EDUCATION, SCIENCE AND TRAINING

SENATE LEGISLATION COMMITTEE - QUESTIONS ON NOTICE
2005-2006 BUDGET ESTIMATES HEARING

Outcome: 1
Output Group: 1.3 – Assistance for quality teaching and learning

DEST Question No. E114_06

Senator Carr provided in writing.

Refers to DEST Question No E654_05

Question:

What inquiries has the Government initiated and what reports has the Government commissioned into teacher education since 1996?

Please provide dates and costs.

Please provide all recommendations from these reports and indicate what action has been taken (if any) to implement them.

Answer:

Inquiries initiated and reports commissioned by the Government into teacher education since 1996.

The only inquiry into teacher education initiated by the Government since 1996 is the Review of Teaching and Teacher Education (RTTE), an initiative under the Australian Government's $3 billion innovation statement *Backing Australia's Ability.*

The purpose of the RTTE was to identify strategies which would increase the numbers of talented people who are attracted to teaching as a career, especially in the fields of science, technology and mathematics education, and build a culture of continuous innovation at all levels of schooling.

Dates and costs

The independent RTTE Committee, chaired by Professor Kwong Lee Dow AM, was established on 8 August 2002 to oversee the Review.

The final report from the RTTE, *Australia's Teachers: Australia's Future – Advancing Innovation, Science, Technology and Mathematics*, was released in October 2003.

The cost of the Review of Teaching and Teacher Education, excluding associated departmental costs, was $887,385.

Recommendations and action taken

The recommendations from this report are at Attachment A.

The Australian Government has taken the following actions in direct response to recommendations from the Review:

- The seven year $38.8 million Boosting Innovation in Technology, Science and Mathematics Teaching (BISTMT) Programme and its main component, the $33.7million Australian Schools Innovation in Science, Technology and Mathematics (ASISTM) Project which aims to enhance science, technology and mathematics education and promote innovation in school. The ASISTM Project will fund an estimated 500 school cluster initiatives. The school cluster initiatives will bring schools together with industry, science organisations, universities, teacher professional organisations and others to explore ways to encourage a culture of innovation in schools and bring about real and lasting improvements in the ways in which science, mathematics and technology are taught in schools. Critical friends - suitably skilled and experienced educational experts - will also be engaged to provide guidance and quality assurance for all ASISTM projects. measures. (See response to DEST Question No E436_05).
- Under the ASISTM Project, an estimated 1,300 Teacher Associates – including tertiary students, researchers, and other specialists in science, technology and mathematics - will be engaged, as part of the school cluster initiatives, to provide project support, excite students interest in these subjects and act as role models to improve student outcomes in these subject areas.
- A total of $1.53 million over the seven years to 2010-2011 has also been allocated under the BISTMT Programme for data collection and research to support teacher workforce planning and help advance professional practice in schools.
- The National Institute for Quality Teaching and School Leadership (NIQTSL) has been established under interim arrangements to support and advance the effectiveness and standing of the teaching profession in Australia, driving innovation and excellence in schools and providing intellectual leadership for the profession. The NIQTSL is expected to be established as a legal entity by the end of 2005. The Institute has four core functions, encompassing professional standards and accreditation, professional learning and course accreditation, research, and communication and promotion of the profession. The Australian Government has provided $10 million towards the Institute's establishment and operation and an additional $20 million in the 2005-06 Budget for its operation over the next four years. The Institute Board has majority teacher and principal representatives.
- Under the *Schools Assistance (Learning Together – Achievement Through Choice and Opportunity) Act 2004* strengthened principal and school governing body autonomy is being sought in relation to education programs, staffing, budget and other aspects of the school's operation within a supportive network of broad systemic policies. The Act also requires that staff appointments in each government school will be made with the approval of the principal, or the governing body of the school.
- The identification of teaching as a higher education national priority area has been made and a cap on student contribution amounts in that national priority area has been set to ensure that the maximum amount a student must pay from 2005 is the equivalent of the 2004 Higher Education Scheme (HECS) levels.
- An allocation of new higher education places to start in 2005 has been made, including around 1,700 teaching places throughout the sector, which will grow to around 4,700 places by 2008. In addition, the Government has allocated 150 teaching places to private higher education providers.
- The provision to universities of additional funding for teaching through the education cluster funding will assist with the costs associated with the practical component of the teacher education course. An estimated $120 million (in 2005 dollars) will be provided over 2005-08 for the teaching practicum.

Action in response to most of the Review's recommendations is variously the responsibility of universities, State/Territory governments, government and non-government education authorities, and other key stakeholders, as well as the Australian Government.

Review of Teaching and Teacher Education - Australia's Teachers: Australia's Future - Advancing Innovation, Science, Technology and Mathematics
Actions

Energising the sciences and technology and prioritising innovation	
Action 1	A national science and innovation education program be established to assist schools and education authorities to introduce exemplary, sustainable and transferable initiatives which are an investment in the development of teachers' and students' science, technology and mathematics knowledge and their capacity to be innovative. A program of this kind would provide funding for many of the actions in this Agenda, including: • the creation of a national network of local and regional science clusters linking schools and teachers with science organisations, tertiary education institutions and industry organisations (see Action 50); • limited term teacher placements in science, technology or mathematics related jobs beyond their schools (see Action 40); • substantial professional learning opportunities for teachers of science, technology and mathematics (see Action 5); • the forging of interdisciplinary links among, and multi-disciplinary approaches to, science, mathematics, technology and other learning areas (see Action 46); and • visits or short exchanges to other schools by highly competent and committed school leaders and teachers capable of acting as agents of change in their own or other schools (see Action 51).
Action 2	A cadre of primary science and mathematics specialists, able to support, mentor and guide other primary teachers in science and mathematics teaching, be developed.
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.
Action 5	Primary teachers be afforded greater opportunities and support to extend their knowledge and professional skills relating to science, technology and mathematics teaching.
Action 6	Scholarships and other incentives be offered to primary and middle school teachers to undertake studies to advance their knowledge and skills in science and mathematics teaching.
Action 7	Science and mathematics education coordinators be appointed for clusters of secondary schools and their feeder primary schools to work across schools, stimulating science teaching and learning in primary schools and ensuring that science and mathematics teaching and learning is well articulated between the two sectors.
Action 8	Scholarships and/or other incentives be provided to selected teachers to undertake advanced (including postgraduate) studies in science, technology and mathematics.
Action 9	Undergraduate science students and science researchers be engaged to assist school students and teachers.
Planning and collaboration to attract and retain quality teachers	
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.
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.
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.
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.
Action 14	Teachers of science, technology and mathematics not pay more HECS than other

	teachers.
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.
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.
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.
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 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.
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.
Action 24	Superannuation arrangements be investigated and applied to enable teachers who wish to remain longer in the profession to do so without financial detriment.
Revitalising the teaching profession	
Action 25	National professional standards for beginning teachers be developed and adopted, and guide initial teacher education as well as provide the basis nationally for teacher registration and accreditation, and portability of teaching qualifications.
Action 26	National generic and learning area specific professional standards that specify teachers' capabilities, performance and knowledge at different career stages continue to be developed and adopted by the teaching profession.
Action 27	A national, credible, transparent and consistent approach to assessing teaching standards be developed and implemented by the teaching profession, with support from governments.
Action 28	The National Institute for Quality Teaching and School Leadership be run by and for the teaching profession, and work to enhance the profession and improve teaching practice and school leadership by: • developing and supporting current and potential school leaders; • supporting the work of teacher professional associations; • supporting the development and assessment of national professional standards; • providing and facilitating advanced professional learning; • recognising highly effective schools and facilitating teacher and school leader visits and exchanges to and from such schools; • undertaking or sponsoring research and data collection; • providing a physical and virtual clearinghouse of research and materials to inform teaching and school leadership; • promoting collaboration and partnerships among schools, education authorities, governments, teacher associations, parents, education and other faculties of higher education institutions and other organisations; and

	• quality assuring courses for teachers and school leaders.
Action 29	Teacher career progression and salary advancement reflect objectively assessed performance as a teaching professional.
Action 30	Recognition, including remuneration, for accomplished teachers who perform at advanced professional standards and work levels be increased significantly.
Strengthening teacher education and 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.
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.
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.
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.
Action 45	A 'virtual clearinghouse' be established to make available online to teachers, school leaders, researchers, policy makers and the wider public the findings of research about and materials for Australian schools, school leaders and teachers.
Supporting future schools through leadership, teams and partnerships	
Action 46	Resources be provided for the piloting of innovative multidisciplinary approaches especially with a focus on science, technology and/or mathematics teaching and learning.
Action 47	The nature and processes of learning become the focal concerns of initial teacher

	education and continuing professional development.
Action 48	School leaders, and especially principals, be given periodic opportunities to take on new, professionally relevant challenges in a range of different settings.
Action 49	Schools and their governing bodies be given strengthened autonomy over and responsibility for their education programs, staffing, budget and other aspects of their operations; as necessary within a supportive framework of broad systemic policies.
Action 50	A national network of local and regional science clusters linking schools and teachers with science organisations, tertiary education institutions and industry organisations be created.
Action 51	Outstanding school leaders and teachers be funded to undertake visits or exchanges to other schools, in Australia or overseas, in order to exchange ideas and champion improvements in school and teaching practice, especially but not only in the fields of science, technology and mathematics.
Action 52	Sufficient suitably trained paraprofessional staff be deployed in schools to support teachers in school-based non-teaching work.
Action 53	High speed bandwidth internet access, leading edge connectivity and computing technologies, digital educational content, and appropriate software and ICT services be accessible for all Australian schools.
Action 54	A national project to identify and distil excellent policy and practice in the use of school intranets (including in providing useful and immediate information to students, teachers, parents and education authority managers), and to disseminate and promote those policies and practices, be undertaken.