

## CONTRIBUTORS

**These are the biosketches of the contributors to this book, including references to their doctoral/master's thesis/dissertation research and to their directly related publications.**

**Vaile Dawson** is a senior lecturer in secondary science education at Edith Cowan University in Perth, Australia. Prior to her academic career Vaile worked as a medical researcher in the field of childhood leukaemia and as a secondary school science teacher. Her research interests relate to adolescents' decision-making about biotechnology issues and the use of information technology by early career science teachers. She is co-editor of *The Art of Teaching Science* (Allen and Unwin, 2005).

Dawson, V. M. and Taylor, P. C. (1999, July). *Resolution of bioethical dilemmas amongst adolescents*. Paper presented at the 48th annual meeting of the Australian Science Teachers' Association (CONASTA), University of Adelaide, SA.

Dawson, V. M. (1999). *Bioethics education in the science curriculum: Evaluation of strategies for effective and meaningful implementation*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.

Dawson, V. M. and Taylor, P. C. (1997, December). *Does the teaching of ethics in science influence a student's ability to resolve ethical dilemmas?* Paper presented at Australasian Joint Conference of GASAT and IOTSE, Curtin University, Perth.

Dawson, V. M. and Taylor, P. C. (1997, January). *Constructivist teachers, confused students: Negotiating change in learning environments*. Paper presented at the International Conference on Science, Mathematics & Technology Education, Hanoi, Vietnam.

**Bob Fitzpatrick** is head of science at a secondary school in Perth, Australia and a Ph.D. candidate at Curtin University of Technology, also in Perth. Bob began his career in England, progressing from science teacher to head of department while writing science texts for the Schools Council and the Nuffield Foundation. Since arriving in Australia, he has worked in schools and the curriculum area of the central office of the Western Australian Department of Education.

Fitzpatrick, R. and Taylor, P. C. (2001, December). *A question of balance: Conflicting interests of a school-based curriculum change agent*. Paper presented at the annual conference of the Australasian Association for Research in Education (AARE), Fremantle, Western Australia.

Fitzpatrick, R. (2000). *A question of balance: Critical incidents, tension and curriculum change*. Unpublished master's dissertation, Curtin University of Technology, Perth, Western Australia.

**Patricia Forster** is a research fellow at Edith Cowan University, Perth, Australia. She was appointed to the position after completing her doctorate in mathematics education at Curtin University of Technology. In 2003, she was awarded an Australian Research Council Discovery Grant to research statistics education in the upper secondary years.

Forster, P. A. (2001). *Teaching, learning and the use of graphics calculators in topics on vectors in year 11 mathematics*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.

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**David Geelan** is a Senior Lecturer in science education at the University of Queensland and a 2005–2006 Carnegie Scholar. He has been a science and mathematics teacher in four Australian states and a teacher educator in Papua New Guinea and Canada, and has been extensively involved in teacher professional development in South Africa. David's research interests include constructivist theory and practice, educational technology and narrative research methods. He is the author of *Weaving Narrative Nets to Capture Classrooms* (Kluwer, 2004) and *Undead Theories* (Sense, 2006).

- Geelan, D. R. (2006). *Undead theories: Constructivism, eclecticism and research in education*. Rotterdam, The Netherlands: Sense.
- Geelan, D. R. (2004). *Weaving narrative nets to capture classrooms: Multimethod qualitative approaches for research in education*. Dordrecht, The Netherlands: Kluwer Academic.
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**Adrienne T. Gibson** is an adjunct faculty member in the school of education at Capella University in Minneapolis, USA. Recently retired from public education she also serves as science curriculum coordinator in the Arizona school district where she was employed for many years. Adrienne began her career as a middle school teacher and later taught at the high school and community college level, as well as serving in district staff development and as both a high school and middle school principal. Although presently not involved directly in research she maintains strong interest in curriculum and instruction.

- Gibson, A. T. (2001). *Teacher perceptions of student understanding in the science classroom*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.
- Gibson, A. T. and Wallace, J. (2006). Teaching and learning science for understanding: Managing the accountability dilemma. *Science Educator*, 15(1), 44–55.

**The Reverend Georgina Hawley** is principal lecturer in the School of Health and Social Care at Oxford Brookes University, Oxford, England. A qualitative researcher, she specialises in the areas of professional development of health professionals, client and patients' experiences of health problems, and spirituality in relation to health problems.

- Hawley, G. and Taylor, P. C. (2001). Using research to improve the teaching of spirituality and clinical practice. *Nursing Education Today 2001*, Durham University, UK.
- Hawley, G. and Taylor, P. C. (2001, November). *Contesting conversations of spirituality and religion*. Paper presented at the Contesting Conversations in Practice, Education, Research and Policy Conference, Adelaide Convention Centre, South Australia.
- Hawley, G. (2002). *A phenomenological study of the health-care related spiritual needs of multicultural Western Australians*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.

**David Lloyd** is a lecturer in science education at the University of South Australia in Adelaide. David has spent much of his teaching career as a senior secondary chemistry teacher and middle school educator in country and city schools in South Australia. His research interests focus on young people's images of possible futures and pedagogical issues in science learning.

- Lloyd, D. G. (2002). *Futures imaging: Students' views, mediation and learning through science*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.
- Lloyd, D. G. and Wallace, J. (2004). Imaging the future of science education: The case for making futures studies explicit in student learning. *Studies in Science Education*, 39, 139–177.

**Bal Chandra Luitel** is an Assistant Professor in mathematics education at the University of Kathmandu, coordinating the master's programme within the School of Education. Bal Chandra uses the research metaphors of *professional development*, *reconceptualising self* and *inquiry as life writing*. He has been involved in qualitative research based intervention projects funded by UNESCO Kathmandu, Department of Education Nepal, Norwegian Agency for Development Cooperation (NORAD) and the University of Kathmandu.

- Luitel, B. C. (2003). *Narrative explorations of Nepali mathematics curriculum landscapes: An epic journey*. Unpublished master's dissertation, Curtin University of Technology, Perth, Western Australia.
- Luitel, B. C. and Taylor, P. C. (2006). Envisioning transition towards transformative mathematics education: A Nepali educator's autoethnographic perspective. In J. Earnest and D. Treagust (eds.), *Educational change and reconstruction in societies in transition: International perspectives* (pp. 91–110). Rotterdam, The Netherlands: Sense.
- Luitel, B. C. and Taylor, P. C. (2005, April). *Overcoming culturally dislocated curricula in a transitional society: An autoethnographic journey towards pragmatic wisdom*. Paper presented at the annual meeting of the American Educational Research Association (AERA), Montreal, Canada.

**Kwena Masha** teaches mathematics in the foundation year programme at the University of Limpopo in South Africa and supervises students undertaking honours and master's studies in mathematics education. He worked as a secondary school mathematics teacher and was head of mathematics at a teacher training college before moving to his current position at the end of 1996. His research interests include qualitative accounts of classroom learning environments, and classical, current, and emerging theories of learning.

- Masha, J. K. (2004). *Creating a constructivist learning environment for meaningful learning of mathematics*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.

**Catherine Milne** is Assistant Professor in the science education programme within the Department of Teaching and Learning at the Steinhart School of Education at New York University. After teaching in high schools for almost 15 years, Catherine left teaching in the Northern Territory of Australia in order to study questions about the philosophical and historic origins of school science. Her research interests include urban science education, the nature of representations in learning science, the nature of self-assessment, teaching, and teacher education, and the role of history and philosophy of science in school science.

- Milne, C. (1999). Stories and primary science: The tentativeness of scientific understanding. *Investigating*, 15(3), 14–17.
- Milne, C. (1998). *Science cultural myths and school science: A critical analysis of historical and contemporary discourses*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.
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**Russel Montgomery** is a middle school teacher at Carey Baptist College, Perth, Australia. His particular focus is education as social process; the socialisation of the individual and the social matrix of education. Over the last decade he has faced the rigors and joys of being househusband, parent in community and teacher. This multiplicity of roles has given him a deep appreciation of the context of human development: community. His current interest is in exploring the concept of “communities of practice” as a way of thinking about and practicing “education”.

- Montgomery, R. (2001). *Out of the ashes, an autoethnography*. Unpublished master’s dissertation, Curtin University of Technology, Perth, Western Australia.

**Judith Mulholland** is a senior lecturer in science education at the Brisbane campus of the Australian Catholic University. Judith began her early career as a lecturer and teacher in biological science in Australia and the United Kingdom, and has been associated with teacher education in Australia for over 20 years. Her major research interests are in science education for elementary teachers, development of teacher knowledge, gender and education and qualitative research methods.

- Mulholland, J. (1999). *Beginning teachers and primary science: Learning and teaching science in the preservice to inservice transition*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.
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- Mulholland, J. and Wallace, J. (2003). Strength, sharing and service: Restorying and the legitimization of research texts. *British Educational Research Journal*, 29(1), 5–23.

**Les Pereira** is a lecturer in education at Edith Cowan University in Perth, Australia. He is guided by an interest in integral philosophy and reflexive practice and has a

particular interest in understanding how we come to 'know'. Les' research engages studies of transformative education, ethical practice, arts-based research, consciousness, and the nexus between the individual and the collective.

- Pereira, L. J. (2006). *Between the 'Real' and the 'Imagined': An inquiry into the act of transformative leadership*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.
- Pereira, L. J., Settelmaier, E., and Taylor, P. C. (2005). Fictive imagining and moral purpose: Autobiographical research as/for transformative development. In W.-M. Roth. (ed.), *Auto/biography and auto/ethnography: Praxis of research method*. The Netherlands: Sense Publishers.
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- Pereira, L. J. (2004, September). *Towards no-method: Reassessing foundational constructs in research methodology*. Paper presented at the Fifth International Conference for Qualitative Research, Bournemouth, England.

**Elisabeth Settelmaier** is a former secondary science teacher who migrated to Australia from Austria in 1998. Her doctorate focused on teaching ethics in science. Now a teacher educator herself, she teaches in undergraduate as well as postgraduate programmes at Curtin University of Technology. Her research is mainly qualitative interpretative using auto/ethnography and autobiography with an emphasis on cultural and social contexts of education, ethics in school science and school change.

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**Jill Slay** is a senior lecturer in information technology security and Director of the Enterprise Security Management Laboratory in the Advanced Computing Research Centre of the University of South Australia in Adelaide. Her conceptual pedagogical research interest is the role of culture in science and technology education, with a particular focus on Chinese culture. She is co-author of *IT Security* (John Wiley, 2005).

- Slay, J. (2001). Research perspectives on culturally sensitive science education. *Intercultural Education*, 12(2), 173–184.
- Slay, J. (2000). *Culture and conceptualisations of nature: An interpretive analysis of Australian and Chinese perspectives*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.
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Slay, J. (2000, January). *Students' conceptualisations of nature: A Chinese and Australian cross-cultural comparison*. Paper presented at the 2nd International Science, Mathematics and Technology Education conference, Taiwan National Normal University, Taipei.

**Peter C. Taylor** is Associate Professor of Transformative Education in the Science and Mathematics Education Centre at Curtin University of Technology, Perth, Australia. He specialises in the use of qualitative research as/for the professional development of teachers and teacher educators. He is particularly interested in auto/ethnographic inquiry and literary genres, and has helped to pioneer arts-based dissertation/thesis structures in science and mathematics education.

**Tanya Vernon** is a Ph.D. candidate at Curtin University of Technology in Perth, Australia. She commenced her doctoral studies after 25 years of tertiary level administration and management in Australia and the United States. Her research interests include qualitative research and alternative representation, higher degree research pedagogy, laboratory-based learning communities, theories of supervision and studentship, student advocacy, and non-dominant cultures within research cultures.

Vernon, T. (2004). *Cat's away*. Paper presented at the annual meeting of the Australian Association for Research in Education, Melbourne, Australia. <<http://www.aare.edu.au/indexpap.htm>>.

Vernon, T. (2005). *Access, reward and penalty: The art of supervision at the (post)graduate level, a case study of an electrical engineering laboratory*. Paper presented at the 2005 Global Colloquium on Engineering Education, Sydney, Australia.

**John Wallace** is Professor of Science Education at Curtin University of Technology in Perth, Australia. He is currently on leave with a Professorial appointment to the Ontario Institute for Studies in Education of the University of Toronto. His research interests include teacher learning, qualitative inquiry, curriculum integration, teacher leadership, and school reform. His previous (co-edited) books include *Dilemmas of Science Teaching: Perspectives on Problems of Practice* (RoutledgeFalmer, 2002) and *Leadership and Professional Development: New Possibilities for Enhancing Teacher Learning* (RoutledgeFalmer, 2003).

**Robyn White** is Principal of Perth Modern School in Western Australia. She gained her Ph.D. through Curtin University of Technology. Having previously been a science teacher in several Australian states, then a head of department and deputy principal, her interests in leadership and teaching and learning guided her research directions. Robyn's doctoral thesis focused on the way in which systemic leaders implemented curriculum change in a geographically diverse education jurisdiction.

White, R. C. (1998). *Heroes from the past: Their beliefs and practices, and influence on current science education practice*. Unpublished doctoral thesis, Curtin University of Technology, Perth, Western Australia.

White, R. C. and Wallace, J. (1999). Heroism and science education reform. *Research in Science Education*, 29(4), 417–430.

**John Willison** is the coordinator of the Graduate Certificate in Higher Education at the University of Adelaide. He taught science at primary, secondary, and tertiary levels, especially focusing on the integration of reading and writing with collaborative hands-on tasks. His current research concerns the development of student information literacy from primary school to postgraduate level.

Willison, J. W. and O'Regan, K. (in press). Commonly known, commonly not known, totally unknown: A framework for students becoming researchers. *Higher Education Research and Development*.

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