

ACADEMIC CV

NAME: William David (Bill) BARTON
Associate Professor, Department of Mathematics, Faculty of Science, The University of Auckland
Vice-President (& President Elect), International Commission on Mathematical Instruction

EDUCATIONAL QUALIFICATIONS: [Tertiary only]

1971 University of Auckland, M.Sc. Hons (2nd Div I)(Mathematics)
1973 Christchurch Teachers College, Dip Tchg,
1981 Massey University, M.Phil. (Education),
1982 Massey University, Maori Language to 200-level
1996 University of Auckland, Ph.D., Mathematics Education
2002 University of Auckland, Spanish Language to 200-level

PREVIOUS APPOINTMENTS:

1973-1989 Secondary mathematics teaching in New Zealand (total of 11 yrs full-time)
(including 1987-89 Maori/English Bilingual teacher at Wellington High School)
1983 Producing national mathematics programme for Television NZ (40 5-minute episodes)
1977-1981 University College of Swaziland, Lecturer
1990 McCarthy Research Fellowship, Victoria University
1991-1992 Auckland College of Education, Lecturer
1993-present University of Auckland, Lecturer, Senior lecturer, Associate Professor (from 2002).
Head, Mathematics Education Unit, (two 2-year tenures)
Head, Department of Mathematics, from 2005-2008.

SIGNIFICANT DISTINCTIONS / AWARDS:

1990 McCarthy Research Fellowship, Victoria University
1995 NZAMT Bevan Werry Memorial speaker
2003 Faculty of Science Teaching Award, Team Leader, MATHS102 Teaching Team
2007 Hood Fellowship to visit Oxford University.

TEACHING

15 years secondary mathematics and science teaching, including bilingual (English/Maori) classes.
2 years teaching pre-service secondary mathematics teachers at Auckland College of Education.
15 years undergraduate mathematics classes at first and second year levels, undergraduate and Masters
mathematics education classes. Supervised more than 30 Masters projects, and 4 completed PhDs.

RESEARCH SPECIALTIES / CAREER:

I have two research fields. One is the socio-cultural and political dimension of Mathematics Education. One aspect of this is Ethnomathematics and Mathematics & Language. The second is professional development of secondary and tertiary teachers, especially mathematical knowledge for teaching.

Selected Relevant Publications since 2000 (out of a total of more than 50).

WATSON, A. & BARTON, B. (To appear). Teaching mathematics as the contextual application of mathematical modes of enquiry. In K. Ruthven & T. Rowlands (Eds.) *Mathematical Knowledge in Teaching*. CUP.
BARTON, B. & PATERSON, J. (To appear) *Teachers Learning Mathematics: Professional Development Research A TLRI Final Report*. Wellington: NZCER
BARTON, B. (To Appear). Revisiting Felix Klein's Elementary Mathematics From An Advanced Standpoint: An IMU/ICMI Project. *Proceedings of 5th International Colloquium on the Didactics of Mathematics*, University of Crete, Campus of Rethymnon, 17-19th April, 2008.
BARTON, B. & SHERYN, L. (2009). The mathematical needs of secondary teachers: data from three countries, *International Journal of Mathematical Education in Science and Technology*, 40(1) January 2009, 101-8.
BARTON, B. (2008). Cultural and Social Aspects of Mathematics Education. In P. Clarkson & N. Presmeg (Eds.) *Critical Issues in Mathematics Education: Major Contributions of Alan Bishop*. New York: Springer, p. 121-133
BARTON, B. (2008). *The Language of Mathematics*. Mathematics Education Library, Vol. 46., New York: Springer.
BARTON, B. & GORDEAU, F. (2008). Disciplinary Mathematics and School Mathematics: Report of Working Group 1. In M. Menghini, F. Furlinghetti, L. Giacardi, & F. Arzarello, (Eds.) *The First Century of the International Commission on Mathematical Instruction (1908-2008). Reflecting and shaping the world of mathematics education*, Roma: Istituto della Enciclopedia Italiana, p.253-64.
BARTON, B. & BARTHOLOMEW, H. (2007). Mathematics Enhancement Project: Professional Development Research. A TLRI Final Report. Wellington: NZCER
ALEKSEEV, V., BARTON, B., & KNIJNIK, G. (2006). Other Conventions in Mathematics and Mathematics Education. In F. Leung, K. Graf, & F. Lopez-Real(ed.), *Mathematics Education in Different Cultural Traditions: A Comparative Study of East Asia and the West. The 13th ICMI Study.*, New York, Springer Science and Business Media., p.567-580
BARTON, B., CHAN, R., KING, C., NEVILLE-BARTON, P., & SNEDDON, J. (2005). EAL Undergraduates Learning Mathematics. *International Journal of Mathematical Education in Science and Technology*, 36(7), 721-729.