Contents

Probing Beneath the Surface of Experience .......................... 1
John Mason

Part I Teacher Noticing in Various Grade Bands and Contexts

Teacher Noticing in Various Grade Bands and Contexts:
Commentary ................................................................. 21
Brett Criswell and Rebecca McNall Krall

From a Framework to a Lens: Learning to Notice Student
Mathematical Thinking. ................................................... 31
Dawn Teuscher, Keith R. Leatham and Blake E. Peterson

Investigating Secondary Preservice Teacher Noticing of Students’
Mathematical Thinking. ................................................... 49
Erin E. Krupa, Maryann Huey, Kristin Lesseig, Stephanie Casey
and Debra Monson

A Case Study of Middle School Teachers’ Noticing During
Modeling with Mathematics Tasks ................................. 73
Brandon Floro and Jonathan D. Bostic

Using Video of Peer Teaching to Examine Grades 6–12
Preservice Teachers’ Noticing ........................................ 91
Lorraine M. Males

Part II Examining Student Thinking through Teacher Noticing

Examining Student Thinking Through Teacher Noticing: Commentary.... 113
Randolph Philipp, Mike Fredenberg and Casey Hawthorne

Mathematical Teacher Noticing: The Key to Learning
from Lesson Study .......................................................... 121
Mi Yeon Lee and Ban Heng Choy
### Learning to Notice Student Thinking About the Equal Sign: K-8 Preservice Teachers’ Experiences in a Teacher Preparation Program  
Leigh A. van den Kieboom, Marta T. Magiera and John C. Moyer  
141

### Following a Teacher’s Mathematical and Scientific Noticing Across Career Progression from Field Experiences to Classroom Teaching  
Julie M. Amador, Ingrid Carter, Rick A. Hudson and Enrique Galindo  
161

### Noticing Students’ Conversations and Gestures During Group Problem-Solving in Mathematics  
Kevin J. Wells  
183

### Part III Extending Equitable Practices in Teacher Noticing

#### Extending Equitable Practices in Teacher Noticing: Commentary  
Cindy Jong  
207

“Everything Matters”: Mexican-American Prospective Elementary Teachers Noticing Issues of Status and Participation While Learning to Teach Mathematics  
Crystal Kalinec-Craig  
215

“Maybe It’s a Status Problem.” Development of Mathematics Teacher Noticing for Equity  
Evra M. Baldinger  
231

Making Visible the Relationship Between Teachers’ Noticing for Equity and Equitable Teaching Practice  
Elizabeth A. van Es, Victoria Hand and Janet Mercado  
251

### Part IV Complexities in Measuring Teacher Noticing

#### Complexities in Measuring Teacher Noticing: Commentary  
Victoria R. Jacobs  
273

Measuring Noticing Within Complex Mathematics Classroom Interactions  
Shari L. Stockero and Rachel L. Rupnow  
281

Using Mathematical Learning Goals to Analyze Teacher Noticing  
Sandy M. Spitzer and Christine M. Phelps-Gregory  
303

Measuring Elementary Mathematics Teachers’ Noticing: Using Child Study as a Vehicle  
Heidi L. Beattie, Lixin Ren, Wendy M. Smith and Ruth M. Heaton  
321
Contents

Investigating the Relationship Between Professional Noticing and Specialized Content Knowledge .................. 339
Lara K. Dick

A Standardized Approach for Measuring Teachers’ Professional Vision: The Observer Research Tool .................. 359
Kathleen Stürmer and Tina Seidel

Challenges in Measuring Secondary Mathematics Teachers’ Professional Noticing of Students’ Mathematical Thinking ........... 381
Susan D. Nickerson, Lisa Lamb and Raymond LaRochelle

Part V Exploring the Boundaries of Teacher Noticing

Exploring the Boundaries of Teacher Noticing: Commentary .......... 401
Miriam Gamoran Sherin

Shifting Perspectives on Preservice Teachers’ Noticing of Children’s Mathematical Thinking ...................... 409
Alison Castro Superni, Amanda Fisher, John Bragelman and Julie M. Amador

Curricular Noticing: Theory on and Practice of Teachers’ Curricular Use .................................................. 427
Julie M. Amador, Lorraine M. Males, Darrell Earnest and Leslie Dietiker

The FOCUS Framework: Characterising Productive Noticing During Lesson Planning, Delivery and Review ................. 445
Ban Heng Choy, Michael O.J. Thomas and Caroline Yoon

Noticing Distinctions Among and Within Instances of Student Mathematical Thinking ....................................... 467
Shari L. Stockero, Keith R. Leatham, Laura R. Van Zoest and Blake E. Peterson

Teachers’ Professional Noticing from a Perspective of Key Elements of Intensive, One-to-One Intervention ..................... 481
Thi L. Tran and Robert J. Wright

Part VI Conclusion

The Ascendance of Noticing: Connections, Challenges, and Questions ................................................... 507
Jonathan Norris Thomas

Author Index .................................................................. 515
Subject Index .................................................................. 525
Teacher Noticing: Bridging and Broadening
Perspectives, Contexts, and Frameworks
Schack, E.O.; Fisher, M.H.; Wilhelm, J.A. (Eds.)
2017, XX, 536 p. 51 illus., 12 illus. in color., Hardcover
ISBN: 978-3-319-46752-8