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Nota di contenuto	1 Teaching and learning in math classrooms -- 2 Foreword -- 3 Introduction -- Part I Classroom practices: explanation, problem-solving, patterning, decision-making, drawings and games – 4 Prospective primary teachers’ beliefs regarding the roles of explanations in the classroom -- 5 Defining, drawing, and continuing repeating patterns: Preschool teachers’ self-efficacy and knowledge. - 6 Primary school students’ images of problem solving in mathematics

-- 7 Secondary school mathematics teachers' conceptions on data-based decision-making: Insights from four Japanese cases -- 8 Teachers' activities during a mathematics lesson as seen in third graders' drawings- 9 Serious frivolity: exploring play in UK secondary mathematics classrooms -- Part II Teachers' beliefs, changing beliefs and the role of the environment -- 10 In-service math teachers' autobiographical narratives: the role of metaphors -- 11 A contribution to the relation between teachers' professed and enacted beliefs -- 12 Raising attainment: What might we learn from teachers' beliefs about their best and worst mathematics students? -- 13 Numeracy task design: A case of changing mathematics teaching practice -- 14 Math lessons: from flipped to amalgamated, from teacher- to learner-centered -- 15 Emotional expressions as a window to processes of change in a mathematics classroom's culture -- 16 Mathematics teachers' conceptions of the classroom environment -- Part III Understanding the undercurrents: tensions, inconsistencies and the social turn -- 17 Teacher tensions: the case of Naomi -- 18 Towards inconsistencies of parents' beliefs about teaching and learning mathematics -- 19 Evoking the feeling of uncertainty for enhancing conceptual knowledge -- 20 Criteria for identifying students as exceptional in a mathematical camp for 'gifted' students -- 21 Identity and rationality in classroom discussion: developing and testing an analytical toolkit -- 22 Developing an analyzing tool for dynamic mathematics-related student interaction regarding affect, cognition and participation -- Part IV Emerging themes in affect-related research: engagement, fear, perfectionism ...and assessment -- 23 Motivating desires for classroom engagement in the learning of mathematics -- 24 What are students afraid of when they say they are afraid of mathematics? -- 25 What is perfectionism in mathematical task solving? -- 26 Gender differences concerning pupils' beliefs on teaching methods and mathematical worldviews at lower secondary schools -- 27 "Every time I fell down (made a mistake), I could get up (correct)": affective factors in formative assessment practices with classroom connected technologies -- 28 Teachers' affect towards the external standardised assessment of students' mathematical competencies -- 29 Conclusion.

Sommario/riassunto

The book presents a selection of the most relevant talks given at the 21st MAVI conference, held at the Politecnico di Milano. The first section is dedicated to classroom practices and beliefs regarding those practices, taking a look at prospective or practicing teachers' views of different practices such as decision-making, the roles of explanations, problem-solving, patterning, and the use of play. Of major interest to MAVI participants is the relationship between teachers' professed beliefs and classroom practice, aspects that provide the focus of the second section. Three papers deal with teacher change, which is notoriously difficult, even when the teachers themselves are interested in changing their practice. In turn, the book's third section centers on the undercurrents of teaching and learning mathematics, which can surface in various situations, causing tensions and inconsistencies. The last section of this book takes a look at emerging themes in affect-related research, with a particular focus on attitudes towards assessment. The book offers a valuable resource for all teachers and researchers working in this area.