

PROFESSOR DAVID TREAGUST

David Treagust is Professor of Science Education in the Science and Mathematics Education Centre, School of Education at Curtin University in Perth Australia. He was appointed John Curtin Distinguished Professor in 2012.

Research Interests

- **Diagnostic assessment of students' conceptual knowledge** using especially designed two-tier tests where the first tier involves a *content response* and the second tier a *reasoning response*. This research has produced a wide range of published reliable and valid tests across many science disciplines from high school to college levels.
- **Enhancing science teaching for conceptual change using strategies** for helping science teachers understand the concepts they are teaching and how to best present and assess these science concepts to students.
- **Teaching and learning with analogies and models** researched learning outcomes and developed teaching materials to enhance learning with analogies and models.
- **Learning science through multiple representations** has identified why students have difficulty learning science concepts and how teaching can be designed to accommodate the use of multiple representations.

His programmatic research has been supported by \$2.8 million from **Australian Research Council** large grants and his work on diagnostic assessment, conceptual change, teaching with models and analogies, and with multiple representations is widely cited. Supervised over 70 doctoral students. Examined 49 PhD theses and 34 Masters theses. His h-index is 66, which represent over 15000 citations based on the Google Scholar database – 44 of these publications are cited more than 100 times (13.01.16).

Leadership Roles

He has held a number of leadership roles in the national and international science education community, including Former president of the National Association for Research on Science Teaching (NARST) and President of the Australasian Science Education Research Association (ASERA). Member, International Assessments Joint Australian National Advisory Committee for the Program for International Student Assessment (PISA).

He was awarded the **Distinguished Contribution to Science Education through Research** by the US-based National Association for Research in Science Teaching (2006), **Curtin Excellence and Innovation in Teaching Award** (2008), **American Chemical Society Award for Achievement in Research for the Teaching and Learning of Chemistry** (2011), and a **Citation for Outstanding Contributions to Student Learning** (2012) from the Australian Government's Office of Teaching and Learning.

Editor, *International Journal of Science Education* and **founding Senior Editor of the *International Journal of Science and Mathematics Education*** – two major journals in science education.