## Contents

Preface ..... 5
Introduction ..... 9
Part A Setting the scene ..... 11
Introduction to Part A ..... 13
Chapter 1 Evaluating educational programmes:
Issues and perspectives Robin Millar ..... 15
Chapter 2 Fit for purpose: Appropriate methods to provide evidence to inform potential users of research in education, with special references to randomised controlled trials and systematic research synthesis Diana Elbourne, David Gough ..... 33
Part B Examples of curriculum development and evaluation ..... 49
Introduction to Part B ..... 51
Chapter 3 Chemie im Kontext: Curriculum development and evaluation strategies
Cornelia Gräsel, Peter Nentwig, Ilka Parchmann ..... 53
Chapter 4 An evaluation of a large-scale curriculum development project: Salters Advanced Chemistry Judith Bennett, John Holman ..... 67
Chapter 5 Developmental research: Improving the learning and teaching of science topics
Kerst Boersma, Marie-Christine Knippels, Arend Jan Waarlo ..... 85
Chapter 6 Evaluating Educational Impact- the CASE experience Philip Adey ..... 99
Chapter 7 Science education for citizenship: Introducing the discussion of socio-scientific issues into the curriculum Stein Dankert Kolst $\emptyset$ ..... 109
Chapter 8 Evaluation of the 'Children Challenging Industry': A primary school science industry links project Joy Parvin ..... 125
Chapter 9 What can we learn from different forms of evaluation? Experiences from a quality-development program in science and mathematics instruction Christian Ostermeier, Manfred Prenzel ..... 145
Chapter 10 Teachers' transformations of innovations: The case of visual language Jaume Ametller, Roser Pintó ..... 159
Chapter 11 Critical reflections on the evaluation of small-scale innovations
Bob Campbell, Fred Lubben ..... 173
Chapter 12 A long-term and systemic approach to science curriculum development, implementation and evaluation Bat-Sheva Eylon, Avi Hofstein ..... 187
Part Conclusions ..... 203
Chapter 13 Evaluating innovations in science education:
Some reflections
Judith Bennett, Robin Millar ..... 205
Participants at the Conference ..... 212
Biographies of the authors ..... 213

