

ICME-13 Monographs

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Editors

Mathematics Teachers Engaging with Representations of Practice

A Dynamically Evolving Field

 Springer

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Reflecting on Representations Which Reflect Practice—A Preface

Mathematics education is a science which has accumulated theoretical knowledge, and is related to fields of practice such as creating and implementing learning environments for students in mathematics classrooms. Representations of practice help to connect theory of mathematics education with practice of teaching mathematics and therefore are extremely important for teacher education and professional development.

The chapters of this monograph focus on reflecting on the role of representations of practice for pre-service teacher education and for in-service teacher professional development, while, at the same time, highlighting the potential for researching these areas. These reflections make visible the broad spectrum of possible uses of representations of practice, and this diversity underpins how fruitful it can be to enter in an exchange of ideas about practical, methodological, and theoretical issues underlying creation and use of different types of representations of practice.

Given the importance of this topic, we would like to thank the program committee of the 13th International Congress on Mathematical Education (ICME 13) held in Hamburg, Germany, in July 2016, for supporting a discussion group on representations of practice, which aimed to collect and thoroughly examine the role of representations of practice for pre-service and in-service teachers' professional development and for research into aspects of teacher expertise. The chapters of this book originate from that discussion group, and multiple international scientific contacts arose from the discourses which will hopefully enrich further collaboration within the mathematics education community in the future. We would like to thank all the participants and attendants of the discussion group, and especially the authors who contributed the chapters for this monograph. We also extend our gratitude to Rina Zazkis and Dan Chazan, who acted as discussants in our group, and who provided valuable insight throughout the discussion group meetings and their later comments and elaborations of the chapters in this volume.

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Contents

Representations of Practice in Teacher Education and Research—Spotlights on Different Approaches	1
Orly Buchbinder and Sebastian Kuntze	
Representations of Practice to Support Teacher Instruction: Video Case Mathematics Professional Development	9
Karen Koellner, Nanette Seago and Jennifer Jacobs	
A Situated Approach to Assess Teachers’ Professional Competencies Using Classroom Videos	23
Jessica Hoth, Gabriele Kaiser, Martina Döhrmann, Johannes König and Sigrid Blömeke	
Representations of Practice in a Video-Based In-Service Teacher Professional Development Project and in Its Evaluation	47
Sebastian Kuntze	
Concept Cartoons as a Representation of Practice	71
Libuše Samková	
Simulations as a Tool for Practicing Questioning	95
Corey Webel, Kimberly Conner and Wenmin Zhao	
Competence Assessment with Representations of Practice in Text, Comic and Video Format	113
Marita Friesen and Sebastian Kuntze	
Examining the Mathematical Knowledge for Teaching of Proving in Scenarios Written by Pre-service Teachers	131
Orly Buchbinder and Alice Cook	

Ceci n'est pas une Pratique: A Commentary 155
Rina Zazkis

Considering What We Want to Represent 163
Daniel Chazan

Author Index. 169

Subject Index. 171