

# WHAT WORKS? DEVELOPING A SCIENTIFIC AGENDA TO INFORM TEACHING AND LEARNING POLICY AND PRACTICE

Deakin University

Strategic Centre for Research for Educational Impact

# Gold standards

Gold standard (test) - Wikipedia, the free encyclopedia

[https://en.wikipedia.org/wiki/Gold\\_standard\\_\(test\)](https://en.wikipedia.org/wiki/Gold_standard_(test)) ▼

"Gold standard" can refer to the criteria by which scientific evidence is evaluated. For example, in resuscitation research, the "gold standard" test of a medication ...

In medicine - Test calibration - Gold standard ambiguity - See also

Gold Standard of Evidence: The Randomized Controlled ...

[https://iancommunity.org/cs/...research/randomized\\_controlled\\_trials](https://iancommunity.org/cs/...research/randomized_controlled_trials) ▼

Gold Standard of Evidence: The Randomized Controlled Trial (RCT) The Interactive Autism Network (IAN) was created in order to bring parents and researchers together with the goal of accelerating and expanding high quality, autism-focused research.

Is the randomized clinical trial the gold standard of research?

[www.ncbi.nlm.nih.gov/pubmed/11700857](http://www.ncbi.nlm.nih.gov/pubmed/11700857) ▼

by SD Simon - 2001 - Cited by 42 - Related articles

When RCTs focus on narrow patient groups or exclude important segments of the population, there may be difficulty in generalizing their results. So it would be a mistake to label the RCT as a gold standard for all research. A silver standard may be a more appropriate label.

Randomized, controlled designs: The "gold standard" for ...

[evidencebasedliving.human.cornell.edu/.../randomized-controlled-design...](http://evidencebasedliving.human.cornell.edu/.../randomized-controlled-design...) ▼

Apr 23, 2011 - Such experiments are rightly called the "gold standard" for knowing ... It is critical that nobody – not the researchers, not the people in the ...

Mack C. Shelley II  
Larry D. Yore  
Brian Hand  
*Editors*

## Quality Research in Literacy and Science Education

*International Perspectives and  
Gold Standards*

# Evidence-based practice in education

Teaching has suffered both as a profession in search of community respect and as a force for improving the social capital of Australia, because of its failure to adopt the results of empirical research as the major determinant of its practice. There are a number of reasons why this has occurred, among them a science-averse culture endemic among education policymakers and teacher education faculties. There are signs that change may be afoot. The National Inquiry into the Teaching of Literacy has pointed to, and urged us to follow, a direction similar to that taken recently in Great Britain and the USA towards evidence-based practice. Acknowledging the importance of teacher education, the National Institute for Quality Teaching and School Leadership began a process for establishing national accreditation of pre-service teacher education. Two problems do require attention. The generally low quality of much educational research in the past has made the process of evaluating the evidence difficult ...

Hempenstall, K. (2006). What does evidence-based practice in education mean? *Australian Journal of Learning Disabilities*, 11(2), 83-92.

## What counts as evidence?

## Select topics to Find What Works based on the evidence



Literacy



Mathematics



Science



Behavior



Children and  
Youth with  
Disabilities



English  
Learners



Teacher  
Excellence



Charter  
Schools



Early  
Childhood  
(Pre-K)

K-12

Kindergarten  
to 12th  
Grade



Path to  
Graduation



Postsecondary

### WELCOME TO THE WHAT WORKS CLEARINGHOUSE

The What Works Clearinghouse (WWC) reviews the existing research on different *programs, products, practices, and policies* in education. *Our goal* is to provide educators with the information they need to make evidence-based decisions. We focus on the results from *high-quality research* to answer the question "What works in education?" Find more information **about the WWC**.

### HIGHLIGHTS



#### Charter Schools

This new topic area focuses on the impact of charter schools on student academic achievement and other outcomes.



### QUICK LINKS



INTERVENTION REPORTS



PRACTICE GUIDES



REVIEWS OF INDIVIDUAL STUDIES



**REDI**  
RESEARCH FOR  
EDUCATIONAL IMPACT



# Background

- Concern with the current focus on evidence based teaching and learning, that
  - Privileges particular types of evidence,
  - Potentially narrows the types of education research that is valued
- This concern was encapsulated in Deakin submissions to
  - Productivity commission 2016
  - *Review to Achieve Educational Excellence in Australian Schools 2017*
- Concern to find principled and realistic ways forward, for education research to productively impact on policy and practice

# Program

- 9.50 am**      **Introduction: Framing questions of evidence**
- 10.00**      Advising teachers what to do – what evidence is relevant for informing complex classroom practice? Vaughan Prain & Russell Tytler, Deakin University
- 10.50**      Morning tea
- 11.00**      What evidence is needed for framing policy at the system level? Barry McGaw, University of Melbourne
- 11.50**      Evidence based practice, educational research and teacher education in Australia. Jill Blackmore, Deakin University
- 12.40 pm**      Lunch
- 1.40**      Lost in translation: Where ‘what works’ doesn’t work and what can be done about it. Jason Lodge, University of Queensland
- 2.30**      “What works for whom?” The problem of agency in the educational research agenda. Julian Williams, University of Manchester
- 3.20**      Panel discussion and debate
- 4.00**      Finish

# Forum Questions

## ***Overarching question***

- How can educational research support the agency of teachers and students to engage with quality teaching and learning practices?

## ***Sub-questions***

1. What are the strengths and limitations of an ‘evidence based’, ‘scientific’ agenda for education work? How should education researchers contribute?
2. What sorts of evidence of learning, and of teaching quality, can inform and support teacher practice?
3. What kinds of outcomes should drive the education system? How does the nature of outcomes impact on framing teacher practice and student learning?
4. What should be the accountability requirements for teachers and for students?
5. Why do we have this current “scientising” agenda for education and education research? How should we respond?
6. How should teachers and their practice be framed in policy initiatives?
7. How can psych and neuroscience research contribute to understanding classroom teaching and learning processes?
8. What is gained and lost in the current “scientising” agenda to identify and monitor effective teaching and learning?
9. In what ways and to what ends might/should we promote “scientific” research in education?
10. What kinds of research can support teacher and student agency?

# ***Vaughan Prain & Russell Tytler – Advising teachers what to do- what evidence is relevant?***

1. What are the strengths and limitations of an ‘evidence based’, ‘scientific’ agenda for education work? How should education researchers contribute?
2. What sorts of evidence of learning, and of teaching quality, can inform and support teacher practice?



# ***Barry McGaw – Evidence needs of the education system.***

1. What kinds of outcomes should drive the education system?  
How does the nature of outcomes impact on framing teacher practice and student learning?
2. What should be the accountability requirements for teachers and for students?

# ***Jill Blackmore— The usefulness of educational research in new knowledge economies***

1. Why do we have this current “scientising” agenda for education and education research? How should we respond?
2. How should teachers and their practice be framed in policy initiatives?

# ***Jason Lodge- ‘Lost in translation’- Where ‘what works’ doesn’t work.***

1. How can psych and neuroscience research contribute to understanding classroom teaching and learning processes?
2. What is gained and lost in the current “scientising” agenda to identify and monitor effective teaching and learning?

# ***Julian Williams – What works for whom? The problem of agency.***

1. In what ways and to what ends might/should we promote “scientific” research in education?
2. What kinds of research can support teacher and student agency?

# Panel questions

1. What principles should frame policy and research on teaching and learning practices?
2. How can education research address system demands for accountability in learning and teaching quality?
3. How might education research contribute to enriching current assessment practices?