Contents

Introduction: Conceptual Overview of Lesson Study ........................................... 1
Aki Murata

Part I Jumping into Lesson Study: Inservice Mathematics Teacher Education ................................................................. 13

Lesson Study: The Impact on Teachers’ Knowledge for Teaching Mathematics ........................................................................... 15
Rachelle D. Meyer and Trena L. Wilkerson

Developing the Habits of Mind for a Successful Lesson Study Community ...................................................................................... 27
Lynn C. Hart and Jane Carriere

Influence of Lesson Study on Teachers’ Mathematics Pedagogy ............. 39
Jo Clay Olson, Paul White and Len Sparrow

Examining Change in Teacher Mathematical Knowledge Through Lesson Study .................................................................................. 59
Diane Hobenshield Tepylo and Joan Moss

Response to Part I: Jumping into Lesson Study—Inservice Mathematics Teacher Education ................................................................. 79
Akihiko Takahashi

Part II Emerging Issues from Lesson Study Approaches in Prospective Mathematics Teacher Education .......................... 83

Investigating Approaches to Lesson Study in Prospective Mathematics Teacher Education ................................................................. 85
Maria Lorelei Fernandez and Joseph Zilliox

Lesson Study in Preservice Elementary Mathematics Methods Courses: Connecting Emerging Practice and Understanding .......... 103
Aki Murata and Bindu E. Pothen
Lesson Study as a Framework for Preservice Teachers’ Early Field-Based Experiences ......................................................... 117
Paul W. D. Yu

Response to Part II: Emerging Issues from Lesson Study Approaches in Prospective Mathematics Teacher Education .......... 127
Despina Potari

Part III  Challenges and Promises of Unchartered Water: Lesson Study and Institutes of Higher Education ........................................ 133

Lesson Study as a Tool for Developing Teachers’ Close Attention to Students’ Mathematical Thinking ................................. 135
Alice S. Alston, Lou Pedrick, Kimberley P. Morris and Roya Basu

Lesson Study as a Learning Environment for Coaches of Mathematics Teachers ................................................................. 153
Andrea Knapp, Megan Bomer and Cynthia Moore

Walking the Talk: Lessons Learned by University Mathematics Methods Instructors Implementing Lesson Study for Their Own Professional Development ......................................................... 165
Michael Kamen, Debra L. Junk, Stephen Marble, Sandra Cooper, Colleen M. Eddy, Trena L. Wilkerson and Cameron Sawyer

Response to Part III: Challenges and Promises of Unchartered Water—Lesson Study and Institutes of Higher Education .......... 175
Tad Watanabe

Part IV  Seeing the Whole Iceberg: The Critical Role of Tasks, Inquiry Stance, and Teacher Learning in Lesson Study .......... 179

The Critical Role of Task Development in Lesson Study .............................. 181
Brian Doig, Susie Groves and Toshiakira Fujii

The Intersection of Lesson Study and Design Research:
A 3-D Visualization Development Project for the Elementary Mathematics Curriculum ................................................................. 201
Jacqueline Sack and Irma Vazquez

Lesson Study: A Case of the Investigations Mathematics Curriculum with Practicing Teachers at Fifth Grade .................... 221
Penina Kamina and Patricia Tinto

Response to Part IV: Seeing the Whole Iceberg—The Critical Role of Tasks, Inquiry Stance, and Teacher Learning in Lesson Study ......................................................................................... 235
Catherine Lewis
## Contents

**Part V**  Ideas for Developing Mathematical Pedagogical Content Knowledge Through Lesson Study .............................................. 241

**What’s Going on Backstage? Revealing the Work of Lesson Study with Mathematics Teachers** ................................................................. 243  
*Catherine D. Bruce and Mary S. Ladky*

**Learning from Lesson Study: Power Distribution in a Community of Practice** ................................................................. 251  
*Dolores Corcoran*

**Preparing for Lesson Study: Tools for Success** ........................................ 269  
*Mary Pat Sjostrom and Melfried Olson*

**Response to Part V: Ideas for Developing Mathematical Pedagogical Content Knowledge Through Lesson Study** ............................................. 279  
*Makoto Yoshida and William C. Jackson*

**Final Thoughts** ................................................................. 289

**Index** ................................................................. 291
Lesson Study Research and Practice in Mathematics Education
Learning Together
Hart, L.C.; Alston, A.S.; Murata, A. (Eds.)
2011, XIII, 294 p., Hardcover