

## WHERE HAVE CREATIVITY, INNOVATION AND PASSION GONE IN THE GREAT EDUCATION DEBATES OF THE 21<sup>ST</sup> CENTURY?

Brian J. Caldwell<sup>1</sup>

It is an honour to be invited to deliver the Fourth Richard Selby Smith Oration. I consider Richard Selby Smith to be one of the great educators of the last half-century and the themes on which I have chosen to speak reflect what I discern in many of his contributions over the years.

There is a neat personal symmetry in my associations with Richard Selby Smith. My first practicum when I was undertaking the Diploma of Education at the University of Melbourne in 1962 was at Scotch College when Selby Smith was headmaster, shortly before he became Foundation Dean of Education at Monash University. My experience over a few weeks at Scotch was profound. I was a product of government schools (Belmont State School and Geelong High School; my father was Principal of Geelong West Technical School). At Melbourne we completed three practicums and for me these were, in order, Scotch College, Jordanville Technical School and Melbourne Boys High School. Imagine the culture shock on arrival at Scotch being shown to the headmaster's study and immediately thereafter attending an uplifting morning assembly in the chapel. Selby Smith was an immediate inspiration.

Fast forward a little over a quarter-century to a dinner meeting of the Australian College of Educators at the University Club, University of Tasmania, when I shared a table with Selby Smith. I had just been appointed Dean of Education at this university and he was a former Dean. I can vividly recall his encouraging words and a certain outlook on our work in education that I shall share in my concluding remarks, but I begin on a theme that was so evident in his personal and professional life, namely, his passion for education.

Innovation, creativity and passion are alive and well in schools throughout Australia. However these are increasingly constrained in a command-and-control approach to what occurs in schools that is leading to an unprecedented level of centralisation, standardisation and bureaucratisation.

My view that innovation, creativity and passion have thrived is derived from engagement in schools throughout the country, in many instances through direct observation in scores of schools, but also in seminars and workshops for hundreds of school leaders in every state and territory.

My concern about the impact of current constraints arises from the experience of these same schools and my ongoing assessment of progress in the 'education revolution', the centre piece of the federal government's policy for schools but to which all states and territories are bound through national partnership agreements.

---

1

Brian J. Caldwell is managing director and principal consultant at Educational Transformations and professorial fellow at the University of Melbourne where he was dean of education from 1998 to 2004. He is a former dean of education at the University of Tasmania. This paper was delivered as the Fourth Richard Selby Smith Oration hosted by the Tasmanian Branch of the Australian College of Educators, supported by the Selby Smith Family, and the University of Tasmania, held in the Stanley Burbury Theatre, University of Tasmania, on 15 July 2010.

As far as the future of the nation is concerned, my over-arching concern is that innovation, creativity and passion are the key requirements for a vibrant society and a successful economy in the years ahead. These are in jeopardy if we continue on our present path.

In late 2009 I prepared a 'report card' (Caldwell, 2009) on progress in the first two years of the 'education revolution'. The 10 criteria were based on a 10-year strategy for an education revolution that Jessica Harris and I had proposed in the final chapter of our book *Why Not the Best Schools* (Caldwell & Harris, 2008) which drew from a six-country study of school transformation. Here in brief summary form are the 10 criteria or strategies:

1. A national curriculum is designed that is broad enough and sufficiently adaptable to ensure the professional judgement of a highly-skilled profession will prevail at the school level
2. Initial teacher education is transformed to ensure all teachers have a master's degree and remain at the forefront of knowledge and skill through continuous professional development
3. New structural arrangements are designed to ensure diversity of programs in the post-compulsory years in an effective constantly-changing alignment of education, economy and society
4. National testing of all students is minimised as the highest levels of knowledge and skill are developed by teachers and those who support them
5. The wider community including business is seriously engaged in design and delivery with public and private funds deployed through networks of foundations and trusts
6. Transparent needs-based mechanisms are designed to ensure the efficient deployment of public and private funds
7. Innovative approaches to governance are introduced along the lines of publicly-funded no-fee charter schools to ensure that public schools maintain their appeal to parents
8. School ownership ceases to be a factor in determining the amount of public funds that are disbursed to schools
9. Higher levels of school autonomy in the public sector are achieved within a framework of accountability and choice
10. Most schools in the public sector are rebuilt or redesigned to make them suitable for learning and teaching in the 21<sup>st</sup> century

The score in the Educational Transformations report card was 43 out of 100. On only one measure was a good rating achieved and that was for the rapid development of a national curriculum after more than a century of mis-matched state curriculums – a score of 8 out of 10. The three lowest scores were for outdated ideology on the nature of public schools (score of 2), school autonomy (score of 2), and innovative governance (score of 1). These ratings led me to conclude that Australia may end up with one of the most centralised and bureaucratically organised systems of education in the world. Most of what had been achieved had simply melded state bureaucracies into a single federal framework of decision-making.

I provided an update at a public forum on education in Hamilton, Victoria on 4 March 2010 (Caldwell, 2010), reporting a marginal increase to 45 out of 100. Marked down was 'modernising infrastructure', reflecting concerns about 'value for money' and 'value for learning' in the implementation of the Building the Education Revolution component of the economic stimulus package. Small increases were registered for 'national testing', reflecting the fact that the publication of school performance on the My School website had not led to 'league tables', as these are normally understood;

and 'intellectual capital', reflecting the establishment of the Australian Institute for Teaching and School Leadership (AITSL) and its broad agenda to build the capacity of the profession.

If I was to provide a further update, the score would likely revert to 43 out of 100 or even less. Too many concerns have been raised about Building the Education Revolution (BER). I have no doubt that communities have valued the additional funds and some good facilities have been built but there is a real possibility that funds will dry up and what we have or will shortly complete will be 'as good as it gets' for the foreseeable future, given that state and territory funds will be limited if the federal government scales back its support. We based our criterion / strategy on the remarkable commitment of the Blair / Brown Labour Government in England, which established the Building Schools for the Future program to rebuild or refurbish all secondary schools or most primary schools in England over 10 – 15 years at a cost of over AU\$100 billion. However, the Conservative - Liberal Democrat Coalition government cancelled the program last week as one measure to rein in the budget deficit (Curtis, 2010). The outcry around the country has led to division in Conservative ranks (Shepherd, 2010).

In general, I think it is time to rest the rhetoric of the 'education revolution'. Expectations for centralised, top-down, one-size-fits-all strategies are rarely met. Serious transformative change calls for action on a school-by-school basis as the education profession itself is transformed.

Of deep concern is that important strategies that international evidence suggests are critically important if performance is to be improved are still 'missing in action', especially in relation to school autonomy and innovative governance.

In testimony to the US Senate's Education Committee, Andreas Schleicher, who heads up the international testing program at OECD, provided an explanation of why some school systems perform outstandingly well. He combined school autonomy and innovative governance when he noted that high-performing systems maintain central control over standards and curriculum, but give local schools more freedom from regulation. The need for a balance of autonomy, accountability and choice is supported by evidence from the best-performing school systems (Barber & Mourshed, 2007; Caldwell & Harris, 2008).

Former Minister for Education Julia Gillard released a report on school autonomy (Educational Transformations, 2007) in October 2009, nearly two years after she received it on taking office in late 2007. The report had been commissioned by her predecessor. The report recommended that a relatively high level of autonomy be the 'default position' in governance arrangements for schools. However, there has been little progress in most states, apart from nearly two decades of experience in Victoria, the creation of a small number of 'independent public schools' in Western Australia, a small-scale trial in NSW, and announcement of intentions in the ACT.

The Cambridge Primary Review of policy and practice in England was published in 2009 under the title *Children, Their World, Their Education* (Alexander, 2009). Project Director Robin Alexander delivered the Miegunyah Distinguished Lecture in the Dean's Lecture Series at the Melbourne Graduate School of Education on 10 March 2010 on the topic 'The Perils of Policy: Success, Amnesia and Collateral Damage in Systematic Educational Reform' (Alexander, 2010). Many of the fears in Australia about the dysfunctional effects of national testing, an excessive focus on and unrealistic expectations for standards, the narrowing of curriculum, and high levels of stress for students and teachers have been borne out in experience in England.

Alexander was careful not to make comparisons or offer recommendations about the implications for Australia but the message was not lost on his audience. I sensed that many were shell-shocked, especially when he drew comparisons of England with Finland, which has no national tests, has decentralised decision-making and provides high levels of school and teacher autonomy. Finland has a high-performing school system where students do not start school until they are seven. Finland is in the top ranks of nations as far as innovation is concerned (see the evidence on innovation in Finland in *Re-imagining Educational Leadership*, Caldwell, 2006). Also sobering was the way Alexander contrasted the 'spin' of government, overstating outcomes, with the 'substance' of the reforms, which mostly reflect flat-lining in achievement.

There is a danger in Australia that the dysfunctional effects of current policy will inhibit passion in learning as well as innovation and creativity in schooling. In an eloquent statement at the launch of the Schools First initiative in 2008, Julia Gillard declared that 'All children have some gift and even some potential greatness within them. Finding that gift, nurturing it and bringing it to life is the responsibility of every single one of us'. Her words echo those of Sir Ken Robinson, who is a powerful advocate of an intensely personal approach to learning. Writing in *The Element* (Robinson, 2009) he stated that:

Education doesn't need to be reformed – it needs to be transformed. The key to this transformation is not to standardise education but to personalise it, to build achievement on discovering the individual talents of each child, to put students in an environment where they want to learn and where they can naturally discover their true passions.

But Robinson warns that the policy framework in England, now being replicated to a large extent in Australia, will impair the nurturing of the 'gift' and 'potential greatness' of which Gillard spoke:

Education is being strangled persistently by the culture of standardised testing. The irony is that these tests are not raising standards except in some very particular areas, and at the expense of most of what really matters in education. (Robinson, 2009)

If one seeks another authority on the issue, the Archbishop of Canterbury, speaking on trends in England, stated that 'we have in the past few decades created an extraordinarily anxious and in many ways oppressive climate in education at every level in the search for proper accountability' adding that 'all of this gives a clear message about the priority of tightly measurable achievement over against personal or spiritual or emotional concerns' (Archbishop of Canterbury, 2009).

Anyone in doubt about these effects in England would have been blown away when they accessed the website of *The Times* (London) last year that published the league tables of primary schools on national tests (ranked from 1 to more than 13,000). Accessing the website from Australia led to an advertisement for an Australian company that offered coaching services for NAPLAN tests. Accessing the website of this company led to a link to Beyond Blue, the national organisation that deals with depression and related conditions.

One of the best examples of innovation in Australia is in a school that serves indigenous students. The context was described well under the headline of an opinion piece in *The Australian* on 21 October 2009 which read 'Our Obama beats theirs'. Janet Albrechtsen (2009) was writing shortly after Barack Obama was

awarded the Nobel Peace Prize and was commenting on what she saw as his limited achievements to date. Her major purpose was to draw attention to the achievements of one of Australia's most passionate leaders Noel Pearson who heads the Cape York Institute for Policy and Leadership serving indigenous people in far north Queensland.

Albrechtsen's central theme was the way Pearson's oratory delivers results. For example, he was the driving force behind the four-year Cape York Welfare Reform Trial which links school attendance to welfare payments. There has been a remarkable increase in attendance from 37 per cent to 62 per cent.

Pearson has now raised his sights to more generally tackle disadvantage at the Cape York Aboriginal Australian Academy in Coen and Aurukun. Although Australia scores well in the Program for International Student Assessment (PISA), the gap between high and low performing students is unacceptably wide, especially between indigenous and non-indigenous students. A major innovation at the Academy is the implementation of an evidence-based, explicit instruction method that has proved to be highly effective in the teaching of literacy and numeracy to mainstream and disadvantaged children in Australia and internationally (see a more detailed account of the Academy in *National Indigenous Times*, 2010).

A powerful and passionate statement on education in Australia was made by Noel Pearson in an article published in *Quarterly Essay* (Pearson, 2009). Writing generally and not just in relation to indigenous education, he was scathing in his view of the reasons for shortcomings: 'The problem is the ideology-producers in the academies, and the ideology-upholders in educational bureaucracies'. This is a sobering statement for those who work in these settings, but he was careful to distinguish between 'frontline educators and those responsible for generating and upholding reigning ideologies'. He believed that 'frontline educators are highly sensitive to the needs of children, and if they can see how these needs can be better met, they will be attentive to them'.

However, it is in respect to Pearson's inclusion of the 'ideology-upholders' that a new debate is opening up in Australia, and that is the power of large centralised bureaucracies. A report of the Institute of Public Affairs (Novak, 2009) highlighted the growth of state bureaucracies in Australia over the last decade during which time enrolments in public schools declined and student achievement flat-lined.

Pearson is not the only indigenous leader setting the pace in performance and passion. Dr Chris Sarra is executive director of the Stronger Smarter Institute at the Queensland Institute of Technology (QUT). The headline on the cover of Q Weekend published by the *Courier Mail* conveys his driving motivation: 'Surely we owe our kids a place where their hearts and minds are safe to flower' (Whiting, 2010, pp. 18-22). He was a transformational leader in his appointment as principal of Cherbourg State School. He now heads a nation-wide network of 370 schools. According to Julia Gillard, Sarra's ideas are 'spreading like gospel and bringing real and tangible results to indigenous students' (cited by Whiting, 2010, p. 19). It is noteworthy that Chris Sarra is comfortable with the My School website. He suspects that 'high calibre school leaders are not daunted by the prospect of this level of transparency' (cited by Whiting, 2010, p.21).

While there are tensions in the approaches of Pearson and Sarra, it will be profoundly inspiring if two leaders of Australia's Aboriginal People, to whom federal and several state parliaments have issued formal apologies for past mis-treatment,

were to lead the way in a genuine 'education revolution' that helps secure success for all students in all settings across the nation.

It is a paradox that Australia is moving to a more constraining, less creative and less innovative approach in education at the same time that world leaders in these fields are building their strengths, as evidenced in reports of *The Economist*. In world rankings in 2009, Australia barely makes it into the top 20 innovative nations for the period 2004 to 2008. While all nations above us have a national curriculum, none have national tests or the equivalent of My School websites except for England (Northern Ireland, Scotland and Wales do not have these). Most provide a higher level of school autonomy.

Nothing in the foregoing precludes a critically important role for state, regional and district levels of government in providing support for schools, but these must be viewed as enablers rather than regulators. All of these things can be accomplished within a national framework that provides the necessary sense of direction. Nothing in the foregoing questions or challenges the importance of literacy and numeracy and raising levels of achievement in these areas.

I drew earlier on one of two recent books I have co-authored (Caldwell & Harris, 2008). I turn now to a second for a different perspective. *Our School Our Future* (Caldwell & Loader, 2010) will be published by the Australian Institute of Teaching and School Leadership (AITSL) in August. The book extends work I undertook with David Loader in 2009 when we conducted 18 workshops in every state and territory for more than 500 leaders from about 300 schools (three were conducted in Tasmania). The national workshop series was the centre-piece of the Futures Focused School Project of Teaching Australia (now AITSL). The *Our School Our Future* package includes a text and a resource book for use by schools that seek to build a capacity to be futures focused.

David and I described a futures focused school in these terms:

A futures- focused school 'sees ahead', but it also 'sees behind', honouring and extending its accomplishments in the past. It 'sees above' in the sense of understanding the policy context. It 'sees below', demonstrating a deep understanding of the needs, interests, motivations and aspirations of students and staff. It 'sees beside' by networking professional knowledge to take account of best practice in other schools in similar settings. It 'sees beyond' by seeking out best practice in other nations and in fields other than education. It is consistent and persistent; it 'sees it through'. The metaphor of 'sensing' is also helpful given that 'seeing' refers to what is already in place or is projected. A futures focused school is alert to signals in its internal and external environment that may influence what may occur in the future and that may subsequently be 'seen'. These signals may be strong or weak and a high level of sensitivity is required to distinguish among them (Caldwell & Loader, 2010, p. 24).

There are many imperatives in 'seeing' and 'sensing' for education in the 21<sup>st</sup> century. One with implications for leaders at all levels is concerned with developments in Asia. The current issue of the leading international journal *Foreign Affairs* contains a description of the remarkable growth of universities in Asia, including China, India, Korea and Singapore, by Richard Levin, President of Yale University (Levin, 2010). For example, from 1998 to 2008, the number of institutions of higher education in China increased from 1,022 to 2,263. Levin observes that 'this expansion is without precedent' (Levin, 2010, p. 65). Several of its leading universities are among the best

in the world and more are likely to be in the top ranks in the near future. Noteworthy, however, is that approaches to learning and teaching are being transformed and outstanding researchers in the Chinese diaspora are returning to the mainland to continue their careers. The governments of China and these other countries:

. . . recognise the important role that university-based scientific research has played in driving economic growth in the United States, western Europe, and Japan. And they understand that world-class universities are the ideal place to educate students for careers in science, industry, government, and civil society – creating people who have the intellectual breadth and critical thinking skills to solve problems, to innovate and to lead. (Levin, 2010, p. 66)

These aspirations are similar to those held in Australia but we are in trouble in attracting top students to science and, related to this, attracting, preparing, and rewarding those who teach science in schools. Governments around the world are wrestling with the challenge, as illustrated in a recent report of the Royal Society in England (The Royal Society, 2010).

Among the many solutions is to provide schools at all levels, from the early years of primary to upper secondary, with top-class science facilities and top-class teachers who have experience in and understand the disciplines of the sciences. Regrettably, we are making glacial progress in respect to facilities. I still visit schools where laboratories are either non-existent (primary) or are recognisably the same as those built a half-century ago (secondary).

It is in this respect that an important contribution of Richard Selby Smith should be acknowledged. His biography shows that he achieved a Double First in 'Mods' and 'Greats' at Oxford University. In Mods (Honour Moderations) students focus on Latin and / or Greek in the first part; in the second part, students choose eight papers from the disciplines of Classical Literature, Greek and Roman History, Philosophy, Archaeology, and Linguistics. There were 12 three-hour examinations set across seven consecutive days. The traditional Greats course included detailed study of Roman and Greek History and Philosophy, both ancient (Plato and Aristotle) and modern, with equally demanding examinations. It was rare for someone to achieve Double First Class Honours. Selby Smith was therefore an exceptional scholar in the classics.

The breadth of his achievements is indicated by the fact that while head at Scotch he was also chair of the Commonwealth committee administering the scheme for building new science laboratories in secondary schools throughout the nation. As noted in his biography: 'the scheme was an outstanding success, transforming completely the potential for science education in literally hundreds of schools'. I was one who benefitted in my first years of teaching.

As noted earlier, schools around Australia generally appreciate the new facilities funded under the Building the Education Revolution program, but it is fair to ask if priorities have been misplaced when there is such an urgent need for a new scheme for the extensive replacement of out-dated science facilities and leadership of the kind that Selby Smith provided.

My conclusion is that despite the popular appeal of the national curriculum, national testing and the My School website, we are unlikely to see more than marginal improvement in outcomes for all students, and a closing of the gap between high-performing and low-performing students, until such time as we move ahead on a number of fronts. We must open the doors to the creative spirit in our schools that

should operate in the future in the broadest of national frameworks. If we can't do this we may make progress in the short-term but other nations are moving faster and further and we'll soon be left behind.

Writing a scenario is a useful technique for thinking about the future. A scenario is not a prediction. It describes an alternative future, either probable or preferred, with a narrative that credibly explains the pathways from the present to that future. In *Our School Our Future* (Caldwell & Loader, 2010) we provide a template for writing scenarios at the school level.

Here is a narrative for an alternative future to 2020 that describes how we might reverse current and likely trends as far as innovation, creativity and passion are concerned.

In 2020 there will be a higher level of transparency and more testing in Australia's schools than at any time in the past. However, approaches associated with NAPLAN and the My School website introduced in 2009 and 2010 have been abandoned because a united profession and the public soon realised that expectations had not been realised. They inhibited rather than drove the transformation of schools. Australia became isolated in the international community for proceeding with an approach that had been abandoned elsewhere as country after country moved ahead with a more enlightened approach.

Long-overdue reforms in teacher education meant that teachers became expert in skilful testing, diagnosis of need and immediate support of their students in an unprecedented and comprehensive approach to personalising learning. Every school or community of schools has teachers and other professionals on call who give immediate support to their colleagues to ensure that no student falls behind. A re-modelled national agency prepares tests that schools can choose if they wish but the level of professional skill ensures that most schools design their own. Parents obtain real-time online reports of how their sons and daughters are progressing, and meaningless out-of-date comparisons of schools have been abandoned. Teaching to the test and the narrowing of the curriculum are dysfunctions of the past. The curriculum has been broadened to address the range of knowledge and skills demanded in the 21<sup>st</sup> century. Schools have far more autonomy than in the past, with many opting for an international rather than national curriculum.

Innovation and creativity flourish and there has been a resurgence in the arts and science. New world-class facilities have been an important factor in attracting able people to the profession. There is a passion that has not been evident for several decades.

Is such a scenario far-fetched? I take the lead from Richard Selby Smith who better than most exemplified the distinction between hope and optimism made by the great Czech philosopher, playwright and president Vaclav Havel. Some may hope that things will play out this way. I am optimistic that they will.

## References

- Albrechtsen, J. (2009). 'Our Obama beats theirs'. *The Australian*. 21 October.
- Alexander, R. (2009). *Children, Their World, Their Education*. Final report and recommendations of the Cambridge Primary Review. Robin Alexander (Editor). London: Routledge.
- Alexander, R. (2010). 'The Perils of Policy: Success, Amnesia and Collateral Damage in Systematic Educational Reform'. Miegunyah Distinguished Lecture in the Dean's Lecture Series at the Melbourne Graduate School of Education on 10 March. Accessed 3 July 2010 at [www.edfac.unimelb.edu.au/news/lectures/2010series.html](http://www.edfac.unimelb.edu.au/news/lectures/2010series.html)
- Archbishop of Canterbury (2009). Announcing a major expansion of the church's school academy program, as reported by Curtis, P. 'Rowan Williams condemns "oppressive" English educational system'. *The Guardian*. 21 October. Accessed 28 October 2009 at [www.guardian.co.uk/uk/2009/oct/21/rowan-williams-oppressive-education-system](http://www.guardian.co.uk/uk/2009/oct/21/rowan-williams-oppressive-education-system)
- Caldwell, B.J. (2009). 'A failing grade for the education revolution'. Strategic Commentary on Policy in Education (SCOPE). 2 November 2009. Melbourne: Educational Transformations. Available at [www.educationaltransformations.com.au](http://www.educationaltransformations.com.au)
- Caldwell, B.J. (2006). *Re-imagining Educational Leadership*. Melbourne: ACER Press and London: Sage.
- Caldwell, B.J. (2010). 'Why the Education Revolution is not Transforming Our Schools'. Presentation at a public forum on education at the Performing Arts Centre, Hamilton, Victoria, 4 March. Available at [www.educationaltransformations.com.au](http://www.educationaltransformations.com.au)
- Caldwell, B.J. & Harris, J. (2008). *Why not the Best Schools?* Melbourne: ACER Press.
- Caldwell, B. J. & Loader, D. N. (2010). *Our School Our Future*. Canberra: Australian Institute for Teaching and School Leadership (AITSL). [The book is accompanied by a resource guide]
- Curtis, P. (2010). 'School building programme scrapped in latest round of cuts'. *The Guardian*. 5 July. Accessed 12 July 2010 at [www.guardian.co.uk/education/2010/jul/05/school-building-programme-budget-cuts](http://www.guardian.co.uk/education/2010/jul/05/school-building-programme-budget-cuts)
- Educational Transformations (2007). Report of the Principal Autonomy Research Project. Report commissioned by the Australian Government in 2006 and released in 2009. Accessed 3 July 2010 at [www.deewr.gov.au/Schooling/QualityTeaching/researchandpublications/Pages/default2.aspx](http://www.deewr.gov.au/Schooling/QualityTeaching/researchandpublications/Pages/default2.aspx)
- Levin, R.C. (2010). 'Top of the class: The rise of Asia's universities'. *Foreign Affairs*. May / June, pp. 63-75.
- National Indigenous Times* (2010). 'A revolution in indigenous education'. *National Indigenous Times*. Issue 203, 10 June. Accessed 3 July 2010 at [www.nit.com.au/community/story.aspx?id=19913](http://www.nit.com.au/community/story.aspx?id=19913)

Novak, J. (2009). 'A growing risk: The impact and consequences of rising state government employment'. Research Paper. October. Melbourne: Institute of Public Affairs.

Pearson, N. (2009). 'Radical hope: Education and equality in Australia'. *Quarterly Essay*. Issue 35, pp. 1-93.

Robinson, K (2009). *The Element*. New York: Viking. [Highly recommended are two conference presentations by Robinson that are available for free downloading from [www.ted.com](http://www.ted.com)]

Royal Society (The), (2010). *Science and Mathematics Education 5-14: A 'State of the Nation Report*. The Royal Society. London: The Royal Society. Accessed 9 July 2010 at [www.royalsociety.org](http://www.royalsociety.org)

Shepherd, J. (2010). 'Backbenchers line up to criticise Gove over cancelled school project list'. *The Guardian*. 9 July. Accessed 12 July 2010 [www.guardian.co.uk/education/2010/jul/09/tories-criticise-michael-gove](http://www.guardian.co.uk/education/2010/jul/09/tories-criticise-michael-gove)

Whiting, F. (2010). 'Belief Teacher'. *Q Weekend* (published by the *Courier Mail*). 3-4 July, pp. 18-22).