come with this idealistic picture of what a classroom looks like. . . . And that's where you've really got to put the solid foundation under them, the trapeze net to make sure they don't fall apart.'</p>	<ul style="list-style-type: none"> • In some places like NSW, the mentors are people who are expert at going from school to school to help all the first-year teachers. • In NSW mentors are on their usual teaching load, but as that transition occurs they are able to do other projects. • The Scottish model picks up on the induction of beginning teachers with experienced teachers appointed to work across the uni/school sector. • A trial program where experienced, quality teachers mentor beginning teachers in Indigenous communities for ten weeks, and are then replaced by another mentor, is showing a lot of promise.
<p>MUP</p> <p>'If the student teacher is not progressing, there's a meeting that's held, there's a process that is started and the university is alerted to the problem and so there becomes very close supervision.'</p>	<ul style="list-style-type: none"> • NT is very set on maintaining high expectations of pre-service teachers who want to teach in remote Indigenous communities.
<p>H R Planning</p> <p>'The issue, and that's why that funnel idea is a good idea, is if you say to the universities, "look we can only take a thousand of your students", then the university has got to say, "well what do we do with the other thousand. Maybe we shouldn't be offering so many places because you can come to us but we can't guarantee you a place in a school".'</p>	<ul style="list-style-type: none"> • It's important to be looking at science teachers' having a master's level qualification for the senior phase of secondary. The M Teach that Griffith and QUT are considering developing could bring about that sort of change. • Because the national partnership for improving teacher quality is providing funds it presents an opportunity to look at models of best practice. • The national partnership provides some extra funds. There is broad agreement that a 0.8 teaching load for a beginning teacher would be desirable, even though it would have to be somehow limited to around 20-30 people to be sustainable. • There is the view that the M Teach will do a lot immediately for the profession. Just having that title of the qualification as an entry-level qual would change the mindset of people coming from other careers or other study or hopefully school leavers.
<p>Students with special needs</p> <p>'Special Education teaching is a visible partnership, and the kids need to learn about working in teams.'</p>	<ul style="list-style-type: none"> • In one jurisdiction the challenge of catering in small schools for children with special needs is met by overstaffing. If one school has more students with needs, they get more hours and if they have less needs they get less time. The staff have to look at the needs of the school and the needs of the individual and use the time to best advantage. That's a school decision.

Area of interest	Theme
<p>Indigenous education</p> <p>'In some ways a teacher in an indigenous community is appointed to the community, not to the school.'</p>	<ul style="list-style-type: none"> • Building a relationship with the students, their families, and the school community is an important way of helping teachers integrate more easily into an indigenous school. • There was broad agreement that it is not possible to train a person in a university setting for what life is like in an Indigenous community. They can be given a certain amount of knowledge, but the real learning happens in situ, and the best way to structure that and support that is to have good community people working in the school. • QUT students all have a compulsory unit of Indigenous studies in their first year. • The graduate diploma course at QUT has a one-week induction to the program that covers Indigenous knowledge and is used as the starting point for the rest of the program. • The 'Stronger, Smarter' concept is working well in a variety of remote communities across Australia. • The University of New South Wales has a couple of elective units and support through the national partnership for people to take an action research project in an Indigenous community. • There are significant initiatives under way in far-north Queensland but they are taking place in the absence of anything more systemic.
<p>Aspiring leaders</p> <p>'It's . . . making sure we're still encouraging young teachers to be excellent classroom practitioners to share their expertise with others.'</p>	<ul style="list-style-type: none"> • One worthwhile initiative is based on looking more closely at what support can be given to young teachers, who show a lot of potential for taking on more responsibility early in their careers so that they're not just sitting there wondering how they can contribute more. • These young teachers are on the program and acknowledged because their colleagues see them as leaders already.

General assessment of proposals for change in light of benchmarks

Table 6.2 contains a broad assessment on the extent to which proposals for change meet the benchmarks in Chapter 4. These benchmarks were derived from a review of policy and practice in other countries and states other than Queensland. The assessment is based on proposals for change set out earlier in Chapter 6. The limitations of offering brief generalisations and broad assessments are acknowledged.

Table 6.2: General assessment of proposals for change in light of benchmarks

Benchmark	Extent to which proposals achieve benchmark
1. There are high academic standards for entry to pre-service programs. Practice in which students with minimal entry standards to university are accepted is abandoned	Proposals have been made to move Queensland closer to achieving this benchmark but there is a view that exceptional circumstances may make this difficult in some settings

2. In addition to higher levels of academic achievement than has traditionally been the case, all who seek entry to teacher education are interviewed and undertake tests or in other ways demonstrate capacity and readiness to pursue a career in teaching	Proposals have been made to move Queensland closer to achieving this benchmark but some have pointed to difficulties of implementation
3. Greater weight than has traditionally been the case is given in entry-level selection to prior achievement in science and mathematics	This is proposed by some but others have questioned the need. Entry-level qualifications in mathematics are under consideration
4. A minimum of five years of pre-service education at university level is a requirement for entry to the profession. There are different strands for the preparation of early years, primary and secondary teaching	There is a trend in some universities to five-year pre-service, mainly by extending the one-year graduate diploma to two years with re-design to make a masters degree appropriate. There are different views on the extent to which the benchmark should apply for those who plan to teach in the early years
5. All students undertake at least one subject that builds capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up	Some proposals are consistent with this benchmark
6. All students undertake at least one subject that builds capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students	Some proposals are consistent with this benchmark
7. Every university that offers pre-service teacher education has a clinical partnership with one or more schools that are the education equivalent of teaching hospitals. There is common understanding of what constitutes highly effective practice in universities and schools in these different settings and there is a seamless integration of the work of staff in the two settings	Where preferences have been expressed, there is a pattern among proposals to move toward this benchmark
8. Staff based in partner schools are exemplary teachers who receive special training for their roles	Where preferences have been expressed, there is a pattern among proposals to move toward this benchmark
9. Clinical partnerships between universities and schools extend to the provision of professional development programs for teachers thus, in this respect, they provide a more or less seamless integration of knowledge transfer in initial teacher education and ongoing professional development	There is little in proposals that would move Queensland closer to achieving this benchmark
10. All students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community	Where preferences have been expressed, there is a pattern among proposals to move toward this benchmark

11. All students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues, including classroom management and support for those with learning difficulties	Where preferences have been expressed, there is a pattern among proposals to move toward this benchmark
12. Induction is a process that commences from the time a student enters a pre-service program and continues for at least a year after he or she enters the profession	Induction is still largely conceived as a post pre-service experience and mainly limited to the first year of teaching. However, there is general agreement that a more formal and substantial induction experience is required
13. Teachers entering the profession have a reduced teaching load for at least the first year of their employment	This has been proposed in some submissions
14. Teachers entering the profession have at least one trained mentor for at least the first year of their employment. Mentors have a reduced class allocation to enable them to work with those they are mentoring	The appointment of a mentor in the first year is generally supported in proposals, with some referring to a reduced allocation
15. Mentors are exemplary teachers who receive special training for their roles	This benchmark is generally accepted
16. All students who will be involved in teaching literacy undertake studies in evidence-based approaches that give substantial weight to explicit teaching	This benchmark has not been addressed in submissions
17. All students preparing to teach in secondary schools shall undertake discipline-based studies in faculties or schools other than faculties or schools of education. All students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school	While there are instances of this already in place, at least in combined or double degrees, there are few instances where movement toward this benchmark is proposed
18. Professional teaching standards are expressed in parsimonious lists of statements that are jargon-free and capable of reliable evidence-based assessment	This benchmark has not been addressed in proposals, although the importance of professional standards and current approaches is endorsed

Capacity of Queensland to innovate and change

The features of current programs in Queensland universities summarised in Chapter 5 included a number of innovations. Pre-service teacher education is not a static enterprise. The proposals for change summarised in Chapter 6 above are a further indication of willingness to change. It is reasonable to expect that teacher education will continue to change in Queensland in response to a range of forces. In this regard it is worthwhile to provide a brief outline of efforts in education more generally to explore possible and preferred futures and identify the implications for particular fields of endeavour.

Teaching Australia, now the Australian Institute of Teaching and School Leadership (AITSL) initiated the Open Book Scenarios project in 2006, the results of which were published in *Teaching for Uncertain Futures* (Teaching Australia, 2007). Fifty-five practising principals and teachers from all sectors and from every state and territory, supported by the Neville Freeman Agency developed four scenarios, each set in the year 2030. The goal was to provide 'a platform for school communities, teachers and principals . . . to challenge their world view . . . and find ways to influence and shape the professional agenda.' Each scenario was given the name of a well-known book / film that seemed to capture its characteristics.

Teaching for Uncertain Futures explored the implications of each scenario for the teaching profession in the future in the areas of teacher education, professional practice, community engagement, professional learning, professional leadership, and professional identity. Table 6.1 contains a short summary of each scenario and the implications for teacher education.

Table 6.1: The Teaching Australia scenarios and their implications for teacher education (Teaching Australia, 2007)

Scenario	Description	Implications for teacher education
<i>Under the Volcano</i>	An unhappy, unequal and uncaring society driven by consumerism and free choice, polarised into two classes of rich and poor, in which the poor are resentful and pessimistic; there is neighbourhood unrest and increased use of security forces	Selection into teacher education courses needs to take account of the schooling divide, with programs needing to recruit students to teach in either the technologically well-endowed elite schools or the poorer schools in socially disaffected areas. . . . Teacher education programs are dynamic and innovative, preparing teachers to be flexible and innovative.
<i>A Farewell to Arms</i>	A green and sustainable economy that supports a more harmonious and optimistic society in which wellbeing and happiness in the community is a political goal	[Teacher education programs] concentrate on pedagogy much more than subject knowledge. Teachers are prepared to act even more as facilitators of learning, using technology and innovation to guide students through content areas. More and more, teachers pursue higher qualifications to deal with the rapid advances in knowledge as well as the broad demands placed on them. Pre-service teacher education courses include as an important component ways of relating to families and the community in the interests of students.
<i>The Grapes of Wrath</i>	The economic boom has ended, jobs are scarce, the physical environment is harsh and unforgiving; the focus is on survival and pessimism is endemic. Individuals are competitive and society is disintegrating, in fact tearing itself apart; values are survival-focused	With schools increasingly becoming the providers of social, pastoral and health care, teacher education programs have had to adapt. They provide training in health, welfare, and psychology in addition to the professional skills and knowledge required for teaching. This serves to increase the length of training and diminish its attractiveness to many.
<i>The Magic Mountain</i>	Society becomes corporatized; business takes over many of the roles and responsibilities of government and community groups, but because society relies on corporate social responsibility for providing a social safety net, a marginalised underclass emerges	Corporations exercise increasing influence over the direction of teacher training in universities, supporting technology, innovation and the exchange of ideas. Alert as they are to the global business environment, corporations are equally attuned to education developments internationally and are responsive to them, although the focus is on teachers achieving measurable student outcomes.

The limitations of scenarios are acknowledged. For example, features of the scenarios in Table 6.1 made their appearance soon after their construction or could be found already in many settings (the Global Financial Crisis was not anticipated during the project). Despite these limitations, there is value in this kind of work because it challenges policy-makers and practitioners to explore the implications of various scenarios in their areas of work, in this instance, teacher education.

It is noteworthy that Queensland universities have made changes to programs in ways that are consistent with several of these scenarios ('teacher education programs are dynamic and innovative, preparing teachers to be flexible and innovative'). This review responds to another of the implications ('pre-service teacher education courses include as an important component ways of relating to families and the community in the interests of students'). Several proposals made in the course of the review are consistent with another ('more and more, teachers pursue higher qualifications to deal with the rapid advances in knowledge as well as the broad demands placed on them' and 'this serves to increase the length of training and diminish its attractiveness to many'). The recommendations in Chapter 7 take account of the readiness and capacity of Queensland universities to innovate in ways that are consistent with elements of these scenarios.

There has been considerable work on probable and preferred scenarios for schools in the future. Arguably the most significant was that undertaken by the OECD in its *Schooling for Tomorrow* project in which six scenarios for the future of schools were generated (OECD, 2001) and adapted in various settings. Implications for the teaching profession were explored and each had implications for teacher education.

The importance of this work has been recognised at the University of Southern Queensland (USQ). As noted in Chapters 3 and 5, USQ framed its submission to the review in terms of future directions. In a recent study of international developments Anne Jasman (University of Southern Queensland) observed that:

Both the OECD and Teaching Australia scenarios assume that quality teachers and teaching continue to be central to the achievement of both economic and social goals in the future. They indicate a continuing role for people who can create meaning, and are able to work effectively with the enormous quantities of knowledge, data and information that the majority of individuals can access today. (Jasman, 2010, p. 331)

Jasman concluded that 'changes in perspective can only happen if stakeholders look forward to see what is possible, and secure an understanding of the pathways that have led to now and therefore will influence the construction of our possible futures' (Jasman, 2010, p. 332). Chapter 7 offers recommendations for constructing such a future for teacher education.

Chapter 7

Recommendations

Chapter 7 contains recommendations for change at a sufficiently detailed level to contribute to the preparation of the White Paper. A deeper examination of current programs and a relatively detailed specification of strategies for implementation will be included in the Second Report.

Default settings

The idea of a 'default setting' may be helpful in interpreting and implementing the recommendations that follow. A default setting describes a situation that normally prevails in policy and practice. There may be circumstances where different policies and practices should be adopted. However, a powerful case must be made for a different setting.

It is acknowledged that in some instances several years will be required before a recommendation can take effect or be fully addressed. It is appropriate under these circumstances for there to be a period of transition or staged implementation.

Accreditation and the role of the university

As described in Chapter 2, as is widely if not universally recognised in Queensland and elsewhere around Australia, this state has one of the best developed systems of accreditation for pre-service programs to be found in any jurisdiction. The recommendations set out below call for new standards of accreditation in important aspects of teacher education and school induction. It is acknowledged that universities, as providers of programs for the former, are free to set entry standards and offer programs as they wish. It is also acknowledged that those who employ beginning teachers provide induction programs in a manner of their choosing. However, it is a firm recommendation of this review that these providers must offer an experience that differs in important ways from that offered at present if programs are to be accredited and teachers are to be registered to work in Queensland schools.

A graduate profession

Recommendation 1

It is recommended that from a date to be determined teaching be recognised as a graduate profession and that registration for beginning teachers be conditional on completion of a five-year program of pre-service education and two years of a formal induction program.

Recommendation 2

It is recommended that five-year programs for pre-service teacher education generally be of two kinds, either (1) a bachelor's degree followed by two years of a master of teaching or equivalent degree or (2) a double degree that combines studies in particular disciplines and studies in education leading to a bachelor's and master's degree.

There is persuasive evidence that teaching should now be considered a graduate profession, that is, five years of university education consisting of either (1) a bachelor's degree in another field followed by a post-graduate qualification, or (2) a double degree that includes the equivalent of a post-graduate qualification in education. This is the main thrust of reforms across the United States that are likely to be confirmed in formal agreements before the end of 2010. There are similar themes in reviews of teacher education in places like Ireland and Scotland.

The first alternative (1) has been the requirement in Finland since 1979 and the University of Melbourne since 2009. There has been uncertainty on this issue in Australia, especially in pre-service education for teachers, with a preference on the part of some universities for a two-year program following a bachelor's degree being overtaken by acceptance that one year is sufficient. The main program continued to be the four-year bachelor's degree in education. The current situation in Queensland reflects to some degree a market reality given that one-year post-graduate programs are the norm elsewhere around the country and mutual recognition allows registration in Queensland of those registered as teachers in other states.

Subject to other recommendations set out below, the second alternative (2) of a double degree includes the possibility of a combined Bachelor of Education and Master of Teaching over five years.

Account will need to be taken of the recommendations of the current review of teacher education being undertaken by the Australian Institute of Teaching and School Leadership (AITSL). It is noted in Chapter 4 that a study undertaken for Teaching Australia, the predecessor of AITSL, had found important benefits of a master's program (Louden et al., 2010).

Recommendations 1 and 2 do not call for current teachers to return to study nor is it intended to reflect on the quality of their preparation and practice. It is not based on a judgement that current four-year programs have been poorly designed or delivered nor does it imply that there have not been outstanding graduates of such programs. It is based on a view that the status of the profession itself should be raised and that meeting expectations for school education in the 21st century demands unprecedented levels of knowledge and skill, especially if there is to be success for all students in all settings.

It will be necessary to have a period of transition, to be specified in the Second Report, as the cycle of accreditation for current programs must be completed and students who are currently enrolled in existing degrees must have an opportunity to complete. Universities are, however, encouraged to introduce five-year programs at the earliest opportunity as current programs run their course.

Proliferation of degrees

Recommendation 3

It is recommended that the number of degrees currently offered by universities in Queensland be reduced so that, as far as possible, there is a single degree in teaching with particular strands of study in specific fields such as early childhood education, primary, middle schooling, secondary and special education.

Recommendation 3 does not distinguish between those preparing to teach at different levels of schooling. For example, the view that preparing to teach in early childhood or primary schools, calls for fewer years of preparation compared to those who plan to teach in secondary schools is rejected. The early and primary years are the most important for laying a foundation for subsequent learning, including lifelong learning, and the knowledge base is as sophisticated and robust as for any other level.

High standard of entry

Recommendation 4

It is recommended that direct entry to a bachelor of education degree or double/combined degree on the basis of an OP score require a score of 12 or better. In exceptional circumstances a lower OP score may be accepted on the basis of demonstrated capacity/potential, including interviews and in some instances performance (in music, for example).

This recommendation applies to the years of transition when the traditional four-year bachelor of education degree continues to be offered (see comments above in relation to Recommendations 1 and 2) and for double/combined degrees for which there is direct entry from schools on the basis of an OP score.

The fact that several universities admit students to pre-service programs with a low OP score was mentioned in a number of interviews and submissions. It was argued that the knowledge base for teaching is now so rich that high levels of academic ability are demanded in a context in which Queensland school students should achieve at a higher level than is currently the case and gaps between high- and low-performing students should be closed. The same argument has been mounted elsewhere in Australia and in other countries. A counter-argument was also presented, usually expressed as a challenge to the view that there is only a weak if any relationship between prior academic achievement and success in pre-service education and subsequent performance as a classroom teacher. Research reported in Chapter 4 confirmed the positive relationship between success in university and prior achievement.

It may be that market forces in terms of supply and demand in Queensland will result in smaller numbers of students in pre-service programs, allowing universities to limit enrolments and limit the number of students with relatively low OP scores. The current situation in terms of supply and demand is outlined in Chapter 3. However, it is the conclusion of this review that a position should be taken on the basis of the case for a graduate profession.

Where interviewees expressed a view on the topic, the range for minimum OP scores was 8 to 12. It is recommended that a score of 12 be adopted in the first instance, with exceptional cases being dealt with on the basis of other considerations. It may be that a movement toward 8 is possible in the future. It is likely that a change in legislation will be required to give effect to this recommendation.

Clinical partnerships

Recommendation 5

It is recommended that every university that offers pre-service teacher education have a partnership with one or more schools that are the education equivalent of teaching hospitals.

Recommendation 6

It is recommended that partnerships between universities and schools extend to research and professional development.

Recommendation 7

It is recommended that staff based in partner schools be exemplary teachers who receive special training for their roles.

Recommendation 8

It is recommended that university staff who work in partnerships be engaged in 'clinical practice' in an educational counterpart to the way some academics in the field of medicine are engaged in private practice including research in some instances.

Recommendation 9

It is recommended that all students have experience in partner schools that enable them to gain skill in dealing with a range of behavioural issues.

Recommendation 10

It is recommended that all students have experience, including experience in partner schools, of highly effective practice in reporting to and otherwise engaging with parents and the wider community.

There is a general consensus in reviews of teacher education that partnerships between universities and schools are critical in determining the success of pre-service programs. This has been the conclusion of reviews over several decades in Australia as well as current reviews here and elsewhere. In the United States, for example, the idea of 'clinical partnerships' has been widely endorsed in reviews and associated recommendations, with a sound evidence base in long-standing successful Professional Development Schools (PDS) around the nation. Issues in current practice have centred on the difficulty of placing students for school experience (practicum), the costs of school staff who supervise students, the lack of alignment of views of university and school staff on what constitutes good practice, and the assessment of students.

There is a clear preference in contemporary studies and accounts of good practice, as set out in Chapter 4, for university-school partnerships to adopt a clinical model, moving closer to the educational equivalent of a teaching hospital and away from the traditional practice of a multitude of schools, many of which have to be persuaded to take students for short-term practicums. Like teaching hospitals, the school also becomes the site for professional development and research, with the latter also including research by teachers ('teacher as researcher') and pre-service student research focusing on particular 'problems' or 'issues' such as behaviour management or support of students with special educational needs ('problem-based research').

It is stressed that the idea of a clinical partnership is different from the kind of partnership that currently prevails in most settings where universities seek out schools that are prepared to accept students in a practicum.

It is acknowledged that the metaphor of 'teaching hospital' has its limitations. There is no attempt here to compare health care and the treatment of patients with learning and teaching as they occur in schools. It is the nature of the authentic partnership between universities and centres of good practice that lies at the heart of these recommendations. Another difference is that there are relatively few teaching hospitals in Queensland but there will be scores of university-school partnerships.

An important issue in this review concerned the relationship between pre-service education and Teaching Centres of Excellence, as proposed in the Green Paper. The review team was briefed on progress in planning for Teaching Centres of Excellence. The clinical partnerships recommended here may include the five Commonwealth-funded Teaching Centres of Excellence, as originally conceived in the Green Paper or as they emerge in further planning. It is envisaged, however, that there will be scores of partnerships around the state, with some selected for their excellence in teaching and the support of teaching in specialist areas such as literacy and numeracy, science and mathematics, dealing with behavioural issues, schooling for Indigenous students, and schooling in

remote locations. It is important to stress that universities will not only continue but strengthen the knowledge/discipline/theoretical bases in each of these domains.

It is acknowledged that some 'centres of excellence' may not be stand-alone schools but may be a cluster of schools in the same community or a network of schools that may be spread geographically. An example of the latter is the network of 376 schools served by the Stronger Smarter Institute at QUT led by Dr Chris Sarra. These schools are located in several states and territories and are characterised by their support of Indigenous students. Some networks may be networks of remote or isolated schools, including those that are outstanding in their use of technology

A review of professional development is outside the terms of reference of this review of teacher education and school induction. However, it is important to note that policy and practice on partnerships should extend beyond the years of pre-service education in the same way that teaching hospitals do for ongoing professional development for medical practitioners.

A new model of induction

Recommendation 11

It is recommended that teachers entering the profession have a reduced teaching load of no more than 0.8 for at least the first year of their employment.

Recommendation 12

It is recommended that teachers entering the profession have at least one trained mentor for the first year of their employment. Mentors should have a reduced class allocation to enable them to work with those they are mentoring.

Recommendation 13

It is recommended that mentors be exemplary teachers who receive special certificated training for their roles.

Whereas induction has traditionally referred to the experience of a beginning teacher after initial appointment, induction is defined in this review as a process, complementary to formal pre-service training, through which a person who seeks to pursue a career as a teacher acquires knowledge, skills, values, commitments and attitudes about or related to the profession. Under this definition, the process commences at the time a student enters a pre-service program and continues for at least a year after he or she enters the profession.

Induction therefore includes school experience (practicum) even though this experience serves other important purposes such as assisting the student and the university determine whether he or she is suited to teaching.

It is clear that current arrangements for the practicum (school experience) are generally unsatisfactory as far as induction is concerned. At its worst, there were too many accounts of teams of staff in universities on the phone a few days before a practicum pleading with schools to accept students. While intentions may be sound, the evidence suggests a good induction experience is relatively rare and that a different model of induction is required.

Teaching Indigenous students

Recommendation 14

It is recommended that pre-service programs for all students include a subject or part of a subject that reflects the ESL dimension of work in settings where there are Indigenous students (those who are preparing to teach in settings where most students are Indigenous should complete a strand of studies that includes such a dimension).

The teaching of Indigenous students is particularly important in the Queensland context. The Masters Report and the Green Paper largely reflected concern that levels of achievement of Queensland students were lower than desired, and the gap between high- and low-performing students was far wider than it ought to be. An important factor that has been known for some years, in Queensland and elsewhere around Australia as well as in comparable countries, is the relatively low levels of achievement of Indigenous students. Raising these levels and closing the gaps for Indigenous students would therefore go a long way to addressing the concern about overall levels of achievement in the state. It is for this reason that the review addressed the preparation of teachers who desire to or are assigned to work in these settings, even though it was not explicitly mentioned in the Terms of Reference and the parameters of the review, as set out in Chapter 1.

It emerged in the course of the review that insufficient attention is being given in some quarters to the fact that the challenge of teaching Indigenous students is as much a problem of language as it is of culture and socio-economic background. Expressed simply, for many Indigenous students, English may be a second, third or even fourth language. Those who teach such students should therefore possess knowledge and skill of a kind that is generally required for teaching students for whom English is a Second Language (ESL). Teachers whose pre-service education is preparing them for work in these settings will be under-prepared if they do not include related ESL subjects, and if they do not have experience/induction in clinical partnerships where there is outstanding practice in teaching Indigenous students.

In addition to a focus on ESL, it is important to stress that preparing to teach Indigenous students also requires studies of pedagogy and dealing with diversity that research has shown to be effective.

It is important to note that the same analysis applies to those who teach students from other countries, especially from some African nations, who initially lack capability in English.

Subjects of study

Recommendation 15

It is recommended that all students undertake at least two subjects that build capacity to assess well and act on the basis of assessments to diagnose learning needs, determine appropriate levels of student support, and in a variety of ways ensure learning is personalised for all students.

Recommendation 16

It is recommended that all pre-service students undertake at least two subjects that build capacity to work with students who have special educational needs or who, for whatever reason, fall behind and need special support to catch up. It is understood that those students preparing to teach in the field generally known as special education will undertake a strand of related studies as part of their degrees.

There are several approaches to implementation of Recommendations 15 and 16. An alternative may be to specify the percentage of a course that should be devoted to related studies. Another may be a combination of at least one discrete unit/subject and clearly identifiable related studies across a course.

It is important to stress that each recommendation refers to the range of special educational needs, including those of students often described as 'gifted and talented'.

Pre-requisites

Recommendation 17

It is recommended that all students will have successfully completed in their studies for the Queensland Certificate of Education at least one subject in each of English, mathematics and science, with an exception for science in the case of those who plan to teach non-science subjects at the secondary level.

Recommendation 18

It is recommended that all students preparing to teach in primary schools undertake studies in evidence-based approaches to teaching literacy and numeracy that give substantial weight to explicit teaching.

Recommendation 19

It is recommended that all students preparing to teach in primary schools undertake at least one discipline-based study in another faculty or school.

Recommendation 20

It is recommended that all students preparing to teach in secondary schools undertake discipline-based studies in faculties or schools other than faculties or schools of education.

Care is required in the implementation of Recommendation 18 to ensure that appropriate pedagogies are followed in preparatory and early years. Reliance on highly structured off-the-shelf kits to prepare the youngest children to pass NAPLAN in Grade 3 may be harmful.

Recommendation 19 concerning those preparing to teach in primary schools calls for a change in practice in some universities where all discipline studies are undertaken within a faculty or school of education. It may not be possible in some instances for students to undertake discipline-based studies in another faculty or school. However, it is desirable for students to gain knowledge and skill from those who specialise in particular disciplines, for example to learn from scientists or musicians or historians. Some faculties and schools of education will have staff that see themselves and are seen by others first and foremost as scientists or musicians or historians rather than teacher educators.

Those who seek to be specialist teachers of mathematics and/or science in secondary schools will have a deeper foundation in these fields in their QCE and, consistent with earlier recommendations, will have completed a bachelors degree with major and minor studies in these specialisations.

It is important to make clear that Recommendations 19 and 20 do not necessarily require all discipline-based studies to be undertaken in pre-service programs. It may be that most are conducted within a faculty or school of education in a joint/combined degree (see Recommendations 2 and 4). The particular benefit in Recommendations 19 and 20 is that they

propose the involvement of other faculties or schools in the work of teacher education, thereby building understanding and support of pre-service education. The review team encountered a view in the course of interviews that these connections should be better than they are. The blame, if any, should be shared both ways in the sense that some perceive faculties or schools of education as being remote from the real world of the disciplines while teacher educators may argue the same line of their colleagues elsewhere in the academy. Rather than form a judgement on the matter, it is the view of the review team that the wider university has an important role to play in the preparation of teachers.

Professional standards

Recommendation 21

It is recommended that professional teaching standards be reviewed to ensure they are expressed in parsimonious lists that are jargon-free and capable of reliable evidence-based assessment.

It was noted in the course of the review that pass-rates in some if not most subjects in pre-service programs exceed 95 per cent. This may be viewed as a matter of concern in situations where students with relatively low OP scores are admitted to pre-service programs. This reinforces the importance of having professional standards that are capable of reliable evidence-based assessment, as set out in the above recommendation. It also reinforces the importance of having a moderation process within and across universities. It was noted that the Queensland College of Teachers is currently considering such a process.

More detailed specification in the Second Report

The Second Report will provide a more detailed specification of approaches to implementation, especially in respect to subjects/units of study and pre-requisites, as well as strategies for implementation of the 20 recommendations listed above. Particular attention will be given to early childhood education, behaviour management, Indigenous education, students with disabilities, parental engagement and special features associated with different stages of schooling such as middle schooling.

Conclusion

The review found that Queensland is well-placed to create a world-class system of teacher education and school induction. Reflecting developments already under way in some of its universities and elsewhere around Australia, and in other nations that have made the change, teaching should now become a graduate profession. Higher standards of entry to pre-service programs should be set and new kinds of partnerships should be established between universities and schools. These schools will excel in fields that are critically important for preparing teachers in the 21st Century at the same time that they model outstanding practice that addresses current needs and priorities. The review found a range of exciting innovations in teacher education in Queensland that should give confidence that international benchmarks can be achieved. Queensland can make a major contribution to, if not lead the way, in current efforts by the Australian Institute for Teaching and School Leadership (AITSL) to build a new framework for teacher education in Australia.

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Appendix 1

Reference Group

Stakeholder Sector	Name	Organisation	Position Held
Chair	Ms Julie Grantham	Department of Education and Training	Director General
Project Leadership	Professor Brian Caldwell	Educational Transformations	Co-leader
	Mr David Sutton		Co-leader
Universities	Professor Michael McManus	The University of Queensland	Dean, Academic Programs
	Professor Annette Patterson	Queensland University of Technology	Head, School of Cultural & Language Studies in Education
	Professor Nita Temmerman	University of Southern Queensland	Pro-Vice-Chancellor, Academic Programs; Dean, Faculty of Education
	Dr Janelle Young	Australian Catholic University	Faculty Post Graduate Masters Co-ordinator, School of Education
	Professor Marilyn McMeniman	Griffith University	Deputy Vice-Chancellor and Provost
	Dr Helen Huntly	University of Central Queensland	Head, School of Learning & Innovation, Faculty of Arts, Business, Informatics & Education
	Assoc Professor Deborah Heck	University of the Sunshine Coast	Associate Professor in Science Education, Faculty of Science, Health & Education
	Professor Nola Alloway	James Cook University	Pro- Vice-Chancellor, Faculty of Arts, Education and Social Sciences
Office of the Chief Scientist	Professor Peter Andrews	Office of the Chief Scientist	Queensland Chief Scientist
Unions	Ms Miriam Dunn	Queensland Independent Education Union	Research Officer
	Ms Lesley McFarlane	Queensland Teachers Union	Research Officer
Queensland College of Teachers	Mr John Ryan	Queensland College of Teachers	Director
Human Resources, DET	Mr Patrick Bryan	Department of Education and Training	Executive Director, Workforce Planning & Performance

Stakeholder Sector	Name	Organisation	Position Held
Principals' Associations	Ms Gail Armstrong	Queensland Secondary Principals' Association	Representative
	Mr Norm Kerley	Independent Primary Principals' Association	Representative
	Mr Steve Montgomery	Brisbane Archdiocesan Catholic Primary Principals' Association	Representative
	Mr Ches Hargreaves	Australian Special Education Principals' Association & Association of Special Education Administrators in Queensland	Representative
Parents	Mr Garry Cislowski	Joint Parents Committee	Representative
Schools	Ms Lyn McKenzie	Education Queensland	Deputy Director General, DET
	Mr John Percy	Queensland Catholic Education Commission	Executive Officer – Education
	Mr Mark Newham	Independent Schools Queensland	A/Director, Education Services
Additional Members	Professor Bob Lingard	The University of Queensland	Professorial Fellow
	Dr Amanda Bell	Brisbane Girls Grammar School	Principal
	Mr Selwyn Button	Queensland Indigenous Education Consultative Committee	Representative
	Dr Deborah Gahan	Early Childhood Australia	Representative
Project Management	Mr Ian Kimber	Office of Higher Education DET	Project Oversight
	Ms Ros Capeness	Queensland College of Teachers	Project Manager
	Mr Alan Smith	Office of Higher Education DET	Project Liaison
	Ms Philpa Duthie	Office of Higher Education, DET	Project Administration
Observer	Ms Debbie Kember (May-June 2010) Mr John Boustead (from August 2010)	Australian Institute for Teaching and School Leadership	General Manager, Brisbane

Appendix 2

Invitation to make a submission

Re: A Flying Start for Queensland Children Review of Teacher Education and School Induction - Call for submissions

The review of teacher education and induction programs is one of the projects outlined in the implementation plan of the Education Green Paper, *A Flying Start for Queensland Children* and is being led by the Department of Education and Training, through the Office of Higher Education.

The review is jointly led by Professor Brian Caldwell and Mr David Sutton. Professor Caldwell is Managing Director and Principal Consultant, Educational Transformations and former Dean of Education at the University of Melbourne and University of Tasmania. Mr Sutton is the former principal of Brisbane State High School, and currently acting principal at Ferny Grove State High School and Principal in Residence at Queensland University of Technology.

The key outcome of the review will be delivery of a report to government detailing findings on:

- The extent to which current teacher education programs prepare beginning teachers who effectively use evidence-based approaches in their professional practice, particularly when teaching literacy and numeracy
- The extent to which teacher education programs prepare beginning teachers with sound practical classroom knowledge and skills, and requisite specialist discipline knowledge
- The extent to which practicum arrangements in teacher education complement coursework components and contribute to the preparation of highly effective beginning teachers, and
- The support beginning teachers receive in their first years of teaching.

We are writing to seek your views and input on the effectiveness of pre-service teacher education programs and induction in preparing graduates for entry to professional practice in Queensland schools as beginning teachers. Submissions should address one or more of the following:

- A response to the specific issues regarding teacher education and induction raised in the Green Paper (ref: <http://deta.qld.gov.au/aflyingstart/pdfs/greenpaper.pdf> page 20)
- Strengths and shortcomings of current approaches to teacher education and school induction
- Recommendations on how teacher education and school induction should be improved
- Identification of outstanding programs or initiatives in teacher education and school induction, in Queensland, elsewhere in Australia and in other countries, that should be examined in the review
- Other matters that you consider relevant to the enclosed Terms of Reference

You are invited to indicate if you or other colleagues wish to meet the co-leaders to discuss your submission and related matters.

Please send your submissions to the project manager Ms Ros Capeness at PO Box 389 Toowong, QLD 4066 or via email to Ros.Capeness@qct.edu.au. If you have any questions regarding the submission, please contact the project manager for further information.

Final date for submissions will be close of business on 30 June 2010

Yours sincerely



Professor Brian Caldwell
Co Leader



Mr David Sutton
Co Leader

Appendix 3

Submissions

Submissions were received from the following organisations.

Australian Catholic University (ACU) (Queensland)

- Central Queensland University (CQU)
- Department of Education and Training (DET)
- Deans of Education (response to related matters in the Green Paper)
- Griffith University
- James Cook University (JCU)
- Independent Schools Queensland (ISQ)
- Queensland Catholic Education Commission (QCEC)
- Queensland College of Teachers (QCT)
- Queensland Teachers Union (notes for initial meeting with co-leader David Sutton)
- Queensland University of Technology (QUT)
- The University of Queensland (UQ)
- University of Southern Queensland (USQ)
- University of the Sunshine Coast (USC)

Appendix 4

Interviews

The review leaders have conducted consultations and interviews with the following individuals and stakeholder groups up to and including August 13:

- QCT Board
- Mr John Ryan — Director, QCT and Reference Group member
- Ms Jill Manitzky — Acting Assistant Director Professional Standards, QCT
- Professor Peter Andrews — Queensland Chief Scientist
- Mr Gary Barnes — Chief Executive, Department of Education and Training, NT
- Beginning Teacher focus group — BETA Conference, Townsville
- James Cook University teacher educators
- Ms Cindy Hales and Mr Leigh Schelks — DET (Remote & Rural Induction)
- Professor Robin McTaggart — Executive Dean of Education and Indigenous Studies
- Ms Lesley McFarlane — Reference Group Member (QUT)
- State Primary Principals Association
- The University of Queensland focus group
- Professor Bob Lingard — Reference Group Member (Education Advisor)
- The University of Queensland teacher educators
- Professor Annette Patterson — Reference Group Member (QUT)
- Mr Patrick Lee and Dr Graeme Hall — AITSL
- Dr Cathy Day — Diocesan Education Council
- Professor Field Rickards — Dean, Graduate School of Education, University of Melbourne
- Professor Patrick Griffin — Deputy Dean and Director, Assessment Research Centre, Graduate School of Education, University of Melbourne
- Ms Ros Bell — Director, QCT QEPR Project
- Professor Nan Bahr (QUT)
- Associate Professor Glenn Finger (GU)
- Mr Pat Bryan, Mr Gary Francis and Ms Melissa Bennett — DET Workforce Futures
- Ms Nina Carter — DET
- Dr Chris Sarra — Executive Director, Smarter Stronger Institute
- AISQ Education Committee
- Deborah Gahan (Early Childhood Australia)
- University of the Sunshine Coast teacher educators
- Mr Norm Hart (QASSP), Mr Norm Fuller (QSPA) and Mr Ches Hargreaves (ASEAQ)
- Dr Helen Huntly — CQU
- Ms Andrea Cornwell (DET)
- Principal and staff Ballandean SS
- Principal and staff Albany Hills SS
- Principal and staff Pine Rivers SHS

