

# **Submission to the Inquiry into the Academic Standards of School Education**

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## **On the Importance of Evidence-Based Research or Myth versus Reality in Education**

### **Summary**

This submission argues that to improve academic standards of school education it is necessary to abandon practices and policies based on unproven beliefs and assumptions, and adopt a scientific approach to the investigation and evaluation of programs and practices that are effective in improving outcomes and raising standards of school education.

I would like to draw to the attention of the Committee some of the factors that I think need to be taken into account by the Committee in its deliberations on the issue of academic standards in school education, which I think relate to the underlying reasons why it was thought necessary for an outside body to enquire into this very important question, and why the issue of academic standards in school education is becoming a matter of growing concern to the general public as well as to business and industry, as demonstrated by the recent release by the Australian Chamber of Commerce and Industry of their blueprint for improving education and training over the next decade.

I see the fundamental problem in education is that it is being driven by ideology rather than by scientific research. As argued in a 2000 paper by Professor Douglas Carnine of the University of Oregon, who is the Director of the National Centre to Improve the Tools of Education in the United States, education, unlike other professions such as medicine and pharmacology, has not yet developed into a mature profession. Mature professions have moved to a position where judgements are based not on the individual opinions of experts and trust based on personal contact rather than quantification, but on quantified data that can be inspected by a broad audience, and where there is less reliance on personal trust and more reliance on objectivity, with a greater role for standardised measures and procedures informed by scientific investigation.

As Professor Carnine argues in this article, the educational establishment, comprising teacher educators and curriculum and instruction experts, dictate what happens in education. In Australia, as is the case in the United States, they control pre-service teacher preparation, the professional development of experienced teachers, and the instructional philosophy, methods and curriculum applied in the classroom. They also have a major influence on education policies at state and federal government levels.

Many of the educational experts that are influential in determining educational policy, in Australia as in the United States, are so ideologically driven that they are unable to look objectively at the scientific evidence, preferring instead to rely on their own expert judgements, irrespective of whether or not these judgements are supported by the objective evidence.

Until such time as education in Australia is able to abandon its reliance on the expert judgement of individuals, and move to a position where decisions and policies are based on an objective analysis of the research evidence, it will not be able to move forward, and issues such as the current level of academic standards in school education, and how to ensure that our students are adequately prepared for further education, training and employment, will remain unresolved.

To quote Douglas Carnine:

'Until education becomes the kind of profession that reveres evidence, we should not be surprised to find its experts dispensing unproven methods, endlessly flitting from one fad to another. The greatest victims of these fads are the very students who are most at risk.'

Carnine suggests that it is only through external pressure that professions tend to mature, and to adopt scientific methods and standardised procedures in preference to ideology and dogma. In the case of education, such pressures are beginning to emerge in the US.

It is to be hoped that similar pressures will emerge in Australia, so that effective educational programs and practices can be identified and implemented on the basis of scientific research rather than individual beliefs and assumptions.

The Committee of Inquiry into the Academic Standards of School Education could play an important role in hastening this process by applying pressures on the educational community to provide scientific evidence to support their arguments for adopting particular programs or methods to achieve the aim of preparing students adequately for education, training and employment.

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### **Acknowledgement**

The arguments presented in this submission are based largely on the paper by Professor Douglas Carnine, entitled *Why Education Experts Resist Effective Practices (And What It Would Take to Make Education More Like Medicine)*. Professor Carnine's paper has been published on the Thomas B. Fordham Foundation website and can be downloaded from this website at [www.edexcellence.net](http://www.edexcellence.net)

### **Attachments**

- Attachment 1: Project Follow Through, a United States example of how educators reject scientific evidence when this does not support their ideological beliefs
- Attachment 2: A listing of common myths which are contrary to the established evidence, but which have been, and continue to be, influential in determining policies and practices in Australian education.