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Nota di contenuto	<p>Intro -- Educational Neuroscience -- Copyright -- Dedication --</p> <p>Contents -- List of Contributors -- Preface -- Foreword: Imaging the Future -- Chapter 1 Introduction -- The Nature of the Discipline -- Three Disciplines: Education, Psychology, Neuroscience -- Phase 1. Education and psychology -- Phase 2. Psychology and neuroscience -- Phase 3. Emergence of educational neuroscience -- Issues and Problems in Developing Educational Neuroscience -- References --</p> <p>Chapter 2 Neuroimaging Methods -- Electroencephalography and Event-Related Potentials -- Principles of EEG recording and averaging ERPs -- Making sense of ERP components -- ERPs and development -- Strengths and limitations of the ERP technique</p> <p>with developmental populations -- Near-Infrared Spectroscopy (NIRS) -- General principles and applications of NIRS -- Studies of development using NIRS -- Magnetic Resonance Imaging (MRI) -- Background and safety -- Basic components of MRI -- Basic physics of MRI -- How are MR images generated? -- Varieties of MR images -- The challenges of studying children using MRI -- Studies of development using MRI -- Other Neuroimaging Techniques -- Conclusions -- References -- Further Reading -- Chapter 3</p> <p>Computational Modeling of Learning and Teaching -- Introduction -- Computational Models of Cognition -- The use of models to</p>

understand mechanisms of learning -- General principles and aims of computational models of learning -- Examples of symbolic and subsymbolic cognitive models: ACT-R and artificial neural networks -- An example of cognitive modeling in educational neuroscience: individual differences in language development -- The broader perspective: neuroconstructivism and education -- The future of cognitive modeling in education -- Computers as Teaching Systems -- Educational models of teaching and learning.

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Sommario/riassunto

Educational Neuroscience presents a series of readings from educators, psychologists, and neuroscientists that explore the latest findings in developmental cognitive neurosciences and their potential applications to education. Represents a new research area with direct relevance to current educational practices and policy making Features individual chapters written collaboratively by educationalist, psychologists, and neuroscientists to ensure maximum clarity and relevance to a broad range of readers Edited by a trio of leading academics with extensive experience in the field.
