COLLABORATIVE LEARNING IN MATHEMATICS
A CHALLENGE TO OUR BELIEFS AND PRACTICES

"This book reports an outstanding piece of research. In my opinion it is up there with the best international mathematical education research. It unusually combines the highest standards of rigour with great significance for the teaching of mathematics at all ages and levels."
Professor Margaret Brown, Kings College London

"This book shows how powerful teaching methods can be developed, in conjunction with teachers, which alter the life chances of students who might otherwise fail to get a mathematics qualification. This is a major contribution to mathematics education literature, providing an outstanding example of design research."
Dr Anne Watson, Reader in Mathematics Education, University of Oxford

"This work is exemplary and should be widely known. It advances the state of the art. This book is not trying to "make a case", but is trying to understand what happened and present it in a balanced way."
Professor Alan Schoenfeld, University of California, Berkeley

This book begins with an account of what we know about the design of learning situations in mathematics, drawing on research and development work conducted over the past twenty-five years. It offers research-based design principles and puts these to work in the design of new teaching situations. It describes the impact that these designs have had on the professional development of more than forty teachers, how this has led to changes in their beliefs and practices, and the effect this has had on students’ learning. This has led to fresh theoretical insights into both the design of learning activities and approaches to professional development.

The book is accompanied by a CD ROM ‘Learning Mathematics through Discussion and Reflection’. These resources, which were used in the research, include collaborative learning activities and film clips showing them in action with low-attaining 16-19 year old students.

This book is for all teachers, researchers, curriculum developers, policy-makers and teacher educators who are interested in making the learning of mathematics more meaningful and enjoyable for students.

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