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Nota di contenuto	Front Cover; Mathematical Difficulties: Psychology and Intervention; Copyright Page; Contents; List of contributors; Introduction; Chapter 1. Neural Correlates of Number Processing and Calculation: Developmental Trajectories and Educational Implications; Introduction; Neuroanatomical Correlates of Number Processing and Calculation: Are They Identical in Developing and Mature Brain Systems?; Are Neuroimaging Studies Apt to Have Any Educational Implications?; Synopsis; Chapter 2. Toward a Developmental Cognitive Neuroscience Approach to the Study of Typical and Atypical Number Development IntroductionNumber Processing in the Adult Brain; Number Processing in the Typically Developing Brain; Number Processing in the Atypically Developing Brain; Future Directions; Conclusions; Acknowledgments; Chapter 3. A Number Sense Assessment Tool for Identifying Children at Risk for Mathematical Difficulties; What Is Number Sense?; Components of Number Sense; Predictability of Number Sense; Developing a Number Sense Battery; Acknowledgments; Appendix; Chapter 4. The Essence of

Early Childhood Mathematics Education and the Professional Development Needed to Support It  
Social, Political, and Research Influences  
The Content of Early Mathematics; The Different Components of Early Mathematics; What is Good Early Mathematics Teaching?; Teachers' Conceptions about EME; How Good is Early Mathematics Teaching? Are Teachers Ready for it?; The Status of EME Professional Development; An Example: Big Math for Little Kids; Needed Support for an EME Program; Conclusion; Chapter 5. Progression in Numeracy Ages 5-11: Results from the Leverhulme Longitudinal Study; Background and Aims; Methods and Data Sources; Results and Discussion; Conclusions  
Chapter 6. An Analysis of Children's Numerical Difficulties with the Aid of a Dyscalculia Test Battery and a Presentation of Remedial Approaches to Facilitate Aspects of Numerical Development  
Introduction; A Dyscalculia Test Battery; A Multisensory Remedial Approach for Learning the Multiplication Tables; Dyscalculia Test Battery Assessment; Dyscalculia Test Battery Assessment; Dyscalculia Test Battery Assessment; General Discussion and Conclusion; Acknowledgments; Chapter 7. Children With and Without Mathematics Difficulties: Aspects of Learner Characteristics in a Developmental Perspective  
Results and Discussion  
Chapter 8. Number Development and Children with Specific Language Impairment; Introduction; Method; Results; Discussion; Acknowledgments; Chapter 9. The Performance of Dyslexic and Non-Dyslexic Boys at Division Sums; Introduction; Participants, Apparatus and Method; Results; Discussion; Some Practical Implications; Concluding Remarks; Chapter 10. Numeracy Recovery with Children with Arithmetical Difficulties: Intervention and Research; Part 1: Numeracy Recovery Scheme; Part 2: Study of Children with Arithmetical Dif. culties; Discussion; Acknowledgments  
Chapter 11. Mathematics Recovery: An Early Number Program Focusing on Intensive Intervention

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## Sommario/riassunto

This book examines the mathematical difficulties in typical and atypical populations. It discusses the behavioural, educational and neuropsychological characteristics of people with mathematical difficulties, and educational interventions to prevent, diagnose, treat or ameliorate such difficulties. The book brings together studies from different disciplines, including developmental psychology, neuroscience and education, and includes perspectives from practicing teachers. The book is divided into three major sections. The first includes chapters about the nature and characteristics of m

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