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# **TABLE OF CONTENTS**

#### Preface

v Mathematics Education Leadership: Examples From the Past, Direction for the Future Christopher J. Huson

#### **Articles**

7	Leading People: Leadership in Mathematics Education
	Jeremy Kilpatrick, Univerity of Georgia

- 15 **Promoting Leadership in Doctoral Programs in Mathematics Education** *Robert Reys, University of Missouri*
- 19 The Role of Ethnomathematics in Curricular Leadership in Mathematics Education Ubiratan D'Ambrosio, University of Campinas Beatriz Silva D'Ambrosio, Miami University
- 26 Distributed Leadership: Key to Improving Primary Students' Mathematical Knowledge Matthew R. Larson, Lincoln Public Schools, Nebraska Wendy M. Smith, University of Nebraska-Lincoln
- 34 Leadership in Undergraduate Mathematics Education: An Example Joel Cunningham, Sewanee: The University of the South
- **40** The Role of the Mathematics Supervisor in K–12 Education Carole Greenes, Arizona State University
- 47 Leadership in Mathematics Education: Roles and Responsibilities Alfred S. Posamentier, Mercy College
- 52 Toward A Coherent Treatment of Negative Numbers Kurt Kreith and Al Mendle, University of California, Davis
- 55 Leadership Through Professional Collaborations Jessica Pfeil, Sacred Heart University Jenna Hirsch, Borough of Manhattan Community College
- 61 Leadership From Within Secondary Mathematics Classrooms: Vignettes Along a Teacher-Leader Continuum Jan A. Yow, University of South Carolina

# **TABLE OF CONTENTS**

67 Strengthening a Country by Building a Strong Public School Teaching Profession Kazuko Ito West, Waseda University Institute of Teacher Education

#### LEADERSHIP NOTES FROM THE FIELD

- 81 A School in Western Kenya J. Philip Smith and Loretta K. Smith, Teachers College Columbia University
- 83 Shared Leadership in the Education of the Gifted: The Stuyvesant Experience Stuart Weinberg, Teachers College Columbia University Maryann Ferrara, Stuyvesant High School
- 86 Mathematics Teaching and Learning: A Reflection on Teacher Training in Rural Uganda Peter Garrity and Nicole Fletcher, Teachers College Columbia University
- 89 Faculty Attitudes Toward the Cultivation of Student Leaders Christopher J. Huson, Bronx Early College Academy

#### Other

#### 92 ABOUT THE AUTHORS

96 Acknowledgement of Reviewers

### PREFACE

# Mathematics Education Leadership: Examples From the Past, Direction for the Future

Robert Reys tells us that leadership is "the ability to influence and mobilize others." Certainly this issue of the *Journal of Mathematical Education at Teachers College* is blessed with authors with influence and leadership. It is filled with advice and research to inform and empower leaders and future leaders in mathematics education.

This issue begins by describing examples of leaders that came before us. As Jeremy Kilpatrick explains, the founders of our field led through the force of their ideas and by heading organizations, sometimes institutions they started. They promoted reform, wrote textbooks, launched comparative studies across international boundaries, and, in the case of David Eugene Smith, founded the world's first doctoral program in mathematics education at Teachers College.

History not only inspires us by its example, its trends suggest future directions. Kilpatrick suggests that the growth of mathematics education and its leadership cadre, which accelerated in the "new math" era and continues today, calls for a more rigorous study of leadership development in mathematics education. This issue of the JMETC is evidence of Teachers College's contribution to that research.

Matthew Larson and Wendy Smith present the findings of their controlled study of curriculum implementation: teacher leadership promotes the impact of reforms on student learning. Their experimentally-tested argument for "distributed leadership" matches the experiential wisdom of two other veteran authors/teachers/leaders, Stuart Weinberg and Maryann Ferrara. They chronicle the broad basis of initiative and innovation at Stuyvesant high school, New York City's public school for gifted mathematics and science students.

Scholarship must provide tools, frameworks, and theoretical foundations for the practice of leadership. In this issue, Jessica Pfeil and Jenna Hirsch develop a practical framework for leaders to implement professional collaboration. Jan Yow presents a model of teacher leadership based on her qualitative research in the field, which helps us grasp the variety and diversity of leadership styles and practices. Kazuko Ito West makes the case for proficiency in mathematics for any teacher expected to lead—an argument that will fall on welcome ears among the Teachers College mathematics community.

# PREFACE

Other veteran authors share their decades of experience as intellectual leaders. Robert Reys's article is a blueprint for the development of leadership in doctoral students, Carol Greenes offers a detailed guide for supervisors and for those leading supervisors, and Alfred Posamentier's rich set of instructional advice serves both teachers and leaders of teachers.

The practice of leadership must be guided by values, a tricky but critical issue that six of our authors approach in different ways. Joel Cunningham holds up the example of Lynn Steen. Honored leaders of our field are models, and they inspire us to lead for the greatest good. Ubiratan and Beatriz D'Ambrosio remind us of the dire need of underserved students. They call for a formal program and global leadership to address those needs. Philip and Loretta Smith take a more personal tack. The story of the founding of a school for orphans in Kenya is leadership in action. It is an inspiring example by the mathematics educator we honor on the cover of this issue.

Christopher J. Huson Guest Editor