CONTENTS

Acknowledgements vii
About the author ix

INTRODUCTION 1

SHORT REVIEW OF RECENT RESEARCH 7

CHAPTER 1. HERMENEUTICS AND MATHEMATICS EDUCATION 21

Action and Meaning 25
Phenomenology 28
Hermeneutics 36
Hermeneutics and Education 47
Towards an Hermeneutical Understanding of Mathematics 49

CHAPTER 2. THE PRODUCTION OF MATHEMATICAL MEANING:
A POST-STRUCTURALIST PERSPECTIVE 57

Post-Structuralism: A Radical Form of Hermeneutics 58
Post-Structuralism, Education and Mathematics 60
Saussurian Linguistics and Mathematics 63
Self-Reflexivity in Mathematical Engagement 71
Creating and Inheriting Mathematics 77

CHAPTER 3. SHARING MATHEMATICAL PERSPECTIVES 80

Discourse or Reality? 81
Locating Mathematical Knowledge 83
Assessing Mathematical Activity 86
Combining Language and Experience 88

CHAPTER 4. SOME LESSONS 101
CONTENTS

CHAPTER 5. THE PHENOMENOLOGY OF THE MATHEMATICS CLASSROOM 134
Personal Space 136
Appresentational Association 148
Acting in the Supposed World 156

CHAPTER 6. TEACHER-STUDENT INTERACTIONS 159

CHAPTER 7. NARRATIVES OF LEARNING MATHEMATICS 173
Multiple Accounts 174
The Transition from Arithmetical to Algebraic Thinking 177
Storying Transition 180
Semantic Innovation 182
Concluding Comments 189

CHAPTER 8. MATHEMATICS AND LANGUAGE 192

CHAPTER 9. DEVELOPING TEACHER PRACTICE 210
Writing as a Mechanism for Professional Development 215
Building a Professional Discourse of Mathematics Teaching within an Initial Training Course 219
Building an Understanding of the Teacher's Task through Practitioner Enquiry 226

CHAPTER 10. MATHEMATICAL CULTURES 250

CHAPTER 11. THE SOCIAL CONSTITUTION OF MATHEMATICS 260

REFERENCES 278

NAME INDEX 294

SUBJECT INDEX 298
Mathematics Education and Language Interpreting Hermeneutics and Post-Structuralism
Brown, T.
2001, X, 306 p. 1 illus., Softcover
ISBN: 978-0-7923-6969-1