

Inquiry into Academic Standards of School Education

Submission

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Biographical note

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I am sure that the Standing Committee on Employment, Workplace Relations and Education's Inquiry into Academic Standards of School Education will need to encompass a broad field of evidence to reach a consensus view about how well schools are performing in meeting standards for student attainment. Empirical evidence from international comparison of assessments, conducted by the International Association for the Evaluation of Educational Achievement through the Trends in International Mathematics and Science Study indicated that most cohorts of Australian students performed above international averages. The Schools Assistance (Learning Together – Achievement through Choice and Opportunity) Act has introduced a national assessment program in English, mathematics, science literacy, civics and citizenship, and information and communication technologies. Whilst it will be some time before this program is fully implemented, data on student achievement in reading, writing, numeracy, scientific literacy, and civics and citizenship indicate that most Australian students are performing above benchmarks. However, the inquiry needs to cover a broader field of evidence than student performance in assessment programs to determine whether academic standards of school education are sufficient, or need to be raised.

It is not the purpose of this submission to examine these issues, but instead to focus on the nature of the Inquiry's third term of reference. Current debate over the school curriculum needs to be taken into account in any examination of how academic standards compare between states and territories and with those of other countries. The nature of the school curriculum has been determined through the process of national curriculum collaboration, which Reid (2005) concluded involves a contest for control between the Australian Government on the one hand and the states and territories on the other hand. The inability of policy makers at the two levels of government to resolve the issue of control by reaching a mutual agreement about how to proceed has inhibited national curriculum collaboration.

This failure is manifested in the debate, which arises from time to time, about whether a national curriculum should be developed for Australian schools. Some educators may view that its most recent manifestation - the proposal to set a national board of studies the task of developing a common model curriculum – could lead to little more than an exercise in 'reinventing the wheel'. Such an effort is likely to rely on past experiences in national curriculum collaboration, which will produce a similar outcome to the one reached with the release of the national statements and profiles in 1994. More recently, curriculum developers were engaged for a long time in developing the statements of learning, which fulfil the purpose of providing a model curriculum for building greater consistency in curriculum between the states and territories. Therefore, a practical course to follow is to accept the current status of the curriculum used in each state and territory, and to increase its alignment to the statements of learning. In spite of Reid's proposal to develop a capabilities-based curriculum for Australia, it is unlikely that any proposal to develop a national curriculum will be feasible in an increasingly diverse Australian community, and result in a satisfactory solution to find a new direction forward for national curriculum collaboration.

The progress in setting high academic standards in relation to the curriculum has also been inhibited by the influence of outcomes-based education and dissatisfaction with the arbitrary structure of the nationally agreed learning areas. The influence of the

former on the curriculums of the states and territories and the failure to resolve the latter have contributed to curriculum developers giving undue attention to defining essential learning in the school curriculum. This movement has undermined the balance between the place of the disciplines and cross-curricular elements in the curriculum.

The analysis of national curriculum collaboration conducted by Reid (2005) stimulated debate in the Australian Curriculum Studies Association, which has led to a positive development. In February and August of 2006, the Australian Curriculum Studies Association convened a forum and a symposium to debate issues identified from this analysis. In response to the symposium, the Australian Curriculum Studies Association (2006) produced a Guide setting out a purpose for national curriculum work and five criteria to measure its application. National curriculum work must establish clear moral purpose and rationale, promote a view of the curriculum consistent with the rationale, follow a principled process, ensure adequate resources and funding, and demonstrate impact and outcomes. The Australian Curriculum Studies Association's Guide presents curriculum developers with general guidelines, which will be useful for establishing standards and contributing to a new direction for national curriculum collaboration.

However, the criteria in Australian Curriculum Studies Association's Guide are not referenced to specific activities for setting academic standards, or developing and implementing curriculum. I intend to address this issue in a paper, which will be presented at the 2007 Australian Curriculum Studies Association conference. The intention of the paper is to extend particular guidelines by identifying specific activities as examples from the context of standards-based education in the USA.

Elements of this paper will outline how policy makers have addressed two areas by describing models used in the American context. I believe these two areas should be considered by the Committee as possibly contributing to improving academic standards of school education. First, an effort should be made to improve the quality of outcomes expressed in the curriculum documents used by the states and territories by establishing and applying criteria to evaluate their quality. Second, an effort should be made to strengthen the strategies being applied to implement the curriculum in the states and territories. I would like to explore each of these models in greater depth in what follows.

1. Improving the quality of outcomes expressed in curriculum documents

With reference to this issue, I suggest that the Standing Committee on Employment, Workplace Relations and Education should examine the model proposed in the USA for the National Education Standards and Improvement Council under the Goals 2000 Educate America Act enacted by the Clinton administration in 1994.

1.1 History of the initiative in the USA

A major initiative of the Goals 2000 Educate America Act was the proposed formation of an independent executive branch agency, the National Education

Standards and Improvement Council (NESIC). Its intended purpose was to identify areas in which national standards needed to be developed, to establish criteria for certifying standards, and to certify national and state standards in core subject areas, opportunity-to-learn standards, and assessment systems. Initially recommended in 1992 by National Council on Education Standards and Testing, NESIC was to be composed of 19 members appointed by the President. The Secretary of Education, the Speaker of the House of Representatives, the Majority Leader of the Senate, and the National Education Goals Panel (NEGP) would nominate potential members. Members of NESIC could include educators, representatives of business and industry, labour unions, higher education institutions, education experts, and representatives from the public.

Despite the carefully delineated authority provided to NESIC under the Goals 2000 Educate America Act, conservative groups became concerned about certification of national standards. Cohen (1995) found that the demise of NESIC resulted from Republican successes in the congressional and state elections during 1994. Many new Republicans, who were elected to Congress in November 1994, saw little need for an agency that would devise, promulgate and certify national standards. Following a recommendation from NEGP in January 1995, Secretary of Education Richard Riley advised President Clinton not to appoint NESIC. Subsequently, four bills were introduced into Congress to eliminate NESIC.

In spite of the demise of the proposal to establish NESIC, this role was assumed in a de facto fashion by two non-governmental organisations. They issued reports viewed by many policy-makers and educators as offering endorsements on the progress and quality of the standards established by most of the 50 states. The Making Standards Matter series of reports, published by the American Federation of Teachers on its web site at www.aft.org, were held by the education community to reflect a liberal standpoint. The State of State Standards series of reports, published by the Thomas B. Fordham Foundation on its web site at www.edexcellence.net, were held by the education community to reflect a conservative standpoint.

The American Federation of Teachers published successive reports on the quality of state standards (Gandal, 1995; Gandal, 1996; Gandal, 1997; Glidden, 1998; Glidden, 1999; American Federation of Teachers, 2001; American Federation of Teachers, 2006). The quality of the standards was determined by analysing documents, such as regulations, manuals and guides, and interviewing officials from the 50 states and the District of Columbia. The draft findings were then circulated to each chief and deputy state school officer, so that inaccuracies and inconsistencies could be edited. Although the criteria used to measure states' performances were refined over successive reports, the quality of standards, curricula, assessments and accountability was judged in 2001 against four sets of criteria. The first set, intended to measure the quality of states' standards, consisted of four components. Whether they defined in every grade, or selected clusters of grades, the content students should learn? Whether they were sufficiently detailed, explicit, and firmly rooted in the content to lead to a common core curriculum? Whether specific subject matter was included in each of the four subjects? Whether they paid attention to both content and skills? The second set, intended to measure the quality of states' curricula, consisted of five components. Whether they lay out the learning continuum that shows the progression and development of knowledge and skills from grade to grade? Whether states

identify resources that are aligned to the standards? Whether states provide information on methods to help teach standards? Whether states provide performance indicators to clarify the quality of student work required for the mastery of standards? Whether states disseminate lesson plans and units based on standards? The third set, intended to measure the quality of states' assessments, consisted of three components. Whether states list standards at each level in the four core subjects? Whether states report information on the alignment of standards and assessments? Whether states indicate the standards to be assessed? The fourth set, intended to measure the quality of states' accountability systems, consisted of two components. Whether states require and fund additional assistance for students having difficulty meeting standards? Whether states develop policies to encourage students to take learning more seriously by providing rewards and consequences based, in part, on state assessment results? In evaluating states' standards-based systems, AFT considered the coherence of these elements by judging whether the relationships were aligned, not aligned, or there was no relationship in terms of five issues. Are the tests aligned to the standards? If the answer to this question is 'yes', are all of the aligned tests based on strong standards? Are curriculums developed in all of the aligned test areas? Are policies for promotion or graduation based on aligned tests? Do all promotion or graduation policies include intervention?

In 1997, the Thomas B. Fordham Foundation based at Dayton, Ohio, commissioned experts in the five subjects of English, geography, history, mathematics and science to develop criteria to judge the quality of state standards. Separate sets of criteria were developed to evaluate state standards documents in each subject. Assisted by advisory committees, the experts applied their respective sets of criteria to rate state standards documents from all states and the District of Columbia. The findings of the analyses were published in five volumes, but subsequently Finn et al. (1998) published a summary report, in which the numerical scores and letter grades for each state were compiled. The Thomas B. Fordham Foundation has published two subsequent reports on the quality of state standards. Finn and Petrilli (2000) published a second summary report. Finn et al. (2006) published a third summary report.

1.2 Current situation in Australia

As part of the review of the *Curriculum and Standards Framework*, the Victorian Board of Studies (1998) commissioned Education Strategies to benchmark the learning outcomes for English, mathematics and science against other curriculum and standards documents. Documents used in California, England, Japan, New South Wales, New Standards Project, New Zealand, Ontario, Singapore, and Western Australia were reviewed. As part of the review of the *Curriculum and Standards Framework II*, the Victorian Curriculum and Assessment Authority (2004) commissioned a review of curriculum and standards documents used in the other seven Australian states and territories, Ontario, Finland, Hong Kong, the International Baccalaureate Organisation, Singapore, United Kingdom, and Pennsylvania.

Funded by the Australian Government Department of Education, Science and Training, Education Strategies conducted the first study in Australia to assess the quality of outcomes at the primary level in curriculum documents used in the six

states and the Northern Territory. The methodology employed two techniques. Initially, a search was undertaken to identify resources that address questions such as the significance of international studies and the desire of education systems to strengthen performance. An increasing interest of governments in comparing how well their education systems perform in international studies against better performing education systems was identified in addressing curriculum reform. A synthesis of research findings from international studies identified four characteristics associated with high performing education systems. First, they adopt a discipline-based approach to school subjects focusing on essential learning, especially in mathematics and science. Second, they provide clear, rigorous and measurable intended curriculum documents linked to textbooks, teacher training, and classroom practice. Third, they provide greater time on task in the classroom, less disruption, and greater emphasis on formal, whole-class teaching. Fourth, they have regular testing and examinations used to stream students and to decide whether they should be promoted from year to year. The three approaches of a syllabus format, outcomes-based education, and standards-based education were identified as being associated with practices of curriculum development in the countries participating in international studies. Then, four subject experts applied the criteria of academic rigour, detail, clarity and ease of measurement to analyse a range of curriculum documents, and noted significant discrepancies between Australian and international documents. For mathematics, outcomes in Australian curriculum documents for 'multiplication and division', and 'fractions and decimals' were compared with those in documents used in Singapore, Japan and California. For science, outcomes in Australian curriculum documents for 'chemical matter' and 'physical world' were compared with those in documents used in Singapore, England and California. For English, outcomes in Australian curriculum documents for 'literature' and 'beginning reading' were compared with those in documents used in England, New Zealand and California. In the report of the study, Donnelly (2005) contended that Australian curriculum documents were based on the principles of outcomes-based education. This approach required translation into a syllabus format at the local level, failed to deal with essential learning based on academic disciplines, favoured a developmental approach to learning focusing on formative assessment, and gave precedence to a constructivist approach to learning. Whilst the national statements and profiles presented a traditional model of outcomes-based education, it was argued that the curriculums of all the states and territories, except New South Wales, Queensland and Victoria, were moving towards a transformational model of outcomes-based education.

1.3 Proposal

The impression gained from following the progress of American practice is that in circumstances when the findings of these studies are publicised widely in the education community, they focus the attention of standards-setting committees on issues relating to quality and contribute to improving the rigour and clarity of standards. Therefore, NESIC may provide a model worthy of consideration for adaptation in the Australian context? A description of the proposal for NESIC is contained in the attached U.S. Department of Education documentation on the Goals 2000: Educate America Act under item II, part C.

At present, it is difficult to provide definitive conclusions about the quality of curriculum documents used at the national and state levels, because education authorities in Australia have not developed criteria to assess their quality. Given their comprehensive coverage, the criteria used by the American Federation of Teachers may provide a basis for adapting a set of criteria.

The application of nationally agreed criteria to evaluate curriculum documents is likely to identify the strengths and weaknesses in the quality of outcomes. It could shift curriculum development away from the practice in outcomes-based education of organising vague and inherently unmeasurable outcomes around interdisciplinary or non-disciplinary topics towards the definition of clear and measurable content standards based on academic disciplines. Independent evaluation and certification of curriculum documents using a comprehensive set of criteria could also clarify the quality of curriculum, assessments and accountability, thereby helping policy makers and curriculum developers resolve intrinsic problems impeding curriculum development.

However, some groups in the education community may oppose promotion of this proposal. This conclusion is based on the outcome of the controversy over the report issued by Donnelly. Some educators considered the author was interpreting the data in a biased way to support his personal opposition to outcomes-based education. It is possible that this controversy may have damaged the prospect for initiating a proposal to certify curriculum documents in Australia?

2. Strengthening the strategies being applied to implement the curriculum in the states and territories

With reference to this issue, I suggest that the Standing Committee on Employment, Workplace Relations and Education should examine the benchmarking process used by Achieve in the USA.

2.1 History of the initiative in the USA

Achieve was founded as an outcome of the first National Education Summit held in the USA in March 1996. Following the Summit, a proposal was developed for an agency to provide leadership for developing and implementing state standards, designing and maintaining a clearinghouse of information on standards, assessments and accountability systems, determining a process for evaluating quality in local, state, national and international standards, and offering technical assistance. Governed by a twelve-member Board of Directors consisting of governors and business leaders, Achieve was formally established in Washington, DC, in October 1996, following endorsement at the National Governors' Association's annual meeting in July 1996.

Achieve designed a standards database on its web site, consisting of standards for mathematics, English language arts, science, and history and social studies organised into a consistent structure using Mid-Continent Research for Education and Learning's (McREL) compendium developed by Kendall and Marzano (1997). Data

on the standards of each state, territory and the Department of Defense Education Activity were collected from liaison officials appointed by each chief state school officer. Content area experts then reviewed the submitted materials and tagged each standard using McREL's compendium.

In 1998, Achieve collaborated with the now defunct Council for Basic Education and the Learning Research and Development Center in the University of Pittsburgh to develop a benchmarking process. Since piloting the benchmarking process in two studies conducted in Michigan and North Carolina, Achieve has published 28 reports on benchmarking studies conducted in 16 states. Three approaches are applied in Achieve's benchmarking studies to serve different purposes. In the first approach, state standards are benchmarked through brief or in-depth reviews. The brief review provides basic feedback on the content of standards as part of the developmental process. Achieve identifies the standards' strengths and weaknesses, and offers states action steps for improvement. The in-depth review involves thorough evaluation based on comparisons with exemplary standards from other states and countries, followed by detailed feedback and recommendations for improvements. Achieve also ensures that assessments a state is administering to students are aligned to the state's content standards by examining them as a package, based on comparisons with other states and countries. Standards and assessments benchmarking also include institutes for policy-makers designed to build capacity in aligning standards and assessments. In the second approach, Achieve's alignment protocol is applied to analyse the alignment between a state's standards and the assessments a state administers to students. In the third approach, comprehensive reviews of systemic reform policies are provided for states. A team of prominent experts reviews various aspects of a state's education system, state policies and practices, interviews stakeholders, and makes recommendations to build on the reform strategy. Achieve's benchmarking reports are available on Achieve's web site at www.achieve.org.

2.2 Current situation in Australia

At present, state and territory education agencies are provided with limited technical assistance from the Curriculum Corporation in curriculum development and the Australian Council for Educational Research in assessment techniques. There is no comprehensive process available in Australia for benchmarking curriculum and assessments of the type provided by Achieve in the USA. At a stage when all the Australian states and territories have implemented curriculum and assessment systems, a higher priority should be given at the national level to supporting and improving curriculum implementation in these systems.

2.3 Proposal

The evidence suggests that Achieve's benchmarking reports have been influential in improving the alignment of standards and assessments, and the implementation of state-level standards-based reforms by focusing policy makers' attention on strengths and weaknesses through the specification of recommendations. Therefore, the benchmarking process used by Achieve could be examined as a basis for developing a process for aligning curriculum and assessments. Such a benchmarking process

needs to be compatible with the purpose and criteria set out in the Australian Curriculum Studies Association's Guide.

In addition, a comprehensive benchmarking process needs to encompass broader issues associated with systemic education reform. A typical example of systemic education reform may involve defining a core curriculum, aligning textbooks, tests and the curriculum, implementing a comprehensive accountability system, improving teacher professionalism through staff development and a mentor teacher program, increasing the leadership skills of principals, and enhancing the role of local leadership. In the USA, California took a leading role in building systemic education reform under state superintendent Bill Honig in the 1980s and early 1990s (Honig, 1994). A benchmarking process capable of reviewing systemic reform policies needs to take account of the alignment between the curriculum, textbooks and tests, the materials selection procedure, capacity building, teacher development, accountability and public leadership associated with the implementation strategy.

3. Independent agency

Therefore, I suggest that the Standing Committee on Employment, Workplace Relations and Education should consider proposing that the Ministerial Council on Education, Employment, Training and Youth Affairs establish an independent agency that would undertake the following activities.

Engage teams of experts to work as consultants to establish criteria for certifying outcomes, and certify outcomes in national, state and territory curriculum documents, and assessment systems.

Engage teams of experts to work as consultants with the staffs of state and territory education agencies to review various aspects of their education systems, policies and practices, interview stakeholders, and make recommendations to align curriculum, textbooks and other resources and assessments, and build on implementation strategies.

The Curriculum Corporation, the Australian Council for Educational Research and other education organisations currently provide technical assistance for some of these activities, but technical assistance is not provided on a comprehensive basis for all these activities. Given the relatively small number of component jurisdictions in Australia's federal system, it should be feasible for a single agency to provide comprehensive coverage of all these activities.

Designing the program for the agency would involve making a large, innovative change for inventing, testing and diffusing a new solution, based on conceptualisation, heuristic investigation and structured inquiry. Since this change is supported by little extant knowledge in the Australian context, this process should involve investigation in the initial stage based on exploratory research studies. These studies should include consulting relevant organisations in other geographical contexts responsible for this work. Rigorous engineering and market research activities should be applied to transform the later stages of development, diffusion and adoption, so the change is completed successfully. It would be essential for the

designers to work closely in the later stages with the Ministerial Council on Education, Employment, Training and Youth Affairs and other key organisations, such as the Curriculum Corporation, the Australian Council for Educational Research, Education.Au, subject associations, and the Australian Publishers Association.

References

- American Federation of Teachers. (2001). *Making Standards Matter 2001: A Fifty-State Report on Efforts to Implement a Standards-Based System*. Washington, DC: American Federation of Teachers.
- American Federation of Teachers (2006). *Smart Testing: Let's Get it Right. How assessment-savvy have states become since NCLB?* Washington, DC: American Federation of Teachers.
- Australian Curriculum Studies Association. (2006). A Guide to Productive National Curriculum Work for the Twenty First Century. *Curriculum Perspectives*, 26 (4), 5-6.
- Cohen, D. (1995). 'What standards for national standards?' *Phi Delta Kappan*, 76: 10, 751- 757.
- Donnelly, K. (2005). *Benchmarking Australian Primary School Curricula: Where do we Stand? The Intended Primary School Curricula within an International Context*. Canberra, ACT: Australian Government Department of Education, Science and Training.
- Finn, C.E. and Petrilli, M.J. (2000). *The State of State Standards 2000*. Dayton, OH: Thomas B. Fordham Foundation.
- Finn, C.E., Petrilli, M.J. and Liam, J. (2006). *The State of State Standards 2006*. Dayton, OH: Thomas B. Fordham Foundation.
- Finn, C.E., Petrilli, M.J. and Vanourek, G. (1998). *The State of State Standards*. (Fordham Report, vol. 2, no. 5). Dayton, OH: Thomas B. Fordham Foundation.
- Gandal, M. (1995). *Making Standards Matter 1995: An Annual Fifty-State Report on Efforts to Raise Academic Standards*. Washington, DC: American Federation of Teachers.
- Gandal, M. (1996). *Making Standards Matter 1996: An Annual Fifty-State Report on Efforts to Raise Academic Standards*. Washington, DC: American Federation of Teachers.
- Gandal, M. (1997). *Making Standards Matter 1997: An Annual Fifty-State Report on Efforts to Raise Academic Standards*. Washington, DC: American Federation of Teachers.
- Glidden, H. (1998). *Making Standards Matter 1998: An Annual Fifty-State Report on Efforts to Raise Academic Standards*. Washington, DC: American Federation of Teachers.
- Glidden, H. (1999). *Making Standards Matter 1999*. Washington, DC: American Federation of Teachers.
- Honig, B. (1994). 'How can Horace best be helped?' *Phi Delta Kappan*, 75: 10, 790-796.
- Kendall, J.S. and Marzano, R.J. (1997). *Content Knowledge: A Compendium of Standards and Benchmarks for K-12 Education*. Aurora, CO: Mid-Continent Regional Educational Laboratory.
- Reid, A. (2005). *Rethinking National Curriculum Collaboration: Towards an Australian Curriculum*. Canberra, ACT: Australian Government Department of Education, Science and Training.
- Victorian Board of Studies. (1998). *Benchmarking the Intended Curriculum: A Comparative Analysis*. Carlton, VIC: Victorian Board of Studies.
- Victorian Curriculum and Assessment Authority. (2004). *Curriculum Victoria: Foundations for the Future* (Summary Report of an Analysis of National and

International Curriculum and Standards Documents for the Compulsory Years).
East Melbourne, VIC: Victorian Curriculum and Assessment Authority.