

ZMATH 2012e.00462

Cockburn, Anne D.; Littler, Graham

Mathematical misconceptions. A guide for primary teachers.

London: Sage Publications (ISBN 978-1-84787-441-2/pbk; 978-1-84787-440-5/hbk). 176 p. (2008).

Publisher's description: How do children relate to numbers and mathematics? How can they be helped to understand and make sense of them? People are rarely ambivalent towards mathematics, having either a love or hate relationship with the subject, and our approach to it is influenced by a variety of factors. How we are taught mathematics as children plays a big role in our feelings towards it. Numbers play a large part in our lives, and it is therefore beneficial to inspire a positive attitude towards them at a young age. With contributors comprised of teachers, teacher educators, mathematicians and psychologists, *mathematical misconceptions* brings together information about pupils' work from four different countries, and looks at how children, from the ages of 3–11, think about numbers and use them. It explores the reasons for their successes, misunderstandings and misconceptions, while also broadening the reader's own mathematical knowledge. The chapters explore: – the seemingly paradoxical number zero – the concept of equality – children's perceptions and misconceptions of adding, subtracting, multiplying and dividing – the learning process – the ways in which children acquire number concepts. This book will transform the way in which primary school teachers think about mathematics. It will be of particular interest to teachers, trainee teachers, and teaching assistants and will show them how to engage children in the mysteries and delights of numbers.

Classification: D72 C32

Keywords: number sense; number concepts; misconceptions; learning process