1.	Record Nr.	UNINA9910781874003321
	Autore	Meaney Tamsin
	Titolo	Collaborating to Meet Language Challenges in Indigenous Mathematics Classrooms [[electronic resource] /] / by Tamsin Meaney, Tony Trinick, Uenuku Fairhall
	Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2012
	ISBN	1-283-45613-3 9786613456137 94-007-1994-9
	Edizione	[1st ed. 2012.]
	Descrizione fisica	1 online resource (310 p.)
	Collana	Mathematics Education Library, , 0924-4921 ; ; 52
	Disciplina	510 71
	Soggetti	Mathematics - Study and teaching Language and education Mathematics Education Language Education
	Lingua di pubblicazione	Inglese
	Formato	Materiale a stampa
	Livello bibliografico	Monografia
	Note generali	Description based upon print version of record.
	Nota di bibliografia	Includes bibliographical references and index.
	Nota di contenuto	Table of Contents Acknowledgement Glossary Chapter 1 Introduction to the book and themesThe school and the data Using case studies The complexity of learning mathematics in an Indigenous language Meeting and overcoming challenges. Section A Meeting Political Challenges Maui Chapter 2 The development of a mathematics register in an Indigenous language Te wero no waho – the external challenge Te wero no roto – the internal challenge The process of expanding the mathematics register in te reo Mäori The Standardising Process Challenges to Te Reo Mäori from developing the mathematics register Meeting challenges Chapter 3 History of Te Koutu – the politicisation of a local community The history of Te Koutu Governance and whänau involvement in the school Meeting challenges in establishing and operating Te Koutu Chapter 4 It is kind of hard to develop ideas when you couldn't understand the question: Doing exams bilingually National Certificate in Educational Achievement Making the exams bilingual Results from bilingual NCEA examinations Equivalence in

Bilingual Education -- Improving the quality of the te reo Mäori examinations -- Students' Responses to Doing Exams Bilingually --Meeting the challenge of doing exams bilingually -- Section B Meeting Mathematical Challenges -- Maui -- Chapter 5 The resources in te reo Mäori for students thinking mathematically -- Resources in te reo Mäori -- Linguistic markers -- Transparency within terms. - Logical connectives -- Linguistic complexity -- The teacher's role in supporting students' spoken explanations -- Kanikani ängarau -dancing mathematics -- Meeting challenges around thinking mathematically -- Chapter 6 Writing to help students think mathematically -- The role of literacy within a traditionally oral culture -- Writing to support reflection -- Types of writing in mathematics --Writing in mathematics at Te Koutu -- Whakaahua -- Whakamärama --Parahau -- Judging the guality of mathematical writing -- Students' views about writing in mathematics -- Challenges in writing to support mathematical thinking -- Chapter 7 The case of probability.- Students learning about probability -- Learning to think about probability --Developing the idea of likelihood in the beginning school years --Developing ideas about the probability of events at the end of primary school -- Developing ideas about the probability of events in Intermediate and High School -- Meeting the challenge of using language for thinking probabilistically -- Section C Meeting Community Challenges -- Maui -- Chapter 8 Using the mathematics register outside the classroom -- Te reo Mori and broadcasting -- The use of the mathematic register on Mori television -- The use of te reo Mäori by students once they finish their Mäori-medium schooling -- Using te reo Mäori for further study -- Using te reo Mäori in the work place --Using te reo Mäori for socialising -- Meeting challenges -- Chapter 9 Teachers as learners of the mathematics register -- Language knowledge as part of pedagogical content knowledge -- Initial teacher education for Mäori-medium teachers -- Learning on the job: The situation at Te Koutu -- Strategies for learning the mathematics register whilst at work -- Professional development for teachers of mathematics in te reo Mäori -- Meeting the challenges of teachers learning the mathematics register -- Section D Meeting pedagogical challenges -- Maui -- Chapter 10 They don't use the words unless you really teach them: mathematical Register Acquisition Model --Mathematics Register Acquisition Model (MRA) -- Kitenga/Noticing --Taunga/Integration -- Putanga/Output -- Combining strategies for effectiveness -- Language acquisition strategies and year level -- The effect of the newness of the topic on strategy use -- Meeting the challenge of documenting how teachers supported students to acquire the mathematics register -- Chapter 11 "Mäori were traditional explorers": Mäori Pedagogical Practices -- What are pedagogical practices? -- What are Mäori pedagogical practices? -- Te Aho Matua -- Pedagogical practices at Te Koutu -- Te Reo -- Ngä lwi -- Te Ao. - Ähuatanga Ako -- Te Tino Uaratanga.- Meeting the challenge of working within Mäori pedagogy -- Chapter 12 "And that's what you want to happen. You want the shift in classroom practice." -- The teachers' experiences of learning.-The wider societal structures as influences on the teachers' learning -- Perceptions of themselves within the immediate context as influences on teachers' learning --Teachers' sense of self as an influence on their learning -- Meeting the challenge of changing teachers' practices -- Chapter 13 Collaborating to meet challenges -- The complexity of factors that interact when meeting challenges -- The stages in meeting challenges -- The features of collaboration that support meeting challenges --Conclusion.

Sommario/riassunto

Language can be simultaneously both a support and a hindrance to students' learning of mathematics. When students have sufficient fluency in the mathematics register so that they can discuss their ideas, they become chiefs who are able to think mathematically. However, learning the mathematics register of an Indigenous language is not a simple exercise and involves many challenges not only for students, but also for their teachers and the wider community. Collaborating to Meet Language Challenges in Indigenous Mathematics Classrooms identifies some of the challenges-political, mathematical, community based, and pedagogical- to the mathematics register, faced by an Indigenous school, in this case a Mäori immersion school. It also details the solutions created by the collaboration of teachers, researchers and community members. Collaborating to Meet Language Challenges in Indigenous Mathematics Classrooms is of interest to librarians, researchers, and educators in mathematics, social justice, and education.