Record Nr.	UNINA9910483783903321
Titolo	Mathematics Curriculum in School Education / / edited by Yeping Li, Glenda Lappan
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2014
ISBN	94-007-7560-1
Edizione	[1st ed. 2014.]
Descrizione fisica	1 online resource (651 p.)
Collana	Advances in Mathematics Education, , 1869-4918
Disciplina	370.1029368
Soggetti	Mathematics—Study and teaching Curriculums (Courses of study) Education—Curricula International education Comparative education Mathematics Education Curriculum Studies International and Comparative Education
Lingua di pubblicazione	Inglese
Lingua di pubblicazione Formato	Inglese Materiale a stampa
Lingua di pubblicazione Formato Livello bibliografico	Inglese Materiale a stampa Monografia
Lingua di pubblicazione Formato Livello bibliografico Note generali	Inglese Materiale a stampa Monografia Description based upon print version of record.
Lingua di pubblicazione Formato Livello bibliografico Note generali Nota di bibliografia	Inglese Materiale a stampa Monografia Description based upon print version of record. Includes bibliographical references and index.

1.

on educational directives and public policies in Brazil regarding mathematics education: Antonio Vicente Marafioti GARNICA -- Chapter 9 The Australian Curriculum: Mathematics - How did it come about? What challenges does it present for teachers and for the teaching of mathematics? Max STEPHENS -- Part III: Curriculum Development and Analysis -- Preface: Yeping LI, Glenda LAPPAN -- Chapter 10 Three pillars of first grade mathematics and beyond: Roger HOWE -- Chapter 11 Forging new opportunities for problem solving in Australian mathematics classrooms through the first national mathematics curriculum: Judy ANDERSON -- Chapter 12 Freedom of design: The multiple faces of subtraction in Dutch primary school textbooks: Marc van ZANTEN, Marja VAN DEN HEUVEL-PANHUIZEN -- Chapter 13 Changes to the Korean mathematics curriculum: Expectations and challenges: JeongSuk PANG -- Chapter 14 The Singapore mathematics curriculum development - A mixed model approach: Ngan Hoe LEE --Chapter 15 School mathematics textbook design and development practices in China: Yeping LI et al -- Part IV: Curriculum, Teacher, and Teaching -- Preface: James FEY -- Chapter 16 Teachers as participants in textbook development: The integrated mathematics wiki-book project: Ruhama EVEN, Shai OLSHER -- Chapter 17 Mathematics teacher development in the context of district managed curriculum: Mary Kay STEIN et al -- Chapter 18 Curriculum, teachers and teaching: Experiences from systemic and local curriculum change in England: Margaret BROWN, Jeremy HODGEN -- Chapter 19 Teaching mathematics using standards-based and traditional curricula: A case of variable ideas: Jinfa CAI et al -- Chapter 20 Supporting the effective implementation of a new mathematics curriculum: A case study of school-based lesson study at a Japanese public elementary school: Akihiko TAKAHASHI -- Chapter 21 Does classroom instruction stick to textbooks? - A case study of fraction division: Rongiin HUANG -- Part V: Curriculum and Student Learning -- Preface: Dylan WILIAM --Chapter 22: Curriculum and achievement in Algebra 2: Influences of textbooks and teachers on students' learning about functions: Sharon L. SENK -- Chapter 23 The impact of a standards-based mathematics curriculum on classroom instruction and student performance: The case of Mathematics in Context: Marv C. SHAFER -- Chapter 24 Curriculum intent, teacher professional development and student learning in numeracy: Vincent GEIGER -- Chapter 25 Learning paths and learning supports for conceptual addition and subtraction in the US Common Core State Standards and in the Chinese standards: Karen C. FUSON -- Chapter 26 The virtual curriculum: New ontologies for a mobile mathematics: Nathalie SINCLAIR -- Part VI: Cross-national Comparison and Commentary -- Chapter 27 Forty-eight years of international comparisons in mathematics education from a United States perspective: What have we learned? Zalman USISKIN -- Chapter 28 (Mathematics) curriculum, teaching and learning: Ngai-Ying WONG -- Chapter 29 Improving the alignment between values, principles and classroom realities: Malcolm SWAN. Mathematics curriculum, which is often a focus in education reforms, has not received extensive research attention until recently. Ongoing mathematics curriculum changes in many education systems call for further research and sharing of effective curriculum policies and practices that can help lead to the improvement of school education. This book provides a unique international perspective on diverse curriculum issues and practices in different education systems, offering a comprehensive picture of various stages along curriculum transformation from the intended to the achieved, and showing how

curriculum changes in various stages contribute to mathematics

Sommario/riassunto

teaching and learning in different educational systems and cultural contexts. The book is organized to help readers learn not only from reading individual chapters, but also from reading across chapters and sections to explore broader themes, including: Identifying what is important in mathematics for teaching and learning in different education systems; Understanding mathematics curriculum and its changes that are valued over time in different education systems; Identifying and analyzing effective curriculum practices; Probing effective infrastructure for curriculum development and implementation. Mathematics Curriculum in School Education brings new insights into curriculum policies and practices to the international community of mathematics education, with 29 chapters and four section prefaces contributed by 56 scholars from 14 different education systems. This rich collection is indispensable reading for mathematics educators, researchers, curriculum developers, and graduate students interested in learning about recent curriculum development, research, and practices in different education systems. It will help readers to reflect on curriculum policies and practices in their own education systems, and also inspire them to identify and further explore new areas of curriculum research for improving mathematics teaching and learning.