Review to **Achieve Educational Excellence** in Australian Schools

Public submission made to the Review to Achieve Educational Excellence in Australian Schools

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Submitting as a:	Other (Director of an educational research charity)
State:	Other (UK)

Summary

Education is currently only intermittently evidence informed. There are many current practices that have little or no currency in the real world, but are perpetuated by institutions that have traditionally dominated education.

Using research and looking to evidence is the best hope to reform education and raise standards. The two main strategies that could help this are:

1. Focussing on behaviour management at a classroom and whole school level
2. Promoting Systematic Synthetic Phonics, not just as a box-ticking exercise, but delivered in a consistent, rigorous fashion. The Phonics check is key to this.

Many of the myths in education (e.g. Learning Styles, Brain Gym etc) are still unhealthily common, and symptomatic of a system that all too easily embraces novelty and dogma rather than evidence. Teacher training is the key lever to improve these aspects of the sector.

Main submission

About us

Founded in 2013, researchED is a grass-roots, teacher led organisation. The mission of researchED is to raise the research literacy of educators, in order for them to possess the critical skills necessary to challenge and understand the quality of research they encounter. This has been achieved by organising conferences where researchers, teachers, and policy makers come together for a day of information-sharing and myth-busting. The conferences usually take place on a Saturday and speakers do not draw a fee, keeping costs low and enabling as many teachers as possible to attend. Initially, researchED conferences took place in the U.K. but researchED is now a global movement that has run three conferences in Australia. This submission will focus on the themes that have emerged from researchED

conferences in Australia as well as those that have emerged as part of the worldwide researchED conversation.

What should education success for Australian students and schools look like?

Education, in order to fulfil its missions of raising informed, creative, critical thinkers who can participate in society as educated citizens, must focus on designing curriculums founded on incremental, sequenced knowledge. All outcomes are derived from these foundations.

Many researchED presenters have focused on the importance of a knowledge-based curriculum. Curriculum documents in the U.K., U.S. and Australia tend to be based around generic abilities. Yet research from cognitive science suggests that these abilities are highly dependent upon broad knowledge. Professor Daniel Willingham, a researchED conference interviewee, has pointed out the difficulty in asking students to 'think like a scientist' or 'think like an historian'. Experts in a profession are fundamentally different to novices because they have so much more knowledge of the subject and, as Willingham states, "It's not just that students know less than experts; it's also that what they know is organized differently in memory. Expert scientists did not think like experts-in-training when they started out. They thought like novices. In truth, no one thinks like a scientist without a great deal of training." (Willingham, 2009). Unfortunately, curriculum is often built around imitation of what professionals do; students design and conduct scientific experiments or analyse historical sources. As another researchED presenter, Professor Paul Kirschner, points out, "…how to learn or be taught in a domain is quite different from how to perform or 'do' in a domain (i.e., learning science vs. doing science)" (Kirschner, 2009). The necessary foundational knowledge and skills are neglected under the assumption that students will pick these up as part of the process.

Many teachers have heard about these ideas by attending researchED conferences and are starting to question the received curriculum wisdom in schools and education systems.

What can we do to improve and how can we support ongoing improvement over time?

Of critical concern to teachers, although of apparently less interest to academics and teacher educators, is the business of managing a classroom or 'running a room'. It is pretty much impossible to teach any content if a class is disorderly. Australia appears to have a significant issue with classroom behaviour relative to the rest of the world. According to an analysis of 2015 data from the Programme for International Student Assessment (PISA), "Student reports indicated that many Australian schools have a poor climate of classroom discipline. Australia scored significantly lower than the OECD average on this index, indicating a more problematic situation than across the OECD. About one-third of the students in advantaged schools, and about half of

those in disadvantaged schools, reported that in most or every class there was noise and disorder, students didn't listen to what the teacher said, and that students found it difficult to learn. This was particularly an issue in Tasmania and New South Wales." (Thomson et. al., 2017)

Classroom management (behaviour) problems are reflected in the concerns of many classroom teachers who attend researchED conferences. Tom Bennett, researchED founder, has addressed these through his talks. In his role as an advisor to the U.K. government, he has published a report on how to improve the situation there. There is a great deal of research on strategies for managing classroom behaviour (e.g. Marzano et. al., 2007) and yet many teachers seem unaware and point to a lack of training in these techniques. This lack of awareness is likely to be because of a distaste for these research findings on the part of academics and teacher educators. Training in these techniques should be a priority.

Many Australian researchED presenters have discussed a lack of progress in schools and state education departments fully implementing reading programmes based upon systematic synthetic phonics. These approaches are backed by a 2005 Australian government report (Rowe, 2005). In addition, Professor Pamela Snow, a recent speaker, has published work suggesting that teachers lack the necessary knowledge to teach systematic synthetic phonics (Stark et. al., 2015) and this suggests that they are therefore not receiving appropriate training at university or once in service. Better training for primary teachers is therefore needed.

Dylan Wiliam, a noted education expert, recently informed his followers on Twitter that, "Sweller's Cognitive Load Theory is the single most important thing for teachers to know." Professor John Sweller is an Australian researcher at UNSW and he recently presented Cognitive Load Theory at a researchED conference in Melbourne. In his presentation, he made clear the practical implications of the theory for the design of instructional sequences. Many of these suggest that teachers follow a more explicit model of teaching rather than the inquiry-based or project-based models that are so popular in Australia at the moment. The New South Wales Centre for Education Statistics and Evaluation then released a report aimed at communicating the main findings of the theory to teachers (NSW Centre for Education Statistics & Evaluation, 2017). There should be a greater awareness of these findings.

Are there barriers to implementing these improvements?

As an organisation, researchED has been active in busting a number of myths that are prevalent in education. The most significant of these, a myth that is still alive and well in Australia, is that students learn best when taught in a way that best matches their 'learning style'. Systematic reviews have shown no evidence for this (e.g Pashler, 2008)

Another barrier is a lack of acceptance of scientific evidence amongst the educational community. Many academics take more of a sociological stance. They claim that education is too complex to be understood in a scientific way and instead prefer sociological theory. These theories are then seen to conflict with the systematic synthetic phonics or explicit instruction because these are viewed as rigid or authoritarian. Clearly, this is also the source of much of the antipathy towards better classroom management training.

However, as an organisation we have learnt that if we engage and mobilise teachers directly, there is a real hunger for coming to grips with research evidence. Often, teachers simply don't know what they don't know. When you present them with research in a friendly and engaging way, they don't seem to possess the ideological baggage to reject it and, instead, they become enthusiastic about how to apply it to the classroom.

Sadly, there are many in the educational establishment who resist attempts to raise research literacy in education, or improve the use of empirical evidence as a driver of policy, pedagogy or practice. These voices frequently impede efforts to reform or raise standards. In order to short circuit this systematic impediment it is necessary to engage critically with existing high status academics rather than to accept their views without qualification. Engaging with teachers and addressing their real, expressed concerns is part of that process.

Opening up teacher training to a broader, more diverse range of ideologies and methodologies is crucial to disrupting and improving the current standard of teaching and concomitant outcomes.