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**Department of Education,
Science and Training**

**SUBMISSION TO THE HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON EDUCATION AND
VOCATIONAL TRAINING
INQUIRY INTO TEACHER EDUCATION**

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EXECUTIVE SUMMARY

Introduction

The Australian Government welcomed the decision by the House of Representatives Standing Committee on Education and Vocational Training to conduct an inquiry into the quality of teacher-training courses.

"Second only to the role of a parent, the single most influential person in a child's life is their teacher. The quality of teaching in our nation's schools is one of the most important determinants of student success and every Australian child deserves to be inspired and informed by teachers of the very highest quality. World-class preparation of graduating teachers is essential if they are to meet the demands of teaching in the twenty-first century."

(The Hon Dr Brendan Nelson MP, Minister for Education, Science and Training, in his media release welcoming the National Inquiry into Teacher Training on 17 February 2005)

Schools and school teachers play a critical role in building the foundations for Australia's future. The significance of the impact of the quality of the teacher on student outcomes is reinforced by an increasing body of cogent local and international research.

While the constitutional responsibility for school education lies with state and territory government and non-government authorities, the Australian Government has exercised its national leadership role and taken action to improve the quality of schooling. This role is particularly important in funding initiatives aimed at accelerating the learning outcomes of Indigenous students. Its policies and programmes to do this are underpinned by the belief that every Australian child deserves to be inspired and informed by teachers of the very highest quality.

Through its responsibilities in the higher education sector and the significant supplementary funding provided to state and territory government and non-government schools, the Australian Government is taking action to support teacher education and professional development as part of its reform agenda to achieve higher standards and values in schools. This agenda identifies developing the teacher workforce and raising the quality and status of the profession as key priorities.

The Australian Government will provide a record \$30.5 billion in recurrent funding for schools over the 2005–08 quadrennium. In addition, the Government has provided significant levels of targeted funding to enhance the quality of teaching.

Initiatives include the new National Institute for Quality Teaching and School Leadership (NIQTSL), expressly established to enhance the standing and quality of the profession, and the Government's flagship initiative for improving the quality of school teaching and school leadership in Australia, the Australian Government Quality Teacher Programme (AGQTP). The Minister for Education, Science and Training, the Hon Dr Brendan Nelson MP, has also established a National Inquiry into the Teaching of Literacy.

Further, the Government's \$2.6 billion higher education reforms include actions specifically to support initial teacher education. The broad suite of measures to enhance schooling and teacher quality is detailed in the following chapters.

These measures reflect the Government's support as a signatory to *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century* (the National Goals), agreed to by all Ministers for Education in 1999. The National Goals state a commitment to enhance the status and quality of the teaching profession.

The current challenges that face the teaching profession provide a strong basis for examining both initial teacher education and ongoing professional learning to determine where further improvements could be made so that all Australian students may benefit from a high quality school education. The need for further examination of these issues was highlighted by the Australian Government's 2003 Review of Teaching and Teacher Education. This Inquiry provides an opportunity for the Australian education community to do this.

The development, key characteristics and effectiveness of the teaching profession

Results from recent international surveys of student achievement indicate that Australian school students are amongst the best educated in the world, in part evidencing the quality of Australian teachers. Compared with the averages for OECD countries, Australian students have more positive attitudes towards school, and reported more positive relations between students and teachers and higher levels of teacher support with learning.

However, the impact of the social, economic and technological changes that are occurring raise concerns about the capacity and status of the profession including in relation to the way in which teachers and school leaders are selected and prepared for a teaching career and continue to update their skills, knowledge and understanding during their career.

Such changes include the increasing number of students with special needs being enrolled in regular schools and classes, the expanding responsibilities of teachers including their role in the social and emotional development of students, an increasingly 'crowded' curriculum and rapidly changing information and communication technology.

A major challenge will be to ensure that teacher education places in higher education institutions match the areas of teacher shortage, such as in secondary specialist areas (languages, mathematics, science and technology). Other challenges include: the decreasing proportion of male teachers and the associated decline in numbers of male students in pre-service teacher education courses; attracting quality teachers to rural and isolated and other hard to staff schools; the high attrition rate from the teacher workforce especially after the first few years; and the management of cohort effects due to the retirement of a significant proportion of the teacher workforce in the next five to ten years. However, as the final report of the Review of Teaching and Teacher Education points out, this generational change provides an opportunity to regenerate teaching and learning, and to inject fresh approaches and ideas into schools.

Such challenges and opportunities highlight the need, more than ever, for strategies to build a teaching profession that is well-prepared by planned, high quality initial training supported by good induction and continuing professional learning. Further, these challenges also highlight the need to attract and support the best and most suitable candidates for teacher education courses through processes which reflect recent educational research showing that the characteristics of good teachers go beyond subject knowledge to personal characteristics and pedagogic style.

Range, resourcing, delivery and impact of programmes and initiatives to support the teacher workforce

State and territory government and non-government education authorities have principal responsibility for the employment of teachers and their professional development. As teacher employers, they are responsible for teacher salaries and conditions, and are able to attract, and retain, teachers through a range of financial and non-financial incentives. Consequently, a key challenge will be to ensure that the states and territories continue to develop and implement effective strategies and programmes to address issues in relation to teacher recruitment, retention and development.

However, the Australian Government has provided significant support in terms of funding and programmes, as well as setting a national policy agenda, to enhance teacher quality in schools. The Australian Government is the major funding source for initial teacher education and provides significant funding for ongoing professional development in recognition of the central role of teacher quality in supporting the Government's objective to achieve higher standards and values in schools.

The publication of the report of the Committee for the Australian Government's Review of Teaching and Teacher Education in 2003, *Australia's Teachers: Australia's Future: Advancing Innovation, Science, Technology and Mathematics*, has been of particular significance at the national level. The Review's Agenda for Action recommended over 30 actions relating to attracting and retaining teachers, strengthening teacher education and career-long professional learning.

A key message which emerged from the Review was that more action was needed to make teaching a career of choice. As the responsibility for a workforce management strategy lies primarily with employing authorities in partnership with teacher education providers and regulatory bodies, many of the recommendations have direct relevance to these groups. Nevertheless, the Australian Government has already funded a number of initiatives to support the Agenda for Action.

The NIQTSL was launched in June 2004. Its establishment fulfils one of the major recommendations of the 2003 Review and advances the Government's commitment to raising the quality, professionalism and status of teachers. The Institute's programme of work will allow it to move towards some significant outcomes for the education profession, including a national system of advanced standards for teachers; a national system of accreditation of pre-service teacher education programmes; a national approach to enhancing professional learning for school leaders; and enhancements to the quality of ongoing professional practice through national professional learning strategies and opportunities for teachers.

The Institute is funded by the AGQTP which is the Government's lead programme for improving teacher quality. More than 240,000 professional development opportunities have been taken up by teachers since the programme began in 1999. The AGQTP has received funding of \$159 million over the period 1999–2000 to 2004–05.

The recent evaluation of the AGQTP highlighted its effectiveness and noted that there is a continuing imperative for a single national programme that focuses explicitly on teacher and school leader professional learning needs to address contemporary and emerging challenges in Australian schooling. The Government has recently announced a further \$139 million for the programme so that it may continue to the end of 2009, bringing its investment in the programme to almost \$300 million.

The Australian Government supports the development of the teacher workforce through many other programmes, including initiatives focusing on specific issues such as the use of information and communication technologies (ICTs) and approaches for creating a safe and supportive school environment. In addition to its own targeted initiatives and programmes, the Australian Government will continue to work with education authorities in states and territories and the relevant MCEETYA arrangements to progress strategies for supporting the teacher workforce.

Conclusion

While much of the responsibility in this area lies with employing authorities in partnership with teacher education providers and regulatory bodies, other institutions such as governments and professional associations must share the challenge of supporting high quality provisions with nationally consistent and robust measures.

The Australian Government recognises the importance of its leadership role in supporting the teaching profession in this regard, in partnership with many other stakeholders, so that together we can produce and nurture exceptional and innovative Australian teachers and school leaders.

The Australian Government considers the following challenges and opportunities as crucial to the policy agenda in enhancing initial and ongoing teacher education:

Context

- The status and image of the teaching profession – there is evidence of improvement through increasing numbers of applications for teacher education courses; however, there also remains the issue of an increasing imbalance in gender terms and high attrition rates;
- changes to the role, responsibilities and expectations of the teacher in the context of social, economic and technological changes.

Initial training

- Gauging the suitability of applicants for teacher education in ways that provide a better match between students' aptitudes and talents and the contemporary demands of the teaching role;
- the quality of the practicum – including exploring new options such as internships as highlighted by the Review of Teaching and Teacher Education;
- the need for closer partnerships between schools and teacher education faculties in preparing teachers and supporting them during the early stages of their teaching careers;
- the need for a coordinated national approach to agreeing on appropriate course content and the role of the new NIQTSL and other established bodies in determining content and quality of course offerings at higher education institutions; and
- an appropriate balance in initial teacher education courses between practice and theory so that teachers have the skills to manage classroom environments in varying school contexts.

Continued professional learning

- The nature and extent of professional learning provisions and how these impact on student outcomes;
- the availability of information on professional learning activities for practising teachers – the Australian Government's Schools Assistance Act requires reporting on professional learning expenditure and participation;
- setting and maintaining teaching standards to lift quality and status; and
- the content and delivery of professional learning activities.

Workforce planning

- Career incentives to retain high performing teachers;
- better management of the link between teacher education enrolments and areas of need;
- increasing the diversity of the teaching profession in order to better reflect the contemporary diversity of Australian society;
- the need for better data collection; and
- new models for entry to teacher education courses to encourage mature age and career change entry.

Significant progress has been achieved to enhance the quality and status of the teaching profession with powerful new developments in the areas of quality assurance and standards paving the way for further improvements. The emerging forces for change provide real opportunities for the tertiary sector to strongly engage with the schools sector and make a positive difference.

The background to the Australian Government's role in initial teacher education and ongoing professional learning, its initiatives to support this role, and current developments and issues are outlined in more detail in the following chapters.

- Chapter One – provides an outline of the broad context of teacher education and professional learning in Australia, including the Australian Government's role and recent major initiatives;
- Chapter Two – outlines policy trends and innovations;
- Chapter Three – provides a description of Australian Government specific areas of interest and action; and
- Chapter Four – describes recent key Australian studies and research findings.

CHAPTER ONE

TEACHER EDUCATION AND PROFESSIONAL LEARNING AND DEVELOPMENT IN AUSTRALIA – THE POLICY SETTING

Introduction

“Second only to the role of a parent, the single most influential person in a child’s life is their teacher. The quality of teaching in our nation’s schools is one of the most important determinants of student success and every Australian child deserves to be inspired and informed by teachers of the very highest quality. World-class preparation of graduating teachers is essential if they are to meet the demands of teaching in the Twenty-First century.”

(The Hon Dr Brendan Nelson MP, Minister for Education, Science and Training, in his media release welcoming the National Inquiry into Teacher Training on 17 February 2005)

The Australian Government recognises that teachers and school leaders are at the heart of educational achievement. As such, its key priority in schools is to raise the quality, professionalism and status of our teachers. Its policies also recognise and respond to the current challenges that face our teaching profession.

Like their counterparts in other developed countries, Australian teachers and school leaders are experiencing an unprecedented transition in their role and status and demands on them are becoming increasingly multi-faceted.

Over the past two decades, a range of converging factors has served to render this change. Predominant amongst them are the swiftly changing social, economic and technological conditions often referred to as ‘new times’. Amongst these imperatives are the impact of globalisation, the rapid emergence of new information and communication technologies, the consequent new (knowledge-based) economy, and the need for Australia to remain competitive, including in the increasingly important arena of education, with institutions whose programmes and practices are benchmarked against the best practice on offer in comparable institutions around the world.

These developments are written about so frequently that it is not considered necessary to detail them here. This submission will, however, make reference to their impact and interconnections with other significant changes affecting the Australian school sector and its teachers and school leaders. Of interest are changes over the last decade in the student population, both in primary and secondary schools. The need for greater flexibility and choice in order to meet students’ changing needs has emerged as a key issue for consideration.

The ultimate purpose of the school sector is the improvement of student performance and achievement for both individual and community benefit. Given the increasing understanding of the significance of teacher quality and effectiveness on student outcomes, there is a clear rationale for examining both initial teacher preparation and ongoing professional learning in order to identify and progress continuous improvement in these areas and to contribute to providing the best school education possible for Australian students.

The Australian Government has been keenly aware of these significant trends and challenges for the teaching profession and has taken significant and decisive action, particularly over the past decade, making a major contribution to supporting Australian school teachers and leaders in their entry to the profession and their quest for improvement.

"The Government's policies provide a blueprint for continued improvement and change in education – this work is underpinned by the key themes of consistency, quality, equity, sustainability, diversity and choice."

(Dr Nelson at the Sustaining Prosperity Conference at the University of Melbourne, 31 March 2005)

Context

Australian school students 1994–2008

In August 2004, there were 3,331,964 full-time school students. This compares with 3,099,380 a decade earlier. The respective changes in primary school numbers over the decade are 1,825,740 in 1994 to 1,931,791 in 2004 and in secondary schools 1,273,640 in 1994 to 1,400,173 in 2004 (ABS, 2004:13).

These figures underscore two main developments in student numbers during the last decade:

- the fall in enrolments in primary schools experienced in the earlier decade came to a halt and enrolments began to climb again; and
- enrolments in secondary schools have continued to rise but at a much slower rate.

Data indicate that there will be little growth in the total number of students in the first decade of the 21st century. The data also suggest that there is some shift in the distribution of students between the primary and secondary sectors (see Table 1 below).

Table 1: Actual and projected numbers of full-time school students, by sector, Australia, 2002–08

| Sector | 2002 | 2003 | 2004 | 2005* | 2006* | 2007* | 2008* |
|--------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Primary | 1,931,346 | 1,929,170 | 1,931,791 | 1,930,821 | 1,931,601 | 1,946,398 | 1,957,633 |
| Secondary | 1,370,403 | 1,389,450 | 1,400,173 | 1,416,540 | 1,431,473 | 1,444,708 | 1,453,840 |
| <i>Total</i> | <i>3,301,749</i> | <i>3,318,620</i> | <i>3,331,964</i> | <i>3,347,361</i> | <i>3,363,074</i> | <i>3,391,106</i> | <i>3,411,473</i> |

* Projected numbers

Source: 2002–04: ABS (2004); 2005–08: DEST estimates 2005

In 2004, age participation rates for full-time school students were 93.4 per cent for 15 year olds, 82.8 per cent for 16 year olds and 63.6 per cent for 17 year olds (the latter rising from 59.7 per cent in 1994 (ABS, 2004: 3).

The teaching workforce

Teaching is one of the largest professions in Australia with 264,919 teaching staff in 2004. This is somewhat larger than nursing, for example. There were 228,230 employed nurses in 2001.

A significant number of persons who qualify to teach do not enter or remain in teaching employment. In 2002, of the 367,000 Australians with teaching qualifications, about 117,000 were working outside education.

A sizeable number of teachers are on state employment lists seeking ongoing teacher positions. (In 2003, there were 31,000 in New South Wales, Queensland and Western Australia.)

There is also a significant number of students enrolled in teacher education courses. In 2003, there were 59,144 domestic students enrolled in initial teacher training in Australian universities.

Possibly up to 25 per cent of commencing teachers leave their current teaching position, and possibly the profession, within their first five years of teaching.

The national teacher labour market has broadly been in balance in recent years.

However, there are ongoing current recruitment difficulties in secondary specialist areas (mathematics, science and technology) and geographic areas. Further, Australia is likely to face increasing shortages of teachers due to age-based retirement in coming years.

Depending on the extent and effectiveness of new initiatives implemented by employers to address emerging teacher shortages, Australia could face shortages of tens of thousands of teachers over the next few years. The 2003 MCEETYA report, *Demand and Supply of Primary and Secondary School Teachers in Australia*, concluded that shortages of possibly up to 20,000 to 30,000 teachers could occur later this decade.

Similarly, the age profile of Australia's principals and other school leaders suggests that demand for professionals with the necessary skills and experience to fill these positions may be very high should the current retirement pattern continue.

Increasing recognition of impact of the teaching profession

Recent educational research findings tell us that the impact of teachers is significant and that well prepared and qualified teachers make the difference. National and international research has found a strong positive link between quality teaching and student learning outcomes. For example, a recent Australian study found that "after adjusting for measures of students' 'abilities', gender and school sector ... class/teacher effects consistently accounted for an average 59% of the residual variance in students' achievement outcomes ...". (Rowe and Rowe, 2002: 32).

An Australian Council of Deans of Education discussion paper considers educational research that demonstrates how teacher quality is the single greatest in-school factor affecting student achievement, more important than classroom related issues such as resources, curriculum guidelines, and assessment practices, or the broader school environment such as school culture and organisation. The authors observe that "these new pedagogical understandings are serving as a guide for developing teaching standards and for decision making about the sorts of skills with which teachers should be equipped" (Lovat with Mackenzie, 2003:2).

"Government education policy at home and abroad is increasingly reflecting this research evidence and recognition that the quality of teachers and their teaching has a very significant impact on the quality of school students' educational experiences and outcomes is now widespread. The 'education and training of teachers' is seen by the European Commission as one of 16 quality indicators for education."

(Directorate-General for Education and Culture, European Commission, 2000)

At a meeting of OECD education ministers in Dublin on 18–19 March 2004, of the two interconnected themes, "Raising the Quality of Learning for All" and "Improving Teacher Supply and Effectiveness", it was the question of teachers which was considered by organisers to have aroused the most interest (OECD, 2004b). The issues discussed are ones which find common concern across member and non-member countries, as was best evidenced by the high level of engagement with the OECD's recent (2002–04) major project investigating "Teachers Matter: Attracting, Developing and Retaining Effective Teachers" in which 25 countries, including Australia, participated.

Quality and image of the Australian teaching profession

If teachers are the key to a quality education, then the question arises as to what makes a good teacher. Amongst the evidence available in educational research, responses include personal

characteristics, knowledge of subject matter and what it offers students, but also pedagogic style and effectiveness.

The generally high international standing of Australian students in the latest cycles of two international surveys of student achievement, the Programme for International Student Assessment (PISA 2003)¹ and the Trends in International Mathematics and Science Study (TIMSS 2002/03)² released in December 2004, shows that Australian students are amongst the best educated in the world on these measures and provides evidence of the quality of Australia's education systems, and through this Australian teachers.

As well as assessing the skills of 15 year old students, PISA collects information from students about their attitudes to school. Compared with the averages for OECD countries, Australian students had more positive attitudes towards school, and reported more positive relations between students and teachers and higher levels of teacher support with their learning.

Evidence of an increasingly positive image of teaching can be found in the increase in numbers of applicants for teacher education courses. After years of difficulty in recruiting high quality and well qualified people to teaching, there is recent positive evidence of numbers of applications from high quality candidates exceeding available places in pre-service education programmes (Skilbeck and Connell, 2003:72).

This trend is emerging in other nations as well. Ralph Tabberer (2004), Chief Executive of the United Kingdom's Teacher Training Agency, stated recently that a marked increase in the number of people beginning all forms of preparation for teaching in England in the 2004–05 year reflected a change in the image of the profession:

“... teaching – the profession on which all others depend – is now widely recognized as a career which offers intellectual stimulation and the day to day satisfaction of working with children”.

While the quality and performance of Australian teaching and teachers in schools is acknowledged at home and abroad, in light of the impact of the social, economic and technological changes outlined above, there are still concerns about the capacity and status of the profession including in relation to the way in which teachers and school leaders are prepared and update their skills, knowledge and understanding during their career. More than ever, there is a need to ensure well planned, high quality initial training, supported by good induction and continuing professional learning. Many teachers are looking for more assistance with how to prepare for, cope with and achieve success and excellence in their changing role.

Both in Australia and other countries, reflection and critique of this kind are key elements in the cycle of continuous improvement in which educators readily engage.

Policy issues

Philosophical, practical and methodological issues arising from the context described above and receiving current attention amongst government policymakers, teacher educators, student teachers, teachers and school leaders, school students, parents, business, industry and community members include:

¹ PISA assesses the reading, mathematical and scientific literacy skills of 15 year old students on a three year cycle. Australian students performed very well in PISA 2003, achieving mean scores significantly above the OECD average in the three core assessment areas, and in the additional one-off assessment of cross-curricular problem solving skills.

² TIMSS tests students at Year 4 and Year 8 in mathematics and science, and collects information on teachers and classroom practice. In TIMSS 2002/03 Australian students achieved significantly above the international averages in Year 4 science and Year 8 mathematics and science, and at the international average for Year 4 mathematics.

- questions about changes to the role, responsibilities and expectations of the teacher in “new times” and how beginning, early career and continuing teachers can be prepared, supported and renewed to deal with these developments;
- what should teachers know and be able to do;
- how should they be taught;
- what philosophy or approach should guide teacher education courses;
- who should carry the main role and responsibility for preparing student teachers for the profession;
- how should teacher educators be qualified;
- what sort of balance should there be in teacher education courses between practical experience and educational theory;
- how to get practical experience time, quality placements and supervisors;
- what is the best/available time for practical experience in preparatory teacher education programmes;
- how should the practicum be structured;
- how to manage an ageing workforce with shortages in certain key teaching and geographic areas;
- how to attract high quality candidates to teacher preparation programmes;
- how to recruit appropriately and highly qualified entrants to the profession, with the situation liable to change as social and economic conditions change;
- questions around how the continuing professional development of teachers can be given greater priority and what further provisions should be made now to ensure that teachers and school leaders update their knowledge and practice; and
- questions about what can be done to reward and retain particularly effective teachers.

Recent developments in relation to these issues are explored further in Chapter Two of this submission.

From as far back as 1966, in Principle 13 of the 1966 UNESCO ‘Recommendation Concerning the Status of Teachers’, there has been an expectation of the “responsibility of government to maintain an appropriate standard of professional competence in the teaching profession” (Bates, 2004:119).

The Australian Government willingly accepts a leadership role, in partnership with many other stakeholders, in achieving and assuring high quality, well qualified and innovative Australian teachers and school leaders. It maintains, however, that as with other professions, those in teaching are entitled to have a say in overseeing and managing their own domain. Teachers and school leaders thus also have legitimate interests and positions regarding their preparation for and development in the profession.

Strategically implemented partnerships between stakeholders will be key to the essential ongoing work required in both areas. While much of the responsibility for a workforce management strategy lies with employing authorities in partnership with teacher education providers and regulatory bodies, other institutions such as governments and professional associations must share the challenge of designing and implementing mechanisms to ensure that each part of the strategy incorporates effective methods of quality assurance. It is the

Australian Government's position that mechanisms for ensuring quality must be nationally consistent and robust.

The Australian Government works on these issues with the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) and its taskforces. In relation to the issues of central interest to the Inquiry into Teacher Education, the Government's membership of and relationship with the Teacher Quality and Educational Leadership Taskforce has been most significant.³

The Australian Government provided initial funding of \$10 million in June 2004 to establish the National Institute for Quality Teaching and School Leadership which will include in its functions critically important work in developing standards for recognising high quality teachers and school leaders, and accreditation for teacher training courses.

The Carrick Institute for Learning and Teaching in Higher Education was also established by the Australian Government in 2004 as a national focus for the enhancement of learning and teaching within Australian higher education. During 2005 The Carrick Institute is planning and developing its systems and processes so that it will be fully operational in 2006 when the funding for its activities and programmes becomes available.⁴

The Australian Government's role in Australian teacher education and professional learning and development

The Australian Government's long-standing interest and role in relation to initial and ongoing teacher education is driven by the recognition of the importance of teacher quality in improving student outcomes and the national leadership role and capacity that the Government has in this area. Through its responsibilities in the higher education sector and the significant supplementary funding provided to state and territory government and non-government schools, the Australian Government is leading initiatives to support teacher education and professional development as part of its reform agenda to achieve higher standards and values in schools. These initiatives reflect the Government's belief that high quality teachers and school leaders are crucial for successful outcomes for our young people and should be valued and rewarded for their commitment to developing the skills and knowledge of Australia's next generation. The measures being carried out also reflect the Government's support as a signatory to *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century*.

National Goals for Schooling in the Twenty-First Century

The Adelaide Declaration on the National Goals for Schooling in the Twenty-First Century, agreed to at the April 1999 meeting of MCEETYA acknowledged "the central role of teachers in the learning process" and stated that "the achievement of these common and agreed national goals entails a commitment to collaboration for the purposes of . . . enhancing the status and quality of the teaching profession".

Initial teacher education

Teacher education is delivered by the majority of publicly funded universities and four private higher education providers.⁵

³ MCEETYA is reviewing its taskforces and it can be anticipated that there will be a change in composition and direction following the MCEETYA meeting in May 2005.

⁴ The responsibilities of The Carrick Institute for Learning and Teaching in Higher Education will include the management of a major competitive grants scheme for innovation in learning and teaching and liaison with the higher education sector about options for articulating and monitoring academic standards. It will also be responsible for the development of mechanisms for the dissemination of good practice in learning and teaching in Australian higher education.

⁵ Tabor College (SA), Christian Heritage College (Qld), Avondale College (NSW) and the University of Notre Dame, Australia (WA).

Public funded universities receive significant funding from the Australian Government, through arrangements specified in the *Higher Education Support Act 2003*. This Act sets out the responsibilities and accountability requirements for universities in receipt of Commonwealth funding.

Through provision of this funding the Australian Government is able to set teacher education as a national priority.

There are various pathways for teacher education. For primary teachers, the most common pathway is a four-year undergraduate degree. For secondary teachers, the most common pathways are an undergraduate degree in discipline subjects followed by a graduate degree in education or a double undergraduate degree programme.

There is a large number and diverse range of programmes offered by higher education providers. There is considerable variation in content, with all programmes providing an interrelationship of educational theory, pedagogy, disciplinary/content learning, and practical classroom experience. The structure of programmes is also extremely varied.

While there is no single model or requirement linking teacher education and teacher accreditation and registration, most employers require four-year graduate training for employment.

Teacher and school leader professional learning and development

While tertiary institutions offer important professional learning opportunities for practising teachers, the vast majority of professional learning for Australian teachers following their initial training is provided by employing bodies and professional associations.

The Australian Government does not employ teachers or school principals nor set their conditions of employment. However, it does provide a considerable proportion of funding for Australian school education. Australian Government financial assistance for government and non-government schools, provided under the *Schools Assistance (Learning Together – Achievement through Choice and Opportunity) Act 2004*, over the period 2005–08 is worth \$33 billion in total.

Through the provision of funding and setting a national policy agenda, the Australian Government plays a significant role in supporting professional learning activities. These include a variety of programmes, either focussing directly on teacher and/or school leader professional learning, such as the AGQTP, or with professional learning as a significant component of programmes that support improved educational experiences and outcomes for Australian school students.

Such support contributes to the Australian Government's key priority of developing the teacher workforce, as identified in its Plan for Higher Standards and Values in Schooling.⁶ This plan outlines the Government's commitment to enhancing teacher quality, building on its earlier *Teachers for the 21st Century* initiative (Department of Education, Training and Youth Affairs, 2000).

Teachers for the 21st Century: Making the Difference

The Australian Government policy role in relation to the need for strategic national professional development for teachers and school leaders was clearly articulated with the announcement of the *Teachers for the 21st* initiative in 2000.

⁶ The Coalition's Plan for Higher Standards and Values in Schools, 2004 Election Policy Document, http://www.liberal.org.au/default.cfm?action=plaintext_policy&id=2918

This policy aimed to improve teacher quality and increase the number of highly effective Australian schools in order to maximise student learning outcomes by:

- raising the quality of teaching through targeted professional development and enhancing professional standards;
- developing the skills of school leaders;
- supporting quality school management; and
- recognising and rewarding quality schools, school leaders and teachers.

These goals are reinforced by the Government's priority of developing the teacher workforce.

Current key Australian Government national policy initiatives in relation to teacher education

The Australian Government's role in teacher preparation and professional learning and development is not solely as a major shareholder in terms of the provision of funding. The Government's preparedness to fund these fundamentally significant aspects of Australian education is a reflection of its recognition of their significance to the maintenance and improvement of Australian school education broadly and to the quality of experiences and outcomes for Australian school students now and into future decades of the twenty-first century.

This commitment is reflected in the actions the Australian Government has taken in response to the Review of Teaching and Teacher Education and is also exemplified in four key recent initiatives.

Teaching as a national priority area in recent higher education reforms

As part of the *Our Universities: Backing Australia's Future* package of higher education reforms, the Australian Government made a commitment to provide additional support for areas identified as National Priorities. This will allow the Government to respond to current and emerging national needs, such as shortages in particular areas of the labour market, and the education of students from low income backgrounds and Indigenous students. Teaching and nursing have been identified as initial key areas of National Priority to ensure an adequate supply of high quality graduates for Australia's schools and hospitals.

One measure the Australian Government is using to support the identified National Priority areas is the setting of lower student contribution ranges for units of study undertaken in these fields of education. This means that, in 2005, higher education providers cannot set student contribution amounts for education units of study above \$3,847 for an equivalent full-time student load (EFTSL) in a Commonwealth supported place.

The Australian Government also prioritised teaching in the allocation of new Commonwealth supported places in 2004. Of the 9,100 new Commonwealth supported places which commenced in 2005, around one in six (1,584) were teaching places. These additional places brought the total number of Commonwealth supported teaching places offered this year to over 45,000.

The total number of teaching places is expected to rise again in 2006 to 46,124. This does not include the additional teaching places that will be available at private higher education providers as a result of the Australian Government's decision to set aside up to 1,400 Commonwealth supported places for allocation to private providers in National Priority areas.

The 46,124 figure also does not include teaching places that will be offered by higher education providers on a fee-paying basis. Importantly, as a result of the Australian Government's higher

education reforms, students who accept a fee-paying place will have access to an income contingent loan through the FEE-HELP programme⁷.

The Boosting Innovation, Science, Technology and Mathematics Teaching Programme

Backing Australia's Ability – Building our Future through Science and Innovation (BAA2) is a new package totalling \$5.3 billion over seven years from 2004–05. Announced by the Prime Minister on 6 May 2004, it builds on the initial 2001 Backing Australia's Ability investment of \$3 billion over five years to 2005–06. Together these packages constitute a ten year, \$8.3 billion funding commitment (stretching from 2001–02 to 2010–11) to pursue excellence in research, science and technology, through three key themes:

- the generation of new ideas (research and development);
- the commercial application of ideas; and
- developing and retaining skills.

Under the Developing and Retaining Skills theme \$38.8 million has been provided for a new teaching initiative – the Boosting Innovation, Science, Technology and Mathematics Teaching Programme, which will fund an estimated total of 500 *Australian School Innovation in Science, Technology and Mathematics* (ASISTM) school cluster projects (school partnerships with other schools, science organisations, tertiary education institutions, teacher professional associations, business and industry, and the broader community) to promote innovative approaches and cultures in schools, with a focus on the teaching and learning of science, technology and mathematics.

Through their involvement in this project, teachers' skills will be extended, their capacity and confidence to utilise educational opportunities beyond their schools will be increased and their ability to engage their students' interest through more meaningful learning experiences will be enhanced. In addition, through ASISTM, an estimated 1,300 "teacher associates" (tertiary students, researchers and other specialists in science, technology and mathematics) will be engaged for a limited duration as part of projects to help excite students' interest in, and boost the number of young people choosing careers in, science, mathematics and technology.

An anticipated longer-term benefit will be the generation of interest in teaching as a career among that cohort of young people involved in ASISTM projects as teacher associates.

The Australian Government Quality Teacher Programme

The major responsibility for professional learning rests with members of the profession and their employers. However, the Australian Government in acknowledging that raising the quality, professionalism and status of teaching is critical to improving student outcomes, has made a significant contribution to supporting professional learning for teachers and school leaders at a national level.

Raising the quality, professionalism and status of teachers is the Australian Government's key priority in schooling. The Australian Government Quality Teacher Programme (AGQTP) is the Government's lead programme for improving teacher quality.

The AGQTP was established in 1999 and has been the main means of implementing the Australian Government policy initiative *Teachers for the 21st Century: Making the Difference*. Both the programme and the policy support *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century*.

⁷ <http://www.goingtouni.gov.au/Main/Quickfind/PayingForYourStudiesHELPLoans/FEEHELP.htm>

The programme aims to update and improve teachers' skills and understanding in priority areas and to enhance the status of teaching. The recent evaluation of the programme highlights its effectiveness and notes there is a continuing imperative for a single national programme that focuses explicitly on teacher and school leader professional learning needs to address contemporary and emerging challenges in Australian schooling.⁸

The AGQTP provides funds to support professional learning for school teachers and leaders. It has received funding of \$159 million over the period 1999–2000 to 2004–05. More than 240,000 professional development opportunities have been taken up by teachers since the programme began.

The Government has recently announced a further \$139 million for the programme bringing to almost \$300 million its investment in the programme. The programme will now continue to the end of 2009 and the next phase will have the following objectives:

- to equip teachers with the skills and knowledge needed for teaching in the twenty-first century;
- to provide national leadership in high priority areas of teacher professional learning need; and
- to improve the professional standing of school teachers and leaders.

The project has three elements. State and territory teacher professional learning projects provide funding for professional learning activities for school teachers and leaders under agreements with state and territory based education authorities. Activities conducted under these projects address identified learning needs in pre-defined priority areas.⁹ Strategic national projects are designed to support the objectives and policy framework of the programme at a national level. These projects often address current or emerging high priority teaching and professional learning issues through sustained action research and sharing of resulting teaching and learning resources and best practice.¹⁰ The programme also funds the newly established National Institute for Quality Teaching and School Leadership.

The National Institute for Quality Teaching and School Leadership

The National Institute for Quality Teaching and School Leadership (NIQTSL) was launched by Dr Nelson on 3 June 2004. Its establishment fulfils one of the major recommendations of the 2003 Review of Teaching and Teacher Education and advances the government's commitment to raising the quality, professionalism and status of teachers.

At the launch of NIQTSL, Dr Nelson shared his vision for the NIQTSL as being "an important Institute that aims to raise the status, quality and professionalism of teachers and school leaders throughout Australia" (Nelson, 2004). He outlined six key characteristics of successful schools identified by Professor Geoff Masters of the Australian Council for Educational Research. Two of those are "leadership" and "teachers", who "need to be not only highly trained, but very much skilled in the best and most modern practices in relation to the teaching of children" (Nelson, 2004). Dr Nelson went on to articulate his vision for the Institute focussing on elevating the understanding and respect society has for teaching as a profession and strengthening the teaching profession's control of its own destiny, including its capacity to have

⁸ The external Final Report on the Evaluation of the AGQTP 1999–2004 will be made available to the Inquiry Committee. Further information about the AGQTP can be obtained from the Programme website at <http://www.qualityteaching.dest.gov.au>

⁹ For information on the state/territory education authority managed professional learning projects conducted during the first two phases of the programme, see the Final Report on the Evaluation of the AGQTP 1999–2004, which will be made available to the Inquiry.

¹⁰ For a summary of strategic national projects conducted during the first two phases of the programme, see the Final Report on the Evaluation of the AGQTP 1999–2004, which will be made available to the Inquiry.

a say in how candidates are prepared for entry to the profession and setting standards for teaching and school leadership and certifying against them (Nelson, 2004).

Now nearing full establishment, the vision for NIQTSL is to be the peak national professional body representing Australian teachers and school leaders. It will coordinate a national agenda for the advancement of the teaching profession, driving innovation and excellence in schools and providing intellectual leadership for the profession.

The Institute aims to strengthen and advance the standing of the teaching profession in Australia; support and advance teaching and school leadership in Australian schools through professional standards, learning and accreditation for teachers and school leaders; and strengthen quality assurance of teacher education programmes.

These functions are designed to complement and add value to the support already being provided for school teachers and leaders at the state and territory level, including through state/territory institutes/registration bodies. The Institute will work collaboratively with other professional bodies to contribute to the quality, reputation and standing of the education profession in the interests of achieving the best possible educational outcomes from Australia's schools.

The Institute's programme of work will allow it to move towards some significant outcomes for the education profession. These include:

- a national system of advanced standards for teachers;
- a national system of standards for school leadership;
- a national system of accreditation of pre-service teacher education programmes;
- a national approach to enhancing professional learning for school leaders;
- enhancements to the quality of ongoing professional practice through national professional learning strategies and opportunities for teachers; and
- a strengthened national research and evidence base to inform quality teaching and school leadership.¹¹

¹¹ More information on the NIQTSL can be obtained from www.NIQTSL.edu.au

CHAPTER TWO

TEACHER WORKFORCE – PREPARATION, PROFESSIONAL LEARNING AND DEVELOPMENT – POLICY TRENDS AND INNOVATIONS

Introduction

This chapter presents discussion around policy trends and innovations in the areas identified in the draft Synthesis Report and the Australian Country Background Report for the OECD “Attracting, Developing and Retaining Effective Teachers” project. Within this framework, it also explores developments in relation to some of the questions raised in Chapter One that were discussed at the Dublin OECD ministers’ meeting in March 2004 such as flexible career paths to teaching, enhanced by increased support for beginning and early career teachers; and planned lifelong learning opportunities (OECD, 2004b).

The OECD will shortly publish the Synthesis Report from the “Attracting, Developing and Retaining Effective Teachers” project, one of the largest and most significant education studies it has conducted. In addition to the preparation of Country Background Reports by participating countries, the project involved visits to nine countries by external review teams, data collections, commissioned research and workshops. The fact that so many countries participated in the project and that the five workshops and culminating conference for the activity were so well attended are indicators that teacher issues are a priority for public policy.

The issues raised in the report go to the heart of teachers’ work and careers and the draft Synthesis Report notes that the success of any reform in these areas requires that teachers themselves are actively involved in policy development and implementation. This is a position which the Australian Government supports wholeheartedly in its commitment to an enhanced sense and experience of professionalism for Australian teachers and school leaders and underpins Dr Nelson’s establishment of the National Institute for Quality Teaching and School Leadership (NIQTSL).

Teacher preparation

Quality of candidates for initial teacher education

The issue of what is quality in teacher education has two parts: quality of provision and approach, and the presence of students able and willing to reach high standards of knowledge, understanding and skills. The trend towards concern for quality over quantity identified by the OECD study is reflected in the increasing recognition that the quality of qualified teachers and their teaching is not only an outcome of the quality of their preparation and ongoing professional learning courses, but of their capacity. The Review of Teaching and Teacher Education concluded that “more has to be done to make teaching once more a career of choice and not, as it has been for too many, a fall back option” (Committee for the Review of Teaching and Teacher Education, 2003c: xxi).

Teaching – a graduate profession

In its 2003 discussion paper, *The Role of the Teacher: Coming of Age?*, the Australian Council of Deans of Education reviewed the history of teacher education in Australia and professional learning as background to exploring the issue of moves to ‘professionalise’ the field of teaching. It noted that:

"From the earliest days of public education, the need for a formal training period was recognized as essential if the credibility of the modern teacher was to match the tradition from which it had grown."

(Lovat with Mackenzie, 2003:6)

While initially pre-service training in the form of an apprenticeship (often known as the pupil-teacher scheme) was the norm, by the time of the first state instruction Act a 'training school' component had been added. The mandatory requirement of between three to six months formal training period paled in comparison with the equivalent in both medicine and engineering, both of which, by then, were minimally four year university courses. Nevertheless the addition of this component of formal study laid the way for the establishment early in the twentieth century of the first designated teachers colleges. By the 1960s, these were providing, typically, post-school pre-service courses of two years duration for primary teaching and a one year post-graduate courses for secondary teaching.

The Martin Report on Higher Education (Australian Universities Commission, 1964), which in many respects broke new ground in Australia, maintained the then innovative position that appropriate professional education should be provided in "the best possible facilities for the training of teachers".

There have been numerous developments in Australian teacher education since then and it has earned an international reputation for rigour and successful preparation of high quality and sought after graduates. Many of the reforms of the last twenty or thirty years in Australian teacher education are just beginning to be emulated in other countries, including those where a craft concept of teaching and an associated apprenticeship model of teacher preparation has remained in place.

As outlined in the final report of the Review of Teaching and Teacher Education, two major policy shifts occurred in the early 1990s:

"First, teacher education (with some exceptions) became a university responsibility as a consequence of the introduction of a unified national system of higher education. Second, initial teacher education programs were progressively lengthened and strengthened. Teaching at all levels has now, for the purposes of permanent employment, become a four-year, all graduate profession, on a par with other kinds of university-based professional education."

(Committee for the Review of Teaching and Teacher Education, 2003c:120)

In *A Class Act*, the report of the 1998 Senate Employment, Education and Training Reference Committee Inquiry into the Status of the Teaching Profession, the belief was expressed that standards had generally risen with the shift from the Colleges of Advanced Education (CAE), which followed the earlier Teachers' Colleges, to universities:

"We are a university formed out of existing CAEs exclusively. The university procedures have ensured a significant increase in the rigour of our programs ... We get very positive reports from schools."

(Senate Committee, 1998:194)

In Australia, the concept of teaching as a profession has gained strength from the development of university-based qualifications incorporating clinical practice into a scholarship model. Recent discussions around reform in teacher education have reflected a desire to refine the latter model in order to achieve the best possible balance between a thorough grounding in relevant fields of knowledge, pedagogic theory, method and professional practice.

Teacher preparation course models

Amongst other current topics of interest in teacher education, both in Australia and overseas, are issues concerned with the nature of the preparatory courses. Issues under discussion include the structure, content and approach of teacher education programmes and their impact on beginning teacher readiness.

Since early in the existence of formal training, Australian student teachers have been preparing under two different structural models. In simple terms, it is generally the case that early childhood and primary school teaching candidates enrol in 'concurrent' courses, that is, courses of three or generally four years duration during which they complete units of study in relevant fields of knowledge (including subjects forming part of the school curriculum and education subjects), pedagogic theory, method and professional practice in order to graduate with a Bachelor of Education. In general, secondary school teaching candidates enrol in 'consecutive' courses, that is, undergraduate courses in specialist fields of knowledge such as English and mathematics, which form part of an undergraduate degree, followed by post-graduate teacher education courses of one year's duration.

This difference has served to underpin and underscore a difference in the nature of approach between preparation for teaching in the early childhood/primary schooling environment and for teaching in the secondary schooling environment. In general, and again in simplified terms, those preparing for teaching early childhood and primary students have experienced an approach to teaching and learning where the focus is on the child rather than on the subject matter. This is reflected in an interest in student learning, across a broad range of fields and topics, rather than a concentration on specific disciplines. It has facilitated continuity for early childhood and primary school students, both in terms of an integrated approach to learning and the provision of monitoring and mentoring resulting from having one teacher rather than a number throughout the course of the school year.

The impact of the 'middle schooling' movement

In the last decade, the attraction and success of this approach has seen its extension into secondary schooling through the 'middle schooling'¹² movement:

"The underlying philosophy of reform in the middle years of schooling revolves around the provision of a seamless transition from primary schooling (which is traditionally student-centred) to secondary schooling (which is traditionally subject or discipline-centred) leading to more effective student learning, positive experiences in adolescence, and a desire and capacity for lifelong learning." (Carrington et al., 2002: x).

Classroom observations undertaken by Luke et al. (2003:6) for the recent Australian Government funded Middle Years Literacy and Numeracy Research project indicated that:

"...levels of 'connectedness to the world' in curriculum, pedagogy and assessment appear to be higher in schools with focused middle years policies, and that this has the potential for generating improved academic and social outcomes for students, especially those from relatively disadvantaged backgrounds."

Schools in both the Government and non-Government sectors across Australia have engaged in a wide range of middle schooling initiatives. Schools have been established that commenced with a focus on principles of middle schooling. In some jurisdictions, for example Western Australia, (ACACA, 2000a) through an ongoing process of local area planning and

¹² The term 'middle schooling' is generally used to refer to the years between the completion of primary education and the beginning of the two-year period during which students prepare for entry to universities, TAFE and the workforce. (Ministerial Committee on Middle Schooling, 1999). While this definition is generally accepted, many authorities and schools in Australia have incorporated the last year or two of primary school (Years 5/6/7) into their middle schooling years along with the first two years of secondary, excluding Year 10. Thus, depending on the jurisdiction, this stage can span the 10-15 year old age group.

rationalisation a number of Government schools closed their post-compulsory section to concentrate on the middle years of schooling. Across the country a range of non-government schools has also shifted from traditional curriculum and organisational structures to focus on principles of middle schooling. In other schools there has been a move to learning teams in the early years of secondary school (Years 7/ 8 and 9) which incorporate student centred learning and aspects of middle schooling philosophies to support student learning. In the New South Wales government sector, a different approach to the concerns motivating the middle schooling movement has seen an increased focus on establishing links between primary and secondary curriculum and between secondary schools and their primary feeder schools to ensure that, "primary students are well prepared to engage in the subject-specific learning required of secondary schooling by articulating KLA learning more clearly in primary classrooms, where an integrated approach is popular" (ACACA, 2000b).

In their report on the Middle Years Literacy and Numeracy Research project, Luke et al. (2003: 52–53) observed that:

"... in general, this increased focus on middle schooling has not been accompanied by a redesign or expansion of teacher education institutions offering specific middle school teacher preparation programs nor by any moves for teacher registration or certification to be linked to specific qualifications in middle years teaching. The lack of professionally prepared middle years of schooling teachers not only stems from the lack of specific preservice preparation in the area, but also from a lack of Masters courses in middle level education and advanced degree programs for future leaders in middle school reform. Thus many middle years of schooling teachers must 'learn on the job' using trial-and-error techniques, often within a context of resistance from other teachers and school personnel."

Proponents of middle schooling argue that teachers in the middle years need specialist preparation as they are required to teach across key learning areas and to have the skills and knowledge to understand and manage the diverse issues related to young adolescents. Luke et al. (2003:6) endorsed the call from leaders in secondary schools with innovative middle years programmes who "argued that specialised pre-service teacher education is necessary, with programs aligned with systemic middle years of schooling policy and structural reform and a specific emphasis on specialist knowledge and skills for teaching literacy and numeracy". They concluded that:

"All major education stakeholders (at State/Territory and Commonwealth levels, both public and private employing authorities, professional organisations and associations, universities and training providers) need to work together to balance the current strong policy emphases on early intervention with a much more systematic focus on and support funding for multipartner professional development in the middle years."

(Luke et al., 2003:8)

They also concluded that there was a need for further research "to better understand and cultivate the distinctive kinds of leadership that are needed for effective middle years reform, particularly in complex and diverse community settings" and to develop a much better sense of "teacher issues, strategies and pathways from various kinds of training into and through middle years teaching" (Luke et al., 2003:8,10).¹³

To date, the number of Australian higher education institutions which have responded with specifically designed programmes to the challenge of the impact of the middle schooling

¹³ The Luke et al. (2003) report, *Beyond the Middle Years: A report about literacy and numeracy development of target group students in the middle years of schooling*. Vols 1 and 2 can be obtained from the DEST website at <http://www.dest.gov.au/schools/publications/2003/MiddleYears/BeyondtheMiddleMainReport.pdf> and <http://www.dest.gov.au/schools/publications/2003/MiddleYears/BeyondtheMiddleAppendices.pdf>

movement and associated pedagogic, curriculum and structural developments appears to be limited. In one example of a multipartnering approach, the University of Queensland introduced a Bachelor of Education (Middle Years of Schooling) in the early 1990s. For an outline of options in the programme, see Box 1 below.

Box 1: Preparation for teaching in the middle years of schooling at the University of Queensland

The Bachelor of Education (Middle Years of Schooling) prepares students for teaching across years 6–9, through Dual Degree and Graduate Entry pathways. The dual degree provides pre-service Teacher education for teaching in key learning areas in the middle years of schooling (Years 6–9 of the Queensland schooling system).

Those who study the Middle Years of Schooling program are able to teach the following key learning area across years 6–9:

- Arts (including Drama, Dance, Media and Visual Arts)
- English
- Mathematics
- Science
- Study of Society and Environment
- Health and Physical Education
- Technology

Graduate entry to the Bachelor of Education (MYS) is available for those with a relevant first degree making them eligible for two specialist teaching areas.¹⁴

The Australian Government response

The Australian Government has supported considerable professional learning in the middle schooling area through allocation of Australian Government Quality Teacher Programme (AGQTP) funding to state and territory education authority projects with a focus on middle schooling issues. For example, under the recent phase of the Programme, one project included a one-day conference on the needs of middle years students in the priority area of numeracy, with follow-up school visits designed to assist teachers in applying knowledge gained during the conference to the classroom; another offered a school-based teacher renewal activity focusing on 'Maths enhancement in the middle years'.

Professional Associations and middle school professional learning

A national Middle Years Schooling Association formed early in the current decade offers "professional development opportunities" as one of the benefits of membership (<http://www.mysa.org.au/deliver/content.asp?orgid=1&suborgid=1&ssid=153&pid=711&ppid=0>). Other education professional organisations have also focussed their professional learning programmes on middle schooling. The Australian Curriculum Studies Association, for example, has adopted a middle years focus in many of its professional learning programmes. As an example of university partners engaging in the provision of professional learning in the area, the University of Queensland School of Education offers a suite of professional learning opportunities to assist practising teachers and schools to tackle the reforms in the middle years. It also offers specialisations in the middle years of schooling in its Masters Programme and in a Graduate Certificate in Education.

¹⁴ Further information can be obtained about these teacher education programmes from the University of Queensland School of Education website at <http://www.uq.edu.au/education/index.html?id=18252>

Traditional pathways and new models for entry to teacher preparation

The numbers of mature aged or career change entrants to teacher education are reported to be increasing. Generally, these groups are noted as bringing a range of valuable experience to teaching including communication skills, the ability to manage multiple projects simultaneously, expert knowledge and real life application of classroom knowledge (DEST, 2003a).

Many universities do not collect or keep data on career change or mature aged students, although there appear to be more career change students represented in post-graduate courses. (MCEETYA, 2004b). The current degree structures, and entry requirements, of teacher education courses can impose barriers to entry of these groups (Parliament of Victoria, Education and Training Committee, 2005:71).

The development of more flexible pathways has been suggested as a means to attract more mature age entrants and those changing careers to teaching. The options include intensive courses, accelerated courses in non-traditional teaching periods (such as summer) and bridging programmes (Committee for the Review of Teaching and Teacher Education, 2003c: 127–8; Parliament of Victoria, Education and Training Committee, 2005:73). The Review of Teaching and Teacher Education (2003a: 34) noted the recent introduction of numerous innovative teacher education programmes, many of which recognise prior experience and non-formal learning.

The Review of Teaching and Teacher Education (2003a:34) identified the following as common themes across such programmes:

- an emphasis on the role of the teacher as an expert knowledge manager and guide of students' learning;
- pedagogy based around inquiry methods and problem-based learning;
- developing skills for collaboration in teams and through partnerships;
- reflective and adaptive teaching practice based on evidence and grounded in practical experience;
- enhancing diversity within the teaching profession through non-standard entry pathways;
- redefinition and linking of teaching levels, notably primary to secondary; and
- stronger partnerships between universities, schools, employing authorities and unions.

Interest in alternative entry to the teaching profession by means other than the established route of graduation from four/five year concurrent or consecutive university teacher education courses has grown in many countries over the last several years. As an example, the most common alternative model in England is one combining paid employment as an unqualified teacher in a school with a programme of formal individualised study leading to Qualified Teacher Status (QTS). It is argued that "these programmes suit mature, well-qualified people who can quickly take on teaching responsibilities and who need to earn a living while they train" (<http://www.tta.gov.uk/php/read.php?sectionid=30&articleid=839>).

Reports from the United Kingdom indicate that "employment based teacher training" is "fast growing" and is "diversifying the profession" (BBC NEWS, 22/07/2004). The UK Teacher Training Agency reported that in 2002–03, a total of 1,691 new secondary teachers had entered the profession "through the employment based routes, principally the Graduate Teacher Programme":

"This enables people who have a degree and experience in a different line of work to teach while training and be paid at least the minimum unqualified teacher's salary . . . so they can keep earning while changing career".

(BBC NEWS, 22/07/2004)¹⁵

Another approach currently in operation in England and Wales is the Registered Teacher Programme (RTP) for which trainees must have completed two years of higher education and must complete a degree while they train. The TTA pays training costs of up to £8,000 over two years, and the school pays the full salary cost. (<http://www.tta.gov.uk/php/read.php?sectionid=30&articleid=839>). For further detail, see Box 2 below.

Researchers from the University of Liverpool who had analysed the profiles of beginning teachers who had followed an employment-based route said this new model was changing the characteristics of trainee teachers. Almost double the proportion of primary employment-based trainees were male (23.4 per cent compared with 12.1 per cent for university courses), there were higher proportions from ethnic minority groups (double the rate for primary trainees, at 12.7 per cent) and nearly all the trainees were aged 25 or more (BBC NEWS, 22/07/2004). In addition the researchers reported that the proportion of postgraduate entrants to teaching rose in both primary and secondary sectors reflecting a general increase in the awards of higher degrees. There were, however, variations across different subjects with those recruited to train in subject areas where there were shortages of teachers (science, languages, design and technology, maths and ICT) generally having lower degree qualifications (BBC NEWS, 22/07/2004).

¹⁵ It should be noted that the TTA acknowledges that The General Teaching Council for Scotland (GTCS) will not directly register individuals who have gained Qualified Teacher Status through the Graduate Teacher Programme (<http://www.tta.gov.uk/php/read.php?sectionid=31&articleid=853>).

Box 2: Employment-based routes to a teaching career in England

Employment-based routes (EBR) are teacher training programmes that allow trainees to work in a school and follow an individual training programme leading to Qualified Teacher Status (QTS). The school pays the trainee as an unqualified teacher. These programmes suit mature, well-qualified people who can quickly take on teaching responsibilities and who need to earn a living while they train. Many EBR trainees have relevant experience in other sectors or in a support role in a school. Others are career changers who want to move into teaching. The three EBR programmes are:

Graduate Teacher Programme

Graduate Teacher Programme (GTP) trainees must have a bachelor's degree or equivalent. The Teacher Training Agency (TTA) pays a grant of up to £4,000 to cover training costs and may pay a grant of up to £13,000 towards the cost of employing the trainee. The GTP is highly competitive and places are allocated to the best schools and graduates in priority categories.

Registered Teacher Programme

Registered Teacher Programme (RTP) trainees must have completed two years of higher education and must complete a degree while they train. The TTA pays training costs of up to £8,000 over two years, and the school pays the full salary cost. There are no priority categories for the allocation of places.

Overseas Trained Teacher Programme

Overseas Trained Teacher Programme (OTTP) trainees must have a teaching qualification that is equivalent to a UK Bachelor's degree. This programme allows overseas trained teachers (OTTs) to gain QTS while they work in a school. OTTs may apply for QTS assessment without training. If an OTT needs training to help prepare for QTS assessment, the TTA pays up to £1,250 training grant. The school pays the trainee's salary.

The TTA is responsible for running the programmes in England. A similar scheme operates in Wales.

Source: TTA website <http://www.tta.gov.uk/php/read.php?sectionid=30&articleid=839>

Professional experience – the practicum – new models and an opportunity for enhanced partnership

There is wide-spread endorsement of the importance of clinical or practical experience for preparation in all professions, but also recognition that, especially in education, it is generally unregulated, often difficult to arrange, uneven in terms of the quality of placement and mentoring experience an individual may have and an expensive exercise resource-wise. Partly in recognition of the high cost of the practicum, the Australian Government has identified teaching as a higher education national priority area and is providing an increased contribution towards the costs associated with the teaching practicum.

The Review of Teaching and Teacher Education recommended that initial teacher education programmes link strongly to schools, and that different models for funding and structuring the practical teaching experience be investigated (Committee for the Review of Teaching and Teacher Education, 2003a: 35–6). Several teacher education programmes have established partnerships with schools and have found that these are more collaborative and enduring relationships than those resulting from the exercise of recruiting schools and supervising teachers/practicum colleagues each semester (MCEETYA, 2004b).

The Final Report of the RTTE identified a number of examples of innovation in the provision of professional experience including in the:

- Knowledge Building Community programme at the University of Wollongong;

- Bachelor of Learning Management at Central Queensland University; and
- Bachelor of Behavioural Studies/Education (Middle Years of Schooling) at the University of Queensland mentioned above. (Committee for the Review of Teaching and Teacher Education, 2003c: 129–130).

The report of the recent Inquiry into the Suitability of Pre-service Teacher Training in Victoria, *Step Up, Step In, Step Out*, identified a number of emerging innovative models of practicum being implemented at some universities in Victoria which “have largely evolved through partnerships with schools and have resulted in many pre-service teachers spending much longer in professional settings and experiencing much higher quality in their placements” (Parliament of Victoria Education and Training Committee, 2005: 154). The report contrasted this partnership model with internship models which are also emerging at some universities (Parliament of Victoria Education and Training Committee, 2005: 157–59) and which also offer longer periods of professional experience than traditional models and aim to increase the theory/practice connection and create a more even and smooth transition from student to qualified teacher.

Teacher educators – expanding the field, bridging the divide

Just as Lingard (2001:6) has argued for teachers to be seen as researchers rather than as “mere translators of research done elsewhere”, so the case may be made for teachers to be acknowledged as teacher educators working together with their colleagues in universities, both in ‘subject area fields’ and education, to prepare new generations of teachers and provide ongoing professional learning for one another. As Lovat (2003:24) points out in the ACDE Discussion Paper, *The Role of the ‘Teacher’: Coming of age?*, such “a collaborative approach would also facilitate the establishment of stronger functional relationships between schools and teacher education institutions”. In addition, such collaborative relationships would see school-based practitioners and academic educational researchers working together on research projects to produce practically based evidence that “should be used to consistently reiterate, inform and modify teacher education programs in reflection of the lived experiences of teachers” (Lovat, 2003:3).

Models of the professional experience such as partnerships and internships as described above provide new and different opportunities for teachers in schools taking on a supervisory / collegiate role. The extended periods of time and rich connections available under such models allow for a more developed professional relationship between the student teacher on practicum and the supervising colleague. As a result, there is a greater chance for the school-based supervisor to share more of the teacher educator role with university-based colleagues. In turn, this assists to bridge the divide between the two education institutions, smoothing the transition for the beginning teacher and joining up the circle of professional learning for the experienced teacher.

Professional learning and development

The teacher education continuum – building a culture of ongoing professional development

Teacher education in its broader sense refers to both initial teacher education or pre-service training and ongoing professional learning or in-service training. The two should not be seen as separate experiences; rather each should be viewed as stages in career-long learning for teachers.

Ideally, professional learning should have a coherent purpose and long-term direction. There should be an identified path of a teacher’s learning journey; and this should be aligned with an individual teacher’s professional competency measured against standards.

The relationship between student teachers undergoing professional experience and experienced teacher colleague mentors described in the previous section should not be seen as a one way street in favour of the learner driver. The mentor/mentored relationship which lies at the centre of the supervisory relationship has the potential to be an immensely rewarding professional learning experience for the supervisor, just as much as the learning teacher. Lovat and Mackenzie (2003: 2) stated that professional development for teachers:

“ . . . needs to be considered in terms that befit the status of teaching as a profession. Like initial teacher education, professional development needs rethinking. It must be ongoing rather than intermittent and serve the individual needs and interests of teachers, sufficiently funded, openly and actively encouraged by employers, systematically structured to open up career pathways and be of the highest possible quality”.

(Lovat with Mackenzie, 2003: 2–3)

Such a considered and systematic approach to professional learning foreshadows much of the thinking that has underpinned both an increasing emphasis on the importance of high quality induction programmes and the emergence of the professional teaching standards movement in Australia and other countries in recent years.

Recognising the importance of induction programmes

The Effective Practices for Beginning Teachers project established that concern about beginning teachers' transition from pre-service training into the profession of teaching was long standing. The report of the project took the view that “in view of the current emphasis on maximising student learning outcomes by lifting the quality of teaching, there is clearly an urgent need to establish more systematic approaches to the management of support for beginning teachers” (DEST, 2002).

Amongst recent proposals in Australia is that recommended in the New South Wales Public Education Council's final report, *Building on Strong Foundations*, “that the Department designate a number of schools as ‘professional practice’ schools to nurture the development of beginning and early career teachers” (NSW Public Education Council, 2005: xvii, Rec 3.1). The Council argued that:

“The professional practice schools initiative would be an investment in beginning teachers for the benefit of the teachers, the schools and the system as a whole. Professional practice schools would be professional training grounds for committed, enthusiastic young teachers, supported by high quality professional development programs focussed on quality teaching. The initiative has the potential to turn hard-to-staff schools into attractive appointments and to reinvigorate teaching in those schools.” (NSW Public Education Council, 2005: xvii, Rec 3.1)

The New South Wales Minister for Education and Training, while acknowledging the negative impact of a “constant churn of teachers and, therefore, a lack of continuity” in some disadvantaged schools, has, however, responded that “designating schools as professional practice centres might mark them as having the least experienced teachers, which could be misconstrued and stigmatise schools and students” (Doherty, 2005). As a counter to this, the Council had also recommended “that the Department trial a program to attract late career teachers to harder to staff schools with significant numbers of less experienced teachers” (NSW Public Education Council, 2005: xvii, Rec 3.3). The late career teachers would act as mentors to beginning and early career teachers as well as themselves strengthening the quality of teaching in these schools.

The NSW Public Education Council has also recommended that the New South Wales Department of Education “give beginning teachers a reduced teaching load in their first year of teaching, to allow time for professional development to improve teaching practice” (NSW Public Education Council, 2005:xvii Rec 3.2). This recommendation is in line with best practice

outlined in and recommended by the Effective Practices for Beginning Teachers project report (DEST, 2002) commissioned under the AGQTP, and numerous other national and international research findings.

Professional standards

Professional standards are developed for a variety of purposes. These include providing a framework for:

- pre-service education, teacher registration and induction;
- continuous professional learning;
- reflection on and assessment of professional teaching practice; and
- recognition and certification of teachers who attain standards for highly accomplished professional practice.

The Australian Government endorses the well established position that teacher quality is central to student learning outcomes, and good quality, effective initial preparation and continuing professional learning is central to establishing and maintaining teacher quality. The Government also supports the position that the establishment and inculcation of professional standards should underpin both the assurance of quality entrants to the profession and effective professional development throughout teachers' careers.

Professional standards for teachers and school leaders make clear the knowledge, understanding and skills necessary for effective teaching and school leadership and typically incorporate a code of practice or ethics, similar to those by which professionals in other fields are guided, that directs school educators when discharging their responsibilities.

In Australia professional teaching standards are generally seen as having a number of functions. These functions commonly include providing a framework for the assessment of teaching performance – primarily a matter for employing authorities – and providing a framework for professional learning, which has the potential to improve professional development for school educators.

The Australian Government has supported standards development in a variety of ways, including through the funding of various professional teaching and principals' associations' projects on standards. Of most recent significance, however, have been the establishment of the Australian Government's National Institute for Quality Teaching and School Leadership (NIQTSL), with a focus on the development of professional standards; and the Australian Government's participation, through DEST, in the work of the MCEETYA Taskforce on Teacher Quality and Educational Leadership (TQELT) in developing a *National Framework for Professional Teaching Standards*.¹⁶

National Institute for Quality Teaching and School Leadership

The Australian Government is interested in the development of standards in all dimensions and at all stages of a teacher's career, including at the entry or beginning teacher level. It also supports the development of professional teaching standards which cater for both specialist and generic knowledge, understanding and skills. Most particularly, the Government supports a profession-based or democratic model of professional standards development. This position is best reflected in Dr Nelson's statement at its launch in July 2004 about his vision for the NIQTSL:

¹⁶ The Framework, which was published in November 2003, may be downloaded from <http://www.mceetya.edu.au/public/public.htm> and a copy will be provided to the Committee.

"Teachers and school leaders will be operating the Institute on behalf of their profession, ensuring that it will be run by the profession for the profession".

(Nelson, 2004b)

It is the Government's position that, as the national voice of the profession, the NIQTSL is the most appropriate and best placed medium for the important work of achieving a national position and national consistency in the development and application of professional standards for teachers and school leaders. This includes the use of standards as the basis for a coherent and comprehensive strategy for career-long professional learning. The latter goal is encapsulated in the motto of the NIQTSL adopted from the gift presented to the Chair of the Interim Board of the Institute, Dr Gregor Ramsey: "who dares to teach must never cease to learn". The Australian Government is pleased to work in partnership with and support the NIQTSL towards making this the motto of every Australian teacher.

National approaches to standards

The NIQTSL's work on standards will draw on existing national work on standards, and be based on the MCEETYA *National Framework for Professional Teaching Standards* ('the Framework'). The Framework was a major national initiative, endorsed by the MCEETYA in July 2003. It provides the "basis for agreement on and consistency around what constitutes quality teaching and enables and facilitates the articulation of the knowledge, understandings, skills and values expected of teachers through the development of standards at the local level". It sets out four career dimensions (graduate, competence, accomplished and leadership) and four professional elements (knowledge, practice, values and relations). Education authorities and boards of teacher registration are expected to align any existing standards with the *National Framework* by the end of 2006.

The Australasian Forum of Teacher Registration and Accreditation Authorities (AFTRAA) also has the aim of promoting a national approach to developing and supporting teacher quality, particularly through teacher registration and accreditation arrangements. It was established in August 2003 by state and territory teacher registration bodies.

Current issues under consideration by AFTRAA include mutual recognition of registration; the application of the National Framework for Professional Standards; uniform legislation regarding the consideration of criminal histories of teachers and applicants; a national code of ethics; and the possibility of national databases for teacher qualification assessment and registered teachers.

Place of professional standards in a professional development continuum concept

Amongst other issues, the Framework canvasses the question of whether teacher professional development and linked standards of professional knowledge, attitude and practice are lineally sequential or dimensional. It states that "teachers develop their knowledge, skills and practices throughout their professional lives, but teacher development is not a simple linear process" (MCEETYA, 2003). The Framework describes four career dimensions for teachers but claims that they reflect "a broad continuum of professional development" rather than "levels of experience" (MCEETYA, 2003). The aims of the MCEETYA *National Framework* include both quality assurance and providing "a coherent approach to planned and systematic professional learning" in a nationally consistent manner (MCEETYA, 2003).

A number of professional associations have been supported to develop professional teaching standards with funding from the Australian Government. One of them was the Australian Association of Mathematics Teachers (AAMT)¹⁷. As the result of a collaborative project

¹⁷ Others were the Australian Science Teachers Association and, in a joint project (STELLA), the Australian Association for the Teaching of English (AATE) and the Australian Literacy Educators' Association (ALEA).

involving a team from the Education Faculty at Monash University and approximately forty AAMT members, in 2002 it published its statement, *Standards for Excellence in Teaching Mathematics in Australian Schools*¹⁸. The aim of the AAMT standards project was to develop standards for accomplished teaching of mathematics by experienced teachers and AAMT points out that these standards describe “what teachers who are doing their job well should know and do.” It sees its standards as “the basis on which the AAMT can implement processes to assess teachers of mathematics as *Highly Accomplished* against these *Standards*” and “a framework for teachers’ career-long professional growth” (AAMT, 2002).

Also, sets of professional teaching standards have been developed over the last several years by a number of jurisdictionally based organisations including the teacher registration bodies and government departments responsible for school education. Examples from three states are set out in Box 3.

Box 3: Examples of professional teaching standards developed at jurisdictional level

In February 2005 the New South Wales Institute of Teachers became the latest organisation to establish a professional standards framework for teachers. The framework was developed by and for New South Wales teachers, and is aligned with the MCEETYA *National Framework for Professional Teaching Standards*. The New South Wales Institute describes the purpose of its framework as being to guide the development of teachers throughout their career.¹⁹

The Queensland Board of Teacher Registration published its *Professional Standards for Graduates and Guidelines for Preservice Teacher Education Programs* in 2002 (Board of Teacher Registration Queensland (2002)).²⁰ The Queensland Department of Education and the Arts has also published a set of *Professional Standards for Teachers* which are generic in nature, defining knowledge, skills and abilities to apply to all teachers (across all sectors, developmental levels and sites) in state education in Queensland.²¹

The current professional standards in Victoria were approved by the Minister for Education and Training on 30 November 2003. As with the New South Wales and Queensland statements, they are aligned with the MCEETYA standards framework. The Victorian standards do not follow a staged approach and apply equally for all registered teachers in Victoria, regardless of employer, sector or teaching setting.²²

The Queensland Board of Teacher Registration was reviewed during 2004 and amongst recommended reforms supported by the Queensland Government is a new approach to Continuing Professional Learning (CPL) which will recognise a range of learning and professional activities undertaken by teachers. These include individual studies, conferences, school-based in-service (including student-free days), moderation meetings and mentoring. Teachers will submit a statutory declaration concerning their CPL activities when they apply for renewal of registration (Queensland Department of Education and the Arts, 2004: 5).²³

Similarly, the newly established Western Australian College of Teaching takes the position that “ongoing professional learning is central to teacher’s work” and indicates that “in acknowledging the professional status of teachers, evidence of ongoing professional learning will be a

¹⁸ A copy of these standards may be downloaded from <http://www.aamt.edu.au/standards/intro.html>

¹⁹ For more information, see <http://nswteachers.nsw.edu.au/library/Endorsed/18pp%20PTSF%20book%20v6.pdf> and http://nswteachers.nsw.edu.au/library/Professional/04_ProfTeachingStandard.pdf

²⁰ For more information, see <http://www.btr.qld.edu.au/pdf/standard.pdf>

²¹ For more information, see <http://education.qld.gov.au/staff/learning/standards/teachers/pdfs/profstandards.pdf>

²² For more information, see <http://www.vit.vic.edu.au/pdfs/Standards.pdf>

²³ For more information, see <http://www.btr.qld.edu.au/interimqct.htm>

requirement for renewal of registration as a teacher in Western Australia" (Western Australian College of Teaching, 2005).²⁴

Recognition that a commitment to continuing professional learning is a key attribute in quality teachers is a trend that is reflected internationally, including in the United Kingdom where the then Secretary of State for Education and Skills, Charles Clarke, announced at the end of March 2004 that the remit of the Teacher Training Agency would be widened.²⁵ Mr Clarke invited the Agency to build on its success in recruiting and training high quality teachers through three key avenues, two of which are: strengthening its contribution to teachers' continuing professional development; and expanding its role in relation to the wider school workforce, moving further towards securing comprehensive training and development for all school support staff (Teacher Training Agency, 2004).

Teacher supply and demand

There are currently significant shortages of specialist teachers in science, mathematics and technology in various areas of Australia. Increasing the numbers of available teachers qualified in these areas would help schools improve student learning and enhance the acquisition of basic skills, such as numeracy, needed for employment. These areas also underpin many of the economy's current trades and professional skills shortages and are highly significant to securing Australia's competitiveness in research and development globally. Action to reduce teacher shortages in these areas may help in the long term to encourage students to continue studying them at tertiary level and to seek careers in these areas of need.

Assessment of teacher shortages at the current national level is provided by the biennial MCEETYA report on teacher supply and demand in Australia. The 2003 MCEETYA Report (<http://www.mceetya.edu.au/public/demand.htm>) found that the national labour market for supply of school teachers was broadly in balance, although there were recruiting difficulties in some locations, either in 'hard to staff' schools or in rural regions, and in some (secondary) subject specialisations (particularly mathematics, but also science and technology). The extent to which vacancies are difficult to fill varies between states/territories and between metropolitan areas and rural regions. This assessment is consistent with previous reports for 1999 and 2001, and is also expected to be consistent with the 2005 report, which MCEETYA is likely to issue in mid-2005.²⁶

The 2003 MCEETYA Report also noted that the age structure of the national teaching workforce was an issue, with a significant tranche of Australia's teachers being aged over 50, and expected to retire in the next five to ten years. This was particularly the case for male teachers, who make up a significant proportion of teachers in certain teaching specialisations, notably secondary mathematics, science and information and communication technology (ICT).

The report noted that there was a substantial pool of teachers to draw on who are not currently employed as ongoing teachers (such as casual and relief teachers and those on employment waiting lists) who may be available for such positions, as well as those with teaching qualifications either not currently working as teachers or currently not seeking work as teachers, who may be attracted back into the profession.

Attracting and retaining teachers

Teacher retention (and, conversely, attrition) is a significant factor in determining the level of teacher shortages, although attracting persons of sufficient quantity and quality to teach in

²⁴ For more information, see http://www.collegeofteaching.wa.edu.au/prof_learn.html

²⁵ See www.tta.gov.uk/remit for further information regarding the TTA's expanded remit.

²⁶ It is understood that the report has been completed and may be able to be made available to the Committee during May.

areas of shortage remains an important consideration. Significantly, the final report of the Review of Teaching and Teacher Education noted that just fewer than 60 per cent of teacher graduates from initial teacher education courses are actually working full-time in education by April in the year after they have completed their course (Committee for the Review of Teaching and Teacher Education, 2003b: 51). Education authorities report anecdotally that up to 25 per cent of commencing teachers leave their current teaching position, and possibly the profession, within their first five years of teaching.

The responsibility for addressing teacher shortages lies mainly with government and non-government education authorities (school systems) in states and territories. As teacher employers, they are responsible for teacher salaries and conditions, and are able to attract, and retain, teachers through a range of financial and non-financial incentives.

Currently, beginning teacher salaries compare well with other professions, both domestically and internationally, but plateau after about 8–10 years. Thereafter, salary advancement for teachers is dependent upon obtaining promotion positions within schools (which often focus on management with a reduced teaching role), or administrative and policy positions outside schools with education authorities. Salary advancement is based on an incremental scale, reflecting longevity of service and experience rather than qualifications or teaching performance, and does not take into account skills and expertise in non-curriculum areas or prior non-teaching employment. There is little recognition of advanced teaching performance, although the Western Australian government has supported a career pathway for government school teachers wishing to remain in the classroom by establishing an additional promotion level for “exemplary practitioners”, above the incremental scale and accessible through a selection process (Western Australian Department of Education and Training, 2005).

The Australian Government supports performance pay to reward the best teachers, one of the recommendations the Review of Teaching and Teacher Education.

There is considerable scope for governments to develop an enhanced collaborative national approach to teacher workforce planning. This could include greater consultation and joint decision making among education authorities and other stakeholders, notably higher education providers, about the type and skills of graduates needed to respond to local circumstances. It could also involve closer collaboration between the Australian Government, higher education providers and school education authorities in the allocation of teacher education places. Priority areas for possible action could include:

- reducing current shortages in specialist and geographic areas;
- promoting the attraction of teaching as a career, including career change entrance to teaching; and
- addressing an emerging concern about future school leadership shortages.

An emerging issue is the development of an international teacher labour market, at least in relation to teachers from English-speaking nations. Data from the Department of Immigration and Multicultural and Indigenous Affairs (DIMIA) suggest that between 2000–01 and 2002–03, Australia remained a net gainer of teachers through the migration process. It is possible that Australia may seek to utilise this market more significantly in future years if current shortages in specialist areas worsen. There is, however, a net loss in relation to migration flows of Australian resident teachers. Recruitment agencies in some countries, notably the United Kingdom and the United States, have recently advertised aggressively in the Australian media.

Australian Government initiatives

The Australian Government is meeting most of the costs of initial teacher education. In the 2003–04 Budget, as part of the Higher Education package, Our Universities: Backing Australia's

Future, the Australian Government identified teaching as a higher education national priority area.

Under the new funding arrangements universities have been provided with additional funding for teaching through the education cluster funding rate to assist with the costs associated with the practical component of the teacher education course. In 2005 the total funding provided for the education cluster is \$328.7 million, which incorporates a total practicum component amount of \$29.6 million. An estimated additional \$109.2 million will be provided over 2005–08 for the teaching practicum.

The Government has allocated an additional 4,000 plus places in teacher education courses to higher education providers between 2005 and 2008, including 150 commencing places allocated to private higher education providers for teaching in 2005. The Government has also capped the maximum student contribution in education units of study to current HECS levels to attract students to teaching.

In 2001, under *Backing Australia's Ability*, the Government made 2,000 new fully funded university places, increasing to nearly 5,500 places after four years, available from 2002; 280 (or nearly 770 places over four years) were allocated to teacher education programmes focussing on maths, science and information technology.

The Government's independent Review of Teaching and Teacher Education investigated ways to attract and retain the best people into the teaching profession, especially in the fields of science, technology and mathematics. The final report of the Review recommended 15 actions relating to teacher attraction and retention. Responsibilities in these areas reside principally with government and non-government education authorities who employ teachers.

Addressing attrition from teacher preparation courses

Attrition rates

Higher education attrition rates measure the proportion of students in a particular year who neither graduate nor continue studying in an award course at the same institution in the following year. An attrition rate provides one measure of the proportion of students who drop out from one year to another.

Analysis of domestic commencing students in Teacher Education courses between 2001 and 2003 shows that attrition rates are generally higher at postgraduate level than undergraduate level and can fluctuate significantly by course or year. Overall, between 2001 and 2003, one in five domestic commencing students in Teacher Education courses dropped out of the course (see Table 2).

Table 2

Crude student attrition rates for domestic commencing students in Teacher Education courses by level of course, 2001–03

| | | 2001 | 2002 | 2003 |
|--|---------------|-------------|-------------|-------------|
| Teacher Education | Postgraduate | 30.9 | 28.8 | 27.2 |
| | Undergraduate | 19.9 | 20.5 | 24.9 |
| | All | 22.4 | 22.3 | 25.5 |
| Teacher Education: Early Childhood | Postgraduate | 30.2 | 31.6 | 38.5 |
| | Undergraduate | 23.4 | 25.9 | 21.9 |
| | All | 23.8 | 26.3 | 23.1 |
| Teacher Education: Primary | Postgraduate | 17.9 | 20.1 | 20.7 |
| | Undergraduate | 20.6 | 19.7 | 19.6 |
| | All | 20.3 | 19.7 | 19.7 |
| Teacher Education: Secondary | Postgraduate | 17.4 | 15.5 | 13.9 |
| | Undergraduate | 24.3 | 23.5 | 19.9 |
| | All | 21.0 | 19.8 | 17.1 |
| Teacher-Librarianship | Postgraduate | 26.0 | 35.8 | 29.0 |
| | All | 26.0 | 35.8 | 29.0 |
| Teacher Education: Vocational Education and Training | Postgraduate | 40.9 | 46.2 | 42.9 |
| | Undergraduate | 34.4 | 34.4 | 37.2 |
| | All | 36.3 | 38.5 | 39.1 |
| Teacher Education: Higher Education | Postgraduate | 51.2 | 49.6 | 40.7 |
| | Undergraduate | 35.1 | 34.2 | 34.1 |
| | All | 44.1 | 42.4 | 39.0 |
| Teacher Education: Special Education | Postgraduate | 26.8 | 32.7 | 31.5 |
| | Undergraduate | 23.7 | 21.1 | 19.1 |
| | All | 25.8 | 28.9 | 27.8 |
| English as a Second Language Teaching | Postgraduate | 33.1 | 37.5 | 31.2 |
| | Undergraduate | 0.0 | 20.0 | 20.0 |
| | All | 33.1 | 37.3 | 31.2 |
| Nursing Education Teacher Training | Postgraduate | 42.9 | 23.7 | 41.4 |
| | All | 42.9 | 23.7 | 41.4 |
| Teacher Education not elsewhere classified | Postgraduate | 28.1 | 30.8 | 27.8 |
| | Undergraduate | 23.4 | 24.9 | 20.4 |
| | All | 26.5 | 29.2 | 25.7 |
| All Teacher Education courses | | 23.2 | 23.3 | 22.0 |

Note: Enrolment data is at 31 March (1st submission).

Data: Selected Higher Education Statistics 2001–2003 (DEST)

However, the data for 2003 show that the student attrition rate from education courses is lower than the average for all domestic students in their field of study. The drop-out rate in education courses is at the lower end of the scale, when aggregated and compared against other fields of study (see Tables 3 and 4).

Table 3

Crude student attrition rates for domestic commencing undergraduate students by field of education, 2003

| Fields of education | Rate (%) |
|--|-----------------|
| Natural & physical sciences | 19.3 |
| Information technology | 22.9 |
| Engineering and related technologies | 17.4 |
| Architecture & building | 16.4 |
| Agriculture, environment & related studies | 26.3 |
| Health | 15.6 |
| Education | 18.3 |
| Management & commerce | 20.2 |
| Society & culture | 24.3 |
| Creative art | 20.1 |
| Food & hospitality & personal services | 0.0 |
| All | 20.3 |

Note: Enrolment data as at 31 March (1st submission).

Data: Selected Higher Education Statistics 2003 (DEST)

Table 4

Crude student attrition rates for domestic commencing postgraduate students by field of education, 2003

| Field of education | Rate (%) |
|--|-----------------|
| Natural & physical sciences | 17.8 |
| Information technology | 28.1 |
| Engineering and related technologies | 30.1 |
| Architecture & building | 22.4 |
| Agriculture, environment & related studies | 24.2 |
| Health | 26.4 |
| Education | 24.5 |
| Management & commerce | 27.6 |
| Society & culture | 26.8 |
| Creative art | 25.5 |
| Food & hospitality & personal services | 28.6 |
| All | 26.2 |

Note: Enrolment data as at 31 March (1st submission).

Data: Selected Higher Education Statistics 2003 (DEST)

Attrition occurs at every stage in teacher preparation. A 2002 report for the Victorian Institute of Teachers concluded that, "for every 100 applicants for a place in a teacher education course, 56

received an offer, 41 enrolled, 31 would be expected to graduate, 23 would be available for full-time employment, and 15 would ultimately be employed as teachers in schools" (report for VIT quoted in the Committee for the Review of Teaching and Teacher Education, 2003a: 34). According to these data, the heaviest loss of potential teachers actually occurs before students enrol in teacher education courses and the next heaviest loss during the course. What often go unrecognised are the losses to the teaching profession between graduation and employment, as well as the considerable proportion of graduates who apparently leave the profession at some point.

Addressing attrition

The VIT report makes the obvious point that, "as far as practicable, these losses need to be reduced and a higher rate of conversion of enrolments in teacher education to professional practice as a teacher achieved". In proposing means to offset attrition during teacher education courses, the RTTE Committee proposed better matching of entrants to the qualities required of a professional teacher, and that entry requirements take into account a range of personal and experiential factors relevant to teaching (Committee for the Review of Teaching and Teacher Education, 2003a: 34).

In addition, strategies to address the gap between course completion and taking up teaching might include reconceptualising teacher education as a continuum incorporating strategies such as formal partnerships with schools more closely involved in teacher education on a more equal footing and the role of universities flowing into schools with, for example, university teacher educators taking up positions as in-school mentors for beginning teachers during their final semesters.

CHAPTER THREE

TEACHER PREPARATION AND PROFESSIONAL LEARNING – SPECIFIC AREAS OF INTEREST

"Within my portfolio, the schools sector has the greatest reach and some of the most significant challenges. Schools enrol 3.3 million students, employ 250,000 teachers and consume \$26 billion of taxpayers' money each year. Apart from parents, schools exert the greatest influence on our children's development. The key priority in schools is to raise the quality, professionalism and status of our teachers."

(From a speech by Dr Nelson at the Sustaining Prosperity Conference at the University of Melbourne, Thursday 31 March 2005)

A Introduction

As outlined in earlier parts of this submission, the Australian Government has a clear understanding of the importance of high quality preparation and continuing teacher professional learning and development to the learning outcomes and achievement levels of Australian school students. This understanding underpins a strong and explicit commitment to supporting universities, education authorities, schools, teachers and school leaders with the provision of world-class pre-service and in-service teacher education that will ensure that Australian teachers are excellently placed as the most significant factor in assisting Australian school students to achieve their potential.

The Department of Education, Science and Training (DEST), in partnership with other Australian Government agencies, state and territory governments and education authorities and other linked organisations, has major carriage of this commitment through a range of Government initiatives, funding programmes and research projects.

In this chapter, we outline the suite of measures (detailing their support for teacher preparation and professional development) conducted under the auspices of the Department which are of particular relevance to the majority of issues outlined for attention in the Terms of Reference for the Inquiry into Teacher Education and also provide information relating to a number of other issues of national significance concerned with teacher education with which DEST is engaged.

B Preparing for teaching and continuous improvement of teaching of basic skills in literacy and numeracy

The Australian Government is taking a leadership role in improving literacy and numeracy outcomes for Australian students. This has involved a commitment to collaboration to strengthen schools as learning communities where teachers, students and their families work in partnership with the wider community. This meant the setting of national goals.

In 1999 the Australian Government led state and territory Education Ministers in agreeing to the *National Goals for Schooling in the Twenty-First Century*. The National Literacy and Numeracy Goal is "that all students should have attained the skills of numeracy and English literacy such that every student should be numerate, and be able to read, write, spell and communicate at an appropriate level". The National Literacy and Numeracy Plan, which gives focus and support to the achievement of the Goal, was also agreed.

B (i) The National Literacy and Numeracy Plan

The National Literacy and Numeracy Plan is focussed on the crucial early years of school and the development of a framework to report nationally comparable literacy and numeracy results against national benchmarks. The plan assists education authorities to ensure that all students

achieve at least the skill levels necessary to access learning and continue to make further progress at school. The plan provides an agreed set of key priorities for school education in a clear and coordinated approach at the national level to improving literacy and numeracy standards. Under the National Literacy and Numeracy Plan, the Australian Government and state and territory Ministers have agreed to support:

- assessment of all students by their teachers as early as possible in the first years of schooling;
- early intervention strategies for those students identified as having difficulty;
- the development of agreed national benchmarks for Years 3, 5 and 7, against which all children's achievement in these years can be measured;
 - the measurement of students' progress against these benchmarks using rigorous state-based assessment procedures;
 - national reporting of student achievement against the benchmarks, within the framework of the annual *National Report on Schooling in Australia*; and
- professional learning for teachers to support the key elements of the plan.

Professional learning for teachers is a key part of achieving the plan to ensure teachers have the training to support and work towards implementing the plan.

B (ii) The National Inquiry into the Teaching of Literacy

International data indicate that Australian school students compare well with students in other OECD countries, but some are still not achieving acceptable literacy standards. In 2003 the OECD's Programme for International Student Assessment (PISA) showed that 12 per cent of 15 year olds in Australian schools would have difficulty in undertaking basic reading tasks. Moreover, testing in Australia shows that around 10 per cent of children in Years 3 and 5 are not reaching literacy benchmarks which represent minimum levels of literacy that students require to order to progress their schooling.

This was the impetus for the announcement on 30 November 2004 by the Dr Nelson of the National Inquiry into the Teaching of Literacy (NITL). Dr Nelson has asked the NITL Committee to report to him in the latter half of 2005.

The NITL is examining the way reading is taught and assessed in classrooms and the adequacy of teacher education courses in preparing Australian teachers for reading instruction and remediation. The Inquiry will be informed by a review of national and international research on literacy issues, including those used to help students with reading difficulties.

An independent Committee chaired by Dr Ken Rowe, Research Director of the Learning Processes and Contexts research programme at the Australian Council for Educational Research (ACER), is conducting the NITL. The Committee members are highly experienced people with backgrounds in literacy research and policy, teacher preparation and practice, classroom teaching of reading, as well as a parent experienced in trying to assist her child deal with reading difficulties.

The NITL is consulting widely, including with government and non-government school education authorities, the teaching profession, universities, parents and researchers. The NITL has invited submissions through advertisements placed in major newspapers. Submissions closed on 31 March 2005 and the Inquiry has received over 420 submissions.²⁷

²⁷ Further information relating to the National Inquiry into the Teaching of Literacy including the terms of reference, Committee members and Reference Group can be found at the NITL website at www.dest.gov.au/schools/literacyinquiry. Submissions to the NITL will also be made available on this website.

Dr Nelson has asked the NITL to:

- review and analyse recent national and international research about literacy teaching approaches, particularly approaches that are shown to be effective in assisting students with reading difficulties;
- identify the extent to which prospective teachers are provided with reading teaching approaches and skills that are effective in the classroom, and have the opportunities to develop and practice the skills required to implement effective classroom reading programmes. Training in both phonics and whole language approaches to reading will be examined;
- identify the ways in which research evidence on literacy teaching and policies in Australian schools can best inform classroom teaching practice and support teacher professional learning;
- examine the effectiveness of assessment methods being used to monitor the progress of students' early reading learning; and
- produce a report of the Inquiry's findings in the second half of 2005 and offer best practice in effective approaches to literacy teaching and learning, both at the classroom level and in the training of teachers.

The second and third objectives are of particular relevance to the Inquiry into Teacher Education, covering both initial teacher education and in-service professional learning as they relate to literacy. Since the NITL has been asked to report in the second half of 2005 it can be anticipated that the NITL report will be available to the House of Representatives Standing Committee on Education and Vocational Training during its Inquiry into Teacher Education.

B (iii) The importance of early years education

The importance of quality learning experiences in the early years and, in particular, the impact on later literacy and numeracy acquisition is becoming increasingly recognised.

A key longitudinal study from the United Kingdom, The Effective Provision of Pre-School Education (EPPE) Project (Sylva et al., 2004) found that teacher quality was one of the factors related to improved outcomes for young children. This longitudinal study of over 3,000 children found that:

- the quality of pre-school centres is directly related to the standard of intellectual/cognitive and social/behavioural development in children;
- settings which have staff with higher qualifications, especially with a good proportion of trained teachers on the staff, show higher quality and their children make more progress;
- effective pedagogy includes interaction traditionally associated with the term "teaching", the provision of instructive learning environments and 'sustained shared thinking' to extend children's learning;²⁸ and
- where settings view educational and social development as complementary and equal in importance, children make better all round progress.

Recommendations from the study (Sylva et al., 2004) were that high quality environments when working with children aged three to five should:

- encourage episodes of "sustained shared thinking" with the children;

²⁸ Interaction associated with "teaching" is understood to refer to teacher directed activity, whereas "sustained shared thinking" is where students and the teacher engage in collaborative cognitive activities.

- work towards an equal balance of child and adult initiated activity;
- ensure staff members have both curriculum knowledge and knowledge and understanding of child development.
- Improve the child development content of both initial and continuing professional development courses;
- aim at a good proportion of trained teachers on the staff;
- engage parents in their children's learning and share educational aims with them; and
- encourage behaviour policies in which staff members support children's behaviour management through reasoning and talk.

Early learning and care has been identified as a key priority under the National Agenda for Early Childhood which the Australian Government is working with various stakeholders to develop. The Department of Family and Community Services (FaCS) is leading this work and DEST has been closely involved in the process. FaCS is currently undertaking consultations with the states and territories. Preliminary responses from the states and territories have been positive, and include a preference for the age range to increase from 0 to 5 years to 0 to 8 years to cover the transition to school.

To promote the importance of quality early learning experiences, DEST has commissioned a consortium led by Monash University to develop a range of resource materials which will include a self-assessment and environmental audit tool for practitioners to assess their current environment and practices to determine their effectiveness in stimulating young children's developing literacy and numeracy skills.

In recognition of the special needs of Indigenous children the Australian Government provides recurrent supplementary funding to support the participation of Indigenous children in preschool education. Funding is provided to preschools, based on Indigenous enrolments, for initiatives to improve education outcomes for Indigenous children through the Supplementary Recurrent aspect of the Indigenous Education Programmes; \$11.365 million was provided in 2003.

B (iv) Literacy, Numeracy and Special Learning Needs (LNSLN) Programme

As with other areas of its commitment, the Australian Government supports the National Literacy and Numeracy Plan through a key targeted programme, the Literacy, Numeracy and Special Learning Needs (LNSLN) Programme.

The LNSLN programme will provide an estimated \$2.1 billion over the 2005–08 quadrennium to support the most educationally disadvantaged students, including students with disabilities. There are three elements of the programme:

- Schools Grants;
- National Projects; and
- Non-government Centres Support.

B (iv) (a) Schools Grants Element

The Schools Grants element will contribute an estimated \$1.87 billion over the 2005–08 quadrennium to complement that of the state and territory government and non-government education authorities towards the cost of additional assistance for those most disadvantaged students, including students with disabilities. State and territory government and non-government education authorities are responsible for the administration of the element in their systems and schools as they are in the best position to determine which students and schools

have the greatest need for additional assistance in accordance with the principles of equity, effectiveness and efficiency as outlined in the administrative guidelines.

Types of initiatives funded under the programme include early intervention programmes to identify those students in need of additional assistance in literacy or numeracy, intervention and support programmes for students with disabilities, intervention strategies such as reading recovery, and development of benchmarking and assessment arrangements for the reporting of the progress of students towards meeting benchmarks. Teachers play a significant role in the implementation of these initiatives and teachers' professional development is a key priority to ensure the delivery of relevant and quality outcomes.

B (iv) (b) National Projects Element

The National Projects element will provide an estimated \$32 million over the 2005–08 quadrennium for national projects and initiatives. The *Independent Evaluation of Commonwealth Funding for Literacy and Numeracy in Schools 1997–2001* recommended that the programme be broadened from the previous Grants for National Literacy and Numeracy Strategies and Projects (GNLNSP) Programme to address emerging priority areas for educationally disadvantaged students beyond the scope of national strategic literacy and numeracy research and development.

The National Projects element will support projects aimed at improving the educational outcomes of educationally disadvantaged students, including improved literacy and numeracy outcomes. It will also fund: further development of a nationally comparable reporting framework in the eight key priority areas agreed to by MCEETYA; early childhood education initiatives; and development of policies for the use of information and communication technologies to improve learning outcomes for students who are educationally disadvantaged.

There is a range of research, professional development and national and sector based projects relating to teacher education and professional development funded under the National Projects element. Details of relevant projects that are currently underway or have been recently completed are at Appendix C.

B (iv) (c) Non-government Centres Support

The Non-government Centres Support will provide an estimated \$146 million over the 2005–08 quadrennium to improve the educational opportunities, learning outcomes and personal development of children with disabilities who receive services provided by non-government centres.

The funding is targeted to provide learning and development opportunities for children with disabilities who are below school age to prepare them for integration into regular pre-schools or schools; assist school-aged children with severe disabilities by improving their access to educational programmes; or assist children with disabilities in residential care.

B (v) Pilot Tutorial Voucher Initiative

The Tutorial Voucher Initiative (TVI) is a pilot programme which provides assistance to parents and caregivers who have received advice that their child was below the Year 3 national reading benchmark in 2003. Under the pilot initiative, the Australian Government will trial the delivery of a Tutorial Voucher to the value of \$700 (GST exclusive) to parents of eligible students. The Tutorial Voucher will provide for a pre and post assessment and reading tuition delivered on a one-to-one basis outside school hours.

The Australian Government is committing \$20.3 million to the initiative, which is being delivered in all states and territories throughout 2005.

Brokers appointed in each state and territory are responsible for managing the administration of the TVI, including sourcing suitably qualified and screened tutors, confirming child eligibility, and providing parents with a choice of tutors. Emphasis is placed on engaging tutors with appropriate skills and/or experience to provide tuition. In order to participate in the TVI, tutors must demonstrate relevant formal academic qualifications in education, or partial completion of teaching qualifications that are recognised in Australia. Schools and coaching colleges can also register with brokers as tutorial providers.

An independent evaluation will run concurrently with the TVI, with the evaluation report available towards the end of 2005. The evaluation will assess the impact of the TVI on student reading development, and the effectiveness of the TVI as a means of assisting children who did not meet the Year 3 national reading benchmark in 2003.

C Primary science education

The Review of Teaching and Teacher Education identified the importance of laying foundations for the learning of science, mathematics and technology in the early years of primary school. Science is currently neither systematically nor generally well taught in primary schools. A key issue is the lack of confidence of primary teachers due to limited experience in science.

It is clear that primary teachers need to be better prepared for teaching science in their classrooms, and primary teacher education courses need to include enough science to ensure teachers feel confident and enthusiastic about teaching science. The Review identified two actions in relation to primary teacher education in science:

Action 3: Primary teacher education programs provide a substantial focus on science, technology and mathematics teaching.

Action 4: Primary teacher education programs offer students opportunities to specialise in science and mathematics teaching, and students be encouraged by teacher education institutions and education authorities to pursue those opportunities.

In 2003, the Working Group reporting to the Prime Minister's Science, Engineering and Innovation Council (PMSEIC) on "*Science Engagement and Education*" recommended the introduction of a collaborative national programme in primary schools that links the teaching of science with the teaching of literacy.

In response, the Australian Government is providing \$1.8 million through the AGQTP to the Australian Academy of Science for the Primary Science and Literacy Project, *Primary Connections*. The Primary Connections project will improve the competence and confidence of primary teachers in science education. The project is developing a mix of new curriculum resources and training support for teachers, which could readily be adopted as a core component of primary teacher education courses.

D Responding to diversity

Australia has become a society with a diverse linguistic, cultural and social environment which is a result of its Indigenous history, geography, settlement patterns and migration. One of the biggest challenges in preparing Australian teachers for the twenty-first century is to provide them with the skills to participate in a culture of schooling envisioned for an increasingly pluralistic society located in a variety of geographic and socio-economic settings. This involves having them critically analyse not only the impact their own linguistic, cultural and social background has on their beliefs and attitudes, behaviours, communication and interaction but developing in them the intercultural and social skills to be able to meet their students, colleagues, employers, parents and other members of local communities in a "third place", while at the same time encouraging the notion of core civic values that all Australian citizens might

hold in common. A further challenge is to ensure that the teacher workforce is reflective of the diversity of the Australian population.

D (i) Rural and remote teaching and the preparation of teachers for rural and remote service

A significant element of Australia's diverse population is located in rural and remote settings. In essence the preparation and retention of teachers in rural areas is nested within the broader challenge of the attraction and retention of professionals in general to non-metropolitan areas (Miles et al., 2004). It also needs to be viewed as part of the changing geographic profile of Australia which sees a consistent and persistent movement of people from rural Australia to metropolitan areas (ABS data). In general, there is a city-centric preparatory model for professionals, which is not serving rural and remote Australia well (Miles et al., 2004).

The final report of the Review of Teaching and Teacher Education (2003c:61) identified that one way to make postings to 'difficult-to-staff' locations more attractive was through a variety of inducements such as financial incentives, additional classroom support, accommodation and professional learning opportunities. It also identified that the range of incentives offered by education authorities to attract, recruit, deploy and retain teachers must be strengthened, become more widespread, and be targeted at areas of greatest need (Committee for the Review of Teaching and Teacher Education, 2003c:97).

The Rural Education Forum Australia (REFA) has been assisted through the Australian Government's Quality Outcomes Programme with funding of \$34,650 to map the current scope and diversity of the teaching practicum in rural and remote Australia. The final report of the project is expected at the end of June 2005 and it can be anticipated that the report will be available to the House of Representatives Standing Committee on Education and Vocational Training during the Inquiry into Teacher Education.

The Australian Government is providing (from the Australian Government Quality Teacher Programme (AGQTP)) funding of \$250,000 to enable the University of New England's National Centre in Science, Information and Communications Technology, and Mathematics Education for Rural and Regional Australia (SiMERR) to undertake research into the key issues facing teachers, obstacles inhibiting student learning outcomes, current practices and programmes to address these, and professional development needs of teachers in rural and remote schools. The research includes a national survey of teachers and parents in rural and regional areas, and focus groups of teachers, students and parents. The study will provide high quality baseline data that will inform actions to support teachers and improve outcomes in science, ICT and mathematics education in rural and regional Australia.

D (ii) Indigenous education and educators

The Australian Government provides Indigenous-specific supplementary funding to complement mainstream funding in education, with the objective of accelerating the education outcomes of Indigenous students.

National strategic interventions form an element of this supplementary funding. A strong theme of funding for the 2005–08 quadrennium is a focus on initiatives which have shown to demonstrably deliver results for Indigenous students. Two national projects which satisfy this criterion, jointly funded under the Indigenous Education Strategic Initiatives Programme (IESIP) and the AGQTP, address the professional development of principals and teachers of Indigenous students; they are the *Dare to Lead* project and the *What Works* project. The aim of the *Dare to Lead* project is to bring about sustained, systemic change through engaging school principals to form an ongoing coalition of schools who commit to improving educational outcomes for their Indigenous students. The *What Works* project aims to share best practice with Australian teachers and delivers a professional learning package through workshops aimed at improving the skills of teachers working with Indigenous students and their communities. The

Dare to Lead project received funding of over \$4.2 million in the 2001–04 quadrennium; funding for the current quadrennium will be announced shortly. On 7 April 2005, funding of \$3.6 million was announced for the *What Works* project over four years. This builds on work done during 2003-04 with funding of \$2.6 million.

Funding of \$14 million will be provided over the 2005-08 quadrennium to accelerate literacy outcomes for Indigenous students. The *Scaffolding* literacy approach has proven to be especially effective with Indigenous students in remote areas. The approach has frequently demonstrated impressive improvements in learning outcomes for Indigenous students. Through the National Accelerated Literacy Programme (NALP) project, which is being undertaken in partnership with the Northern Territory Government, a systemic rollout of the accelerated literacy approach will be delivered to 10,000 students in 100 schools by the end of 2008. Under the project 700 teachers will receive intensive professional development support in this teaching methodology. The project also includes the Western Australian Aboriginal Independent Community Schools and Shalom Christian College, which are continuing the *Scaffolding* literacy approach in 2005–08. Funding for the NALP project will be announced shortly.

National projects such as *Dare to Lead*, *What Works* and NALP are consistent with the major recommendations of the New South Wales Department of Education Review of Aboriginal Education which was released on 1 December 2004. The themes for the recommendations include extending quality teaching and learning, engaging Aboriginal students and fortifying identities of Aboriginal students, all of which are addressed by the national projects. Other important themes relating to the preparation of teachers to more effectively cater for Indigenous students were raised in the Australian Government's Teacher Review (see Table 5, p60, for details).

The rationale for Australian Government supplementary funding, such as the provision for strategic projects under IESIP, is underpinned by the National Aboriginal and Torres Strait Education Policy (AEP) which lists among its goals equitable and appropriate educational outcomes and equity of educational participation for Indigenous students.

Another element of IESIP is Supplementary Recurrent Assistance, which is available on a per-capita basis to government and non-government education and training providers for Indigenous students. Although Supplementary Recurrent Assistance funds do not cover teacher training, as part of ensuring that the objects of the *Indigenous Education (Targeted Assistance) Act 2000* are achieved, education providers which receive Supplementary Recurrent Assistance are required to report on the employment of Indigenous teachers and the professional learning of teachers which helps them foster in their Indigenous students, an appreciation of their histories, cultures and identities and, amongst all students, an understanding of, and respect for, Indigenous traditional and contemporary cultures.

The final report of the Review of Teaching and Teacher Education also made some recommendations in respect of Indigenous students. Actions 16-19 provide strategies for attracting more Indigenous teachers. Strategies include the provision of in-school experiences in a range of settings, including rural communities, incentives such as scholarships, and continuing professional learning for Indigenous education workers.

The *National Report to Parliament on Indigenous Education and Training, 2003*, was tabled in Parliament on 4 May 2005. It is expected that this report will be of interest to the Inquiry into Teacher Education.

D (iii) Linguistic and cultural diversity

Twenty-first century education needs to develop in learners the knowledge, understanding and attributes necessary for successful participation and engagement in local, regional and global communities in all spheres of activity (MCEETYA, 2005).

Education for participation in a global community brings with it an increasing need to focus on developing intercultural understanding and competence. Intercultural competence aims to develop real understandings of world views beyond one's own perspective to develop an intercultural space, and strategies for approaching the unfamiliar, and makes strong links between communication, texts and culture (Browett & Bresnehan, 2001).

Australian Government policy recognises that:

"The key to the success of Australian multiculturalism is inclusiveness. Every Australian benefits from our diversity and all Australians have the right to be active and equal participants in Australian society, free to live their lives and maintain their cultural traditions." (Commonwealth of Australia, 2003)

The Australian Council of Deans of Education (ACDE) has argued that, for the future:

"... new learning will be about creating a kind of person, better adapted to the kind of world we live in now and the world of the near future...as citizens we now simultaneously belong to many more kinds of community at the local, the regional and the global level...the key to civic harmony will be respecting and valuing diversity." (ACDE, 2001)

D (iii) (a) Intercultural competence and languages education

Intercultural competence is a key tenet of current thinking about languages education in Australia which recognises the essential links between language, texts and culture and focuses on developing in teachers "an overall stance, way of thinking and doing in relation to curriculum, teaching, learning, assessing, and evaluating languages and encouraging a stance in students towards the development of intercultural sensitivity" (Liddicoat et al., 2003:1).

D (iii) (b) The Asian Languages Professional Learning Project

Given the important role that the study of languages can offer in developing intercultural understanding and the critical role that teachers play in shaping the attitudes and values of their students, the Australian Government has invested \$1.2 million over three years (2003–05) to improve the quality of teaching of Asian languages in Australian schools through a national professional learning programme for teachers, the Asian Languages Professional Learning Project (ALPLP).

D (iii) (c) Support for Indigenous Languages

The Australian Government is committed to building on Australia's rich linguistic and cultural diversity in developing intercultural skills in our students. Indigenous languages form part of Australia's rich linguistic and cultural landscape. The *MCEETYA National Statement and Plan for Languages Education in Australian Schools 2005–08* explicitly acknowledges the importance and value of Indigenous languages and the role language programmes play in positively strengthening the identity and self-esteem of Aboriginal students.

To support the provision of quality Indigenous programmes, the Plan seeks to "identify strategies to recognise and support speakers of Australian Indigenous languages involved in school languages programs" and to "explore how to enhance professional learning for personnel involved in the delivery of Australian Indigenous languages" (MCEETYA, 2005: 13,14).

D (iii) (d) Values and civics and citizenship education

The Australian Government also supports students learning about their democratic rights and responsibilities in a diverse society like Australia's through support for values education and civics and citizenship education. It is providing funding of \$29.7 million over four years (2004–08) to help make values education a core part of schooling.

The 2004–05 Budget also provided funding of \$4.9 million for civics and citizenship education over four years. This builds on the success of the *Discovering Democracy* programme, which the Australian Government funded with some \$32 million over seven years, 1997–2004, principally for curriculum resources and teacher professional learning. The national civics and citizenship education website (<http://www.curriculum.edu.au/democracy/>) provides further information.

Civics and citizenship has now become a national priority. Australian Government and state and territory Ministers of Education have all agreed to develop nationally consistent curriculum outcomes in civics and citizenship education, along with English, mathematics, science and information communications technology, through MCEETYA.

D (iii) (e) Studies of Asia

To assist Australian students to gain a better knowledge and understanding of our nearest neighbours in Asia, the Australian Government supports the Asia Education Foundation (AEF). With an annual grant from the Australian Government, the AEF works to maximise the impact of its funds by developing creative partnerships with education and government authorities, schools, universities, other foundations and the corporate sector throughout Australia to promote and support studies of Asia across all curriculum areas. The major focus of this programme is teacher professional development.²⁹

As national priorities expand, the needs of teachers and teacher educators for professional learning will increase. It is clear that the Australian Government is addressing this growing need.

D (iv) Gender balance in the teaching workforce

The proportion of male teachers in Australian schools has declined over time and the Australian Government is committed to helping address this shortage. Positive role models are important for boys and girls in Australian schools and quality male teachers have an important part to play in this regard.

The report by the House of Representatives Standing Committee on Education and Training, *Boys: Getting it Right* (House of Representatives Standing Committee on Education and Training, 2002), identified significant public concern about the decline in the number of male teachers in schools, in particular in primary schools, in Australia, and expressed support for more men in schools.

Data available from the Australian Bureau of Statistics and DEST's Higher Education Statistics Collection³⁰ indicate the relatively low proportion of males in both teaching and teacher education and illustrate that this is a relatively long-term trend. See Box 4 below.

²⁹ Further information about the AEF and its studies of Asia resources can be found at <http://www.asialink.unimelb.edu.au/aef/index.html>

³⁰ Publicly available data from this collection is at <http://www.dest.gov.au/highered/statpubs.htm>

Box 4: Data for males in teaching and teacher education from ABS and DEST Higher Education Statistics Collections 1992–2003

The proportion of male school teachers (on a full-time equivalent basis) in Australia has declined over the last decade (1992–2003), from 25.8 per cent to 20.9 per cent in primary schools and from 49.4 per cent to 44.7 per cent in secondary schools.

In 2003, there were 4,313 (18.8 per cent) males enrolled in primary teacher education in 2003, and 5,643 males (38.6 per cent), enrolled in secondary teacher education. These were lower than the proportion of male teaching staff currently in those areas. There has been no significant change in the distribution of males and females for primary and secondary teaching over 1993–2003.

Domestic student completions for 2002 in teacher education (which provided initial teacher training for primary and secondary schooling) were similar to the gender pattern for 2003 teaching staff. In 2002, 2,636 (28 per cent) of completions were male, with 17.7 per cent of completions for primary and 39.1 per cent of completions for secondary. The pattern since 1993 shows that the number of male completions has actually increased for both primary and secondary schooling (while female completions have decreased), but this is a slow rate of increase from a very low base.

A similar pattern was evident internationally from data published by the OECD in *Education at a Glance, 2003*. In 2001, the mean proportion of female teachers for primary education was 78.6 per cent, and for lower and upper secondary education, 64.8 per cent and 51.4 per cent respectively. There were few significant differences amongst OECD member nations.

Boys: Getting it Right considered the importance of ensuring that a sufficient balance of male teachers is employed in Australian schools. It acknowledged that male role models do matter and that male teachers can potentially affect the attitudes and behaviours of boys in relation to:

- valuing learning more;
- taking on more supporting and caring behaviour; and
- learning more appropriate behavioural responses, specifically in controlling violence.

Other research, apart from this report, indicates that male teachers and male role models, and men mentoring boys in schools, can contribute to boys self-esteem, their commitment to school, and their level of achievement in school.³¹

Boys: Getting it Right indicated that teaching is not an attractive career option for men for reasons including concerns about “the status of teachers in the community, salary, career opportunities and child protection issues” (House of Representatives Standing Committee on Education and Training, 2002:) and it also found that that “salary progression and promotional opportunities for teachers do not keep pace with the opportunities available outside teaching” (House of Representatives Standing Committee on Education and Training, 2002: xxii,57).

A recent Australian Government funded research project report, *School Students Making Education and Career Decisions: Aspirations, Attitudes and Influences*, found that, among students likely to go to university, few aspired to teaching as their first choice (Alloway et al., 2004). Low status, uncompetitive pay and work conditions were the most significant reasons cited, and more so by male students.

Salaries and conditions are the responsibility of government and non-government employing education authorities (school systems) in states and territories. As teacher employers, they are in a position to identify issues that may influence the attraction of males and their retention in

³¹ Carrington & Skelton, 2003; Sukhmandan, Lee & Kelleher, 2000; Brutsaert & Bracke, 1994.

teaching, and encourage this through a range of incentives. As noted above, higher education providers and the Australian Government can provide support.

D (iv)(a) Teacher preparation

Universities have a direct role in achieving a gender balance in the teaching workforce through helping to reduce the attrition of male students from teacher education courses, particularly for primary teaching.

D (iv)(b) Male teacher scholarships

To support its commitment to helping address the shortage and ensure the quality of male teachers in our schools the Australian Government has proposed an amendment to the *Sex Discrimination Act 1984* (SDA) to provide protection from legal challenge under the SDA for education authorities to offer male teacher scholarships.

The Government has also committed \$1 million to provide teacher scholarships for men training to become primary school teachers. DEST has begun preliminary planning for introducing scholarships for qualifying male teacher education students.

D (iv)(c) MATES (Male Teacher Support) Project

The Government is also supporting the *MATES (Male Teacher Support) Project*, which is intended to address the significant decline in men entering the teaching profession, by:

- promoting teaching as a viable career to male school students;
- providing support for male teacher education students (including encouraging male candidates to continue into the teaching profession); and
- supporting existing male teachers.

The project is being undertaken by Central Queensland University (CQU) in the first half of 2005. The project partners include the Queensland Department of Education and the Arts and the Queensland Catholic Education Commission. Funding of \$121,440 is being provided through the Australian Government Quality Teacher Programme.

D (v) Educating teachers for working with students with disabilities and learning difficulties

Initial teacher preparation and ongoing professional learning to develop and improve teachers' knowledge and skills in meeting the needs of children with disabilities and learning difficulties are recognised as areas in teacher education that require attention. For example, several of the recommendations from the Senate Employment, Workplace Relations and Education References Committee's report, *Education of Students with Disabilities* (Senate Committee, 2002) related to this area.

D (v)(a) The Disability Discrimination Act 1992 and Disability Standards for Education

The Australian Government supports the right of children with disabilities to the same educational opportunities as other children. This concept is reflected in the *Commonwealth Disability Discrimination Act 1992* (the DDA). All state and territory government and non-government education providers must comply with the DDA and the relevant disability discrimination legislation of their state or territory.

The Disability Standards for Education under the DDA will clarify and make more explicit the obligations of education and training service providers, and the rights of people with disabilities in relation to education, while at the same time, balancing the needs of students with the

interests of all parties affected, including providers. The Standards seek to ensure that students with disabilities can access and participate in education on the same basis as other students.

The Standards were tabled in Parliament by the Attorney-General on 17 March 2005 and will come into force following the required tabling period of 15 Parliamentary sitting days unless rejected by either House. It is anticipated that the Standards will take effect on or about 16 August 2005.³²

It is important that beginning and practising teachers, as well as principals and other school leaders, are familiar with and understand the implications of the Standards. A sub-group of the MCEETYA Targeted Initiatives of National Significance Taskforce (TINS) is looking at options for professional learning materials to support implementation of the standards. The Australian Government has offered a contribution to the development of these materials.

D (v) (b) Professional learning for practising teachers

The Australian Government Quality Teacher Programme

The AGQTP provides funds for teacher professional learning activities in a range of specified priority areas. For 2004–05, the priority areas were expanded to include “the education of students with particular learning requirements”, such as students with disabilities and students with learning difficulties. Education authorities may, therefore, nominate to allocate some or all of their 2004–05 AGQTP discretionary funds to professional learning activities that focus on improving teachers’ skills in the education of students with disabilities. Preliminary activity reports show that at least nine authorities are conducting AGQTP activities in this area. “Students with particular learning requirements” will continue as a priority area in the next phase of the programme (2006–09).

Effective Teaching and Learning Practices for Students with Learning Difficulties (SWLD) initiative

In response to this identified need to improve teachers’ knowledge and skills in how to best address the needs of students with learning difficulties and disabilities in mainstream classrooms, in 2002 Dr Nelson approved funding of \$4.5 million for the *Effective Teaching and Learning Practices for Students with Learning Difficulties (SWLD)* initiative under the National Literacy and Numeracy Strategies and Projects programme. \$1.5 million was allocated for national projects and \$3 million for state/territory-based projects.

The aim of the SWLD initiative is to increase teachers’ knowledge and understanding of how to enhance the literacy and numeracy development of school students with learning difficulties and disabilities. A coherent suite of research and development projects has been established to support students with learning difficulties, with an emphasis on the early and middle years of schooling. The initiative has a particular focus on “what works”, that is, effective classroom practice.

A number of the projects will produce professional learning materials and resource materials that may be used in teacher preparation and in-service professional learning.

Projects are expected to be completed by May 2006.

³² The Standards, accompanying Guidance Notes and the Regulation Impact Statement on the Standards, are available at: http://www.dest.gov.au/research/publications/disability_standards/default.htm

D (vi) Educating teachers for working with gifted students

The 2001 Senate Committee Report *The Education of Gifted Children* (the Senate Report) was informed by the view that all Australian children should have the opportunity to maximise their educational potential.

The recommendations in the Senate Report focus on the important role of teachers in identifying gifted students, especially those from disadvantaged backgrounds, and implementing strategies to meet their needs. A main theme of the report is the need for improved teacher education, both pre-service and in-service, so that teachers are better able to identify gifted students and make provisions for their particular needs.

In response to the findings of the Senate Report and as part of a coordinated national response to the needs of gifted students, the Australian Government is progressing the development of a gifted education strategy. The strategy includes \$2.3 million for the professional development of teachers in gifted education; grants of \$10,000 each to assist teacher education faculties to acquire expertise in gifted education; and \$550,000 for a series of workshops for parents of gifted children in rural and remote areas.

D (vii) Educating teachers for working with gender diversity

D (vii) (a) Educating boys

The Australian Government is committed to helping all Australian school students achieve their full potential. Research indicates that many boys are underachieving across a broad spectrum of measures of educational attainment. These measures include early literacy achievement, results in most subjects at Years 10 and 12, school retention levels, and admission to higher education.

In 2002 the House of Representatives Standing Committee on Education and Training issued a report (*Boys: Getting it Right*) on its inquiry into boys' education in Australia. This report emphasised the importance of providing teachers with inspiring and empowering professional learning that shows how they can make a difference for boys, as for all students. The Committee recommended that Commonwealth and state and territory governments jointly fund additional professional learning for practising teachers that particularly targets strategies that work with boys.

As mentioned earlier, *Boys: Getting it Right* also considered the importance of ensuring that a sufficient balance of male teachers is employed in Australian schools. It acknowledged that male role models do matter to both boys and girls, and that, in particular, male teachers can potentially affect the attitudes and behaviour of boys (House of Representatives Standing Committee on Education and Training, 2002: 161–64).

This is an area in which initial teacher education and ongoing professional learning for teachers and others working with boys in schools become significant. The mere presence of male teachers and other males in schools is not sufficient.

Men in schools need to be well prepared and qualified to provide both the role modelling, mentoring and coaching services that the research suggests is potentially significant, and the quality teaching and other services for which they have been engaged.

D (vii) (b) Success for Boys and Boys' Education Lighthouse Schools initiatives

The Australian Government has allocated \$27 million over 2003–08 to initiatives intended to improve boys' educational and social outcomes. A focus on professional learning for teachers is the linchpin of these initiatives.

Of this amount, over \$7 million is being invested in the *Boys' Education Lighthouse Schools* (BELS) initiative, which aims to enhance teaching and learning in the education of boys in Australian schools by establishing effective teaching and learning practices in groups or "clusters" of schools. The Lighthouse School in each cluster acts as the lead school to support the professional learning of teachers throughout the cluster, and showcases effective teaching and learning practices in boys' education.

In June 2004 the Australian Government announced funding for a new national \$19.4 million initiative, *Success for Boys*, which is intended to build on key learnings from BELS 1 and 2, as well as other national and international research. The primary objective of Success for Boys is to provide a large number of schools across Australia with the opportunity to access and implement evidence-based teaching practices and strategies that have been demonstrated to improve boys' learning and engagement outcomes.

Success for Boys aims to meet the specific learning needs of boys at risk of disengaging from schooling, including boys from disadvantaged backgrounds. The programme will focus on three key intervention areas that evidence from the BELS initiative has found are of particular benefit to boys:

- giving boys opportunities to benefit from positive male role models from both within and beyond the school;
- effective literacy teaching and assessment; and
- the use of information and communication technology (ICT) as a means of improving boys' engagement with active learning.

The programme will also have a strong focus on meeting the needs of Indigenous boys, particularly through addressing the important area of Indigenous boys' transitions from primary to secondary school.

Success for Boys will be delivered in three stages: the development of professional learning materials; the provision of funding and support to schools to enable them to access professional learning and embed it into their daily practice; and an evaluation of the programme.

The Australian Government has engaged James Cook University, working in partnership with Curriculum Corporation, to develop and trial professional learning modules intended to improve boys' learning and engagement outcomes in Stage One of Success for Boys. These modules will be delivered to schools in Stage Two of Success for Boys.

E Behaviour and relationship management

E (i) Safe schools: managing behaviour, bullying, harassment and violence

E (i) (a) Current demands on teaching in relation to safe schools

A safe school is a school which provides a secure and supportive learning environment for all members of the school community, and which is free from bullying, violence, harassment and all forms of abuse.

While bullying³³ in schools is not a recent phenomenon, it is only since the 1970s that it has become an object of systematic research (Olweus, 2001). This research has begun to show disturbing evidence of both the high prevalence and negative effects of bullying in schools internationally. For example, research from the United States indicates that nearly one third of

³³ Definitions of bullying are varied, but it is generally accepted that bullying is repeated oppression, psychological or physical, of a less powerful person by a more powerful person or group of persons (Rigby, 1996).

American junior high school students reported occasional or frequent involvement in bullying, either as a bully, a victim or both (Journal of the American Medical Association, 2001, in Price, 2004). Research in Australia shows that almost 20 per cent of boys, and almost 15 per cent of girls, report being the victims of bullying at least once a week (Rigby, 1996). Perhaps most disturbingly, studies from many countries appear to suggest bullying and violence in schools are increasing (Martinez and Garcia, 2004; Shaw, 2002), although this may be in part related to greater awareness and understanding of the issue. Overt physical violence tends to be less prevalent than more insidious bullying (House of Representatives Standing Committee on Employment, Education and Training, 1994); however, it remains a concern.

The effects of bullying and violence are sometimes difficult to accurately quantify; however, it is generally agreed that students who are bullied experience lower levels of self-esteem, higher levels of isolation, depression and absenteeism, poorer health and increased suicidal tendencies, compared with students who are not bullied (Rigby, 1996). Bullying is the third most common reason Australian children under the age of 15 contact Kids Help Line (Kids Help Line, 2005). Students who are bullied often experience more tenuous engagement with schooling than those who are not, and it is internationally recognised that students with low engagement are at greater risk of attaining below average or very poor literacy skills (Willms, 2003).

Research of this kind has prompted increased expectations that schools have a role to play in alleviating the problem of bullying, and has inspired a variety of policy and programme responses. In Norway, the *Olweus Bullying Prevention Programme* involves a range of strategies including parental involvement and development of explicit classroom rules (Olweus, 2001). In the United States, the federal government has worked collaboratively with a range of stakeholders to develop the *Take a Stand, Lend a Hand: Stop Bullying Now* campaign. This is a multi-faceted media campaign, designed to increase awareness of the bullying problem in children aged nine to 13 (Price, 2004).

In Australia, the Australian Government, through the Department of Education, Science and Training (DEST), has led the development of a *National Safe Schools Framework* (NSSF) and secured endorsement of the Framework by all state and territory Ministers of Education in July 2003. The NSSF provides a consistent approach to ensuring schools provide safe and supportive learning environments for all students, and suggests strategies schools may use to counter bullying, harassment, abuse and violence. This is in line with MCEETYA's *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century* (MCEETYA, 1999). This Declaration emphasises the need for schools to provide supportive and nurturing environments which help develop children's self-worth, enthusiasm for learning and optimism for the future.

The Australian Government has further worked with state and territory governments and non-government education authorities to develop the *Bullying. No Way!* website (<http://www.bullyingnoway.com.au>). This is an interactive website providing resources and advice to students, staff and parents. In addition to this, the Australian Government is supporting schools with policies and programmes in a range of complementary areas including values education, drug education, and civics and citizenship.

The state and territory governments have also developed a range of initiatives to support the safe schools agenda. For example, in Western Australia, the state government has funded a trial of an international programme aimed at improving the behaviour of young children in schools.

Introduction of these initiatives in schools has required staff to be responsible for implementing them effectively. In some cases, specialist staff from outside the school are brought in to teach specific courses or provide on-campus support (for example, Victoria Police, 2005; White, 2002). However, more commonly the existing teaching staff are required to lead implementation of anti-bullying initiatives. Promoting positive, caring relationships and

supportive behaviours may also be an explicit part of school syllabi (for example, NSW DET, 2004), which teachers are expected to address as a matter of course in their daily duties.

E (i) (b) Needs of teachers in relation to safe schools

The expectation that teachers lead the creation and maintenance of safe school environments requires support and training to ensure they are appropriately prepared to do this. The Australian Government has provided a \$4.5 million package of measures to assist the implementation of the NSSF. This includes \$3 million allocated specifically to teacher professional learning and development related to the NSSF under the AGQTP. The Australian Government has further provided particular support to schools with limited systemic support to implement the NSSF, through a programme of strategic professional assistance from the Australian Principals Association's Professional Development Council (APAPDC). During 2004 strategic seminars and workshops were held in locations around Australia, with over 850 participants representing a range of Catholic and independent schools.

In general, however, it is the responsibility of state and territory governments to ensure that teachers in individual jurisdictions have adequate and appropriate professional training and development to ensure schools in their jurisdictions are safe and supportive learning environments. Effective implementation of the NSSF will require that both beginning and experienced teachers have a high level of awareness and understanding of bullying issues, and confidence in a range of strategies to counter negative behaviours. University education faculties, teacher and school leader professional associations, and state and territory government and non-government employing authorities must anticipate and respond to teacher training needs in relation to bullying in line with growing recognition of the issue as an important one. More specifically, they can contribute to this by collaboratively planning and providing appropriate pre-service education and in-service professional learning opportunities.

It must also be recognised, however, that for teachers to be adequately trained and prepared to manage bullying and violence in schools, a stronger researched evidence base is needed on which to plan and evaluate the effectiveness of interventions. The Organisation for Economic Cooperation and Development (OECD) has commented that some initiatives, although implemented in good faith, may have unintended negative consequences, and that too often programmes are launched into the field without appropriate evaluation. There has also been little rigorous analysis of the costs of programmes in relation to their effectiveness (OECD, 2004a). In Australia, Ken Rigby (2002) has conducted a meta-evaluation of approaches to reducing bullying in preschools and early primary schools, but notes the need for evaluative studies which are relevant to the Australian context. It should be recognised that, in part, the lack of rigorous evaluations may be linked to the fact that for most programmes, optimum effectiveness is only evident through a comprehensive whole-of-school approach to both implementation and evaluation. This can require significant financial and other resources. However, the benefits of investing in a thorough approach warrant the higher resource outlays.

E (i) (c) The future of teaching in relation to safe schools

While the recognition of the importance of safe and supportive schools has increased, schools and education authorities must address new trends as they emerge, and incorporate strategies for addressing these in initial and continuing teacher education.

A pressing trend currently is the emergence of multi-media bullying, and particularly cyber-bullying. The Australian Government provides advice to schools and parents on cyber-bullying through NetAlert (NetAlert, 2005), and some schools are incorporating provisions for countering cyber-bullying into individual anti-bullying policies. However, a more collaborative and cohesive approach, which includes teacher education, would ensure more consistent outcomes.

Future teacher education provisions can also be expected to be required to address issues associated with increasing awareness of bullying, harassment and violence directed towards

teachers, from administrators, parents, or students themselves. Canadian research (Lyon & Douglas, 1999) found that 81 per cent of teachers surveyed had experienced violence at some point in their careers, while in Australia restraining orders have been brought against some parents of school students who have behaved violently towards teachers or other school students and staff. Teacher preparation and professional learning will increasingly be required to respond to these issues.

Another emerging trend which will become increasingly important in teacher education programmes for safe schools concerns recognition that schools are part of broader communities, where teachers and teaching move beyond traditional classroom-based understandings of the educator's role to one with a greater community and social welfare interface (Cislowski, 2002). The Australian Government is building this interface between mainstream schooling and the broader community through the *Partnership Outreach Education Model* (POEM). This programme provides young people who are disconnected from mainstream schooling with another chance at learning through flexible and accredited education and training options, delivered in supportive community settings. Further, it must be recognised that the interface between safe schools and broader communities increasingly involves teachers in social issues such as drug and values education.

To this end, the Australian Government has developed and distributed a set of Resilience Education and Drug Information (REDI) Resources. These are the first Australian school drug education resources to focus on preventing and reducing harm from drugs by building more resilient young people, using a drug education strategy which fosters resilience, health and wellbeing. Similarly, the Australian Government has developed MindMatters, a mental health promotion which supports secondary schools to provide environments where young people feel safe, valued, engaged and purposeful. Values education is also an important part of the school and community interface, and teachers will have an important role in ensuring the *National Framework for Values Education in Australian Schools* is effectively rolled out in schools over the next four years.

There is also increasing focus on child protection issues as a concern for schools. The NSSF highlights the importance of appropriate pre-service and in-service education and training for all staff on bullying, harassment, violence and abuse. In particular, the NSSF notes that staff must be trained to recognise and respond to indicators of child abuse and neglect; to understand the effects of abuse and neglect on the development of children and young people; to comply with agreed policies and procedures related to child protection; and to keep themselves safe. The NSSF also notes that relevant additional training should be conducted for staff with specific roles in child protection in relation to students who are the subject of concerns about abuse and neglect. State and territory education authorities, which have responsibility for ensuring teachers are appropriately informed and trained, have an important role to play in making sure teachers are adequately prepared to manage child protection issues, and that they are confident of their own rights and responsibilities in this area. This last point is particularly important in the context of current difficulties recruiting males to the teaching profession. International research has indicated that the association of child sex abuse with male teachers is a major factor causing the decline in numbers of male primary school teachers (MCEETYA, 2002a).

There is also, however, genuine concern with ensuring that teachers do not abuse their opportunities to work with children by perpetrating abuse, and the Australian Government is working together with state and territory governments to develop Model Uniform Legislation for the conduct of criminal record checks for those employed or seeking employment in settings involving children. This legislation will ensure that current discrepancies concerning police check requirements between different jurisdictions are removed, so that a person who is judged unsuitable to work with children in one jurisdiction on the basis of police checks is unable to move to a different jurisdiction and obtain employment there, due to different police requirements. It will be important for this work to continue to be supported by all jurisdictions

and educational authorities, and for staff in schools, particularly classroom teachers and principals, to be supported in understanding and implementing any relevant requirements of the new arrangements.

E (i) (d) Australian evidence on the preparedness of beginning teachers in relation to safe and supportive schooling

The capacity of teachers to ensure safe and supportive learning environments, and to effectively implement anti-bullying and violence initiatives, is closely linked to how well prepared they are to manage student behaviour in general. There is consistent evidence that beginning teachers do not feel their training equips them adequately for this responsibility.

For example, the national study into beginning teachers' experiences, *An Ethic of Care: Effective Programmes for Beginning Teachers* (DEST, 2002), found that, disturbingly, only one third of new teachers felt their training had been either very effective or reasonably effective in preparing them to manage student behaviour. The same study cited research from Queensland which found that 40 per cent of beginning teachers were less than adequately prepared for the management of individual student behaviour, and over half felt they were not adequately prepared to teach students with learning difficulties in an inclusive setting. It is not surprising, then, that *An Ethic of Care* found that managing student behaviour rated at the top of the list (76 per cent of beginning teachers) of issues for which support is essential.

Similarly, the National Survey of Teachers (MCEETYA, 2002b) found that having effective measures for handling student behaviour was the most important factor impacting on career decisions by all teachers, not just beginning teachers. This rated above good leadership, familiarity with subjects taught, and job security. Clearly, this is an area which pre-service teacher preparation programmes, and ongoing professional development for practising teachers, need to address with urgency.

E (i) (e) International evidence in the preparedness of beginning and experienced teachers

The World Health Organization's *World Report on Violence and Health* (WHO, 2002) found that training for education professionals to make them better able to identify and respond to different types of violence is an important aspect of community-based violence prevention programmes. Work stemming from this report has included O'Moore's (2004) *Guiding Framework for Policy Approaches to School Bullying and Violence*, which noted, from the Irish context, that there is a general lack of systematic training for teachers on bullying and violence prevention during their initial teacher education. The paper also notes the importance of both existing and beginning teachers and other school staff presenting an appropriate behavioural example to students, because "for as long as teachers and head teachers engage in behaviour that can be defined as bullying or violence with their colleagues or pupils, they are unlikely to be able to deliver effective anti-bullying programmes effectively or convincingly" (O'Moore, 2004).

E (ii) Family-school partnerships

The evidence is consistent, positive, and convincing: families have a major influence on their children's achievement in school and through life.³⁴ When schools and families work in partnership, children tend to do better in school, stay in school longer, and like school more. In highly effective schools, parents and families are encouraged to take an active role in

³⁴ See, for example, Desforges & Abouchaar (2003) and Henderson & Mapp (2002).

The Australian Government will support the trialling in schools of the draft *Family-School Partnerships Framework* during 2005. The purpose of the trial will be to help refine the draft Framework and measure the positive impact of genuine family-school partnerships.

discussing, monitoring and supporting their children's learning and are involved in setting goals for the school and in developing school policies.

The current situation in Australia with respect to family-school partnerships is one in which parents by and large are still confined to traditional roles, such as helping run the canteen or fund-raising activities. Anecdotal evidence from school parents suggests that implementation of official parent partnership policies is often patchy, uncoordinated and under-resourced.

Teachers with a greater knowledge of the benefits of building partnerships and valuing the role of parents will be able to contribute to improving the school experience for students.

The Australian Government has developed a draft *Family-School Partnerships Framework* over the course of two national roundtables, held in May and July 2004 in consultation with Australian Council of State School Organisations (ACSSO), the Australian Parents Council (APC), state and territory government and non-government school authorities, principals' associations, academics, Indigenous experts, and teachers and students.

F Preparing beginning teachers and upskilling practising teachers for teaching in vocational education and training

F (i) Vocational education context

Vocational education provides students with an understanding of the work environment and its expectations, a clearer knowledge of career opportunities and pathways, and increased self-esteem and job readiness.

Vocational education refers to:

- general vocational learning and education including work experience;
- career education, information and guidance;
- VET in Schools programmes; and
- School-based New Apprenticeships.

Vocational education refers to general vocational learning for all school students in both primary and secondary school. This vocational education can be incorporated into general learning in other discipline subjects, such as interview techniques, work and volunteer experience, or may be a stand-alone subject. A broadening of the school curriculum to include experience in the world of work and the opportunity to learn in environments outside a traditional school setting is important in making the school experience more relevant and engaging for all students.

Formal VET in Schools programmes are undertaken by school students as part of the senior secondary certificate and provide credit towards a nationally recognised VET qualification within the Australian Qualifications Framework. The training that students receive reflects specific industry competency standards and is delivered by a Registered Training Organisation (RTO) or a school in partnership with an RTO.

School-based New Apprenticeships involve a student undertaking a national vocational qualification while completing school studies:

- a School-based New Apprenticeships student will be enrolled in a senior secondary certificate under the relevant Education Act;
- the school or education provider at which the student is enrolled acknowledges and endorses the Training Plan/Outline required by the Apprenticeship/Traineeship Training Contract; and

- the School-based New Apprenticeship is recognised on the senior secondary certificate.

VET in Schools and School-based New Apprenticeships delivery require teachers to have, in addition to their teaching qualifications, a Certificate IV in Training and Assessment as well as specific industry experience or general industry experience as appropriate for the Training Package qualification.

F (ii) Career education, information and guidance

In 1999 MCEETYA endorsed a set of National Goals for Schooling which included the statement that all school leavers should 'have employment related skills and an understanding of the work environment, career options and pathways as a foundation for, and positive attitudes towards, vocational education and training, further education, employment and life-long learning'³⁵.

Recommendation 30 of the 2004 House of Representatives Inquiry into Vocational Education in Schools recommended that all schools have at least one full-time professional careers adviser, with appropriate specialist training, who can provide a dedicated career education service within the school and work with the VET coordinator.

Similarly, the OECD country note on career guidance in Australia highlighted that VET pathways are often an additional load for already busy careers teachers and have squeezed crucial general career guidance out of the curriculum.³⁶ The OECD report concluded that it is critical for all students, including those who participate in structured VET pathways, to have access to broader career guidance and to be given the opportunity to reflect on their work experience, develop self-awareness, goals-setting and other career management skills, and to consider broader career and study options (including options beyond the realm of VET).³⁷

A career education elective for pre-service teachers is currently being developed, which will provide university students studying to be teachers with an understanding of career development for school students. It is anticipated that the elective will be available for all universities in 2006.

Australian Career Development Studies (ACDS) was launched in March 2005. ACDS is comprised of three learning programmes tailored to meet the needs of career practitioners and others (such as teachers, parents, youth workers, coaches and community leaders) who help people to make informed education and employment choices. The three programmes are available free of charge at www.career.edu.au.

F (iii) VET in Schools

F (iii) (a) Environment

Increasing the choices in education is essential so that all young people are able to develop their full capacity through schooling. Currently, 95 per cent of secondary schools with senior students across Australia offer Vocational Education and Training (VET) programmes. Shifts in student populations, changing expectations, differing economic circumstances and provision of more VET options in schools have helped create more student diversity in the senior years of schooling. Such diversity of learners and course options in schools requires teachers able to respond with relevant knowledge and skills and appropriate pedagogy. The content and approach of teacher education needs to effectively prepare involved teachers to deliver vocational education and training in schools.

³⁵ MCEETYA (1999), *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century*, goal 1.5. Melbourne.

³⁶ OECD Review of Career Guidance Policies – Australia Country Note March 2002, page 7.

³⁷ OECD Review of Career Guidance Policies – Australia Country Note March 2002, page 16.

There has been significant growth in the numbers of young people undertaking VET in Schools from around 60,000 in 1996 to over 200,000 in 2003. There has also been a large increase in the numbers of young people undertaking School-based New Apprenticeships. There are now 12,900 young people in School-based New Apprenticeships compared to 1,500 in 1998, representing an eightfold increase. These pathways lead to industry recognised qualifications and provide a range of pathways allowing all young people to explore their potential.

F (iii) (b) Teacher education

Vocational education is generally included as part of existing teacher education courses or individual units of study delivered by a university or other higher education provider and does not constitute a separate component, as in the case of other discipline areas such as science, mathematics, English and commerce. As universities are autonomous, self-accrediting institutions the nature and extent of training for both vocational education and VET in Schools varies between states and territories and between institutions within a jurisdiction and across Australia. Universities consult with government and non-government education authorities which register and/or employ teachers to determine the nature and content of undergraduate and postgraduate teacher education.

F (iii) (c) House of Representatives Inquiry into VET in Schools

Recommendations arising from the House of Representatives Standing Committee on Education and Training Inquiry into Vocational Education in Schools should be noted in the context of the current Inquiry. Key recommendations relevant to this Inquiry are recommendations 3 and 7 that MCEETYA pursue greater national consistency in (amongst other VET in Schools issues) teacher training.

F (iii) (d) Business and school partnerships

An important component of VET in Schools programmes and School-based New Apprenticeships is the link between schools and industry to provide structured work placements for students, and to allow opportunities for teachers to gain industry experience to inform their teaching.

Effective partnerships between industry and schools are vital to ensuring that students have access to industry placements to support vocational education and VET in Schools programmes.

A key aspect of this work is to develop effective relationships with teachers and careers advisers to raise awareness about career pathways in specific industries, as well as raise general awareness about industry skill needs.

F (iii) (e) Professional development

VETnetwork, the national professional association for teachers and VET in Schools coordinators, undertakes a range of professional learning activities to support the work of VET in Schools programmes and teachers. The Australian Government has supported VETnetwork's professional development programme with funding of \$113,000 for VETnetwork's biennial conference (November 2004) and associated professional development publication for their members.

F (iii) (f) Cost of VET in Schools project

The Australian Government-commissioned *Cost of VET in Schools* Project examined the issue of delivery approaches and acknowledged that different models have different policy intentions and associated costs. The project developed a framework for a National VET in Schools Cost Model to allow the cost of VET in Schools to be determined for each jurisdiction and each delivery mode. The challenge faced by schools is to deliver VET in a way that provides the

benefits they are seeking in a cost efficient manner and at the same time ensuring quality of delivery. The project found support for the view that high quality VET in Schools delivery is related to the quality of teacher training, the understanding and commitment to VET in Schools by teachers and the school, and the industry placement and participation. The *Cost of VET in Schools* report has been distributed to states and territories for information (DEST, 2003).

F (iii) (g) Enterprise education and employability skills

Enterprise education is a priority area within *The Adelaide Declaration on National Goals for Schooling in the Twenty-First Century* (the National Goals) endorsed by the MCEETYA in 1999. It is also a key element of the MCEETYA Framework for Vocational Education in Schools.

The development of enterprising capacities in all young people is an important preparation for work and life. To be able to develop enterprise skills in young people, teachers need to have a sound understanding of the objectives and nature of enterprise education. The Australian Government has undertaken work to investigate best practice models in enterprise education in Australian schools through the Enterprise Education Action Research Project. This work demonstrates the importance of enterprise education in supporting students apply their learning in real life situations and understand the realities of the wider world outside the school.

The recently announced *Enterprise Learning for the 21st Century* initiative will build upon the success of the Action Research project. The Australian Government is providing \$2.5 million in 2004–05 to fund innovative projects that will encourage young Australians to be more enterprising. Partnerships are encouraged between education authorities, business and industry and local communities to successfully deliver enterprise learning.

In addition, the Australian Government has completed a national strategic project, Universal Recognition of Employability Skills, to facilitate the implementation of the Employability Skills Framework in the schools sector as well as other sectors. The project consultations found that a cross-sectoral approach for relevance to the schools, VET, higher education and the community sectors requires an employability skills portfolio model and that trialling should be a part of the next steps. Teachers need to have a strong understanding of the relevance of the employability skills for students, as well as capabilities in leading student learning in these skills. The employability skills are: communication, team work, problem-solving, initiative and enterprise, planning and organising, self-management, learning and technology skills.

F (iii) (h) Issues for further attention

As vocational education continues to grow, all teachers from across the disciplines will be required to have an awareness of, and be supportive of, vocational education, employability skills, VET in Schools and School-based New Apprenticeships options. Greater numbers of qualified VET in Schools teachers will be required as more students access VET in Schools. Teachers will need to have a Certificate IV in Training and Assessment, and more specialised training in VET-related subject matters to be able to deliver VET in Schools programmes. This raises some key issues:

- the nature and extent of training for undergraduate secondary teachers to become qualified VET in Schools teachers;
- the training requirements to prepare teachers for the extra responsibilities required of VET in Schools and vocational education teachers;
- the importance of graduates, beginning teachers and experienced teachers having access to industry experience, particularly for VET in Schools teachers;
- the ANTA review of the Australian Qualifications Training Framework, the current review of the AQF guidelines for VET qualifications and the high level review of Training Packages.

- how many teaching graduates at both primary and secondary levels receive general awareness training in enterprise education, vocational education and VET in Schools; and
- if this training is delivered, is it in mandatory or elective subject(s); and
- consideration of embedding the concept of enterprise education (as a priority area within the National Goals) into teacher training courses, including teaching methods and course structure and materials.

G Australian Technical Colleges

The Australian Government is committed to establishing 24 Australian Technical Colleges which will provide an academic curriculum for Years 11 and 12 students as well as trade training through commencement of a School-based New Apprenticeship. Each College must therefore be a registered school, whether an existing government or non-government school or a new school, and will need to ensure trade training is delivered by a Registered Training Organisation.

The Australian Technical Colleges initiative is linked with other initiatives of the Australian Government to increase the up-take in trade careers so Australia's vocational education and training system is strengthened, skills needs are better met, and pride and excellence in the acquisition of trade skills are promoted. The Colleges will also complement the work undertaken by state and territory governments in school-based vocational education and training.

A Request for Proposals to establish and operate Australian Technical Colleges was released on 30 March 2005. The closing date for proposals is 20 May 2005. It is recognised in the Request for Proposals that it is not enough to have committed students willing to undertake their Year 12 Certificate and trade training. Proposals must also identify how a College intends to attract and retain high-quality teaching staff.

Consistent with Government policy to encourage teachers to maintain relevant up-to-date industry skills and experience, the Proposal must also include strategies for providing professional development plans for teachers. Strategies could include provision of industry placements for teachers of vocational subjects.

As well, the principal of an Australian Technical College will have the autonomy to manage the College including selection of the staff for the College. Staff will be offered performance pay and the option of an Australian Workplace Agreement in accordance with the *Workplace Relations Act 1996*. The College principal will be accountable to a governing body which will provide the strategic direction and leadership to the College, its staff and students and its local community.

H Preparing beginning teachers and upskilling practising teachers to successfully use information and communication technology (ICT)

ICT is critical to improving the quality of teaching and learning throughout all Australian schools. It has the potential to serve as a powerful change agent to:

- contextualise curriculum content in ways that connect it to a world outside of the classroom;
- encourage students to actively participate in their own learning and build their own knowledge;
- facilitate a holistic approach to teaching and learning; and
- help manipulate information and ideas in ways that transform their meaning and create new knowledge and understandings.

The Australian Government recognises the importance of today's students being ICT-literate: not only for study purposes, but also for employment and lifelong learning. Most recently, this is reflected in the Government's 2005–08 schools funding legislation, which requires all states and territories to commit to development of an ICT Statement of Learning by January 2006 and implementation by January 2008. Under the same legislation, states and territories will also need to put in place common testing standards for ICT by 2008.

Important work has taken place across the school sector to address this imperative, both at the individual state/territory level and at the national level. However, much more is needed. The return on investment made to date will only be realised by a longer term commitment which consolidates what has been achieved and moves the sector towards new and innovative approaches to teaching and learning that fully embrace the potential that learning technologies have to offer.

The key to harnessing this potential is through teacher preparation. While increasing numbers of young teacher graduates are familiar with using basic online tools and applications, they still require better training to effectively apply their basic skills in a pedagogical setting, and integrate ICT use across the curriculum. On the other hand, older/career change entrants to teaching may be looking for recognition of prior learning and personalised preparation programmes to acknowledge their prior learning and experience.

Two key reports released by the Australian Government address the preparedness of teachers to use ICT in the classroom:

- The final report of the Review of Teaching and Teacher Education (Committee for the Review of Teaching and Teacher Education, 2003c) argues that advanced ICT should be ubiquitous in schools, and its ease of use as an education tool should be part of the professional repertoire of all teachers. The Agenda for Action states that all teacher education programmes should "prepare prospective teachers for the digital age where ICT is an important tool in information and knowledge management, and integral to student learning" (Action 31) (Committee for the Review of Teaching and Teacher Education, 2003a: 35).
- *Making Better Connections – Models of teacher professional development for the integration of ICT into classroom practice*³⁸ was the main outcome of an Australian Government project to examine existing models of pre-service teacher education and in-service professional development in the area of ICT, both in Australia and overseas. The report highlights a critical need to forge stronger links between pre-service teacher education and the continuing professional development provided by education systems. Teacher education providers are finding that some schools are inadequately prepared (in terms of resources and expertise) to offer student teachers meaningful practica that effectively utilise ICT in teaching and learning. Conversely, school systems are finding that newly qualified graduates often do not have the necessary ICT knowledge and understandings required for effective teaching in their schools and classrooms. Australian education systems and teacher education providers need to develop strong partnerships to solve this dilemma.

Flowing from the *Making Better Connections* report, the Australian Government has recently commenced a new *Partnerships in ICT Learning* project to support a series of pilot demonstrator projects, one in each state and territory, to develop, trial and evaluate innovative partnerships between universities, school education authorities (government and non-government) and schools. The objective is to demonstrate good practice approaches to embedding ICTs throughout the educational experience of student teachers, practising teachers

³⁸ Commonwealth Department of Education, Science and Training and Downes et al. (2001). *Making Better Connections* is available at <http://www.dest.gov.au/schools/publications/2002/professional.htm> Hard copies are also available upon request.

and teacher educators. It is expected that the pilots will inform future conversations around how whole school reform can assist teachers to use ICT as a productive pedagogy.

The National Institute for Quality Teaching and School Leadership (NIQTSL) is also conducting a new national research project on *Leadership and Learning with ICTs*. Specifically, it will look at models of school leadership within Australia and overseas that support teaching and learning using ICT, as well as how professional learning can help school leaders to support ICT use in their schools. The research will also address questions about quality in the use of ICT in schools to improve student learning outcomes and opportunities.

As well as fostering the general ICT pedagogical skills of teachers at all levels of schooling, it will also be important to ensure that Australian schools are resourced with adequate numbers of well qualified and capable senior secondary computer science teachers. There is some evidence to suggest that Australian schools may be experiencing shortages of specialist ICT teachers as many accept more lucrative employment opportunities offered by the private sector.³⁹ Availability of adequate teachers in this area obviously impacts upon the skills of secondary school graduates, the vocational choices they make, and the longer term sustainability of Australia's skills base. More detailed data on the current and projected future supply of these specialist teachers are needed to help inform teacher workforce planning.

I Recognising and rewarding quality

I (i) National Awards for Quality Schooling

Held for the first time in 2003, the Australian Government established the annual *National Awards for Quality Schooling* (NAQS) to encourage, recognise and reward innovative and sustainable school improvement activities which are achieving excellent outcomes for students. The NAQS offers a \$1 million total prize pool, with applications invited from pre-primary, primary and secondary schools, "clusters" of schools, teams of teachers, individual teachers and principals from all Australian government and non-government schools. The NAQS is linked to the Australian Government's *National Quality Schooling Framework* (NQSF), a web-based resource to support school improvement. The 2005 NAQS are being managed by the new NIQTSL. Further information about the NAQS can be found at <http://www.niqtsl.edu.au/pages/awards.html>. The NQSF is at www.nqsf.edu.au

I (ii) National Literacy and Numeracy Week Awards for Schools

The Australian Government's *National Literacy and Numeracy Week Awards for Schools* were first offered in 1999. They recognise the outstanding work being carried out by schools and school communities to improve the literacy and numeracy outcomes of their students. The Awards represent a great opportunity for teachers to showcase their successful practices and for schools to become role models for other Australian schools. In 2005 there will be a total of 57 NLNW Awards available to government and non-government primary and secondary schools, with a total value of \$345,000. Further information can be found at http://www.literacyandnumeracy.gov.au/2005/awards_for_schools.htm

The Minister's Awards for Outstanding Contribution to Improving Literacy and/or Numeracy are also presented as part of National Literacy and Numeracy Week. These awards commenced in 2003 and recognise outstanding contributions made by individuals in the community to improving literacy and/or numeracy in a wide variety of settings – from early childhood through to adult education, including in schools. In 2005 there will be five awards of \$10,000 each.

³⁹ See 2003 Mapping Australian Science and Innovation Report, available at: <http://www.dest.gov.au/mapping/pubs/main/toc.pdf>

I (iii) The Prime Minister's Prizes for Excellence in Science Teaching

Science teachers have a fundamental role in nurturing an interest in science in our youth. Their contributions, commitment and dedication to effective and creative science teaching are celebrated in two awards, created in 2002: the Prime Minister's Prize for Excellence in Science Teaching in Primary Schools, and the Prime Minister's Prize for Excellence in Science Teaching in Secondary Schools. These prizes are awarded annually to two teachers who have made an outstanding contribution to science education in Australia. In 2005, the Science Teaching Prizes each comprise a silver medallion and a grant of \$50,000. Further information can be found at <https://sciencegrants.dest.gov.au/SciencePrize/Pages/Overview.aspx#Teaching>

I (iv) Australian Awards for University Teaching

The Australian Awards for University Teaching were established in 1997 by the Australian Government to celebrate and reward excellence in university teaching. Australia's 37 publicly funded universities, as well as The University of Notre Dame Australia, Bond University, Batchelor Institute of Indigenous Tertiary Education and the Australian Maritime College are eligible to nominate individual teachers, teams of teachers or institutional projects or initiatives in the relevant award category. In 2005, the winners of individual teaching awards will receive a grant of \$40,000, a certificate and a trophy. Teaching awards are offered in five disciplines. The Social Sciences category is open to teachers from university education faculties. The sixth teaching award category is for early career academics from any discipline. From 2006 a new awards programme will be introduced as announced in *Our Universities: Backing Australia's Future*. For more information go to <http://www.carrickinstitute.edu.au/carrick/go/aaut>

I (v) Excellence in Leadership in Indigenous Education Awards

Dare to Lead is a national project that is based on the belief that, in order to effect change in schools, principals need to lead the way. The aim of the project is to bring about sustained change in schools through engaging principals from around Australia to form an ongoing coalition of schools who commit to improving education outcomes for Indigenous students. Schools who sign up and become members of the *Dare to Lead* coalition are invited to enter for the Excellence in Leadership in Indigenous Education Awards. The awards acknowledge outstanding work and leadership in Indigenous education and are awarded to schools that excel across a number of criteria. The criteria include: being able to demonstrate improvements in targeted outcomes for Indigenous students of 10 per cent improvement in Year 5 literacy and Year 12 completions, effective leadership, and Indigenous community involvement. More information can be found at <http://www.apapdc.edu.au/daretolead/>

CHAPTER FOUR

RECENT KEY AUSTRALIAN RESEARCH AND POLICY STUDIES

Introduction

There have been a number of recent policy developments, in many cases stemming from commissioned studies or research which provide a context for this debate about initial teacher education and ongoing professional learning and are pertinent to the concerns of the Inquiry.

In this chapter of the submission, several of the more significant studies in which the Australian Government has a particular interest are outlined for the information of the Committee.

Quality Matters: Revitalising Teaching: Critical Times, Critical Choices – the Ramsey Review

One of the most significant recent Australian studies in the area of teacher education is *Quality Matters: Revitalising Teaching: Critical Times, Critical Choices*, the report, published in 2000, of the Review of Teacher Education in New South Wales chaired by Dr Gregor Ramsey.

The Ramsey Review report has served to heighten and progress the profile of the teaching profession. Since 2000, there have been several critical developments, particularly at the national level, which have contributed significantly to the achievement of this goal.

Australia's Teachers: Australia's Future: Advancing Innovation, Science, Technology and Mathematics – Report of the Review of Teaching and Teacher Education

Of particular significance at the national level has been the publication in 2003 of *Australia's Teachers: Australia's Future – Advancing Innovation, Science, Technology and Mathematics*, the final report of the Committee for the Review of Teaching and Teacher Education chaired by Professor Kwong Lee Dow AM, then Deputy Vice-Chancellor of The University of Melbourne. An outline of the Review process and its terms of reference are attached at Appendix A.

The Review and its Agenda for Action are referred to elsewhere in this Submission as relevant; however, at this point it is appropriate to acknowledge its wide ranging reach, the positive reception it has received from the vast range of stakeholders and the numerous items from its Agenda for Action on which the Australian Government has already instigated activity.

This independent Review of Teaching and Teacher Education under *Backing Australia's Ability* (BAA) in 2002 investigated and reported on ways to attract and retain the best people into the teaching profession, especially in the fields of science, technology and mathematics, and build a culture of continuous innovation in Australian schools in the long term. An independent committee was established to oversee the Review in August 2002.

The final report of the Review of Teaching and Teacher Education identified five broad priority areas for attention to attract and retain world class teachers, particularly of science, technology and mathematics, and to initiate and sustain cultures of innovation to achieve high quality outcomes for all students.

In particular, it recommended over 30 actions relating to attracting and retaining teachers, strengthening teacher education and career-long professional learning. These ranged across matters such as improving teacher workforce planning, incentives to encourage prospective teachers to complete their training and take up employment in areas of teacher shortage, facilitating career change entry to teaching and investigating superannuation arrangements to

encourage longer retention. It emphasised that initial teacher education of a very high standard is an essential requirement for an effective, resourceful and diverse teaching profession.

The report addressed its findings and recommendations to a wide range of stakeholders, reflecting the diversity of governments, agencies and organisations with an educational role in this area. The Australian Government has already embarked on considerable initiatives in the areas highlighted by the Review's Agenda for Action, including activities under the Backing Australia's Ability programme and the new National Institute for Quality Teaching and School Leadership (NIQTSL).

Table 5: A summary of the Actions related to Teacher Education and Training identified in the 2003 Review of Teaching and Teacher Education which are relevant to this Inquiry

| Actions primarily the responsibility of state/territory education employer authorities and/or education training institutions |
|--|
| <p>Promoting science, technology and mathematics teaching in schools</p> <p>Action 3: Primary teacher education programs provide a substantial focus on science, technology and mathematics teaching.</p> <p>Action 4: Primary teacher education programs offer students opportunities to specialise in science and mathematics teaching, and students be encouraged by teacher education institutions and education authorities to pursue those opportunities.</p> |
| <p>Planning and collaboration to attract and retain quality teachers</p> <p>Action 10: Comprehensive statistics relating to teachers, teacher workforce trends and teacher education be consistently, reliably and regularly collected on a national and collaborative basis.</p> <p>Action 11: Research be undertaken on the working lives of teachers, their professional aspirations and ways in which changed conditions of schooling and employment might enhance the attractiveness of careers in teaching.</p> <p>Action 12: High quality teacher education programs and sufficient teacher education places, particularly in science (especially physics and chemistry), technology, mathematics and LOTE, be provided to meet the future teaching workforce needs and circumstances of all metropolitan, regional and remote communities.</p> |
| <p>Attracting and retaining high quality teachers</p> <p>Action 13: Prospective teachers of science, technology and mathematics be offered incentives, including payment of their HECS debt, housing assistance, scholarships, and/or paid internships, to qualify as teachers in those fields and to take up teaching appointments.</p> <p>*Action 14: Teachers of science, technology and mathematics not pay more HECS than other teachers.</p> <p>Action 15: Close collaboration be developed between education and other (particularly science, agriculture and engineering) faculties at higher education institutions, with arrangements established for students in science, technology and mathematics-related non-teacher education programs to undertake teacher education units within their course packages.</p> |
| <p>Attracting more Indigenous teachers</p> <p>Action 16: All initial teacher education programs promote as a core competency in qualifying teachers, an understanding of the diversity of students and their communities – most especially in relation to Indigenous students – and provide in-school experiences in a range of settings, including rural communities.</p> <p>Action 17: Prospective Indigenous teachers be offered special incentives, including scholarships and payment of their HECS debt, to qualify as teachers and to take up teaching appointments.</p> <p>Action 18: Prospective teachers of Indigenous students be offered assistance to undertake practical experience in schools with significant cohorts of Indigenous students and be offered incentives to</p> |

take up teaching appointments in schools with predominantly Indigenous enrolments.

Action 19: The continuing professional learning of Indigenous education workers, including study to qualify as teachers, be encouraged and supported.

Facilitating career change entry to teaching

Action 20: Actively recognise and credit the knowledge, capabilities and experience of prospective teachers now engaged in other professions, and implement recognition of prior learning arrangements in ways that reinforce high standards for the teaching profession.

***Action 21:** Financial incentives, including scholarships and payment of their HECS debt, and internships be offered to high calibre prospective teachers of science, technology and mathematics from other professions to qualify as teachers and to take up teaching appointments.

Action 22: A range of new, flexible, cross-faculty, intensive and accelerated teacher education pathways be established for those seeking to enter science, technology and mathematics teaching from other relevant professions.

Action 23: Financial assistance be provided for the start-up and piloting of new, flexible, cross-faculty and innovative science, technology and mathematics teacher education programs targeted at entrants from other professions.

Strengthening teacher education and career-long professional learning

Action 31: All teacher education programs prepare prospective teachers for the digital age where ICT is an important tool in information and knowledge management and integral to student learning.

Action 32: All initial teacher education programs link strongly to schools, including through internships, and equip students with a full range of practical skills required to commence teaching as a competent professional.

Action 33: Different models for funding and structuring the practical teaching experience, based on the contemporary and expected skills needs of beginning teachers, be investigated, considered and adopted.

Action 34: Teacher educators have continuing direct involvement in schools – including as part-time teachers, as mentors to beginning teachers, and as experts conducting or guiding action research – and education faculties and education authorities conjointly employ significant proportions of those staff.

Action 35: Numbers of highly accomplished teachers and school leaders be placed in education faculties as teacher educators for specified durations, under joint arrangements between education authorities and universities.

Beginning to teach

Action 36: Beginning teachers receive appropriate professional support, including thorough-going induction and mentoring, and time to reflect on their practice.

Action 37: Partnerships between education authorities, schools and teacher education faculties be established to support jointly the transition to teaching of beginning teachers – and this additional responsibility for teacher education faculties and schools be formally recognised and resourced.

Action 38: A national forum on teacher education be convened, bringing together the key stakeholders to set future directions and develop agreed common principles and protocols for teacher preparation including effective recognition of prior learning arrangements, course structure, content and delivery arrangements, practical teaching experience, quality assurance and flexible pathways into teaching.

Career-long professional learning

Action 39: The professional learning opportunities provided by employers of teachers, higher education institutions and teacher professional associations be directed to the achievement of the standards to be established for advanced teaching competence and improved student learning outcomes, relate to the situational needs of schools and their students, and reflect the expressed professional learning needs of teachers.

Action 40: Opportunities be created through professional leave or other arrangements for teachers, especially of science, technology and mathematics, to gain relevant work experience in research and industry.

Action 41: Opportunities continue to be created for teachers to upgrade and update ICT knowledge and skills relevant to their professional roles.

Action 42: Specially tailored courses be provided to enable selected teachers not currently qualified to teach in science, technology or mathematics and who wish to teach in those areas, to acquire the professional expertise needed.

Upgrading or acquiring new professional expertise

Action 43: Specially tailored courses be provided to enable teachers of science, technology and mathematics who need to upgrade their subject knowledge or qualifications in those areas to do so.

Action 44: Specially tailored courses be provided to enable those regularly teaching science, technology and mathematics 'out-of-field' to gain the specialist expertise required to teach in those learning areas.

Supporting future schools through leadership, teams and partnerships

Action 47: The nature and processes of learning become the focal concerns of initial teacher education and continuing professional development.

* Note: The Review concluded that the greater HECS debt incurred by science, technology and mathematics teachers is "anomalous" because teachers' salaries do not differentiate between specialisations, and that these teachers should not pay more HECS than other teachers. Students who undertake teaching degrees will make different HECS contributions based on their subject choices and students in science, technology and mathematics will generally make greater contributions than students undertaking study in other teacher specialisations. The introduction of differential HECS rates from 1997 was premised on two factors: variations in course cost; and graduate earning outcomes.

The Australian Government has consistently defended HECS as a fair and equitable way that students contribute to the cost of their education without deterring participation. Reducing or repaying HECS in an attempt to encourage people into certain areas is inconsistent with the Government's position that HECS does not deter.

Attracting, Developing and Retaining Effective Teachers – an OECD project

The major OECD project "Attracting, Developing and Retaining Effective Teachers" was conducted between 2002 and 2004.

Twenty-five countries were involved: Australia; Austria; Belgium (Flemish Community); Belgium (French Community); Canada (Quebec); Chile; Denmark; Finland; France; Germany; Greece; Hungary; Ireland; Israel; Italy; Japan; Korea; Mexico; the Netherlands; Norway; the Slovak Republic; Spain; Sweden; Switzerland; the United Kingdom and the United States.

There were valuable linkages between the focus of this project and the work conducted under the Review of Teaching and Teacher Education as part of the *Backing Australia's Ability* innovation initiative. There were also synergies with work being conducted jointly between DEST and the MCEETYA Teacher Quality and Educational Leadership Taskforce (TQELT) in relation to Australian teacher supply and demand, as well as with the ongoing work of this MCEETYA Taskforce. In addition, outcomes of projects funded through the Australian Government Quality Teacher Programme (AGQTP) at national and jurisdictional level under the Commonwealth's *Teachers for the 21st Century* quality teacher initiative were highly relevant to the OECD project. Indeed, funding for Australia's participation in the project was provided under the AGQTP as a strategic national project.

The Australian Country Background Report

Each country involved in the "Attracting Developing and Retaining Effective Teachers" project was required to produce a Country Background Report. Australia's Country Background Report

was prepared for DEST by Emeritus Professor Malcolm Skilbeck and Dr Helen Connell, who also prepared the final report for the Review of Teaching and Teacher Education.

Key Findings from the Australian Country Background Report

Key findings from the Australian Country Background Report published on the OECD project website in August 2003 accord closely with findings from the final report of the Review of Teaching and Teacher Education (2003c), the MCEETYA Demand and Supply 2003 Report and findings from AGQTP projects including the report of the project "An Ethic of Care – Effective Programmes for Beginning Teachers".

Many of these key findings are raised earlier in this submission, including the declining number of male teachers, the pressing issue of attracting and retaining teachers to rural and remote areas and concerns around high attrition rates. One key finding of the OECD study was that, averaged across all teachers, teaching salaries are lower relative to salaries for other professions, especially for men. Other professions had more extended salary scales and more opportunity for promotion.

Four major issues with global implications emerging from the OECD study are:

- the need to position teaching within a more flexible working life;
- attracting and recruiting to teaching;
- pre-service education of teachers; and
- career-long development.

Teachers Matter – the Synthesis Report from the OECD Study

The OECD Secretariat was responsible for oversight, management and conduct of the project and for preparation of the project Synthesis Report which was released in draft form at the *Teachers Matter: Attracting, Developing and Retaining Effective Teachers* international conference in Amsterdam on 18 November 2004. It is scheduled for final publication in 2005 and, when available, consideration by the Committee is highly recommended as it explores many issues relevant to the Committee's Terms of Reference for the Inquiry into Teacher Education.

Many of the policy directions recommended in the draft Synthesis Report are in keeping with the Australian Government's position in relation to attracting, developing and retaining effective teachers. For example, these include:

- emphasising teacher quality over teacher quantity with, for example, stronger emphasis on recognising and rewarding effective teaching;
- developing teacher profiles (ie standards) to align teacher development, performance and school needs;
- viewing teacher development as a lifelong learning continuum with, for example, more emphasis on ongoing professional learning;
- making teacher education more flexible and providing more routes into the profession;
- providing schools with more responsibility for teacher personnel management (the need for more skilled leadership teams to exercise these responsibilities effectively was noted); and
- transforming teaching into a knowledge-rich profession.

The Report states that the success of any reforms to teachers' work and careers requires the active involvement of teachers in policy development. It notes that some countries have

developed teaching councils that provide teachers and stakeholder groups with a forum of policy development and a mechanism for profession-led standard setting and quality assurance.

Recent TQELT studies

Major issues that will impact on schooling in Australia into the future have emerged in the last decade and continue to evolve. In preparation for these changes and to help address the related challenges, the MCEETYA Teachers Quality and Educational Leadership Taskforce (TQELT) undertook three key studies into workforce planning issues.

Nationally aligning graduate level teaching standards: 2004 survey

This 2004 survey investigated the alignment of current and planned employment and registration (accreditation) requirements of graduate teachers with the MCEETYA *National Framework for Professional Standards for Teaching* (the 'Framework' – see 'Professional Standards' in Chapter Two for more information). Respondents included government education authorities, state teacher registration representatives, and selected Catholic education authorities, including the National Catholic Education Commission (NCEC).

Key issues identified by the report include the lack of national consistency in the alignment of graduate teacher registration and graduate teacher employment with the Framework; the lack of consistency in the advice provided to higher education institutions offering pre-service teacher education, ranging from use of standards as explicit benchmarks to advisory comments only; and the lack of nationally consistent benchmarks for graduate level standards (there is little guidance on the degree to which graduate employment and registration should align with the Framework).

The report recommends that, by the end of 2006, teacher registration arrangements in all jurisdictions and employment requirements arrangements for all employers align with the Framework, and all jurisdictions establish guidelines for teacher pre-service education. This is consistent with Australian Government view that all teachers should be of high quality, measured against nationally comparable standards, regardless of where they are employed.

Pre-service Teacher Education in Australia study

The purpose of this study was to conduct a survey of Australian institutions that provide pre-service teacher education courses. It was completed in June 2004. The key elements of the study included selection processes, course structure and content, and accreditation processes. The study stated that it covered all 38 university providers and 102 individual pre-service teacher education courses. State and territory teacher registration bodies and agencies responsible for course approval were also surveyed.

For both undergraduate and postgraduate courses, academic ability as measured by tertiary entrance scores, tests scores or grade point averages was the key factor used for selecting students. This suggests that universities/higher education institutions are confident that this selection process is effective; however, the study highlighted the early exposure of students to schools.

The practicum is the area of greatest concern and the area where resources seemed most overstretched. When asked what they would change if more resources were available, most respondents said that improving the amount and quality of school experience and supervision would be their first priority.

External accreditation of university teacher education courses varies from state to state, although most have statutory bodies that attempt to regulate the teaching profession, to varying degrees. Of the eight Australian states and territories, only Queensland and Victoria have teacher registration bodies that possess statutory power to carry out teacher preparation course

accreditation. Australian universities do not appear to have a problem with external accreditation, as long as the processes are seen to be effective, useful and sensitive to the individual circumstances of the universities. The advantages of having a single national accreditation body for teachers were seen to include: portability of qualifications to meet the requirements of all jurisdictional education systems, improved professional status of teachers, ensuring comparability of standards developed by state bodies, and the fostering of national standards for teaching.

Teachers for the Future – the changing nature of society and related issues for the teaching workforce study

The study was undertaken in recognition of the transformation that the teaching profession is undergoing, mainly as a result of age-related retirements and the higher expectations of teachers to measure up to emerging professional standards. The study was designed to inform the development of new strategies for attracting and retaining quality teachers and new approaches for working with the next generation of teachers.

The study comprised a literature review, a survey of a representative sample of teachers in the first 10 years of their careers in New South Wales, Queensland, Tasmania and Western Australia and site visits to the four participating states with focus group meetings and interviews in primary, secondary and all-age schools, administration officers and teacher education faculties and departments. In addition, for the purposes of comparison, information and views about employment practices and policies in the professions of accounting, communication and media, law and nursing were gathered.

The directions for action arising from the study cover:

- shifting the focus of policy from quantity to quality;
- expectations and conditions of the school as a workplace;
- initial teacher education and early years in the profession; and
- the continuum of the teaching career.

Significantly, the findings of this study are reflected in the findings from the OECD study "Teachers Matter: Attracting, Developing and Retaining Effective Teachers". Both studies highlight the need for policy makers to focus on quality matters. This is consistent with the current Australian Government approach. As explored elsewhere in this submission, the AGQTP is a major national initiative aimed at improving the quality of teaching and school leadership and the newly established NIQTSL is also firmly focussed on this goal.

Recent DEST Studies

Concerns about beginning teacher transition from pre-service training to classroom practice continue to be an issue. There is also a growing interest in the best approaches for supporting mature and career change entrants to teaching. DEST has commissioned several studies to assist stakeholders as they conceptualise policy and practice in these areas. DEST also commissioned a national mapping of teacher development activity.

An Ethic of Care – Effective Programmes for Beginning Teachers

Project summary

One of the key transition areas is the shift from pre-service to beginning teacher. For many the transition is smooth and fulfilling. For others it can be a "reality shock". To gain a better understanding of this transition experience DEST commissioned a strategic national study

under the AGQTP into Effective Programmes for Beginning Teachers (DEST, 2002). The report examined the nature of teachers' entry into the profession, highlights principles underpinning effective induction programmes, canvassed key strategies for induction and examined the relationship between processes of assessment and support.

The report draws together information gathered through a national and international literature review and surveys, focus groups and/or interviews with key stakeholders including beginning teachers, representatives of education authorities, deans of education and professional associations and teacher unions.

Major findings

- Many beginning teachers find the transition from pre-service training into teaching difficult. This has an impact on teacher retention as studies show that teachers' experience in their first year plays a major role in their decisions about whether to stay in the profession.
- The amount and type of support provided for beginning teachers varies substantially. More than one in three teachers surveyed indicated that they had received limited or no support. Supervisors had a more positive perception of the support offered.
- While systems and districts make a significant contribution to teacher induction, for example by providing centralised induction activities or by reducing teaching loads, induction is generally seen as a school responsibility.
- Beginning teachers have a preference for support strategies which address their immediate, practical planning needs, which provide avenues for personal support and which provide year long support.
- The conflicting processes of supporting teachers and assessing them for permanent employment are often the responsibility of a single supervisor.
- A number of surveys over the last decade point to continuing concerns about the quality of initial teacher education. The survey of beginning teachers and supervisors conducted as part of this project revealed similar concerns.

Significance of the study

The study provides examples of good practice in system, district and school level induction programmes. It also makes recommendations for improving the practicum component of initial training.

Career Change Entrants to Teaching

One in three teachers has worked full time in other occupations, according to a 1999 Australian College of Education survey (Dempster et al., 2000). A 2003 study (unpublished) commissioned by DEST examined a range of issues for career change entrants to teaching including:

- the benefits career change teachers bring to teaching;
- the motivation for change;
- effective strategies for recruiting career change teachers;
- effective strategies for preparing career change teachers; and
- effective strategies for retaining career change entrants.

The study found that there was a need for universities to adjust teaching courses to improve their suitability and relevance to career change entrants. Particular points raised in the study were:

- The practicum, practical units related to their teaching areas and courses that clearly linked theory to practice, were considered by career change entrants to be the most valuable parts of their preparation. In addition, programmes in student management and psychology were considered important. Many felt that they would have benefited from more initial training in these areas.
- Some career change entrants found themselves “obliged” to undertake units of work in which their pre-existing skills exceeded course content and requirements.
- Many still had to earn a living while studying and had difficulties in managing university, practicum and part-time work.

In regard to this latter issue, the study recommended, “that universities review processes including ways to increase the effectiveness of strategies to recognise prior learning, fast track programs, provide flexible delivery modes and make courses more accessible to distance education career change students” (DEST, 2003a).

PD 2000 in Australia: a national mapping of school teacher professional development

Also of considerable significance in reflecting and increasing recognition of the importance of ongoing professional learning for teachers and school leaders was the DEST commissioned research report, *PD 2000 in Australia: A National Mapping of School Teacher Professional Development* (National Curriculum Services & McRae et al., 2001). This report discusses key ideas in contemporary discussion of teacher professional development; the work of sectoral agencies; the work of external providers; comments made by, and case studies of, providers; school professional development programmes; teachers and professional development; and findings.

Who’s teaching science?

Meeting the demand for qualified science teachers in Australian secondary schools

Summary of project

The “Who’s Teaching Science?” report, written by researchers from the Centre for the Study of Higher Education at the University of Melbourne, is based on a sample survey of 1,473 science teachers and heads of science departments in 629 secondary schools.

Major findings

- More appropriately qualified teachers in chemistry and physics are required, particularly to further develop science education in schools and to fill current and future vacancies.
- Graduates with science majors are the preferred candidates for secondary school teaching positions.
- Nearly 43 per cent of senior school physics teachers lacked a physics major, and 25 per cent had not studied the subject beyond first-year.
- Forty per cent of schools surveyed reported difficulties in attracting physics teachers.

- Twenty-five per cent of senior school chemistry teachers lacked a chemistry major, whereas 14 per cent of senior school biology teachers lacked a biology major.

The Report's recommendations include:

- workforce planning for teaching of science in schools to ensure sufficient numbers of suitably qualified teachers of science disciplines.
- professional development opportunities in discipline-specific workshops and in applied science or research.
- the higher education system to initiate analysis of future supply and of the quality of science teaching.

Key issues in order to increase interest in science and technology include:

- more effectively engaging students (especially at the junior secondary level);
- improving teaching of these subjects in the middle school years;
- raising awareness of science as a satisfying and rewarding career option; and
- influencing community views about the importance of developing scientific literacy in our population.

Significance of the study

This study builds on the final report of the Review of Teaching and Teacher Education, commissioned by this Government. It reinforces important findings of that report and plugs gaps in our knowledge of the secondary science teacher workforce.

It also noted the issue of age structure of the national teaching workforce, with expected retirements in the next five to ten years to include a significant proportion of male teachers in science. Attracting and retaining teachers of sufficient quantity and quality to teach in areas of shortage remains an important consideration.

The study reports that 50 per cent of the rural and remote schools in the survey sample reported difficulty in recruiting suitably qualified science teachers willing to stay due to geographic isolation. Science staff members in these areas were generally less experienced and less certain about future career plans.

Higher education and professional development issues raised in this study are addressed under science education as an Australian Government Priority through:

- several initiatives to support higher education enrolments in science fields. Under *Backing Australia's Ability*, the Government has provided 5,470 higher education places in the fields of science, mathematics and information technology (\$351 million over 10 years from 2001).
- reforms to the higher education sector through *Backing Australia's Future* have provided for 9,100 new Commonwealth-supported higher education places to publicly-funded higher education institutions in 2005. This will grow to 24,883 places by 2008 as students continue in their courses. By 2008, almost 2,000 of these places will be in science-related disciplines;

- identifying teaching as a higher education national priority area and capping student contribution amounts in national priority areas to ensure that the maximum amount a student must pay from 2005 is the equivalent of the 2004 Higher Education Scheme (HECS) levels. The Government has allocated more than 4,000 places in teacher education courses to higher education providers between 2005 and 2008 and allocated an additional \$109 million over 2005-08 for the teaching practicum; and
- investing almost \$300 million between 2000 and 2009 through the AGQTP to improve the professional skills, knowledge and understanding of teachers in specified priority areas (including science, mathematics and numeracy, and technology/ICT), and to enhance the status of teaching.

TERMS OF REFERENCE FOR THE HOUSE OF REPRESENTATIVES STANDING COMMITTEE ON EDUCATION AND VOCATIONAL TRAINING INQUIRY INTO TEACHER EDUCATION

To inquire into and report on the scope, suitability, organisation, resourcing and delivery of teacher training courses in Australia's public and private universities. To examine the preparedness of graduates to meet the current and future demands of teaching in Australia's schools.

Specifically, the Inquiry should:

1. Examine and assess the criteria for selecting students for teacher training courses.
2. Examine the extent to which teacher training courses can attract high quality students, including students from diverse backgrounds and experiences.
3. Examine attrition rates from teaching courses and reasons for that attrition.
4. Examine and assess the criteria for selecting and rewarding education faculty members.
5. Examine the educational philosophy underpinning the teacher training courses (including the teaching methods used, course structure and materials, and methods for assessment and evaluation) and assess the extent to which it is informed by research.
6. Examine the interaction and relationships between teacher training courses and other university faculty disciplines.
7. Examine the preparation of primary and secondary teaching graduates to:
 - (i) teach literacy and numeracy;
 - (ii) teach vocational education courses;
 - (iii) effectively manage classrooms;
 - (iv) successfully use information technology;
 - (v) deal with bullying and disruptive students and dysfunctional families;
 - (vi) deal with children with special needs and/or disabilities;
 - (vii) achieve accreditation; and
 - (viii) deal with senior staff, fellow teachers, school boards, education authorities, parents, community groups and other related government departments.
8. Examine the role and input of schools and their staff to the preparation of trainee teachers.
9. Investigate the appropriateness of the current split between primary and secondary education training.
10. Examine the construction, delivery and resourcing of ongoing professional learning for teachers already in the workforce.
11. Examine the adequacy of the funding of teacher training courses by university administrations.

The Inquiry should make reference to current research, to developments and practices from other countries as well as to the practices of other professions in preparing and training people to enter their profession.

APPENDIX A

Review of Teaching and Teacher Education – Summary

The Review of Teaching and Teacher Education was an initiative under the Australian Government's innovation statement *Backing Australia's Ability*. When the Prime Minister launched this initiative, he announced that one of its strategies was to

".....ensure that talented people are attracted to teaching as a career, especially in the fields of science and technology education, teaching and teacher education will be reviewed, in consultation with State and Territory Governments."

Under its terms of reference, the Review was to:

1. Build upon comprehensive work that analysed teacher supply and demand undertaken by the then Commonwealth Department of Education Training and Youth Affairs (DETYA);
2. Draw upon recent literature and initiatives to describe the teaching skills needed to develop a culture of lifelong learning and innovation in Australia's school students;
3. Explore the impact of innovative pre-service and in-service education programmes on the development of teachers' pedagogic practices to enhance their students' appreciation and capacity for learning, creativity and innovation, with particular emphasis on the fields of science, technology and mathematics;
4. Map current skills and propose strategies for equipping teachers with the knowledge and skills to create an innovative learning culture amongst their students;
5. Examine leadership practices that attract and retain teachers, especially in the areas of science, technology and mathematics;
6. Produce an interim report on strategies to attract and retain science, technology and mathematics teachers in Australia's schools; and
7. Produce an innovation action plan for the school sector. This action plan will encapsulate a shared understanding of the school exit outcomes necessary to equip school graduates for the knowledge economy and society. The action plan will consider the current situation and future scenarios.

An independent Committee, drawn from school, university and industry sectors, was established by Dr Nelson on 8 August 2002, to oversee the Review. A broad-based Reference Group – deans of education and science, teacher professional associations of science, technology and mathematics, business organisations, parents' groups, principals, teachers' unions, teacher education bodies, educational organisations and others – was established to assist the Review Committee.

The Review Committee received submissions from a wide range of organisations, including government and non-government school education authorities; most universities; teacher professional associations; industry, peak parent, principal, teacher and union bodies; as well as a diverse group of individuals. The Committee also

consulted widely, reviewed Australian and international experience and research literature, and commissioned a number of papers to inform its work.

The Committee's final report, *Australia's Teachers: Australia's Future – Advancing Innovation, Science, Technology and Mathematics*, which is presented in three volumes, was released on Thursday 9 October 2003.

APPENDIX B

Case studies

These case studies draw on the OECD Country Background Reports (CBRs) from the project "Attracting, developing and retaining effective teachers". The full CBRs and those for the other participating countries are available on the OECD website at http://www.oecd.org/document/50/0,2340,en_2649_34859095_31711602_1_1_1_1,00.html

Finland – teacher education and teacher professional learning

Finland has attracted much attention as a highly successful school system, because of its outstanding results in PISA. In PISA 2003, Finland achieved the highest mean score of all the OECD countries in each of the three core assessment area domains of reading, mathematical and scientific literacy. In Finland, the teaching profession has traditionally been held in high regard and up until recently there has been little trouble in attracting applicants for teacher education with the exception of mathematics and some natural sciences. In more recent times, however, the teaching profession has become less attractive as a career option.⁴⁰

There are five types of teachers in the Finnish education system. They include: (i) class teachers;⁴¹ (ii) subject teachers;⁴²; (iii) special education teachers; (iv) pupil counsellors; and (v) kindergarten teachers both day care and pre-school. Applicants for class teacher education are required to have completed the upper secondary school matriculation examination or a three-year vocational qualification or equivalent studies abroad. The selection procedure for class teacher education includes two phases. The first selection phase is nation wide and is based on scores awarded for the matriculation examination, the upper secondary school certificate, previous study record and work experience relevant in the field. The second selection phase is university specific and comprises sections as decided by the university.

Those wanting to become subject teachers are selected for university admission according to their main subject. The application requirements are the same as for class teacher education. Students apply to the teachers' pedagogical studies providing subject teacher qualifications either separately at some point during their university studies or after completion of a higher academic degree. The selection criteria comprise both aptitude and command of the teaching subject. Another procedure, where students apply directly for programmes with emphasis on subject teacher education upon seeking admission to university, is becoming more common.

⁴⁰ Surveys conducted in Finland suggest that the decline in attracting teachers has been influenced by factors including: (i) a diminishing of the image of the teaching profession; (ii) the increasing perception that teaching is hard; (iii) escalation of discipline problems; (iv) substance abuse and truancy; and (v) teachers' pay not keeping up with those of other professions. Like many other countries, Finland's teaching workforce is also ageing rapidly with a steady increase in the numbers of teachers becoming semi-retired or retiring early. There has also been an increase in the number of teachers leaving the profession and moving to other sectors, particularly from the subject areas of mathematics, natural sciences and languages.

⁴¹ Class teachers teach all subjects, mainly at primary level. That is Years 1–6. They may also work as pre-school teachers.

⁴² Subject teachers teach single subjects in both basic and upper secondary education

All teachers except pre-school teachers must complete a Master's Degree and all teaching courses except student counselling contain a 1 to 1.5 year pedagogical component which includes teacher practicum. Towards the end of their studies, those studying to become teachers write a thesis, which is the same scope as for other higher academic degree students. One of the key objectives of teaching education is to develop teaching professions who will develop their own work and working community.

Teaching staff are obliged to participate in in-service training with a minimum scope of three workdays outside school hours per school year. This type of continuing training is free of charge for teachers. The responsibility for funding such training rests with teachers' employers, mainly local authorities. Continuing education focusing on education policy priorities is funded within the State Budget.

In 1995, Kindergarten teacher education courses were transferred to universities, where pre-school teachers graduate with a Bachelor in Early Childhood Education. This now gives them the opportunity to accumulate credits and go on to complete a Master's Degree if they wish. In addition, pre-school teachers are entitled to four days per year of supplementary in-service training.

In 2002, the Finnish Ministry of Education outlined its Teacher Education Development Programme. In general the programme sets out what the Ministry sees as 'principles'⁴³ underpinning the teaching profession. It also contains a number of proposals and recommendations to enhance communication skills, improve student selection and the status of teacher education, and prioritise continuing professional development for teachers.

England – teacher education and teacher professional learning

England's teacher education and professional learning is marked by its many innovative and flexible pathways into the teaching profession, including *Teach First* a venture introduced in 2003 which offers employment-based teacher training for high-flying graduates who expect to enter business careers; the development of a national curriculum for teacher training; its numerous initiatives to improve professional learning and its nationally recognised Qualified Teaching Status.

All teacher training is funded through the Teacher Training Agency (TTA). The TTA is an executive non-departmental public body established by the *Education Act 1994*. Its purpose is to raise standards in schools by attracting able and committed people to teaching and by improving the quality of teacher training. People wishing to pursue a teaching career in a government school must first be given Qualified Teaching Status (QTS), although under a very limited range of circumstances, it is possible to teach in government schools without having QTS. Teachers in non-government schools are not required to have QTS.

The QTS is based on a set of standards, developed in 2002 by the Teacher Training Authority, which set out what a person must know, understand and be able to do. These standards apply to all teachers, whatever route they take to QTS. All trainees must also pass skills tests in numeracy, literacy and ICT in order to attain QTS. Trainees have unlimited opportunities to pass the tests before being awarded QTS.

⁴³ The principles underpinning the teaching profession include: the basis for teaching, teaching as encounters, teaching as a communal effort and shared training.

Those who have successfully completed teacher training, but have not passed the skills test, may be employed as unqualified teachers for up to five years.

While QTS is normally awarded on completion of an initial teacher training course, it can also be awarded to others who can demonstrate that they meet the standards, regardless of whether they have actually completed an initial teacher training course. Eligible graduates with teaching experience may apply to be assessed without further training, and flexible routes into teaching provide for an assessment of needs and a shortened training to achieve QTS.

The requirements for initial teacher training set out minimum amounts of time for training in schools. They include: undergraduate four year programmes: 32 weeks; undergraduate two and three year programmes: 24 weeks; postgraduate secondary and upper primary / lower secondary programmes 24 weeks; and postgraduate primary 18 weeks. In addition each trainee teacher must have experience in at least two schools, and in the age ranges they are training to teach.

In September 1999 a national curriculum for initial teacher training was introduced, which specified what trainees must learn in core subjects of English, mathematics, science and in the use of information and communications technology. This curriculum has since been revised and simplified in conjunction with the changes to the Qualified Teaching Status standards.

Prospective teachers may enter the profession via a number of innovative and flexible pathways. These include:

- undergraduate teacher training through either a Bachelor of Education degree or another degree;
- a one year postgraduate teacher training course leading to the award of a Postgraduate Certificate in Education;⁴⁴
- School Centred Initial Teacher Training (SCITT) which involves a full-time school-based postgraduate training;⁴⁵
- the Fast Track programme – designed for those with the potential to become outstanding teachers and future leaders of schools;⁴⁶
- the Teacher Associate Scheme and the Undergraduate Credit Scheme – designed to allow undergraduates on non-education degree programmes to receive training towards the standards for QTS;
- the Undergraduate Credit Scheme which offers elements of teacher training either as part of the undergraduate degree course, or in addition to it;⁴⁷

⁴⁴ This training is undertaken in higher education institutions (the majority) or in schools.

⁴⁵ This training was first introduced in 1994. Groups of schools take the lead in designing the training programme, though they may work in partnership with a Local Education Authority or higher education institution.

⁴⁶ This training was launched in 2000 and involves a year of augmented postgraduate training (offered only by those providers who have achieved high grades in inspections). This augmented training is the start of an accelerated career path. It is also possible for qualified teachers to move onto this career path.

⁴⁷ The students are then awarded credit, which enables them to follow shortened postgraduate courses.

- the Graduate Teacher Programme and the Registered Teacher Programmes – which offer Employment-based routes into teaching;⁴⁸
- The Overseas Trained Teacher Programme – which provides overseas-trained teachers the opportunity to gain QTS while they work in school; and
- Teach First – a two-year programme of employment-based teacher training for high-flying graduates who expect to enter business careers.⁴⁹

Professional development of teachers has gained a very much higher profile over the last decade, and is seen as central both to raising standards and to making teaching a more attractive profession that can recruit and retain high quality teachers. A national strategy for professional development was developed and published in March 2001 in conjunction with sharply increased funding to support such activities.

Much of the professional development available relates to the career stage of the teacher. Professional development for beginning teachers is centred on the induction process. The Department for Education and Skills introduced a one year induction period for newly qualified teachers in 1999. During this period, new teachers have to demonstrate that they have continued to meet the standards required for qualified teacher status.

A pilot model for teachers in their second and third year of teaching was recently trialled. Linked to this is a Professional Bursary Scheme⁵⁰ for teachers in their fourth and fifth years of teaching. These measures can be seen as important parts of the strategy to retain teachers. In addition to the opportunities related to career stage, a whole range of opportunities for individual professional development have been introduced in the last few years. These include: Best Practice Research Scholarships; the Teachers' International Professional Development programme; sabbaticals schemes; and professional Development Placements. Many teachers also pursue in-service training courses leading to recognised postgraduate professional or academic qualifications funded through the Teacher Training Agency.

⁴⁸ These programmes were introduced in 1990. They were designed for mature (over 24 years), well qualified people who can quickly take on responsibilities and who need to earn a living while they train.

⁴⁹ This is a relatively new venture which commenced in 2003. The programme offers intensive training during the summer after graduation, and support and training during the first year of teaching, resulting in the attainment of QTS. During the second year the teacher will be offered business-led mentoring and opportunities to do management training. The programme has attracted considerable business sponsorship. Teach First is a recognition of the value of attracting people into the teaching profession for a limited period rather than as a life-long career.

⁵⁰ The professional Bursary Scheme offers a grant of 5,000 pounds that teachers can claim to help them achieve their performance management objectives.

APPENDIX C

Literacy Numeracy and Special Learning Needs (LNSLN) Programme

The National Projects Element of the LNSLN Programme

Relevant projects that are currently underway or have been recently completed include:

Prepared to Teach: an investigation into the preparation of teachers to teach literacy and numeracy

The project is being conducted by the Edith Cowan University and will report on the pre-service preparation of teachers to teach English literacy and numeracy to all students in the early and middle years of schooling, particularly to the educationally disadvantaged students. The project examines current research focussing on effective practice in the pre-service preparation of teachers in Australia and overseas. The project also surveys education systems, new teachers, principals and experienced teachers to develop a national picture of how pre-service teacher education courses prepare teachers to teach literacy and numeracy in the classroom. The project is nearing completion and will be made available to the Committee conducting the NITL for their consideration.

In Teachers' Hands: effective literacy teaching practices in the early years of schooling

The project is being conducted by the Edith Cowan University and will report on effective literacy teaching and learning strategies and how these shape the literacy outcomes of students in the first two years of schooling. The project examines how time is spent in school on literacy, the influences of different teachers and different teaching approaches and strategies. It is expected that the project will provide a picture of what constitutes key effective teaching and learning practices at each year level in the first years of schooling and how they lead to improved student literacy outcomes. A product of the project will be video-based materials available through a website showing exemplary teaching practice in early years literacy instruction. The project is nearing completion and this report will also be made available to the Committee conducting the NITL for consideration.

Literacy and Numeracy in the Middle Years of Schooling Initiative

The Australian Government is providing a total of \$4.8 million for the *Literacy and Numeracy in the Middle Years of Schooling Initiative*. The focus of the Initiative is to increase teachers' knowledge, understanding and professional skill development about best practices in literacy and numeracy assessment, curriculum and teaching instruction for their particular middle years of schooling contexts.

Under this Initiative, Australian Government funding is to be used to strengthen the role of literacy and numeracy assessment practices, in particular, strengthening the link between assessment practices, classroom-based teaching and learning, and curriculum development in the Middle Years of Schooling.

The Initiative has two strands to enable priority areas to be addressed in complementary ways:

- **Strand A – state/territory-based Cluster Group Projects:** \$4.0 million will be used to support school cluster group activities across Australia, focussing on the development and use of effective assessment practices for improving literacy and numeracy outcomes. Projects under Strand A will be commencing in the first half of 2005.
- **Strand B – National Research Projects:** \$0.8 million will be used to fund research projects addressing priority areas for literacy and numeracy in the middle years of schooling.

The Literacy and Numeracy Innovative Projects Initiative

This Initiative provides funding for pilot projects and trialling of innovative initiatives which are generated at the local level; may be small in scale or outside the mainstream but have potential for national application; are carried out primarily by non-government organisations that do not have direct access to Australian Government literacy and numeracy programme funding; and foster collaboration between schools and their communities, including prior to school services.

The Initiative aims to support improved literacy and numeracy outcomes of educationally disadvantaged students in the early and middle years of schooling (ie up to Years 9/10). A focus area of the Initiative is the identification of teaching and other support strategies to enable the performance of under-achieving groups, as identified by the literacy and numeracy benchmarks, or other appropriate standards, to be improved. Up to \$40,000 (excluding GST) is available for individual projects which are selected through a highly competitive tender selection process. Round two of the initiative is nearing completion and the outcomes of the individual projects will be available on the DEST website.

Specific Learning Difficulties in the Primary Classroom – an innovative package for classroom teachers of primary students with specific learning difficulties

The Specific Learning Difficulties Association of New South Wales (SPELD NSW) received funding to develop a training package and a series of professional development workshops for teachers, to offer ideas, strategies and appropriate referral options for teachers of students with specific learning difficulties. The outcome of the project is the SPELD NSW Specific Learning Difficulties in the Primary Classroom Package (or referred to as the Literacy Skills Package). The package is designed to assist primary teachers in the early identification and screening of students with specific learning difficulties. The outcomes of the project and the package can be accessed on the DEST website at: <http://www.dest.gov.au/schools/publications/2004/index.htm#24> or through the Clearinghouse for national literacy and numeracy research.

Clearinghouse for National Literacy and Numeracy Research

The Clearinghouse provides public access to the products of research funded by the Australian Government Department of Education, Science and Training (DEST) under the National Projects element of the LNSLN programme or the former Grants for National Literacy and Numeracy Strategies and Projects Programme. The research projects are particularly relevant for teachers in primary and secondary schools as well as for professional development, personnel, policy makers, tertiary students and academics.

The role of the appointed Clearinghouse Manager includes the provision and maintenance of on-line access to the Clearinghouse website listing final research reports; coordination and dissemination of research reports; and the promotion of the Clearinghouse, website and research reports.

Literacy Assessment: Strategies from the National School English Literacy Survey

This project is designed to support teachers to use and develop assessment strategies for reading, writing, speaking, listening and viewing using materials and methodology from the National School English Literacy Survey (NSELS) through the interactive professional development website at: www.in2assessment.edu.au

APPENDIX D

List of acronyms

| | |
|---------|--|
| AAMT | Australian Association of Mathematics Teachers |
| ACACA | Australasian Curriculum, Assessment and Certification Authorities |
| ACER | Australian Council for Educational Research |
| ACSSO | Australian Council of State School Organisations |
| AFTRAA | Australasian Forum of Teacher Registration and Accreditation Authorities |
| AGQTP | Australian Government Quality Teacher Programme |
| APAPDC | Australian Principals Associations Professional Development Council |
| APC | Australian Parents Council |
| ASISTM | Australian School Innovation in Science, Technology and Mathematics |
| BAA | Backing Australia's Ability |
| BELS | Boys' Education Lighthouse Schools |
| CAE | College of Advanced Education |
| DEST | Department of Education, Science and Training |
| EFTSL | Equivalent Full-Time Student Load |
| GNLNSP | Grants for National Literacy and Numeracy Strategies and Projects |
| HECS | Higher Education Contribution Scheme |
| ICT | Information and Communication Technology |
| LNSLN | Literacy, Numeracy and Special Learning Needs |
| LOTE | Languages Other than English |
| MCEETYA | Ministerial Council on Education, Employment, Training and Youth Affairs |
| NAQS | National Awards for Quality Schooling |
| NCVER | National Centre for Vocational Education Research |
| NIQTSL | National Institute for Quality Teaching and School Leadership |
| NQSF | National Quality Schooling Framework |
| NSSF | National Safe Schools Framework |
| NSW DET | New South Wales Department of Education and Training |

| | |
|-------|---|
| OECD | Organisation for Economic Cooperation and Development |
| PISA | Programme for International Student Assessment |
| QTS | Qualified Teacher Status |
| TIMSS | Trends in International Mathematics and Science Study |
| TQELT | Teacher Quality and Educational Leadership Taskforce |
| TVI | Tutorial Voucher Initiative |
| VET | Vocational Education and Training |
| VIT | Victorian Institute of Teachers |
| WHO | World Health Organization |

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