

Contents

Prefacevii

Part 1: Mathematics Classroom Assessment in General

1. Assessment for the Mathematics Classroom.....1
Norman L. Webb, University of Wisconsin—Madison, Madison, Wisconsin

2. The NCTM’s 1989 Evaluation Standards: Recycled Ideas Whose Time Has Come?7
Diana V. Lambdin, Indiana University, Bloomington, Indiana

3. Integrating Assessment and Instruction17
Donald L. Chambers, University of Wisconsin—Madison, Madison, Wisconsin

4. Assessing a Wider Range of Students’ Abilities.....26
Malcolm Swan, Shell Centre for Mathematical Education, University of Nottingham, Nottingham, England

5. Classroom Assessment in Japanese Mathematics Education.....40
Eizo Nagasaki, National Institute for Educational Research, Tokyo, Japan
Jerry P. Becker, Southern Illinois University at Carbondale, Carbondale, Illinois

Part 2: Grades K–4 Assessment

6. Tests Aren’t All Bad: An Attempt to Change the Face of Written Tests in Primary School Mathematics Instruction.....54
Marja van den Heuvel-Panhuizen, Freudenthal Institute, Utrecht University, Utrecht, Netherlands
Koeno Gravemeijer, Freudenthal Institute, Utrecht University, Utrecht, Netherlands

7. Assessing Mathematical Understanding in a Bilingual Kindergarten65
James St. Clair, Joseph E. Maynard School, Cambridge, Massachusetts

8. Assessing Measurement in the Primary Classroom74
Susan Sanford, Rooftop Elementary School, San Francisco, California
9. Interviews: A Window to Students' Conceptual Knowledge of the Operations.....80
DeAnn M. Huinker, University of Wisconsin—Milwaukee, Milwaukee, Wisconsin
10. Learning Logs: What Are They and How Do We Use Them?.....87
Pamela L. Carter, Waverly Community Schools, Lansing, Michigan
Pamela K. Ogle, Waverly Community Schools, Lansing, Michigan
Lynn B. Royer, Waverly Community Schools, Lansing, Michigan
11. A Day in the Life of an Elementary School Mathematics Classroom: Assessment in Action97
Larry Leutzinger, University of Northern Iowa, Cedar Falls, Iowa
Myrna Bertheau, Shell Rock Elementary School, Shell Rock, Iowa
Gary Nanke, Area Education Agency 7, Cedar Falls, Iowa
12. Assessment: A Means to Empower Children?103
Ann Anderson, University of British Columbia, Vancouver, British Columbia
13. Assessing Students' Performance Using Observations, Reflections, and Other Methods111
Ann Beyer, Ann Arbor Public Schools, Ann Arbor, Michigan
14. From Multiple Choice to Action and Voice: Teachers Designing a Change in Assessment for Mathematics in Grade 1121
Jane F. Schielack, Texas A&M University, College Station, Texas
Dinah Chancellor, Bryan Independent School District, Bryan, Texas
- Part 3: Grades 5–8 Assessment**
15. Just Because They Got It Right, Does It Mean They Know It?130
Susan Gay, University of Kansas, Lawrence, Kansas
Margaret Thomas, Putnam City Schools, Oklahoma City, Oklahoma
16. Superitem Tests as a Classroom Assessment Tool.....135
Linda Dager Wilson, University of Wisconsin—Madison, Madison, Wisconsin
Silvia Chavarria, University of Costa Rica, San José, Costa Rica
17. Facilitating Communication for Assessing Critical Thinking in Problem Solving143
Walter Szetela, University of British Columbia, Vancouver, British Columbia

18. Assessment as a Dialogue: A Means of Interacting with Middle School Students.....152
Kris A. Warloe, Cheldelin Middle School, Corvallis, Oregon
19. Assessment of Statistical Analysis in Eighth Grade.....159
Maria Mastromatteo, Brown Middle School, Ravenna, Ohio

Part 4: Grades 9–12 Assessment

20. Assessing Reasoning and Proof in High School.....167
Denisse R. Thompson, University of South Florida, Tampa, Florida
Sharon L. Senk, Michigan State University, East Lansing, Michigan
21. A Meaningful Grading Scheme for Assessing Extended Tasks177
Robert Money, Department of School Education, Melbourne, Victoria, Australia
Max Stephens, Department of School Education, Melbourne, Victoria, Australia
22. An Authentic Assessment of Students' Statistical Knowledge187
Joan B. Garfield, University of Minnesota, Minneapolis, Minnesota
23. Assessment in Problem-oriented Curricula197
Jan de Lange, Freudenthal Institute, Utrecht University, Utrecht, Netherlands
24. Assessment in the Interactive Mathematics Project209
Lynne Alper, Project EQUALS, University of California at Berkeley, Berkeley, California
Dan Fendel, San Francisco State University, San Francisco, California
Sherry Fraser, Project EQUALS, University of California at Berkeley, Berkeley, California
Diane Resek, San Francisco State University, San Francisco, California

Part 5: Classroom Assessment Issues to Think About

25. The Classroom Assessment in Mathematics Network220
Maria Santos, San Francisco Unified School District, San Francisco, California
Mark Driscoll, Education Development Center, Newton, Massachusetts
Diane Briars, Pittsburgh Public Schools, Pittsburgh, Pennsylvania
26. Student Self-Assessment in Mathematics.....229
Patricia Ann Kenney, University of Pittsburgh, Pittsburgh, Pennsylvania
Edward A. Silver, University of Pittsburgh, Pittsburgh, Pennsylvania

27. Assessment, Understanding Mathematics, and Distinguishing Visions from Mirages	239
<i>Thomas J. Cooney</i> , University of Georgia, Athens, Georgia	
<i>Elizabeth Badger</i> , Massachusetts State Department of Education, Boston, Massachusetts	
<i>Melvin R. Wilson</i> , University of Michigan, Ann Arbor, Michigan	
Index	248